

PRO ACTIVE DISCLOSURE ON RTI, ACT, 2005
DEPARTMENT OF AGRICULTURE

Proactive Disclosure under Section 4(1)(b)(xii): the manner of execution of subsidy oriented programmes, including the rate of assistance and the details of beneficiaries of such schemes.

Subsidy programme taken up by the Department:

Sl No	Name of Project / Program	Pattern of Assistance	Guideline
A	Krishonnati Yojana (KY)	90:10 (Centre: State)	
1.	National Food & Nutrition Security Mission	90:10	G.o.I Guidelines attached as Annexure-I
2.	National Mission on Edible Oil Oil Seeds (NMEOS)	90:10	G.o.I Guidelines attached as Annexure-II
3.	National Mission on Seeds and Planting Materials	90:10	G.o.I Guidelines attached as Annexure-I
4.	Support to State Extension Program for Extension Refroms (ATMA)	90:10	G.o.I Guidelines attached as Annexure-III
5.	National Mission on Edible Oil Oil Palm (NMEOP)	90:10	G.o.I Guidelines attached as Annexure-IV
B.	PM-RKVY (DPR & AAP)	90:10	G.o.I Guidelines attached as Annexure-V
1	RKVY –DPR based Project	90:10	
2.	Soil Health & Fertility	90:10	
3.	Rainfed Area Development Program (RADP)	90:10	
4.	PMKSY(PDMC)	90:10	
C.	Other Ministry Program		
1.	National Mission on Natural Farming	90:10	G.o.I Guidelines attached as Annexure-VI
D.	State Program		
1.	Procurement & Distribution of Urea	100 % State	To make available Urea Fertilizer at Printed MRP rate.
2.	Procurement & Distribution of Seeds	100% State	To make available of Certified Seeds of field crops at subsidized rate fixed by the Department from time to time.

List of beneficiaries of the above program / project are available at Departmental website
www.agrimanipur.com.

OPERATIONAL GUIDELINES

Scheme	:	National Food Security & Nutrition Mission (NFSNM)
Year	:	FY 2025-26
Implementing Division	:	Crops & Seeds Division
Department	:	Department of Agriculture & Farmers Welfare
Ministry	:	Ministry of Agriculture & Farmers Welfare (Government of India)

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Overview

BACKGROUND

The National Development Council (NDC) in its 53rd meeting held on 29th May 2007 adopted a resolution to launch a Food Security Mission comprising Rice, Wheat and Pulses to increase the annual production of Rice by 10 Million Tonnes, Wheat by 8 Million Tonnes and Pulses by 2 Million Tonnes by the end of the Eleventh Plan (2011-12). Accordingly, a Centrally Sponsored Scheme, **“National Food Security Mission (NFSM)”**, was launched in October-2007. The mission was met with overwhelming success, and the targeted additional production of Rice, Wheat and Pulses was achieved. Based on the experience and performance, the mission was continued and Coarse Cereals (Maize, Barley & Millets) & Commercial Crops (Cotton, Sugarcane & Jute) were included from 2014-15 under NFSM. From 2018-19, NFSM-Coarse Cereals were divided into two parts *i.e.* **“NFSM-Coarse Cereals (Maize & Barley)”** and **“Sub-Mission on Nutri-Cereals”**.

In the year 2018-19, the Oilseeds & Oil Palm development programmes and the Seed Village Programme were brought under NFSM. After the **“National Mission on Edible Oil (NMEO)”** launch, the Oilseeds and Oil-palm development programme of NFSM has been subsumed under the NMEO-Oilseeds and NMEO-Oil Palm.

The Millets (**Shree Anna**) were earlier promoted during 2011-12 to 2013-14 under the programme of **“Initiative for Nutritional Security through Intensive Millets Promotion (INSIMP)”** as a sub-scheme of RKVY and later merged as component of National Food Security Mission (NFSM) as NFSM-Coarse Cereals from 2014-15. Till 2017-18, NFSM-Coarse Cereals was implemented in 265 districts of 28 states. Based on recommendations of NITI Aayog, a **“Sub-Mission on Nutri-Cereals”** covering Jowar, Bajra, Ragi and Small millets is being implemented from 2018-19 to provide support to the farmers, consumers in those areas where these crops are traditionally grown and consumed by rural population.

In 12th Five Year Plan under the NFSM, cropping system approach was adopted by including commercial crops like Cotton, Jute and Sugarcane to meet the demand for both Food & Cash crops. Based on the past experiences & performance Commercial Crops based cropping system component is being continued under NFSNM.

Similarly, a Central Sector Scheme namely **“Development and Strengthening of Infrastructure Facilities for Production and Distribution of Quality Seeds”** was implemented across the country from the year 2005-06 aiming at ensuring the production and multiplication of high-yielding certified/quality seeds of all crops and making them available to the farmers.

During the XIIth Plan, a **“Sub-Mission for Seed and Planting Material (SMSP)”** under the National Mission on Agricultural Extension and Technology (NMAET) was rolled-out to make available good quality seeds to the farmers and at affordable prices and in a time-bound manner. The Sub-Mission has been implemented since 2014-15 and under it, the entire gamut of the seed

production chain from the production of nucleus seed to the supply of certified seeds to the farmers, creation of infrastructure conducive to the development of the seed sector, support to the public seed producing organizations for improving their capacity and quality of seed production, create dedicated seed reserve to meet unforeseen circumstances of natural calamities are covered.

Now, based on EFC recommendations, the components of “**Sub Mission for Seed and Planting Material (SMSP)**” has been merged with the “**National Food Security Mission (NFSM)**” under Krishonnati Yojana. The cabinet has approved the continuation of the Mission under Krishonnati Yojana till 31.03.2026 and NFSM has been renamed as “**National Food Security and Nutrition Mission (NFSNM)**”. The NFSNM is now having overall seven components namely: -

1. NFSNM-Rice.
2. NFSNM-Wheat.
3. NFSNM-Pulses.
4. NFSNM-Coarse Cereals (Maize & Barley).
5. NFSNM-Sub Mission on Nutri Cereals (Shree Anna).
6. NFSNM-Commercial Crops.
7. NFSNM-Seed Components (erstwhile Sub-Mission for Seed and Planting Material).

OBJECTIVES

The mission is being implemented with the following objectives: -

1. Increasing production of Rice, Wheat, Pulses, Coarse Cereals (Maize & Barley), Commercial Crops (Cotton, Jute & Sugarcane) and Nutri-Cereals (Shree Anna) through area expansion, adoption of different cropping patterns and productivity enhancement in a sustainable manner.
2. Restoring soil fertility and productivity at farm level.
3. Enhancing farm level economy to enhance farmer's income.
4. Enhancing post-harvest value addition at the farm gate for better price realization to farmers through efficient market linkages.
5. Enhancing the Seed Replacement Rate (SRR) and Varietal Replacement Rate (VRR).
6. Improving the infrastructure of the Seed Sector in the country.

STRATEGY

To achieve the above objectives, the mission would adopt the following strategies: -

1. Prioritize districts with low productivity yet high potential, especially focusing on food-grain crops cultivated in rain-fed regions.
2. Implementation of cropping system-centric interventions in a mission mode approach through active engagement of all the stakeholders at various levels.

3. Agro-climatic zone-wise planning and cluster approach for crop production and productivity enhancement.
4. Focus on Pulses production through the utilization of Rice Fallow, Rice Bunds and intercropping of Pulses with Coarse Cereals, Oilseeds and Commercial Crops (Sugarcane, Cotton & Jute).
5. Promotion and extension of improved technologies i.e., Seeds, Integrated Nutrient Management (INM) including Micronutrients, Soil Amendments, Integrated Pest Management (IPM), input use efficiency and resource conservation technologies along-with the capacity building.
6. Focus on the incorporation of seeds newly released and notified high-yielding, climate-resilient, bio-fortified, resistant to insect, pest and diseases, short and medium duration varieties in the seed chain.
7. Enhancement of infrastructure facilities in the Seed Sector.
8. Integration of various interventions and targets in the plan of each district identified by State/UT.
9. Constant monitoring by the implementing agencies and periodic evaluation for assessing the impact of the interventions for a result-oriented approach.

STRUCTURE

1. NATIONAL LEVEL

General Council (GC): The Mission will have a General Council (GC) at the National level under the chairmanship of the Union Minister of Agriculture and Farmers Welfare. The composition of the NFSNM-GC will be as under:

i.	Cabinet Minister, Ministry of Agriculture and Farmers Welfare	Chairman
ii.	Secretary, DA&FW	Member
iii.	Secretary, DARE & DG, ICAR	Member
iv.	Secretary, Department of Expenditure, Ministry of Finance	Member
v.	Secretary, Department of Food and Public Distribution, Ministry of Food, Consumers Affairs	Member
vi.	Secretary, Ministry of Panchayati Raj	Member
vii.	Secretary, Ministry of Tribal Affairs	Member
viii.	Secretary, Department of Social Justice and Empowerment	Member
ix.	Secretary, Ministry of Women and Child Development	Member
x.	Secretary, Ministry of Rural Development	Member
xi.	Additional Secretary & Financial Advisor, DA&FW	Member
xii.	Agriculture Commissioner, DA&FW	Member
xiii.	Programme Director (Agriculture), NITI Aayog	Member
xiv.	Joint Secretary (Environment, Forest & Climate Change)	Member
xv.	Joint Secretary/Additional Secretary (Seeds)	Member
xvi.	Mission Director, NFSNM	Member Secretary

The NFSNM-GC serves as the policy-making body, providing directives and guidance to the Mission while reviewing the overall progress and development of its various components. It is empowered to establish and amend operational guidelines, modify components or interventions as needed, reallocate resources across Districts/States/UTs based on requirements, and approve projects accordingly. The GC meeting will be convened at least once a year.

Executive Committee (EC): The National Food Security and Nutrition Mission's Executive Committee (NFSNM-EC), chaired by the Secretary of the Department of Agriculture and Farmers Welfare, will oversee daily operations and ensure the smooth implementation of all components of the mission. The constitution of NFSNM-EC will be as under:

i.	Secretary, DA&FW	Chairman
ii.	Secretary, DARE & DG, ICAR	Member
iii.	Secretary, Ministry of Water Resources	Member
iv.	Secretary, Department of Fertilizers	Member
v.	Secretary, Department of Food & Public Distribution	Member
vi.	Secretary, Ministry of Panchayati Raj	Member
vii.	Secretary, Ministry of Tribal Affairs	Member
viii.	Secretary, Department of Social Justice and Empowerment	Member
ix.	Secretary, Ministry of Women and Child Development	Member
x.	Additional Secretary and Financial Advisor, DA&FW	Member
xi.	Agriculture Commissioner, DA&FW	Member
xii.	ADG (Pulses), ICAR	Member
xiii.	ADG (Seeds), ICAR	Member
xiv.	Programme Director (Agriculture), NITI Aayog	Member
xv.	Joint Secretary/Additional Secretary (Seeds)	Member
xvi.	DG, IMD	Member
xvii.	– Director, ICAR-IIWBR, Karnal – Director, ICAR-NRRI, Cuttack – Director, ICAR-IIPR, Kanpur – Director, ICAR-IIMR, Ludhiana – Director, ICAR-IIMR, Hyderabad	Member
xviii.	Mission Director, NFSNM	Member Secretary

The chairman may nominate additional members of the committee as per requirement. The NFSNM-EC will meet twice a year. All components of NFSNM will be managed by the Officers/Staff of the Crops and Seeds Division supported by the National Level Project Management Unit (PMU)/Project Management Team (PMT) comprising of Consultants, Technical Assistants and other Technical and Non-Technical staff. If needed, additional supporting staff may also be engaged after the approval of NFSNM-GC.

2. STATE/UT LEVEL

A State Food Security & Nutrition Mission's Executive Committee (SFSNM-EC) will be constituted by the State/UT Government under the chairmanship of the Chief Secretary to oversee the activities of the Mission in the State/UT. The constitution of the SFSNM-EC is given below: -

i.	Chief Secretary	Chairman
ii.	Agriculture Production Commissioner	Member
iii.	Secretary of Agriculture	Member
iv.	Secretary of Irrigation	Member
v.	Secretary of Power	Member
vi.	Secretary of Panchayati Raj	Member
vii.	Secretary of Tribal Affairs	Member
viii.	Secretary of Social Welfare Department	Member
ix.	Secretary of Food & Public Distribution	Member
x.	Secretary of Rural Department	Member
xi.	Vice Chancellor(s) of SAUs/CAUs	Member
xii.	Director/Commissioner of Agriculture	Member
xiii.	Director/Project Director of ICAR-Institutes	Member
xiv.	Representatives of NABARD & Lead Bank	Member
xv.	Mission Director of State/UT, NFSNM	Member Secretary

To facilitate real-time monitoring, evaluation of disbursements, and to ensure the effectiveness and accountability of the schemes, Direct Benefit Transfer (DBT) will be implemented to distribute funds to identified beneficiaries for all beneficiary-focused components of NFSNM. DBT will be carried out in two forms: Cash Transfers via Aadhaar-based authentication and In-kind transfers through Point of Sale (POS) systems. The State, UT and Implementing Agencies should promptly adopt the DBT modes relevant to each component during the scheme's implementation. Additionally, beneficiary details should be uploaded on the respective MIS by the concerned State, UT and Implementing Agencies.

The State/UT will have the following responsibilities:

- i. Prepare a perspective Annual Action Plan aligned with the Mission's goals and objectives, in close collaboration with SAUs, CAUs, and ICAR Institutes.
- ii. Conduct baseline surveys and feasibility studies within the operational areas (district, sub-district, or cluster of districts) to assess the status of crop production, its potential, and demand. Similar studies should also be carried out for other program components.
- iii. To implement the Mission's activities, States/UTs may engage Farmers' Societies, Non-Governmental Organizations (NGOs), Growers' Associations, Self-Help Groups (SHGs), Farmers Producer Organizations (FPOs), State Institutions, and other relevant entities, in accordance with their strategy and the approved agencies of the Mission.
- iv. Execute the approved Action Plan for the State/UT using funds provided by the Government of India, along with the matching State share, as per the guidelines of NFSNM.
- v. Maintain designated scheme accounts through the Public Financial Management System (PFMS). The release of the Central Share to States will adhere to the prevailing guidelines of the Department of Expenditure, Ministry of Finance, Government of India. States/UTs should adopt the fund flow mechanism as communicated by the Government of India, and

ensure that the accounts thus maintained are audited by the Designated Authority/Agency of the State/UT annually.

3. DISTRICT LEVEL

At the district level, the scheme will be implemented by Officials and Staff of Department of Agriculture at District Level including the staff of PMT/PMU. A District Food Security & Nutrition Mission-Executive Committee (DFSNM-EC) will be constituted to function for project formulation, implementation and monitoring of the scheme components through the Agriculture Department involving concerned stakeholders and concerned officers would be part of DFSNM-EC. The DFSNM-EC will implement programme with respect to integration of extension services for convenience with ATMA without losing focus on NFSNM. The constitution of the DFSNM-EC will be as follows:

i.	District Collector/CEO of Zilla Parishad	Chairman
ii.	Representatives from line Departments	Member
iii.	Nominated Progressive Farmers	Member
iv.	Representatives from Self Help Groups of farmers	Member
v.	Representatives from reputed NGOs	Member
vi.	Representatives from KVK/ICAR-Institutes/SAU/CAU	Member
vii.	Project Director ATMA	Member
viii.	Representative from Lead Bank or NABARD	Member
ix.	Deputy Director (Agriculture)/District Agriculture Officer/Chief Agriculture Officer	Member Secretary

The Chairman, DFSNM-EC may nominate additional member if required.

4. PROJECT MANAGEMENT UNIT (PMT) | PROJECT MANAGEMENT TEAM (PMU)

- i. **National Level PMU | PMT (for Crops Division, Seeds Division & CDDs of DA&FW):** A PMU/PMT will be constituted at the National Level for helping in day to day work, preparation of different reports, implementation and monitoring of scheme at ground level. The PMU/PMT will consist of Consultants, Technical Assistants and other technical and non-technical staff.
- ii. **State/UT Level PMU/PMT:** The State/UT may engage Consultants, Technical Assistants at State and District level having technical and administrative expertise for providing technical guidance and for effective implementation and monitoring of the scheme. The State /UT can decide the number based on their requirements at State and District level. Financial support for the same will be met from Administrative, Monitoring and Evaluation expenses provided to the State/UT which is fixed at 2.5% of the total allocation (including state share).
- iii. The PMU/PMT will have the responsibility to ensure liaison and collaboration among various line departments in the Centre/State/District to achieve the targets. The appointment will be made on contractual basis. The list of duties of PMU/PMT are given in **Annexure-I**.

- iv. ICAR-Institutes, SAUs, CAUs and KVKs functioning in the district will provide technical support in formulation of district action plans, its implementation and monitoring. The technical staff will be sourced from these organizations for imparting training to the farmers and extension personnel.

ROLE OF PANCHAYATI RAJ INSTITUTIONS

The States/UTs will use their existing online systems for transparent selection of beneficiaries for various interventions and activities under NFSNM and share the list of selected beneficiaries with the Panchayati Raj Institutions. In States/UTs without online systems for beneficiary selection, the Panchayati Raj Institutions will be involved in the selection process. Regular feedback may be obtained from Panchayati Raj Institutions regarding the progress of the Mission's interventions and activities. Such states in the meantime develop the online system of beneficiary selection.

AREA OF OPERATION OF NFSNM

State Food Security & Nutrition Mission-Executive Committee (SFSNM-EC) will identify districts for implementation of NFSNM on Rice, Wheat, Pulses, Coarse Cereals, Commercial Crops and Sub-Mission on Nutri-Cereals. Identified districts for implementation of different components of the mission shall be communicated to DA&FW, MoA&FW, GoI along-with approved Annual Action Plan from SLSC. The criteria for selection of districts:

- i. Prioritize districts with low productivity but high potential, particularly for cultivating food grain crops in rain-fed areas.
- ii. Include Aspirational, Left Wing Extremism-affected, or Border Area districts of the country, if applicable.
- iii. Consider districts where the Adarsh Gram Yojana is being implemented.
- iv. Incorporate districts selected under the PM Dhan Dhanaya Yojana.

MECHANISM OF FUND FLOW & FUNDING PATTERN

The funds for implementing the Mission's programme will be released to the State/UT governments after approval of Annual Action Plan by State Level Sanctioning Committee (SLSC) headed by Chief Secretary of concerned State/UT. The release of Central Share to the States and UTs would be as per the extant guidelines of DA&FW, MoA&FW and Department of Expenditure, Ministry of Finance, GoI. The Nodal Department will be responsible for submission of all the documents related to physical, financial progress and utilization of funds.

The funding pattern which was restructured in the year 2015-16 will continue for all the components of the mission. The details of which is given below:

- i. 60:40 between Central & States for General States.

- ii. 90:10 between Central & States for North Eastern States (including the J&K, Himachal Pradesh and Uttarakhand).
- iii. 100:0 between Central & UTs and Central/National Level Government Agencies.
- iv. If a specific funding pattern is recommended for any component or sub-component of the mission, it will be explicitly stated within that respective component or sub-component.

ADMINISTRATIVE EXPENSES

The Administrative, Monitoring and Evaluation expenses (including payments to PMU/PMT) will be only 2.5% of the total allocation. The States/UTs may use upto 2.5% of its total annual allocation (Central Share + State Share) for these expenses.

PROCEDURE FOR APPROVAL AND IMPLEMENTATION

The DA&FW, MoA&FW, GoI, will communicate the tentative annual outlay to each State and UT for preparing the Annual Action Plan (AAP). At the district level, DFSNM-EC will prepare the AAP, considering local priorities, requirements and potential, and submit it to the State's Mission Director. Subsequently, the State Mission Director will consolidate the District Action Plans to prepare the Annual Action Plan of State/UT.

The Mission Director of State/UT will get the consolidated AAP approved from the State Food Security & Nutrition Mission-Executive Committee (SFSNM-EC) and present it in the prescribed format to DA&FW, MoA&FW, GoI for comments. The Mission Director will incorporate all the comments/suggestions and submit the AAP to State Level Sanctioning Committee (SLSC), chaired by the Chief Secretary for approval. The duly approved AAP along-with the detailed proposal of each component in prescribed format duly signed/stamped by Mission Director will be submitted to DA&FW, MoA&FW, GoI for release of funds.

The SFSNM-EC is authorized to make adjustments to budgetary allocations, up to 20% of the total, based on local needs, with the SLSC's approval. However, the proportion of funds allocated to various components must remain consistent with the guidelines.

MONITORING MECHANISM

The mission aims to establish a comprehensive monitoring and evaluation framework involving multiple implementing agencies and line departments. At the District Level, DFSNM-EC, supported by PMT/PMU, will supervise the monitoring of all mission components. It will meticulously track the physical and financial progress of various mission interventions.

At the State/UT Level, a committee, led by the Mission Director and including representatives from line departments, ICAR Institutes, SAUs, CAUs, Lead Bank, NABARD, KVKs, and Crop

Development Directorates (CDDs) under DA&FW, will oversee the monitoring of mission components.

At the National Level, specialized teams will be constituted to evaluate mission activities. These teams will comprise members from the Crops Division, Seeds Division, CDDs of DA&FW, ICAR Institutes, SAUs, CAUs, and officials from the Department of Agriculture of State/UT.

REPORTING SYSTEM

The Mission Director of the Department of Agriculture for each State/UT will oversee the submission of physical and financial progress reports in formats specified by the DA&FW, MoA&FW, Gol. The formats for preparing the annual action plans, as well as physical and financial reports, will also be outlined by the DA&FW. Copies of these reports, submitted by States, UTs, and implementing agencies, are to be shared with the relevant Crop Development Directorates (CDDs) under DA&FW, MoA&FW, Gol.

Digital tools like Krishi Mapper will play a pivotal role in tracking field-based activities across mission components, such as demonstrations, seed distribution, and infrastructure development. The Digital Crop Survey (DCS) will record fields where minikits are sown, while in states without DCS, Krishi Mapper will document minikit sowing by farmers. For interventions like seed production, information on beneficiaries, seed quality, source seeds, and sowing locations will be logged on the SATHI portal and app. Utilizing these platforms ensures real-time monitoring, transparency in disbursements, and accountability, ultimately enhancing the mission's effectiveness.

EVALUATION

Periodic evaluations will be undertaken to assess the mission's progress in achieving its objectives and implementing the Annual Action Plan. These evaluations will be conducted by the Department of Agriculture, the Department of Economics & Statistics at the State/UT level, as well as by SAUs, CAUs, or ICAR-Institutes.

At the National Level, impact evaluation studies will be carried out during the mission's implementation to determine the effectiveness of its various components. ICT tools, including web-based portals and applications such as Krishi Mapper, SATHI, and Digital Crop Survey (DCS), will play a crucial role in reporting, monitoring, and evaluating the mission's activities.

CRITERIA FOR IDENTIFICATION OF AREAS & BENEFICIARIES

In accordance with the decision of the Government of India regarding implementation of Special Component Plan (SCP) for Scheduled Castes and Tribal Sub-Plan (TSP) for Scheduled Tribes, 16 % of the total allocation for SCP and 8 % for TSP will be earmarked. However, States/UTs

will be allowed to make allocation to SC/ST farmers proportionate to their population. The data on beneficiaries' classes will be generated and maintained by the State/UT for reporting at National Level. While allocating the funds the following points may be kept in consideration:

- i. Priority will be given to small and marginal for the implementation of various mission components. The allocation of funds will be based on their population in the respective State/UT.
- ii. At least 30% allocation of the fund is to be made for women farmers.
- iii. An individual farmer or seed grower is entitled to avail the assistance for various components of the mission limited to 5 hectares in a season.
- iv. **FRA (Forest Rights Act) Patta Holders:** FRA (Forest Rights Act) Patta Holders shall be eligible for receiving benefits of mission subject to other eligibility conditions. States/UTs need to ensure that rights of FRA Patta Holders are updated in land records in a time bound manner. The share/contribution of FRA Patta Holder beneficiary will be as per the guidelines of Pradhan Mantri Janjatiya Unnat Gram Abhiyan (PMJUGA) (renamed as Dharti Aaba Janjatiya Gram Utkarsh Abhiyan) of Ministry of Tribal Affairs. The State/UT shall implement the interventions/activities under the mission for FRA Patta Holders from the funds allocated under Development Action Plan for Scheduled tribes (DAPST).

**Intervention under NFSNM:
Rice, Wheat, Pulses & Coarse Cereals
(Maize & Barley)**

Interventions under NFSNM: Rice, Wheat, Pulses & Coarse Cereals **(Maize & Barley)**

The interventions under the four components of NFSNM namely Rice, Wheat, Pulses & Coarse Cereals (Maize & Barley) are given below and norms of their financial assistance are summarized in **Annexure-II**.

1. DEMONSTRATIONS

A. Cluster Demonstrations (by Department of Agriculture of States/UTs on Farmer's Field):

Cluster demonstration serves as an adaptive research approach to display improved package of practices, cutting-edge technologies, or newly released and notified crop varieties or hybrids (less than 10 years old). These demonstrations are facilitated by the Department of Agriculture of respective States/UTs and are carried out on farmers' fields. The primary goal is to raise awareness among farmers and encourage the adoption of innovative agricultural methods.

The cluster demonstration will be organized by keeping following points under consideration: -

- i. Field demonstrations showcasing improved packages of practices will be conducted using a cluster approach, either for a cropping system or a sole crop. An illustrative list of crop-specific interventions is provided in **Annexure-III** to assist States/UTs in selecting interventions suited to their specific agro-climatic zones for these demonstrations.
- ii. For the "Cropping System-Based Approach" demonstrations will be carried out in a cropping sequence on the same plot of land. States/UTs may organize upto 30% of their demonstrations under this cropping system-based approach.
- iii. The varieties to be included in the package should be newly released and notified high-yielding, climate-resilient, bio-fortified varieties, resistant to insect, pest and diseases (that are less than 10 years old) and better performing than the existing prominent varieties of that area where the demonstration is to be conducted. The seed of such varieties shall be certified seed.
- iv. **Area of Operation:**
 - a. Priority should be given to areas with the lowest productivity in the selected districts.
 - b. For Normal States, the cluster size will be 10 Hectares, while for Hilly States, North-Eastern States, and UTs, it will be 2 Hectares.
 - c. Each farmer should contribute at least 0.40 Hectare but not exceed 2.00 Hectares of land for the demonstration in a cluster.

- d. The demonstrations will be conducted in a contiguous block, where the fields will be divided into two sections: one showcasing improved package of practice and the other reflecting the farmer's existing practices, all within the designated cluster.
- e. Efforts should be made to evenly distribute the demonstrations among the selected farmers of a cluster uniformly.
- f. The State/UT shall ensure that same farmers shall not be repeated in a cluster for at least two years.
- g. Each demonstration cluster may highlight a single set of improved packages of practices for a specific crop under the mission, as planned by the State/UT. These clusters should be designed to enable farmers from at least five nearby villages to visit and learn from the demonstration. For subsequent clusters showcasing the same package of practices, a similar strategy should be employed to ensure uniform distribution across the district, thereby enhancing outreach and learning opportunities.
- h. For other packages of practices, whether for the same crop or different ones under the mission, additional clusters should be established while adhering to these principles. The State/UT must ensure that a particular set of packages of practices, once demonstrated through a cluster, is not repeated thereafter.
- i. In a district of a State/UT, the types of demonstrations showcasing improved set of packages and practices in a cluster shall be limited to 2-3 types per season. This approach is intended to ensure that farmers can easily comprehend and adopt the showcased technologies.
- v. **Selection of Site:** The demonstration site should be easily accessible for the farmers, extension workers & scientists. It should not be on an isolated field. The selected site should be the representative of soil type and soil fertility status of the area.
- vi. **Soil Analysis:** As far as possible soil fertility status of the selected field should be known well in advance for deciding the use of fertilizer and soil ameliorants on the basis of soil health cards. A Soil Health Card is mandatory for the beneficiary of the demonstration.
- vii. **Identification of Technologies to be demonstrated:** The improved set of packages of practices for the demonstration plots should be determined in collaboration with SAUs (State Agricultural Universities), CAUs (Central Agricultural Universities), Regional Research Stations, KVKs (Krishi Vigyan Kendras), and ICAR (Indian Council of Agricultural Research) Institutes located in the respective area. Priority should be given to the most critical inputs to ensure the effectiveness and success of the demonstrations.

- viii. It should be ensured that the type of Block Demonstration done by State/UT shall not over repeat the same activity being under taken CFLDs by KVKs or in FLDs by ICAR-institutes in the district of the State/UT in same season.
- ix. **Development of package of inputs to be distributed:**
- a. Once the technologies are identified, a package of inputs, including micro-nutrients and bio-fertilizers, should be finalized, specifying which inputs are to be provided for conducting the demonstrations. Additionally, the contributions expected from the beneficiary farmers (if required) should also be evaluated.
 - b. Chemical fertilizers are not permitted as inputs. However, Fertilizer Control Order (FCO) approved Nano-Fertilizers may be incorporated as critical inputs in the cafeteria of demonstrations, following the package of practices recommended by SAUs/CAUs/ICAR. This includes specifications such as the recommended dose, stage of application, and method of application for a particular crop in the state. Cafeterias for demonstrations under NFSNM, including Nano-Fertilizers, must be reviewed and approved by SAUs/CAUs/ICAR in the respective State/UT.
 - c. The "Drone Didis" should be engaged for tasks such as IPM (Integrated Pest Management), INM (Integrated Nutrient Management), and Nano-Fertilizer applications. Their remuneration should be provided at the prevailing market rate, utilizing funds from the total approved assistance for the demonstration.
- x. **Distribution of Demonstration Kits and Training of Participating Farmers:** An orientation training program should be organized to inform the beneficiary farmers about the procedures to be followed during the demonstrations. It is important to educate the farmers on the critical operations involved in the demonstrations. The demonstration kits can be distributed to the farmers as part of the training program. These demonstrations should be carried out by the Extension Functionaries of the Department of Agriculture of the respective State/UT, under the supervision of PMT/PMU or District Level Officers.
- xi. **Monitoring:** All demonstrations should be conducted under the close supervision of State/UT Agriculture Officers in association with SAUs/CAUs/KVK/ICAR-Institutes. The PMU/PMT of NFSNM should monitor the demonstrations throughout the cropping season and should report the outcome in the prescribed format. The extension functionaries should visit the demonstration plots and also arrange need-based visits of scientists.
- xii. All the demonstrations will be mapped and monitored through the Krishi Mapper application.

- xiii. **Display Board:** The display board should contain information on the critical inputs used and the interventions that are being demonstrated. A display board containing the following information should be installed at the demonstration plot:

a.	Name and Number of Farmers in the Cluster
b.	Name of Village
c.	Name of Crop/Variety
d.	Type of Demonstration
e.	Fertilizers Applied
f.	Bio-Fertilizers Applied
g.	Micronutrient Applied
h.	Date of Sowing/Transplanting
i.	Seed Rate and Spacing
j.	Any other critical input used
k.	Mobile number of District Agriculture Officer & PMU/PMT

- xiv. **Field Day:** One mandatory field day shall be organized with the participation of at least 30 farmers (of nearby villages), excluding those directly involved in the cluster demonstration, to showcase the improved package of practices demonstrated in the cluster. It is important to ensure the involvement of scientists from ICAR Institutes, CAUs, SAUs, and KVKs for making critical observations and addressing any challenges or problems faced by farmers. Additionally, relevant extension literature such as leaflets, pamphlets, and other informative materials should be provided to farmers during the event. The details of field day will be captured on Krishi Mapper.

xv. **Cost Norms of Demonstration:**

- a. The demonstration will be conducted as per cost norms indicated in **Annexure-II**.
- b. The cost of demonstration (**as indicated in Annexure-II**) includes organization of field day, distribution of publicity materials and monitoring visit of scientists/officials as given below: -

For Distribution of publicity materials (during field day or trainings), display board, etc.	Rs. 250/Hectare
For organizing Field Day	Rs. 250/Hectare
For visits of Scientists/Officials for Monitoring	Rs. 300/Hectare
Total	Rs. 800/Hectare

- c. In the annual Action Plan, the State/UT will specify the interventions proposed to be demonstrated.
- d. The interventions selected should be based on the recommendations made by ICAR-Institute/CAUs/SAUs/Zonal Research Station for the Agro-climatic Zone concerned.
- e. Beneficiary farmers should be asked to arrange the recommended quantity of chemical fertilizers.
- f. Additional costs, if any should be borne by the farmer.

- xvi. **Reporting of the Results:** The results of the demonstrations should be systematically compiled at the Block, District, and State/UT level. A critical analysis of the outcomes and the impact of each intervention undertaken should be carried out by the State/UT. The most effective intervention, which significantly contributes to production improvement, should be identified and up-scaled for broader implementation in the following years. This approach ensures continuous refinement and adoption of practices that yield the best results.

B. Cluster Front Line Demonstrations (CFLDs) (by KVKs on Farmer's Field): The CFLD serves as an adaptive research methodology aimed at showcasing improved package of practices, advanced technologies, and newly released or notified crop varieties or hybrids (less than 10 years old). These demonstrations are conducted through KVKs on selected farmers' fields. The Extension Division of ICAR will act as the Nodal Division responsible for implementing this component and overseeing the submission of project proposals.

The approval of the project is subject to the following conditions: -

- i. The Extension Division of ICAR, in consultation with ATARIs and concerned ICAR Institutes, will submit the project proposal for Rice (only bio-fortified varieties), Wheat (only bio-fortified varieties), Pulses, and Coarse Cereals (Maize and Barley). The proposal will incorporate the latest technologies and recently released and notified varieties or hybrids (less than 10 years old) for demonstration in CFLDs, ensuring suitability for the specific agro-ecological region.
- ii. Newly released and notified high-yielding, climate-resilient, and bio-fortified varieties that are resistant to insects, pests, and diseases (less than 10 years old) and demonstrate better performance than existing prominent varieties shall be recommended for demonstration in CFLDs. The seed of such varieties shall be certified seed.
- iii. Preference to bio-fortified and climate resilient varieties in different crops shall be given for organizing CFLDs.
- iv. CFLDs will be organized by KVKs under the supervision of ATARIs and concerned ICAR Institutes.
- v. Each crop's CFLDs should follow a cluster approach, covering a minimum of 10 hectares per cluster.
- vi. The area under CFLDs for individual farmers shall be between 0.40 and 1.00 hectares.
- vii. Funds will be directly disbursed to KVKs of ICAR/SAUs/CAUs, while for KVKs under NGOs, funds will be routed through the concerned ATARI for implementing CFLDs.
- viii. The Extension Division of ICAR, in collaboration with ATARIs and relevant ICAR-Institutes, will oversee the overall implementation.

- ix. **Area of Operation:**
- a. Efforts should be made to evenly distribute the CFLD among the selected farmers of a cluster uniformly.
 - b. It should be ensured that same farmers shall not be repeated in a CFLD for at least two years.
 - c. Each CFLD may highlight a single set of improved packages of practices in the identified crop, as planned by the Extension Division of ICAR, in collaboration with ATARIs and relevant ICAR-Institutes. These clusters should be designed to enable farmers from at least five nearby villages to visit and learn from the demonstration.
 - d. For subsequent clusters showcasing the same package of practices, a similar strategy should be employed to ensure uniform distribution across the district, thereby enhancing outreach and learning opportunities.
- x. The CFLDs will be conducted as per cost norms indicated in **Annexure-II**.
- xi. Under CFLDs package kits (including Seed, IPM, and INM material) should be given to farmers at the time of sowing.
- xii. The use of chemical fertilizers as inputs is not permitted. However, nano-fertilizers approved under the Fertilizer Control Order (FCO) may be utilized as critical inputs in the cafeteria, following the SAUs/CAUs/ICAR's package of practices, including the recommended dosage, stage, and method of application for the specific crop and state.
- xiii. The Drone Didis shall participate in IPM/INM/Nano-fertilizer applications, with remuneration provided at prevailing market rates from the total approved assistance allocated for the demonstration.
- xiv. The Soil Health Card is mandatory for the beneficiary of the CFLD. The expenditure on soil health cards as per cost norms approved by DA&FW, GoI (if any) is to be made from a miscellaneous budget made available to KVKs for CFLDs.
- xv. The CFLDs will be mapped and monitored through the Krishi Mapper application.
- xvi. The qualifications and salary/remuneration for manpower (SRF/YP/TA/DEO) engaged in the implementation of CFLDs shall be admissible as per the approved norms of ICAR/SAUs/CAUs.
- xvii. The concerned Extension Division of ICAR and the relevant ICAR-Institute shall submit a detailed report after every season, outlining the impact evaluation and outcomes of CFLDs.
- xviii. **Field Day:** A mandatory field day shall be organized with the participation of at least 30 farmers (of nearby villages), excluding those directly involved in the demonstration, to

showcase the improved package of practices demonstrated in the cluster. Additionally, relevant extension literature such as leaflets, pamphlets, and other informative materials should be provided to farmers during the event. The details of field day will be captured on Krishi Mapper.

- xix. The cost of demonstration (**as indicated in Annexure-II**) includes organization of field day, distribution of publicity materials and monitoring visit of scientists/officials as given below: -

For Distribution of publicity materials (during field day or trainings), display board, etc.	Rs. 250/Hectare
For organizing Field Day	Rs. 250/Hectare
For visits of Scientists/Officials for Monitoring	Rs. 300/Hectare
Total	Rs. 800/Hectare

C. Front Line Demonstrations (FLDs) (by ICAR-Institutes on Farmer's Field): The Front-Line Demonstration (FLD) is a technology adoption initiative designed to showcase the improved package of practices, latest released varieties, hybrids, and other technologies developed by ICAR-Institutes on selected farmers' fields. This approach establishes a unique interface between scientists and farmers, as scientists are directly involved in planning, executing, and monitoring the demonstrations. They also receive direct feedback from farmers on the technologies they have developed. FLDs are available for Rice (only bio-fortified varieties), Wheat (only bio-fortified varieties), Pulses, and Coarse Cereals (Maize and Barley). ICAR will designate Nodal Institutes for respective crops to oversee and coordinate the implementation of FLDs.

The approval for the organization of FLD is subject to the following conditions: -

- i. The crops-specific Nodal Institute of ICAR will submit the proposal for approval of DA&FW.
- ii. Released varieties are eligible for demonstration under FLD for up to 05 years from their release date.
- iii. The FLDs will be monitored through **Krishi Mapper application**.
- iv. Each implementing institute shall form a monitoring team comprising officials from the Crop Development Directorates, the State Department of Agriculture, and scientists from the implementing institute.
- v. The maximum area of plot under FLD for a farmer shall be 1.0 hectare but not less than 0.40 hectare.
- vi. The FLDs will be conducted as per cost norms indicated in **Annexure-II**.
- vii. Under FLDs package kits (including Seed, IPM, and INM material) should be given to farmers at the time of sowing.

- viii. The use of chemical fertilizers as inputs is not permitted. However, Nano-fertilizers approved under the Fertilizer Control Order (FCO) may be utilized as critical inputs in the cafeteria, following the SAUs/CAUs/ICAR's package of practices, including the recommended dosage, stage, and method of application for the specific crop and state.
- ix. The Drone Didis shall participate in IPM/INM/Nano-fertilizer applications, with remuneration provided at prevailing market rates from the total approved assistance allocated for the demonstration.
- x. Preference to bio fortified and climate resilient varieties shall be given for organizing FLDs.
- xi. Preference for organizing FLD shall be given in North-Eastern States.
- xii. All Implementing Institutes and their coordinating centres should involve their respective Agronomist and Plant Breeders to finalize technologies to be demonstrated in FLD programme and follow-up visits to demonstration sites.
- xiii. Soil Health Card is mandatory for the beneficiary of the demonstration.
- xiv. All the FLDs should be conducted under the close supervision of Implementing Institute.
- xv. Farmers practice, crop production and protection technologies used in FLDs should be highlighted in the progress report. The reasons for yield gap between FLDs and farmers' practice should be mentioned in progress report.
- xx. **Field Day:** A mandatory field day shall be organized with the participation of at least 30 farmers (of nearby villages), excluding those directly involved in the demonstration, to showcase the improved package of practices of FLD. Additionally, relevant extension literature such as leaflets, pamphlets, and other informative materials should be provided to farmers during the event. The details of field day will be captured on Krishi Mapper.
- xxi. The cost of demonstration (**as indicated in Annexure-II**) includes organization of field day, distribution of publicity materials and monitoring visit of scientists/officials as given below: -

For Distribution of publicity materials (during field day or trainings), display board, etc.	Rs. 250/Hectare
For organizing Field Day	Rs. 250/Hectare
For visits of Scientists/Officials for Monitoring	Rs. 300/Hectare
Total	Rs. 800/Hectare

2. NEED BASED INPUTS (SEED, INM & IPM)

A. Production of Certified Seed of Pulses and Nutri-Cereals

- i. Assistance for the production of certified seed of Pulses/Nutri-Cereals (Shree Anna) of newly released and notified high-yielding, climate-resilient, bio-fortified, resistant to insect, pest and diseases, short and medium duration varieties or hybrids (that are less than 8 years old) will be provided as per the cost norms indicated in **Annexure-II**. Twenty percent of the total target allocation for Nutri-Cereals (Shree Anna) shall be reserved specifically for the production of hybrid seeds in Nutri-Cereals (Shree Anna).
- ii. The financial assistance will be provided to the Department of Agriculture of State/UT (as per the targets approved by SLSC in the Annual Action Plan of the State/UT). State Seed Corporations (SSCs), National Seeds Corporation (NSC) and other National Level Agencies working in field of seed such as NAFED, IFFDC, KRIBHCO, HIL, NFL, BBSSL and Seed Hubs of ICAR-Institutes/SAUs/CAUs will be eligible for getting assistance through Department of Agriculture of State/UT under this component.
- iii. Every agency engaged in seed production under this component must strictly adhere to the proper generation system of seed production. This should be carried out either on their own farms or through their locally registered seed growers, with documented proof of breeder seed procurement. The agency is not allowed to sub-let the seed production process to any third party.
- iv. Implementing Agencies shall be eligible for assistance only when they purchase the seed produced from the seed grower at a price over and above the MSP or prevailing market price (at the time of procurement) whichever is higher including incentive for seed production. The undertaking or certificate in this regard with proof of payment will be provided to the Department of Agriculture of State/UT.
- v. Under the component 75% of the assistance is meant for seed growers (through DBT) and 25% for seed producing agencies to meet their expenditure (including certification cost) if the seed is produced on seed growers field. In case the seed is produced on the farms of the above-mentioned agencies, 100% assistance will be provided to them. The seed being produced under this component shall be provide on subsidized rates to farmers.
- vi. The assistance amount will be released to the above agencies by the Department of Agriculture of State/UT on furnishing the certified copy of bills (that it is their first and final bill for the season), purchase certificate, proof of payment to seed grower (along-with payment reference ID) and list of certified seed produced farmer-wise verified by the respective State

Seed Certification Agency or seed grower-wise certificate issued under Section 9 of Seed Act.

- vii. The Nodal Institutes of ICAR will coordinate with all Seed Hubs and submit consolidated bills and other information to the Department of Agriculture of State/UT.
- viii. Certified Seed Production under this component must be carried-out through the SATHI Portal, ensuring that all necessary details are recorded by every agency involved in seed production within the respective state.
- ix. Priority may be given to National Seeds Corporation (NSC) and other National Level Agencies working in field of seed such as NAFED, IFFDC, KRIBHCO, HIL, NFL, BBSSL and Seed Hubs of ICAR-Institutes/SAUs/CAUs for seed production to fulfil the requirements of North-Eastern State by the Department of Agriculture of State.
- x. As the seed production is highly technical task, therefore the assistance can be provided for maximum upto 5 hectares per seed grower. The seed production agency shall ensure that same seed growers shall not be repeated every year and the assistance shall be provided to maximum seed growers.

B. Distribution of Certified Seeds

- i. Financial assistance is available, as specified in **Annexure-II**, for the distribution of certified seeds to farmers. These seeds should be of newly released and notified high-yielding, climate-resilient, bio-fortified varieties or hybrids that are resistant to insects, pests, and diseases, as well as short and medium duration (less than 10 years old) that outperform existing prominent varieties in Rice, Wheat, Pulses, Coarse, and Nutri-Cereals. This support will be extended to farmers through the Department of Agriculture of the respective State/UT based on the targets approved in the Annual Action Plan.
- ii. States/UTs may use financial assistance for the seed distribution of released and notified varieties that are older than 10 years, limited to 20% of the total allocation, if no suitable replacement for the existing prominent varieties is available. These older varieties should possess special traits, such as drought resistance, flood tolerance, or exceptional nutritional quality, along-with benchmark productivity standards. When including such varieties in the Annual Action Plan, State/UT Governments must clearly emphasize their distinctive features.
- iii. The State/UT must ensure that the seeds are procured from State Seed Corporations, National Seeds Corporation (NSC), National Level Agencies working in field of seed (such as NAFED, IFFDC, KRIBHCO, HIL, NFL, BBSSL), SAUs, CAUs, ICAR-Institutes, KVKs (controlled by SAUs, CAUs or ICAR-Institutes), Farms of Department of Agriculture and Seed Hubs (of ICAR-Institutes/SAUs/CAUs). These agencies should have adhered to the proper

generation system of seed production, either on their own farms or through their locally registered seed growers, with documented proof of breeder seed procurement. It is to be further ensured that the seed-producing agency have not procured the seed to be supplied from any third party.

- iv. The details of beneficiaries will be captured by biometric system for farmer's authentication from State Farmer's Registry developed under Digital Agriculture Mission. In case such registry is not develop, the state may use any farmer data base available with the state.
- v. The Digital Crop Survey (DCS) will be employed to monitor the fields where such seeds are sown. In states lacking DCS, Krishi Mapper will be utilized to document farmers' sowing activities.
- vi. The State/UT will ensure the timely distribution of seeds to farmers to facilitate prompt sowing.
- vii. Financial assistance for the distribution of certified seeds under this component is limited to a maximum of 1 hectare per farmer.
- viii. A farmer who has received certified seeds with assistance under this component shall not be eligible for the same support for at least two years after the season of distribution. Additionally, such farmers will not be eligible for seed minikits during this period.

C. Distribution of Seed Minikits (in Pulses and Nutri-Cereals)

- i. In order to ensure rapid dissemination of seeds of newly released and notified high-yielding, climate-resilient, bio-fortified, resistant to insect, pest and diseases, short and medium duration varieties or hybrids (that are less than 10 years old) in Pulses and Nutri-Cereals assistance for distribution of certified seed in form of minikits free of cost to farmers is available under the mission.
- ii. The National Seeds Corporation (NSC) and other National Level Agencies working in field of seed such as NAFED, IFFDC, KRIBHCO, HIL, NFL, BBSSL and State Seed Corporations are eligible for supplying such minikits to the Department of Agriculture of State/UT for onward distribution to small and marginal farmers.
- iii. The size of minikits shall be 16 Kg for Gram, 8 Kg for Lentil, 4 Kg for Moong, Urd and Pigeon-pea, that should be sufficient to plant at least 0.20 hectare.
- iv. The size of minikits shall be 1.50 Kg for Bajra and 4.00 Kg for Jowar, Ragi and Small Millets, that should be sufficient to plant at least 0.40 hectare.
- v. Each minikits must contain treated seed, bio-fertilizer packets, leaflets having package of practices, characteristics of the varieties in Regional/Hindi/English Languages.
- vi. A farmer who has availed a minikit under this component will be ineligible to receive another minikit for the same crop or variety for a minimum period of two years.

- vii. The Seed Producing Agencies must ensure that the seeds supplied for distribution under minikits are produced by them, adhering to the proper generation system of seed production. This should be done either on their own farms or through locally registered seed growers, with documented proof of breeder seed procurement. The agency is not allowed to sub-let the seed production process to any third party.
- viii. In the event of any issues concerning seed quality or related matters, the distributing Seed Producing Agency will be held fully accountable.
- ix. A portal has been developed to monitor the distribution of seed minikits at the district level (URL: <https://nfsm.gov.in/mis/AdmApprovalMinikit.aspx>). The provisions for allocating and distributing seed minikits to districts and beneficiaries/farmers are as follows:
 - a. **DA&FW:** Upon approval from the competent authority, DA&FW will upload the agency-wise allocation of seed minikits on the portal, organized by crop, variety, and state.
 - b. **Seed Producing Agency:** After DA&FW uploads the data, the Seed Producing Agency will update the portal with district-wise details of crop, variety, and supply of minikits.
 - c. **State/UT Governments:** Beneficiary details will be captured through a biometric authentication system, utilizing the State Farmer's Registry developed under the Digital Agriculture Mission. If such a registry is unavailable, the state may use any other existing farmer database.
- x. The price of seed minikits will be fixed by a committee of DA&FW, MoA&FW, GoI. The cost will be reimbursed to the Seed Producing Agency on certification of receipt of minikits by the Department of Agriculture of concerned State/UT.
- xi. The crop and variety-wise quantities supplied in the district, along with the date of supply, must be documented on the acknowledgment letter. This letter should bear the official seal and include the name and designation of the respective State/UT Government Officer. This acknowledgment is mandatory for the reimbursement of seed minikit costs to the Central/State Seed Agencies by the Government of India under the NFSNM scheme.
- xii. No changes or diversions from the targets approved by DA&FW are permitted. Seed Producing Agencies must ensure timely submission of progress reports on the supply of seed minikits.
- xiii. Reimbursement of seed minikit costs will only be made for those minikits that are supplied within the specified cut-off date, as per the allocation. This will be done by the Crops Division upon receipt of original bills supported by a utilization certificate and a "first & final bill"

certificate. Proper acknowledgment from the designated NFSM State Nodal Officer is also required.

- xiv. At the end of the season, the State Government must prepare a report detailing the targets achieved, benefits to farmers, additional area coverage, productivity improvements, and success stories.
- xv. The Digital Crop Survey (DCS) will be utilized to capture fields where minikits are sown. In states without DCS, Krishi Mapper will be used to document the sowing of minikits by farmers.
- xvi. **Other Modalities:**
 - a. The Seed Producing Agency must deliver the seed minikits within the cut-off date to the designated destinations communicated by the Department of Agriculture of the concerned State/UT and obtain an acknowledgment for the same.
 - b. The Department of Agriculture of the respective State/UT should establish a minimum number of delivery points, ideally one destination per district, and communicate these details to the Seed Producing Agency well in advance to ensure timely delivery.
 - c. The State/UT Government will be responsible for distributing the seed minikits to facilitate timely sowing.
 - d. The State/UT Government must maintain proper records of supply, a list of beneficiaries, acknowledgments from the District Agriculture Officer, and provide program reports to the Government of India.
 - e. The Government of India will not cover any additional costs, including packing, transportation, logistics, etc., beyond the approved cost of the seed minikits under this program.
 - f. Training programs during the crop season should be organized by the District Agriculture Office and ATMA/KVKs to promote good agricultural practices and the subsequent use of new seeds. Additionally, the State/UT Government should provide training to farmers to multiply the seeds from the minikits for further use.
 - g. Priority should be given to distributing seed minikits in the Aspirational Districts.
 - h. Upon receiving the minikits at the designated locations, the concerned District Level Agriculture Officer must ensure proper distribution of the minikits to the identified farmers in accordance with the guidelines.
 - i. The objective is to ensure that the selected farmer can cultivate the crop with care and diligence, so the plot serves as a valuable demonstration for other farmers

- j. Accurate records, including the list of beneficiaries, their complete addresses (including mobile numbers), results of minikit demonstrations, and farmers' feedback, must be maintained at both District and State levels for verification as needed.

D. Nutrient Management/Soil Ameliorants

- i. Micronutrients, lime, gypsum, or sulphur-based fertilizers such as phospho-gypsum and bentonite sulphur applied either as basal or foliar applications are eligible.
- ii. Similarly, various bio-fertilizers, including Rhizobium, Azotobacter, Azospirillum, and Phosphate Solubilizing Bacteria (PSB), etc are also eligible.
- iii. Financial assistance will be provided for the recommended dosage prescribed by SAU/CAU/ICAR in the crops covered under the mission.
- iv. States/UTs have the flexibility to determine whether to avail assistance under this component. If they choose to do so, the targets must be limited to a maximum of 5% of the total funds allocated in the mission's Annual Action Plan.
- v. Each farmer will be eligible for assistance covering a maximum area of 2 hectares in a season.
- vi. A farmer who has received assistance will not be eligible for the same support again for a minimum period of two years.
- vii. The Krishi Mapper will be used to map such fields.
- viii. The available assistance is defined at **Annexure-II**.

E. Plant Protection Measures

- i. Financial assistance is available for adoption of Integrated Pest Management (IPM), including plant protection chemicals, bio-pesticides, and weedicides to farmers. This assistance will adhere to the recommended dosage prescribed by SAU/CAU/ICAR for a particular crop in the respective State/UT.
- ii. States/UTs have the flexibility to determine whether to avail assistance under this component. If they choose to do so, the targets must be limited to a maximum of 5% of the total funds allocated in the mission's Annual Action Plan.
- iii. Each farmer will be eligible for assistance covering a maximum area of 2 hectares in a season.
- iv. A farmer who has received assistance will not be eligible for the same support again for a minimum period of two years.
- v. The Krishi Mapper will be used to map such fields.
- vi. The available assistance is defined at **Annexure-II**.

3. CROPPING SYSTEM TRAININGS

The training programs for farmers are essential in equipping them with modern agricultural practices, sustainable techniques, and advanced technology. These initiatives are designed to boost productivity, enhance resource management, and increase farmers' understanding of the mission's key interventions. Through workshops, demonstrations, and expert-led sessions, these programs aim to provide farmers with the necessary skills to tackle evolving agricultural challenges, fostering long-term growth and food security.

Given the mission's range of interventions, such as demonstrations, seed production, seed distribution, and practices like INM and IPM, it is crucial to conduct training sessions at the start, middle, and end of seasons (Kharif, Summer, and Rabi) at demonstration sites. This approach ensures farmers comprehend the significance and application of these interventions. Specialists from ICAR-Institutes, SAUs, CAUs, KVKs, CDDs, and State/UT officials will deliver the training.

Support is provided for a group of 30 participants, with funding of Rs. 30,000 per four-session training, in alignment with ATMA cost norms of Rs. 250 per farmer per day. Adjustments in funding are made on a pro-rata basis if the number of participants varies. States, UTs, and other implementing agencies must specify the number of planned training sessions in their proposals or action plans. A farmer who has already received training on one component shall not be eligible for the same training for at least two years.

The location of training will be captured on Krishi Mapper.

4. FLEXI INTERVENTIONS

Under the flexi interventions of NFSNM, support for farm implements and water application tools has been discontinued. However, States/UTs are encouraged to utilize assistance for State-Specific Initiatives, such as:

- i. Adoption of innovative practices that lower production costs, including precision farming, advanced technological applications, and new machinery not covered by SMAM or any other existing National or State schemes.
- ii. Careful evaluation and due diligence must be exercised in selecting such interventions.
- iii. The chosen interventions should be thoroughly tested and integrated into the action plan in consultation with ICAR, SAUs, or CAUs.
- iv. Financial assistance will cover up to 50% of the cost of each intervention.
- v. Proposed interventions will undergo evaluation by a team of experts at the State/UT level, gaining approval from the SFSNM-EC and the State/UT's SLSC for the release of funds.
- vi. A farmer who has received assistance under this component will not be eligible for the same support again.

- vii. All the field base activities of such projects will be captured on Krishi Mapper.

This approach ensures the implementation of innovative and cost-effective practices tailored to the specific needs of each State/UT.

5. SEED HUBS

To ensure that farmers have access to affordable, location-specific certified seeds through proper generation system of seed multiplication of newly released and notified high-yielding, climate-resilient, bio-fortified varieties or hybrids that are resistant to insects, pests, and diseases, as well as short and medium duration (less than 10 years old) of Pulses and Nutri-cereals (Shree-anna), seed hubs have been established by ICAR at selected KVKs, SAUs, and ICAR-Institutes. These seed hubs are equipped with Seed Processing and Storage Facilities. Further, for setting up new of new seed hub for these crops:

- i. One-time financial assistance of up to Rs. 50.00 lakh per hub is available for establishing Seed Processing and Storage Infrastructure.
- ii. Each Seed Hub can receive a one-time revolving fund of up to Rs. 100.00 lakh as financial assistance.
- iii. Upon receiving the revolving fund from the Government of India, each Seed Hub must maintain a separate account for the revolving fund. The fund will be replenished from the proceeds earned through seed sales.
- iv. It is mandatory to map all Seed Hubs on the SATHI Portal, and these hubs must conduct their Seed Production activities exclusively through the SATHI Portal.

6. STRATEGIC ADAPTIVE RESEARCH SUPPORT

To promote strategic and adaptive research for improving the production and productivity of crops under NFSNM, the mission supports innovative, targeted, time-bound, and non-overlapping projects. Grants are available to all government institutes at the National or State level engaged in Research and Development, as well as for CGIAR Institutes. Financial assistance for Strategic Adaptive Research projects, covering both recurring and non-recurring components, is provided based on the approved rates of various Central or State Government organizations involved in R&D activities.

- i. The synopsis of the project will be submitted keeping the following headings under considerations by the concerned agency duly approved from the competent authority: -

1. Title of the Project 2. Abstract 3. Introduction a. Background of the Study b. Problem Statement c. Objectives of the Research	6. Expected Outcomes and Benefits 7. Work Plan & Timeline 8. Budget & Funding Requirements (recurring and non-recurring) 9. Ethical Considerations

4. Literature Review a. Theoretical Framework b. Review of Related Studies 5. Methodology a. Research Design b. Data Collection Methods c. Data Analysis Techniques	10. Results and Discussions (for ongoing/completed research) 11. Conclusions & Recommendations 12. References & Bibliography 13. Appendices 14. Any other (if required)

- ii. It is a responsibility of the division to compile all such projects received on quarterly basis and to organise presentation under the Chairmanship of Secretary DA&FW for approval.
- iii. A presentation on the concept, novelty, proposed intervention, strategy to achieve them, proposed outcomes, deliverable, etc will be given by the implementing agency.
- iv. Concurrent, midterm and end-of-tenure reviews of the project deliverables will be ensured and conducted by the division, with the involvement of all the line departments.
- v. All the field-based activities of such projects will be captured on Krishi Mapper and seed production activity (if any) will be captured on SATHI Portal.

7. EXPOSURE VISIT TO INTERNATIONAL ORGANIZATIONS

To enhance the knowledge and expertise of technical officials and staff involved in the mission, exposure visits or training programs can be undertaken at international organizations such as IRRI, CIMMYT, ICRISAT, AVRDC, ICARDA, or other research institutions specializing in crop production technologies of the country also.

Note: The components of NFSNM-Pulses which are covered under “**Atmanirbharta Mission for Pulses**” will become inoperable after launch of the Mission.

**Intervention under NFSNM:
Sub-Mission on Nutri Cereals
(Shree Anna)**

Interventions under NFSNM: Sub-Mission on Nutri-Cereals (Shree-Anna)

The interventions under NFSNM: Sub-Mission on Nutri Cereals (Shree Anna) are given below.

1. DEMONSTRATIONS

- A. Cluster Demonstrations (by Department of Agriculture of States/UTs on Farmer's Field):**
Cluster Demonstrations will be organised by States/UTs as per NFSNM-General Guidelines.
- B. Cluster Front Line Demonstrations (CFLDs) (by KVKs on Farmer's Field):** CFLDs on Nutri Cereals (Shree Anna), if required, will be organised as per NFSNM-General Guidelines.
- C. Front Line Demonstrations (FLDs) (by ICAR-Institute on Farmer's Field):** FLDs will be organised as per NFSNM-General Guidelines.

2. NEED BASED INPUTS (SEED, INM & IPM)

- A. Enhancing Breeder Seed Production for increasing indigenous production of Nutri-Cereals in India**
- i. Breeder's seed serves as the foundational link in the seed-multiplication program. Strengthening the program's efficiency and effectiveness demands meticulous attention. Therefore, it is crucial to allocate adequate funds and exercise extra care in the breeder seed multiplication process.
 - ii. In addition to providing necessary inputs, breeders must ensure proper execution of essential operations such as pollination, isolation, rouging, and processing before the seed is deemed suitable for subsequent multiplication stages.
 - iii. The project outlines centre-wise breeder seed production targets for various millets through SAUs, CAUs, ICAR-Institutes, and ICRISAT. The proposed budget for each centre is primarily allocated for infrastructure, seed processing units, and farm equipment.
 - iv. **Nodal Agency:** Indian Institute of Millet Research (IIMR), Hyderabad.
- B. Distribution of Certified Seeds**
- i. As per NFSNM-General Guidelines.
- C. Seed Minikit Distribution of Nutri-Cereals (Shree Anna)**
- i. As per NFSNM-General Guidelines.
- D. Production of Certified Seed of Nutri-Cereals (Shree Anna)**
- i. As per NFSNM-General Guidelines
- E. Nutrient Management/Soil Ameliorants**
- i. As per NFSNM-General Guidelines.

F. Plant Protection Measures

- i. As per NFSNM-General Guidelines.

3. CROPPING SYSTEM TRAININGS

- i. As per NFSNM-General Guidelines.

4. FLEXI INTERVENTIONS

- i. As per NFSNM-General Guidelines.

5. SEED HUBS

- i. As per NFSNM-General Guidelines.

6. STRATEGIC ADAPTIVE RESEARCH SUPPORT

- i. As per NFSNM-General Guidelines.

7. EXTENDING FINANCIAL SUPPORT FOR EXISTING CENTRE OF EXCELLENCE (CoE)

Three commodity-specific national demonstration-cum-training centers were established under the “Initiative for Nutritional Security through Intensive Millets Promotion (INSIMP)” program at:

- i. The Indian Institute of Millets Research (IIMR), Hyderabad, for Sorghum (formerly Directorate of Sorghum Research, DSR),
- ii. The University of Agricultural Sciences (UAS), Bengaluru, for Finger Millet and Small Millets, and
- iii. CCS Haryana Agricultural University, Hisar, for Pearl Millet.

These centres, functioning as Centres of Excellence (CoEs) for their designated crops, will be further strengthened with the following objectives:

- i. Developing value-added products, technologies, and recipes.
- ii. Enhancing shelf-life and conducting nutritional profiling.
- iii. Refining technologies, retrofitting machinery, and demonstrating their use.
- iv. Offering entrepreneurship development and training through incubation programs.
- v. Facilitating market linkages between processors and producers.
- vi. Upscaling technologies to drive demand for millets.

- vii. Promoting awareness about the nutritional benefits of millets.

The CoEs have made significant contributions to technology development, demonstrations, and capacity-building initiatives for farmers and entrepreneurs. The IIMR has led extensive research in post-harvest value addition, creating a roadmap to boost millet demand and enhance farmers' income.

Under the Nutri-cereals component of the NFSNM, it is proposed to support these existing CoEs further. They will continue focusing on post-harvest value addition research, particularly in:

- i. Upscaling and commercializing technologies (with an emphasis on entrepreneurship),
- ii. Developing entrepreneurship programs with a focus on women,
- iii. Conducting shelf-life studies, and
- iv. Advancing bio-fortification in millets.

The CoEs will also be tasked with establishing pilot millet kitchens and will receive a one-time grant to support this. Additionally, a mobile exhibition-cum-kitchen will be provided to propagate millet awareness and outreach efforts.

Furthermore, it is proposed that ICAR-IIMR, Hyderabad, will host a Nutri-cereals industrial applications pilot project, focusing on areas such as brewing, biofuels, fodder briquetting, and pellet machinery.

8. AWARENESS, PUBLICITY AND PROMOTION

A. Fairs, Exhibitions, Fests and Campaigns

- i. State and district-level farmer fairs and exhibitions play a vital role in raising awareness about the significance of millets, improved technologies, high-yielding varieties, and advanced cultivation practices. They also provide an avenue to highlight government initiatives and support aimed at promoting millet production in the country.
- ii. National and State-Level Millets Fests can showcase processing technologies, value addition, and the nutritional advantages of millets, thereby fostering demand for millet-based products. These fests would also encourage private investments in millet processing at the national level. Such investments in value addition can streamline supply chains and motivate more farmers to adopt millet cultivation, leading to increased incomes, improved nutritional security, and sustainable livelihoods for millet producers.
- iii. A nationwide 'Eat Millets Campaign' can boost awareness about the benefits of millets, engaging larger consumer groups and creating a strong demand, which in turn will encourage higher millet production.

- iv. The campaign could include TV advertisements, publications, documentary films, rural outreach through vans, and unique initiatives like providing millet kitchen carts to unemployed youth. Additionally, it can feature nutritional booklets, mother and childcare guides, recipe collections, exhibitions, seminars, and cultural events to propagate the importance of millets.

B. Road Shows and Millet campaign Rath with Kitchen

- i. Roadshows in major cities such as Bangalore, Hyderabad, Chennai, Mumbai, and New Delhi aim to bring together farmers, agri-entrepreneurs, retailers, consumers, and government bodies. These events will promote smart foods, enhancing commodity demand and boosting farmers' incomes in the medium to long term.
- ii. As part of a pilot project under NFSNM, it is proposed to launch 10 Millet Campaign Rath (modified vans equipped with kitchens).
- iii. The Nutri-cereals component will facilitate the organization of these roadshows in the specified cities.

C. Promotion of Millet Restaurants at State and Central Government Offices

- i. It is proposed that central and state governments promote the establishment of exclusive millet kitchens within their government offices.
- ii. Unemployed youth, entrepreneurs, and others will be encouraged to undertake such initiatives, with incentives provided under the NFSNM program to support these efforts.

Intervention under NFSNM: Commercial Crops

OBJECTIVE

Cotton, Jute, and Sugarcane are among India's prominent cash crops, cultivated in combination with food crops under diverse agro-climatic conditions. The inclusion of a Commercial Crops component under NFSNM is primarily aimed at enhancing the production of food grains and oilseeds through a cropping system approach, rather than focusing solely on commercial crop production.

This component will be implemented by the Department of Agriculture & Farmers Welfare (DA&FW) in collaboration with the State Department of Agriculture, the Indian Council of Agricultural Research (ICAR), and other relevant entities. The Crop Development Directorates (CDDs), namely:

- i. The Directorate of Cotton Development (DOCD), Nagpur,
- ii. The Directorate of Jute Development (DOJD), Kolkata, and,
- iii. The Directorate of Sugarcane Development (DOSD), Lucknow, will serve as nodal offices for their respective crops.

The primary objectives of incorporating a commercial crop-based cropping system include:

1. Utilizing vacant inter-row spaces of commercial crops to grow oilseeds, pulses, etc.
2. Achieving higher net returns and maximizing the cultivable land utilization index compared to mono-cropping.
3. Enhancing soil fertility through appropriate crop rotation with commercial crops.
4. Reducing pest loads by adopting Integrated Pest Management (IPM) strategies within the cropping system.
5. Demonstrating advanced technologies for crop utilization, intercropping, and seed production.
6. Addressing recent priorities and implementing need-based interventions for cotton, jute, and sugarcane cultivation.

IMPLEMENTING AGENCIES

The programme will be implemented in 19 States as covered during 12th Plan. Beside States, ICAR-Institutes, Krishi Vigyan Kendras (KVKs), State Agriculture Universities (SAUs), Central Agriculture Universities (SAUs), will implement the activities of NFSNM-Commercial Crops. The General Council can however decide the inclusion/exclusion of the states under NFSNM-CC. The following states are there under different commercial crops: -

- i. **Under NFSNM-Cotton:** All the major, traditional & non-traditional states viz., Assam, Andhra Pradesh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Punjab,

Rajasthan, Telangana, Tamil Nadu, Tripura, Uttar Pradesh & West Bengal (15 States) are covered. Any new potential state with an area more than 1 lakh ha may be considered as per discretion of General Council.

- ii. **Under NFSNM-Jute & Allied Fibres:** All the major Eastern & North eastern States viz., Andhra Pradesh, Assam, Bihar, Meghalaya, Nagaland, Orissa, Tripura, Uttar Pradesh & West Bengal (9 States) are covered. Any new potential State with an area more than 10,000 ha may be considered as per discretion of General Council.
- iii. **Under NFSNM-Sugarcane:** All the major States viz., Andhra Pradesh, Bihar, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Punjab, Telangana, Tamil Nadu, Uttarakhand & Uttar Pradesh (13 States) are covered. Any new potential State with an area more than 50,000 ha may be considered as per discretion of General Council. As sugarcane is a water guzzling crop and the depletion of ground water has been a cause of concern, therefore, General Council may consider the states justification provided the state promote sugarcane in the area where irrigation water is not constraint and will promote sugarcane under drip irrigation system only.

The 19 States covered under NFSM-Commercial Crops will have flexibility to include districts where these commercial crops are grown in major area with the approval of SFSNM-EC.

Interventions under NFSNM: Commercial Crops

Front-Line Demonstrations (FLDs) for various commercial crops, including inter-crops, will be carried out by implementing agencies alongside National and State Level Training programs.

- Seed production assistance will be provided for Jute and Sugarcane.
- Plant protection chemicals and bio-agents will be supported for Cotton and Sugarcane.
- Insecticide Resistant Management (IRM) and Online Pest Monitoring and Advisory Services (OPMAS) programs for Bt and Non-Bt Cotton will continue, with support extended through ICAR-Institutions and State Department of Agriculture (SDAs) based on project proposals.
- Trials on High-Density Planting Systems (HDPS) will be promoted for Cotton.
- Assistance for certified seeds, nail weeders, and microbial consortia will be provided as added components for Jute.
- Production and supply of tissue culture-raised plantlets/seedlings for Sugarcane will be undertaken under the NFSNM-Commercial Crop program.

The costs of audio-visual arrangements, field day organization, publicity materials, field visits, and related activities will be covered under the component contingencies and electronic/print media.

Additionally, State/location-specific interventions will be supported under Local Initiatives. Assistance under Local Initiatives will:

- Be capped at 25% of the total budgetary allocation for the State, and
- Cover up to 50% of the cost for each intervention.

For detailed components and assistance patterns related to commercial crops, refer to **Annexure-V.**

1. COTTON BASED CROPPING SYSTEMS

The Cotton crop is cultivated under different cropping system *i.e.* Mono-Cropping, Mixed Cropping, Relay Cropping, Inter Cropping and Rotation or Sequence Cropping in the country. The most common traditional practice adopted in cultivation of Cotton in Central and South India is strip cropping *i.e.* 1-2 rows of Pigeon Pea, 3-5 rows of Finger Millet (Ragi) after every 8-10 rows of cotton. There is vast scope of cultivation of various crops as inter-crop with Cotton due to its slow initial growth and long duration.

The programme will be implemented in 15 states namely Assam, Andhra Pradesh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Telangana, Tamil Nadu, Tripura, Uttar Pradesh & West Bengal. The interventions identified are as under: -

A. Insecticide Resistance Management (IRM)

- i. The project based IRM module will be implemented by CICR, Nagpur through SAUs, CAUs ICAR-Institutions, KVKs in collaboration with State Department of Agriculture (SDAs).
- ii. The aim of IRM is to reduce insecticide usage & mitigate insect resistance to sucking pests to insecticides and resistance in bollworm to Bt-Cotton.
- iii. In addition, it also incorporates IRM strategies in IPM to ensure sustainable pest management & conservation of natural pest control.
- iv. The IRM will be implemented in project mode approved under Annual Action Plan.

B. On-line Pest Monitoring & Advisory Services (OPMAS)

- i. The OPMAS will provide Web-Based Pest Monitoring and Advisory Services about the emerging pests, diseases and any other significant problem with cotton crop and will be implemented by NCIPM, New Delhi through SAUs, CAUs, KVKs, etc.
- ii. The resistance monitoring in pink bollworm population, validation and demonstration of grey mildew and leaf reddening management strategies, dissemination of IPM strategies, popularization of light traps etc will be main activities of OPMAS.
- iii. The OPMAS will be implemented in project mode.
- iv. State Governments can include online pest monitoring system as one of the components in the Annual Action Plan.

C. Front Line Demonstration (FLD): Four types of FLDs are proposed in Cotton namely:

- i. FLDs on Integrated Crop Management (ICM) including Integrated Nutrient Management (INM), Integrated Pest Management (IPM), soil & water management/ improved agronomic practices.
- ii. FLDs on Desi & Extra Long Staple (ELS) Cotton/FLDs on ELS Cotton Seed Production.
- iii. FLDs on Intercropping.

- iv. FLDs on Natural Colour Cotton will be organized/conducted through State Department of Agriculture (SDAs), ICAR-Institutions, SAUs, CAUs, KVKs, etc.

FLDs will be organized in cluster of at least 10 hectares in general states and 2 hectares for NE/Hilly states. For each farmer, at least 0.4-hectare area will be included in a demonstration.

D. Trials on High Density Planting System (HDPS): The HDPS of Cotton in India is promoted to obtain high yields with straight varieties especially in the rainfed conditions.

- i. The planting geometry will be kept as recommended by ICAR/SAUs.
- ii. The early maturing compact plant types with shorter sympodia suitable for HDPS have been identified by CICR, Nagpur.
- iii. The HDPS trials will be conducted by CICR, Nagpur through SDA, SAUs, KVKs, etc.
- iv. The HDPS trials will be conducted to validate agronomic practices for rain fed agro-eco regions of major cotton growing states to improve and sustain cotton yields on marginal soils.
- v. The pattern of assistance under different types of FLDs is given as under:

Type of FLDs	Critical Inputs (in Rs)	Contingencies (in Rs)	Total Assistance (in Rs/ha)
FLDs on ICM	7000	1000	8000
FLDs on Desi and ELS Cotton/ELS Cotton Seed Production	8000	1000	9000
FLDs on Intercropping	7000	1000	8000
FLDs on Natural Colour Cotton	7000	1000	8000
Trials on HDPS	9000	1000	10000

- vi. The critical inputs for FLD includes costs of seed (Non-Bt), Bio-fertilizer, Micronutrients, Bio-Pesticides, Seeds of Inter-Crops, Pheromone Traps/Light Traps etc.
- vii. A part of FLD funds is earmarked as contingencies for field day, publicity material, POL, visit of scientists etc.
- viii. ICAR and SAUs are also developing Bt-Cotton seeds which will be cost effective to the farmers, therefore, approved Bt-Cotton Seeds of varieties/hybrids of ICAR/SAUs can be used in FLDs on Cotton.

E. National/State Level Training

- i. The National Level Training Programme will be organized by DOCD/ICAR. For a training of 25 participant's assistance of Rs.80000 per training (3 days) will be provided. ICAR and DOCD may involve SAUs/KVKs etc. in dissemination of technology to the scientist's/extension functionaries handling cotton.
- ii. The State Level Training (2 days) will be organized by SDA and the number of trainees will be 20 for which assistance of Rs.40000 per training will be provided.

- iii. The State level training may include extension functionaries, cotton growers & other stake holders of cotton cultivation including inputs dealers, etc.
- iv. The training is primarily for extension workers, therefore, at least 50% participants should be extension officials from State Department.
- v. The item-wise break-up of National/State level training is given as below:

Particulars	Amount (in Rs.)	
	National Level	State Level
Honorarium to Resource Person: -	11250	5000
➤ @ Rs.750/-per lecture for national level for 15 lectures.		
➤ @ Rs.500/- per lecture for state Level for 10 lectures.		
Refreshment for inaugural session for 50 persons @ Rs. 50/- per head.	2500	2500
Boarding & Lodging for Trainees: -	45000	20000
➤ @ Rs. 600/-per head per day for National Level		
➤ @ Rs.500/- per head per day for State Level		
Training Kit including Publication: -	12500	8000
➤ @ Rs. 500/-per trainee for National Level		
➤ @ Rs.400/- per trainee for State Level		
Contingencies including audio-visual arrangements, stationary, field visit, etc.	8750	4500
Total	80000	40000

F. Distribution of Plant Protection Chemicals & Bio-Agents

- i. Financial assistance of Rs. 500/ha or 50% of the cost, whichever is less will be provided to State Department of Agriculture (SDAs)/ICAR-Institutions for distribution of plant protection chemicals & bio-agents.
- ii. This will be on the lines of the incentives given as applicable in other components of NFSNM.
- iii. The General Council may however consider higher support as cotton is more prone to insect attacks etc.

All the field based activity will be mapped on Krishi Mapper and Seed Production or Distribution (if any) will be done through SATHI portal.

Note: The components of NFSNM-Cotton which are covered under the “**Mission for Cotton Productivity**” will become inoperable after launch of the Mission.

2. JUTE & ALLIED FIBRES BASED CROPPING SYSTEMS

The Jute crop can be grown successfully in the cropping sequence with food grain crops like rice, wheat and pulses and pulses as inter-crop with jute. Some of identified promising jute-based sequences under rainfed conditions are: -

- i. Jute-Lentil
- ii. Jute-Black Gram
- iii. Jute-Black Gram-Wheat
- iv. Jute-Rice-Toria
- v. Pulses as intercrop with Jute

Under irrigated conditions, the promising crop sequences identified are: -

- i. Jute-Rice-Potato
- ii. Jute-Rice-Lentil/Pea
- iii. Jute-Rice-Wheat
- iv. Jute-Rice-Mustard

By adoption of these sequences, crop intensification and diversification has significantly increased in the jute growing regions. The jute-based cropping system will be implemented in 9 states namely Andhra Pradesh, Assam, Bihar, Meghalaya, Nagaland, Orissa, Tripura, Uttar Pradesh & West Bengal. The interventions identified are as under: -

A. Jute Seed Production

- i. The production programme of foundation and certified seeds will be undertaken for varieties (not older than 10 years) to ensure availability of good quality seed in time and at a reasonable price.
- ii. However, agencies are allowed to produce seeds more than 10 years old, but, less than 15 years old up to 20% of the total allocation.
- iii. The production of foundation and certified seeds of Jute & Allied Fibres will be taken up by different agencies like Department of Agriculture, CRIJAF, NSC, SSCs, SAU, ICAR, KVKs, etc.
- iv. Assistance of Rs. 12000/qlt will be provided to production of foundation seed & Rs. 5500/qlt to production of certified seed.
- v. The implementing agencies will submit a proposal for production of variety-wise foundation & certified seeds.

- vi. The incentives on production of Foundation Seed & Certified Seed will be shared on 75:25 bases between farmers & seed producing agencies in case when seeds are grown at farmer's field.
- vii. To produce foundation seed & certified seeds at own farm of the agency, the incentives, will be considered as applicable in case of other components like NFSNM Pulses etc.
- viii. The relaxation of age of Jute varieties may be considered by General Council of NFSNM on proper justification & ground.

B. FLDs on Alternate Retting Technologies

- i. The retting is the most important factor determining the quality of fibre. The whole retting technology is being practiced in India for which large quantity of water is required.
- ii. The CRIJAF has developed two new retting technologies, namely, mechano-microbial retting and in-situ retting with microbial consortium and NINFET (erstwhile NIRJAFT) has developed two technologies, namely, chemical retting and dry retting.
- iii. To reduce the bulk of the crop to be retted vis-à-vis the requirement of water, the concept of ribbon retting has been advanced.
- iv. FLDs on newly developed retting technologies will be undertaken by CRIJAF, NINFET, SDA, SAUs, KVKs, ICAR-Institutes.
- v. Assistance of Rs. 20000/- per FLDs (Rs. 17,000 for inputs & Rs. 3000 for contingency) will be provided for an area of 0.25 ha (75% of the area for alternating retting technology and 25% for traditional technologies) and it will be reduced on pro-rata basis for actual size of FLD conducted

C. FLDs on Production Technology/Intercropping

- i. The production technology and intercropping demonstrations will be conducted on Jute & Allied Fibres through Department of Agriculture, ICAR, etc.
- ii. The location specific improved technology on nutrient use efficiency, weed management, efficient use of water, soil ameliorants, improved farm implements/machines etc. will be demonstrated along with the newer varieties (not older than 10 years).
- iii. The implementing agencies will be allowed to demonstrate the varieties of more than 10 years old but less than 15 years old up to 20% of the total allocation.
- iv. The assistance of Rs. 9000/ha will be provided of which Rs. 1000/- will be for contingencies like field day, publicity materials, POL, visit of scientists, etc.

- v. FLDs will be organized in cluster of at least 10 hectares in general states and 2 ha for NE/Hilly states.
- vi. For each farmer, at least 0.4-hectare area will be included in a demonstration.

D. National/State Level Training

- i. The National Level Training Programme on production and retting technology of Jute & Allied Fibres including other related aspects will be organized by the CRIJAF, NINFET, DOJD, ICAR.
- ii. For a training of 25 participants, assistance of Rs. 80000 per training (3 days) will be provided.
- iii. The State Level Training (2 days) will be organized by Department of Agriculture and the number of trainees will be 20 for which assistance of Rs. 40000 per training will be provided.
- iv. The item-wise break-up of National/State Level training will be same as provided under NFSNM-Cotton.

E. Distribution of Certified Seeds, Nail Weeder & Microbial Consortium

- i. For State Department of Agriculture and ICAR assistance of Rs. 100/kg or 50% of the cost, whichever is less will be provided for distribution of certified seeds (not older than 10 years).
- ii. The agencies are allowed to distribute seeds more than 10 years old but less than 15 years old up to 20% of the total allocation.
- iii. Rs. 1000/machine or 50% of the cost, whichever is less will be provided for distribution of nail weeder and Rs. 25/kg or 50% of the cost, whichever is less will be provided for distribution of microbial consortium such as CRIJAF-SONA and similar other approved microbial formulation.
- iv. The distribution of certified seeds, nail weeder & microbial consortium will be primarily through State Department of Agriculture.
- v. The ICAR may involve other organization like SAUs/KVKs etc. for demonstration purpose.
- vi. For distribution of Certified Seeds of Jute, the State Department of Agriculture may involve National Seeds Corporation (NSC), State Seed Corporation (SSC), Jute Corporation of India (JCI), NJB, State Government or Cooperative Institutes.

- vii. General Council of NFSNM may however consider distribution of certified seeds of jute through NSC directly through DA&FW as NSC is already National Level Government Seed Producing Agency approved by the government for Jute.

Note: All the field based activity will be mapped on Krishi Mapper and Seed Production or Distribution will be done through SATHI portal.

3. SUGARCANE BASED CROPPING SYSTEMS

The Sugarcane based cropping system will involve propagation of intercropping, availability of quality planting material (tissue culture) and capacity building. The programme will be implemented in 13 States namely Andhra Pradesh, Bihar, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Punjab, Telangana, Tamil Nadu, Uttarakhand & Uttar Pradesh. The interventions identified are as under: -

A. Demonstration on Intercropping & Single Bud Chip Technology with Sugarcane

- i. The demonstration on pulses, oilseeds and cereals as intercrop with sugarcane will be organized by State Department of Agriculture, Cane Commissioner, ICAR, SAU, KVKs.
- ii. Assistance of Rs. 9000/Demonstration (1.0 ha each) will be provided of which Rs.1000/- for contingencies like field day, publicity material, POL, visit of scientists etc.
- iii. Demonstration will be organized in cluster of at least 10 hectares in general states and 2 hectares for NE/Hilly States.
- iv. For each farmer, at least 0.4-hectare area will be included in a demonstration.
- v. Demonstration on Single Bud Chip Technology may also be emphasized wherever possible for which Rs. 9000/Hectare will be provided.
- vi. The demonstration may also be laid on seedling developed from single eye bud/node.

B. Assistance for Breeder Seed Production

- i. The production of breeder seeds of varieties (not older than 15 years) will be taken up through ICAR, SAUs, Sugarcane Research Institutes of Central & State Government, State Department of Agriculture, Cane Commissioner.
- ii. Assistance limited to Rs. 40,000/Hectare will be provided.
- iii. Out of which Rs. 6000/- will be for contingencies like preparation of report, record management, POL for visit of scientist, Gol officers & other miscellaneous expenses).

C. Tissue culture raised Plantlets/Seedlings

- i. For faster and cheaper multiplication of the cane seed through tissue culture technique, incentive for production/supply of tissue culture raised plantlets/ seedlings will be provided @ 50% of cost of seedlings limited to Rs. 3.5/Seedling to State Department of Agriculture, Cane Commissioner, ICAR, Sugarcane Research Institutions of Central & State Government.
- ii. The agency may either avail subsidy on production of plantlets or supply.
- iii. It will not be given for both purpose to a Single Agency/Department.

D. National/State Level Training

- i. The National Level Trainings on crop production and protection aspects including intercropping will be conducted by IISR, SBI, UPCR, ICAR, DOSD and State Level Trainings by State Department of Agriculture or by Cane Commissioner.
- ii. The financial assistance for national level training of 2 days will be provided @ Rs. 50000/- for 25 participants and Rs. 40000/- per state level training of 2 days for 20 participants.
- iii. The item wise break up of national/state level training is as under:

Particulars	Amount (in Rs.)	
	National Level	State Level
Honorarium to Resource Person: -	7500	5000
➤ @ Rs.750/-per lecture for National Level for 10 lectures.		
➤ @ Rs. 500/- per lecture for State Level for 10 lectures.		
Refreshment for inaugural session for 50 persons @ Rs. 50/- per head.	2500	2500
Boarding & Lodging for trainees @ Rs.500/- per head per day.	25000	20000
Training Kit including publication @ Rs. 400/- trainee.	10000	8000
Contingencies including audio-visual arrangements, field visit, etc.	5000	4500
TOTAL	50000	40000

E. Distribution of Plant Protection Chemicals & Bio-Agents

- i. Financial assistance of Rs. 500/ha or 50% of the cost, whichever is less will be provided to State Department of Agriculture, Cane Commissioner or ICAR for distribution of Plant Protection Chemicals & Bio-Agents.

Note: All the field based activity will be mapped on Krishi Mapper and Seed Production or Distribution will be done through SATHI portal.

Intervention under NFSNM: Seed Components (erstwhile Sub-Mission for Seed and Planting Material)

Interventions under NFSNM: Seed Components

The interventions under the NFSNM: Seed Components are given below.

1. FREIGHT CHARGES FOR SEED TRANSPORTATION

OBJECTIVE

It is one of the component of erstwhile Sub Mission for Seed and Planting Material (SMSP) under National Mission on Agricultural Extension and Technology (NMAET) and earlier called as Transport Subsidy on Movement of Seeds. The component is important for the North-Eastern States (including Sikkim), J&K, Himachal Pradesh, Uttarakhand and Hilly areas of West Bengal, as the topographic and the climatic conditions are not conducive for seed production and generally seed is procured from outside for these States. Due to hilly and difficult terrain in these States the cost of seed transportation is more in comparison to movement of seeds in plains. This transportation cost is ultimately added in seed cost and levied from farmers thus making the seed costlier.

Therefore, to reduce the cost of seed to be made available to the farmers of above-mentioned states, the component is continued in the “**National Food Security and Nutritional Mission (NFSNM) under Krishionnati Yojana (KY)**” with slight modification.

The name of the component has been revised to “**Freight Charges for Seed Transportation**” with 100% assistance from Government of India to the implementing agencies working in these States or outside the States and supplying Certified Seeds in these States.

Components & Pattern of Assistance

- i. **Movement of seeds from outside the State for distribution in these States (100% GoI):**
The difference between road and rail transportation charges will be reimbursed to the implementing agency for supplying seeds in these states.
- ii. **Movement of seeds within the State from Seed Processing Plants/Godowns/Stores located in State Capital/ District/ Tehsil/ Blocks to Sale points (100% GoI):** Actual transportation cost or maximum upto Rs. 150 per quintal (whichever is less) for movement of seeds within the state from Seed Processing Plants/Godowns/Stores located in State Capital/District/Tehsil/ Blocks to Sale points will be reimbursed to Implementing Agencies.

Implementing Agencies

- i. Department of Agriculture and Horticulture, State Seed Corporations, National Seeds Corporation (NSC) and other National Level Agencies working in field of seed such as NAFED, IFFDC, KRIBHCO, HIL, NFL and BBSSL are eligible for financial assistance under this component.

- ii. Private Organizations or NGOs are not eligible under the scheme.

Mode of Reimbursement

- i. The eligible agency willing to take assistance under this component will apply in the prescribed proforma (duly signed from the Competent Authority i.e., MD/CMD/Director/CEO/ Head of Organization).
- ii. The agency will also submit bills/challans/store-receipts *etc.* as proof of seed movement duly signed from the store/godown in-charge from where the seed is being moved.

Conditionality

- i. One-time reimbursement of Freight Charges levied on the Seed Movement from outside the State to the State Capital/ District/ Tehsil/ Blocks of prescribed States is eligible under this scheme.
- ii. One-time reimbursement of Freight Charges levied on Seed Movement within State from State Capital/ District/ Tehsil/ Blocks of prescribed States to Sale Points is eligible under this scheme.
- iii. Only Certified Seed of Cereals, Coarse Cereals, Pulses, Oilseeds, Fibres, Fodder and Vegetable Crops (excluding Potato & Spices) is eligible for subsidy under this component.
- iv. The certified seed should be produced either by the Department of Agriculture/ Horticulture, State Seed Corporation, State Agriculture University, National Seed Corporation, Central or State Level Government Organization/Agencies/Corporations working in the field of seed production and distribution that are supplying seeds in these areas are eligible for financial assistance under the scheme.
- v. The Certified Seed produced by the implementing agencies on their own farms or through their local registered seed growers is eligible for assistance under this component. The seed procured by the implementing agency from any other agency is not eligible for assistance under this component.
- vi. The seed distributed under any scheme (*i.e.* seed distributed under minikits, *etc.*) will not eligible for assistance under this component.

Note: The certified seed to be distributed under this component shall be produced through SATHI portal by the respective implementing agency. Those States/Agencies that are not using SATHI Portal will not be eligible for assistance.

2. ASSISTANCE FOR FOSTERING SEEDS OF NEW VARIETIES

OBJECTIVE

Seed is one of the vital input that governs the production and yield of the crop, so it is of foremost importance to make available best quality seed for bumper production and ensuring food security of the nation. The good quality seed in itself can improve the crop productivity from 15-20%. In country like India, farmers are still using their farm saved seeds for sowing their crop. To improve the quality of farm saved seed the department was implementing a component under erstwhile SMSP namely **“Seed Village Program”** so that the farmers can improve the quality of their farm saved seed in Cereals, Pulses, Oilseeds, Fodder Crops and Green Manures. Similarly, in another component namely **“Certified Seed Production Through Seed Village”** under erstwhile SMSP was implemented by the department for promoting the production of certified seed in Pulses, Oilseeds, Fodder and Green Manure.

Now, for giving impetus on the objective of improving the Seed Replacement Rate (SRR) and Varietal Replacement Rate (VRR) a new, revised and comprehensive scheme is needed. Similarly, a lot of research and development work is being carried out by ICAR, SAUs, CAUs and other organizations for development of new and high yielding varieties which are bio-fortified and climate resilient. The rate of incorporation of these varieties in the seed chain has to be expedited and the old varieties needs to be phased-out. One of the important reasons for this was lack of awareness of new varieties, reluctance of farmers to leave old varieties and high cost of breeder seed. A considerable work has been done in last 4-5 years to improve the awareness among different stakeholders about the newly released varieties, but still the cost of breeder seed was one of the biggest factors that impedes the pace of dissemination of new varieties in seed chain. Keeping in view the above factors a new component namely **“Assistance for Fostering Seeds of New Varieties”** is formulated that has subsumed the earlier **“Seed Village Program”** and **“Certified Seed Production through Seed Village”**. Along-with support on the cost of Foundation and Certified seeds, assistance on the cost of breeder seeds of newly released varieties is also available.

COMPONENTS & PATTERN OF ASSISTANCE

Assistance on Breeder Seeds (100% GoI): For incorporation of seeds of newly released and notified varieties in seed chain the cost of breeder seed is a big factor. The cost of breeder seed is generally high and assistance on the cost of breeder seed of new varieties will give a boost in rapid incorporation of new varieties in seed chain and ultimately improving the Varietal Replacement Rate (VRR). It will further help the implementing agencies to popularize the new varieties and in reducing the cost of foundation seed production.

- i. Financial assistance of 50% on the Breeder Seed cost (100% GoI Share) decided by Seed Division, DA&FW, GoI, is available for distribution of Breeder Seed of newly released

varieties/hybrids which are ≤ 5 years old (from the date of notification) to seed growers for foundation seed production (Table-B).

- ii. Notified varieties/hybrids of Cereals, Coarse Cereals, Pulses, Fibres and Fodder Crops are eligible for assistance under this component.
- iii. Assistance will be provided on the basis of lifting of allocated breeder seed (by Seed Division, DA&FW, MoA&FW, GoI) from ICAR-Institutes, CAUs, SAUs and other Breeder Seed Producing Centres (BSPCs) of Government Organizations and as per actual sowing by the registered seed growers (which may be a seed grower or an organization).
- iv. The agency taking assistance on breeder seed cost needs to pass the assistance as such to the seed growers (which may be a seed grower or an organization).
- v. As seed production is a highly technical task, therefore assistance can be provided for the distribution of breeder seed for a maximum up to 5 hectares per seed grower. In the case of the Agency, the ceiling would be capped at 5 hectares/variety/crop in a season.
- vi. The land shall be its own or shall be on lease with the seed grower at the time of taking assistance.
- vii. The implementing agencies shall ensure that the same seed growers shall not be repeated every year. The benefit of the assistance shall be provided to maximum seed growers.
- viii. The breeder to foundation seed production taken under this initiative shall be mandatorily captured on SATHI portal.

Assistance on Foundation Seeds (100% GoI): To reduce the cost of Certified Seed production, assistance on Foundation Seed distribution to the seed growers is available @ 50% of Foundation Seed (Table-B).

- i. Financial assistance of 50% on Foundation Seed cost (100% GoI) decided by the seed producing agency or as decided by Seed Division, DA&FW, GoI (whichever is less) (Table-B) is available for distribution of Foundation Seed only for the purpose of certified seed production to seed growers (which may be a seed grower or an organization) of newly released varieties/hybrids which are ≤ 8 years old (from the date of notification).
- ii. Notified varieties/hybrids of Cereals, Coarse Cereals, Pulses, Fibres and Fodder Crops are eligible for assistance under this component.
- iii. The agency taking assistance on Foundation Seed cost needs to pass the assistance as such to the seed growers (which may be a seed grower or an organization).
- iv. The assistance will be given only once either for Foundation Seed-I or II distribution. The agency cannot claim assistance if it has already taken assistance for distribution of FS-I of same variety in the preceding year.

- v. As the seed production is highly technical task, therefore the assistance can be provided for distribution of foundation seed for maximum upto 5 hectares per seed grower. In case of Agency, the ceiling would be capped at 5 hectares/variety/crop in a season.
- vi. The land shall be its own or shall be on lease with the seed grower at time of taking assistance.
- vii. The implementing agencies shall ensure that the same seed growers shall not be repeated every year. The benefit of the assistance shall be provided to maximum seed growers.
- viii. Assistance on both Breeder and Foundation seed distribution shall not be given to same seed grower (in case on an individual) in a season.
- ix. The foundation to certified seed production taken under this initiative shall be mandatorily captured on SATHI portal.

Assistance on Certification Charges (100% GoI): The component is available to increase the Certified Seed production by promoting the Seed Growers or Agencies to undertake Certified Seed production by providing assistance on Seed Inspection Charges.

- i. 50% assistance on seed inspection charges paid by the Seed Growers or Agencies is available under this component.
- ii. Available for the production of both Foundation and Certified seed.
- iii. The maximum assistance available will be upto 50% or maximum of Rs. 400/hectare (whichever is less) on inspection charges taken from Seed Growers or Agencies (for the seed production taken on their own farms).
- iv. The assistance is only available for inspection charges taken by the certification agency on the Breeder and Foundation Seed distributed under this component.

Assistance on Certified Seeds (60% GoI Share & 40% State Share in Normal States; 90% GoI Share & 10% State Share in North-Eastern & Hilly States and 100% GoI Share for Central Agencies): To promote the rapid adoption of newly released and notified seed varieties by farmers at the grassroots level, assistance on distribution of certified seeds is available. Financial assistance of 50% or as decided by Seed Division, DA&FW, GoI (whichever is less) **(Table-B)** is available for distribution of Certified Seed to farmers. This initiative aims to enhance the Seed Replacement Rate (SRR) in different respective crops.

- i. Only notified varieties or hybrids of Cereals, Coarse Cereals, Pulses, Fibers, and Fodder Crops are eligible for distribution under the assistance.
- ii. Only ≤ 10 years old notified varieties/hybrids are eligible for assistance.
- iii. Truthfully labelled seed of notified varieties is not eligible.

- iv. Assistance for distribution of certified seed under this component is available for maximum 01 hectare/farmer.
- v. The same farmer to which certified seed is distributed on assistance shall not be repeated for at least two years.
- vi. The seed to be distributed shall be produced by the implementing agencies through the proper generation system of seed production, either on their own farms or through their locally registered seed growers, with documented proof of breeder seed procurement. It is to be further ensured that the seed-producing agency have not procured the seed to be supplied from any third party.
- vii. The seed distribution under this component shall be mandatorily captured on SATHI portal.

Assistance on Capacity Building (100% GoI): To impart the knowledge of Seed Production, Inspection, Rouging, Harvesting, Processing, Packing, Treatment, Storage, Certification, etc assistance is available for organizing one-day training program for seed growers.

- i. Assistance of Rs. 50000 per training or less (whichever is applicable) for a group of 150 farmers is available **(Table-A)**. The agency can opt for smaller group of 30-50 seed growers. Assistance in such case will be reduced to a pro-rata basis.
- ii. The implementing agency will organize only one training for a group of seed growers in a season.
- iii. For the total number of seed growers covered for distribution Breeder and Foundation seed under this component the training to maximum 1/3rd of such seed growers shall be done by the implementing agency in a particular season.
- iv. The farmers trained in one season shall not be repeated for at-least two years.

Table-A: Assistance for Capacity Building of Seed Growers			
S. No.	Details	Rate (in Rs)	Amount Available (in Rs)
1.	Stationery/Literature	Rs. 40/Seed Grower	6,000/-
2.	Honorarium to Expert (Maximum 02 Expert)	Rs. 3000/Expert	6,000/-
3.	Lunch/ Refreshment (02 Teas & 01 Lunch)	Rs. 150/Seed Grower	22,500/-
4.	Other Miscellaneous Charges (For booking of hall, tent, chairs, microphone, speakers, etc.)		15,500/-
Total			50,000/-

Implementing Agencies

- i. Department of Agriculture States/UTs, State Seed Corporations, National Seeds Corporation (NSC), National Level Agencies working in field of seed (such as NAFED, IFFDC, KRIBHCO, HIL, NFL, BBSSL), SAUs, CAUs, ICAR-Institutes, KVKs (controlled by SAUs, CAUs or ICAR-Institutes), Farms of Department of Agriculture and Seed Hubs (of ICAR-Institutes/SAUs/CAUs) are eligible for financial assistance under this component.
- ii. Those States/UTs/Agencies that are not using SATHI Portal will not be eligible for assistance.

Table-B: Assistance on Breeder, Foundation and Certified Seed				
S. No.	Name of Crop	Maximum Assistance Available (in Rupees/Quintal)		
		Breeder Seed (50%)	Foundation Seed (50%)	Certified Seed (50%)
1.	Paddy	As per rates finalized by Seed Division, DA&FW, MoA&FW, Gol, New Delhi	2200	2000
2.	Wheat			
3.	Barley		3300	3000
4.	Maize/Sorghum/Bajra			
5.	Ragi/Foxtail/Little/Kodo Millets			
6.	Arhar		5500	5000
7.	Black-gram			
8.	Green-gram			
9.	Cowpea			
10.	Gram			
11.	Lentil			
12.	Peas			
13.	Rajmash			
14.	Moth			
15.	Horse-gram			
16.	Lathyrus			
17.	Guar		6000	5500
18.	Dhaincha		3300	3000
19.	Sun-hemp		4500	4000
20.	Berseem		11000	10000
21.	Lucerne		17000	15000
22.	Oat		3300	3000
23.	Jute		8000	7000
24.	Cotton		10000	9000
25.	Mesta		3000	2500

Note: Assistance taken on Certified seed under this component shall not be claimed from any other scheme of State and Central Government by the Implementing Agency.

3. CREATION & MODERNIZATION OF SEED INFRASTRUCTURE

Objective

Seed processing has been a vital practice for generations, advancing from manual methods like winnowing to modern machinery that removes impurities such as weeds, debris, trash, and damaged seeds. This ensures uniform seed lots, promoting better germination and higher crop yields. In addressing the food security needs of a growing population, seed processing plays a key role in enhancing seed quality and boosting crop productivity and production.

Effective post-harvest processing is essential for improving seed yield, longevity, vigor, and overall quality. This process involves drying seeds to a safe moisture level, removing unwanted materials, grading seeds for uniformity, and treating them to enhance quality. Farmers depend on clean, high-quality seeds for successful crops. Moreover, storage facilities are critical for preserving both raw and processed seeds. To support this, assistance is available for establishing seed processing and storage facilities, ensuring farmers have access to superior-quality seeds.

COMPONENTS & PATTERN OF ASSISTANCE

Assistance for Seed Processing Plant and Related Infrastructure

- i. For installation of state-of-art & hi-tech Seed Processing Plant and its supporting machinery of flexible capacity 100% assistance from GoI is available. For Seed Processing Plant of 1000 to 5000 MT capacity actual installation cost or maximum upto Rs 75 to 150 Lakh is available (for both Essential and Supporting equipment, whichever is less). The details may be seen at Table-C.
- ii. Similarly, 100% GoI assistance is available for construction of Plant Building (for in-housing Seed Processing Plant), Receiving Shed and Drying Platforms of different dimensions. For establishment of Plant Building, Receiving Shed and Drying Platforms for a Seed Processing Plants of 1000 to 5000 MT capacity actual construction cost or maximum upto Rs. 1.32 to 3.10 crores are available (whichever is less). The details may be seen at Table-D.

Assistance for Seed Storage Godowns

- i. The construction of modern and ambient seed storage facilities is essential to ensure the long-term preservation of seeds without compromising their quality. For establishing such Seed Storage Godowns, 100% assistance is provided by the Government of India (GoI). For Godowns with a 1000 MT capacity, the assistance covers the actual construction cost or a maximum amount ranging from Rs. 1.96 to 2.45 crores, depending on the type of godown, whichever is lower. The details may be seen at Table-E.
- ii. Assistance for the construction of Seed Storage Godowns, whether of lower or higher capacity, will be provided on a pro-rata basis. The area and dimensions of the Godowns should be proportionately adjusted according to their capacity.

Assistance for Air-conditioned and Dehumidified Seed Storage Facility

- i. For constructing air-conditioned and dehumidified seed storage facilities to ensure long-term preservation of low-volume, high-quality seeds without compromising their quality, 100% assistance is provided by the Government of India (GoI). For facilities with a 100 MT capacity, the support covers the actual construction cost or a maximum of Rs. 90 Lakhs, whichever is lower. The details may be seen at Table-E.
- ii. Assistance for the construction of lower or higher capacity godowns will be provided on a pro-rata basis. The area and dimensions of the godowns should be proportionately adjusted based on their capacity.

Assistance for Capacity Building in Seed Processing

- i. Assistance is provided for a three-day capacity-building program designed for 50 individuals engaged in seed processing and storage activities.
- ii. For such training programs, 100% assistance is provided by the Government of India (GoI), or up to a maximum of Rs. 2 lakhs per training, whichever is lower. Detailed information can be referred to in Table-F.

Implementing Agencies

- i. Department of Agriculture and Horticulture, State Seed Corporations, State Agriculture Universities (SAUs), Central Agriculture Universities (CAUs), ICAR-Institutes, National Seeds Corporation (NSC) and other National Level Agencies working in field of seed such as NAFED, IFFDC, KRIBHCO, HIL, NFL and BBSSL are eligible for financial assistance under this component.
- ii. The NGOs and Private Organizations are not covered under the scheme.
- iii. Any additional costs incurred by the implementing agency beyond the allocated assistance for any of the components will be their sole responsibility.

Note: The infrastructure created under this component will be mapped on SATHI portal. Those States/UTs/Agencies that are not using SATHI Portal will not be eligible for assistance.

Specifications & Assistance Pattern

Table-C: Assistance for Seed Processing Plant (SPP) and Supporting Machinery

Minimum Annual Capacity (in MT)	Minimum Capacity (in TPH)	Cost of SPP Machinery/ Equipment's	Cost of Supporting Machinery/ Equipment	Total Cost (Rs in Lakh)
1000	2 TPH	50.00	25.00	75.00
2000	4 TPH	60.00	30.00	90.00
3000	6 TPH	72.00	36.00	108.00
4000	8 TPH	87.00	43.00	130.00
5000	10 TPH	99.00	51.00	150.00
I. The essential equipment/items/machinery of SPP includes Elevators, Pre-cleaner, Seed Grader, Indented Cylinder, Gravity Separator, Seed Treatment and Packing Machine, Digital Weighing Machine, Sewing/Stitching and Sealing Machine.				
II. The supporting equipment/items/machinery of SPP may include Weighment Bridges, Moisture Meter (Digital Type), Electronic/Electrical Control Panel, Air Compressor, Generator Set, and other related machinery, equipment, screens and devices.				

Table-D: Assistance for Plant Building, Receiving Shed and Drying Platforms

Annual Capacity of Plant (in MT)	Plant Building & Receiving Shed (AC/GI sheet type)			Drying Platform			Grand Total (in lakh)
	Size (in sqm)	Rate (in Rs/Sqm)	Total Cost (in lakh)	Size (in sqm)	Rate (in Rs/Sqm)	Total Cost (in lakh)	
1000	450	28000	126.00	100	6000	6.00	132.00
2000	525	28000	147.00	200	6000	12.00	159.00
3000	700	28000	196.00	300	6000	18.00	214.00
4000	800	28000	224.00	400	6000	24.00	248.00
5000	1000	28000	280.00	500	6000	30.00	310.00

Table-E: Assistance for different types Seed Storage Godowns

Godown Types	Capacity (in MT)	Minimum Size (in sqm)	Rate (in Rs/Sqm)	Total cost (in Lakh)
Sheet Type Roof (with AC/GI sheets)	1000	700	28000	196.00
Ventilated Flat Roof	1000	700	35000	245.00
Air-conditioned & De-humidified	100	100	90000	90.00

Table-F: Assistance for Capacity Building in Seed Processing

S. No.	Details	Rate (in Rs.)	Amount (in Rs.)
1.	Stationery, Literature, Bags, etc.	Rs. 1500/Participant	75,000.00
2.	Honorarium to Experts (upto 08 Experts)	Rs. 3000/Expert	24,000.00
3.	Lunch & Refreshment	Rs. 500/Person/Day	75,000.00
4.	Miscellaneous Expenses (Transportation, Venue booking etc.)		26,000.00
Total			200,000.00

4. BOOSTING SEED PRODUCTION OF TRADITIONAL VARIETIES

Objective

Traditional varieties, landraces, and farmers' varieties serve as valuable gene pool repositories, enhancing biodiversity and maintaining ecosystem stability in a sustainable manner. Cultivating these crops across diverse regions not only supports agricultural biodiversity but also provides essential ecological benefits such as nutrient cycling, carbon sequestration, soil erosion control, greenhouse gas reduction, and regulation of hydrological processes. Given their strategic importance in crop development, local adaptation, nutritional value, and other significant traits, it is crucial to promote traditional varieties for a more sustainable agricultural future. The schematic plan to enhance seed production of traditional varieties includes the following steps:

- i. Identifying 10-15 leading and significant traditional varieties of crops, which have been recognized for over 50 years, in each state.
- ii. Cataloguing these varieties with details like photos, characteristics, and package of practices, by PPV&FRA.
- iii. Providing assistance for distributing seeds to farmers or seed growers for further multiplication.
- iv. Offering production incentives per quintal of seeds produced for these varieties to farmers or seed growers.
- v. Organizing training programs for farmers or seed growers on seed production, processing, storage, and related practices.
- vi. Providing support for establishing Seed Banks dedicated to Traditional Varieties.
- vii. Recording Seed Production and Seed Bank details on the SATHI Portal.

COMPONENTS & PATTERN OF ASSISTANCE

Assistance on Seed Distribution (60% GoI Share & 40% State Share in Normal States and 90% GoI Share & 10% State Share in North-Eastern and Hilly States)

- i. To ensure the large-scale availability of traditional varieties, assistance is provided for their seed distribution to enable further multiplication.
- ii. This assistance will cover 50% of the seed cost and will be shared between the central and state governments.
- iii. The maximum assistance available will be equivalent to the assistance provided for foundation seed, as outlined in Table-B.

Production Incentive (60% GoI Share & 40% State Share in Normal States and 90% GoI Share & 10% State Share in North-Eastern and Hilly States)

- i. Traditional varieties generally have lower yield potential compared to high-yielding varieties. Therefore, providing production incentives is essential to maintain farmers'/growers' interest in seed production of such varieties.
- ii. Seed production incentives are available @ Rs.1000 per quintal for Cereals, Millets, and Minor Millets, and @ Rs.2000 per quintal for Oilseeds and Pulses.

Assistance for Capacity Building (60% GoI Share & 40% State Share in Normal States and 90% GoI Share & 10% State Share in North-Eastern and Hilly States)

- i. A one-day training program is proposed for farmers or seed growers interested in producing seeds of traditional varieties. The training aims to educate them on agronomic practices, harvesting techniques, seed production, processing, and storage for such varieties.
- ii. Assistance of up to Rs. 50,000 per training (or the actual cost, whichever is less) is available for a group of 150 farmers, as outlined in Table-A. If the agency opts for smaller groups of 30-50 seed growers, assistance will be adjusted on a pro-rata basis.
- iii. The implementing agency will conduct only one training for each group of seed growers in a season. Furthermore, the training shall cover a maximum of one-third of the total farmers or seed growers involved in seed distribution of traditional varieties under this component in a single season.

Assistance for Establishment of Seed Banks (100% GoI Share)

- i. Establishing Seed Banks is essential to ensure a steady supply of processed, packed, and tested seeds of traditional varieties.
- ii. These Seed Banks will be equipped with facilities for seed processing, packing, testing, and storage to handle a substantial quantity of traditional variety seeds.
- iii. One-time assistance of up to Rs. 50 lakhs, or the actual cost (whichever is less), is available for setting up a small-sized seed processing plant, storage godowns, and purchasing equipment necessary for testing seed quality.

Role of State Government & Protection of Plant Varieties and Farmers' Rights Authority (PPV&FRA)

- i. Identify 10-15 significant and well-known traditional varieties in different crops, cultivated for over 50 years, in each state. Identify the implementing agency in the state
- ii. The Implementing Agencies will assist and guide farmers or farmer groups to register their varieties with the Protection of Plant Varieties and Farmers' Rights Authority (PPV&FRA) to validate their authenticity as traditional varieties.
- iii. The PPV&FRA will register and catalogue these varieties, including details like photographs, characteristics, recommended practices, and other relevant information.

- iv. The Implementing Agencies, through the State Agriculture Department, will submit proposals to the Seeds Division for assistance in promoting the varieties registered with PPV&FRA.
- v. The Seeds Division will evaluate the proposals and seek input from the PPV&FRA.
- vi. Based on feedback from the PPV&FRA, the Seeds Division will consider the release of funds to the Implementing Agencies.
- vii. To avoid potential legal issues regarding benefit sharing, the State and Implementing Agencies, in collaboration with the registered farmer(s) or farmer groups, will ensure detailed discussions. One possible approach is to obtain an undertaking from the farmers or groups who registered the varieties, agreeing to waive benefit sharing for the larger public good.

Implementing Agencies

- i. Department of Agriculture States/UTs, State Seed Corporations and SAUs.
- ii. ICAR-Institutes, CAUs or National Seeds Corporation (NSC) and other National Level Agencies working in field of seed such as NAFED, IFFDC, KRIBHCO, HIL, NFL and BBSSL in those States which do not have any State Seed Corporations subject to the condition that the funding pattern will remain same and state will contribute their respective share for implementation of different sub-components.
- iii. The NGOs and Private Organizations are not eligible under this scheme.

Note: The seed production and infrastructure created under this component will be mapped on SATHI portal. Those States/UTs/Agencies that are not using SATHI Portal will not be eligible for assistance.

5. STRENGTHENING OF SEED PRODUCTION INFRASTRUCTURE IN POTATO

Objective

To enhance the availability of potato seeds nationwide, alternative technologies such as Apical Root Cutting Technology and Aero-ponics, alongside the conventional seed-to-seed production method, must be explored. This approach offers dual benefits: ensuring sufficient potato seed supply for farmers and contributing to food security. To achieve this objective, the **"Strengthening of Seed Production Infrastructure in Potato"** component is available.

Pattern of Assistance for Establishment of Centre of Hi-Tech Seed Production in Potato (100% GoI)

- i. Assistance of Rs. 5.00 crores or actual (whichever less) as a one-time measure is available for establishment of Tissue Culture Lab & Poly-houses and for any other non-recurring expenditure.
- ii. Similarly, assistance of Rs. 5.00 crores or actual (whichever less) is available for recurring cost *i.e.*, salary of staff supervising the project (in contractual manner), extension activities, capacity building of farmers, consumables & other miscellaneous expenses.
- iii. The indicative details for the aforementioned components can be found in Table-G for projects spanning 3 to 5 years.

Eligibility Criterion & Implementation Strategy

- i. The proposals under this component will only be considered for those technologies in potato that have a valid certification procedure approved by GoI.
- ii. In Annual Action Plan, the bifurcation between recurring & non-recurring cost has to be clearly mentioned along-with year wise bifurcation by the implementing agency.
- iii. The financial assistance will be limited on actual cost incurred upto maximum assistance as proposed in the specifications & cost norms.
- iv. Once the project period concludes, the implementing agency will be responsible for bearing all recurring and non-recurring costs.

Implementing Agencies

- i. Department of Agriculture and Horticulture of States/UTs, State Seed Corporations, SAUs, CAUs, ICAR-Institutes, National Seeds Corporation (NSC) and other National Level Agencies working in field of seed such as NAFED, IFFDC, KRIBHCO, HIL, NFL and BBSSL.

Note: The infrastructure created under this component will be mapped on SATHI portal. Those States/UTs/Agencies that are not using SATHI Portal will not be eligible for assistance.

Specifications & Cost Norms

Table-G: Assistance for “Establishing Hi-tech Centre for Potato Seed Production”			
Heads	Description	Total Amount (in lakhs)	Pattern of Assistance (100% GoI)
Non-Recurring	Setting up of new Tissue Culture Unit (including Diagnostics Lab, Hardening & Cold Chamber etc.).	300.00	a. Each TC unit shall produce a minimum of 25 lakh plants/year. b. In the event of production of lesser number of plants, cost of lab will be reduced on pro-rata basis.
	Climate Controlled Poly-house	40.00	a. 50% of cost limited Rs. 2000/sqm for maximum up to 4000 sqm. b. In the event of lesser area, cost will be reduced on a pro-rata basis.
	Polyhouse w/o Climate Control	30.00	a. 50% of cost limited Rs. 1000/sqm for maximum up to 6000 sqm. b. In the event of lesser area, cost will be reduced on a pro-rata basis.
	For Net-Houses, buildings of Office Premises, Sale Counters and other infrastructure facility.	130.00	Inevent of less expenditure actual will be considered.
Recurring	Staff Salary (for Consultants, PDF, YPs, SRF, DEOs, Labours) in contractual manner	200.00	For a tenure of 3 to 5 years.
	Extension Activities & Capacity Building of Farmers (Capacity Building for Entrepreneurs & Farmers, Workshops, National Seminars etc.)	100.00	For a tenure of 3 to 5 years.
	Consumables & Miscellaneous Expenses (include operational cost of multiplication to further stages, Office-supplies, TA/DA etc.)	150.00	For a tenure of 3 to 5 years.
	Contingency/Indirect cost	50.00	For a tenure of 3 to 5 years.
TOTAL		1000.00	

6. SEED PROCESSING AND SEED STORAGE UNIT AT GRAM PANCHAYAT LEVEL

Objective

To ensure the local availability of quality seeds of high-yielding varieties for farmers, it is essential to organize seed production programs and carry out activities such as seed processing, cleaning, grading, packaging, and storage within the vicinity. In this regard, the Government of India (GoI) provides 100% assistance for 50% of the establishment cost of a Seed Processing Plant (500 MT capacity with a minimum of 1 TPH capacity) and a Seed Storage Godown (500 MT capacity) at the Gram Panchayat level, with a maximum assistance limit of Rs. 40 Lakhs (whichever is less).

Pattern of Assistance

- i. The 50% grants-in-aid will be provided by GoI to the eligible agencies through State Department of Agriculture for setting such units at Gram Panchayat level.
- ii. The State Department of Agriculture has to transfer this amount to concerned eligible agency at the earliest.
- iii. The Seed Processing Plant of 500 MT capacity & minimum of 1 TPH capacity shall be installed and Seed Storage Godown of 500 MT shall be constructed. The specifications may be seen at **Table-H**.
- iv. Maximum assistance per unit is 50% for the complete setup cost limited to Rs. 40 Lakh. The rest amount will be borne by the agency.

Norms for construction of Seed Processing cum Seed Storage Godown

The construction of Seed Processing-cum-Godown must adhere to the highest standards in line with the norms set by the State Government. It should include an approach road for easy access, proper drainage systems, and facilities for seamless loading and unloading of seed stocks. Additionally, any changes in the proposed location for setting up the Seed Processing and Seed Storage Godown require prior approval from the Government of India (GoI).

Eligibility Criterion & Implementation Strategy

- i. The Seed Processing Plant and Seed Storage Godown can be established on government land, government seed farms, Panchayat-owned land, or land owned by the implementing agency.
- ii. Grants-in-aid will be provided to implementing agencies that already possess the necessary land and manpower to establish and operate the seed processing and storage facilities. Costs related to land and its registration will not be covered under any circumstances.
- iii. The concerned State Agriculture Department will closely monitor the procurement of seed processing machinery and equipment, as well as the construction of Seed Storage Godowns.

- iv. All installed machinery and construction work must adhere to the highest standards.
- v. After the unit is established, day-to-day operations will be carried out by the implementing agencies under the overall supervision of the State Agriculture Department.
- vi. Upon the completion of the installation of the Seed Processing Plant and construction of Seed Storage Godowns, the State Agriculture Department will assess the quality of work and submit the Physical and Financial Progress Report, Utilization Certificate, Photographs, and Geo-coordinates to the Government of India (GoI).
- vii. The State Government may introduce additional guidelines at its discretion.
- viii. Indicative details of essential and supporting equipment, items, and machinery can be referred to in **Table-H**.

Implementing Agencies

- i. Farmers Producing Organizations (FPOs) and Multi-State Cooperatives that are actively engaged in seed production and have a minimum of 2 years of experience in the field of seed production are eligible for assistance.

Note: The infrastructure created under this component will be mapped on SATHI portal. The seed production done by the agency shall be carried-out through SATHI Portal only. Those States/UTs/Agencies that are not using SATHI Portal will not be eligible for assistance.

Specifications & Cost Norms

Table-H: Assistance for SPP-cum-SSG at Gram Panchayat Level (capacity of 500 MT)					
Details	Minimum Annual Capacity (in MT)	Minimum Capacity (in TPH)	Dimension (in meters)	Total Area (in sqm)	Assistance (in Lakh)
Seed Processing Plant	500	1 TPH	15 X 10 M	450 sqm	50% cost for establishment of SPP & SSG limited upto Rs. 40 lakhs per unit (whichever is less).
Seed Storage Godown	500	—	15 x 20 M		
I. The list of essential equipment/ items/ machinery for SPP includes Elevators, Pre-cleaner, Seed Grader, Indented Cylinder, Gravity Separator, Seed Treatment and Packing Machine, Digital Weighing Machine, Sewing/ Stitching and Sealing Machine.					
II. The supporting equipment/ items/ machinery for SPP may include Weight Bridges, Moisture Meter Digital Type, Electronic/ Electrical Control Panel, Air-Compressor, Generator Set, and other related machinery, equipment, screens and devices.					

7. STRENGTHENING OF SEED QUALITY CONTROL COMPONENTS

A. CREATION/STRENGTHENING OF SEED QUALITY CONTROL (100% GoI)

Under this component, assistance is available for the establishment of a new Seed Testing Laboratory or the renovation of an existing one.

NEW SEED TESTING LABORATORIES: A Seed Testing Laboratory (STL) is an integral part of Seed Quality Control System to provide quality seeds to the farmers. Financial assistance is available for establishment of a New Seed Testing Laboratory, the details for which are as under:

- i. **Equipment:** Financial assistance is available for purchase of various laboratory equipment upto Rs. 120.00 lakh. The details of equipment and their estimated cost for handling of approximately 10,000 seed samples (Target) per annum in a Seed Testing Laboratory may be seen at **Annexure-VI**.
- ii. **Construction:** One-time financial assistance for construction of the building of upto 200 square meters @ Rs. 50.00 lakh or actual (whichever is less) is available.
- iii. The land for establishment of Seed Testing Lab will be provided by the agency.
- iv. Accreditation of Seed Testing Labs by National Accreditation Board for Testing and Calibration Laboratories (NABL).
- v. The STL established under this component will be mapped on SATHI portal. The testing work done by the STL will be captured on SATHI Portal.

STRENGTHENING OF EXISTING SEED TESTING LABORATORIES: At present there are 176 Notified Seed Testing Laboratories working across the country out of which very few have NABL accreditation. In order to strengthen the existing Seed Testing Labs and to promote their NABL accreditation for the supply of quality seeds, the financial assistance is available.

- i. **Equipment:** Financial assistance of upto Rs.120.00 lakh for purchase of required equipment is available.
- ii. **Renovation of existing Seed Testing Laboratory:** The total cost allowed for renovation of a Seed Testing Laboratory with an area of upto 200 square meters @ Rs. 50.00 lakh or actual (whichever is less) is available.
- iii. In this Rs. 50.00 lakh for the Civil Works Rs. 20.00 lakh; for the Electrical Works Rs. 10.00 lakh; for the Water Supply/Drainage Works Rs. 10.00 lakh; and, for the Miscellaneous Works Rs. 10.00 lakh or actual (whichever is less) is available.
- iv. Accreditation of Seed Testing Labs by National Accreditation Board for Testing and Calibration Laboratories (NABL).
- v. The Seed Testing Laboratories should be notified, if not-notified, then process of notification should be completed within 2 years from the date of receipt of grants-in-aid.

- vi. The STL will be mapped on SATHI portal. The testing work done by the STL will be captured on SATHI Portal.

Implementing Agencies: The Seed Testing Laboratories (STL) of Departments of Agriculture of Governments/UTs, State Seeds Corporations (SSCs), State Seed Certification Agencies (SSCAs), ICAR/CSIR-Institutes working in Seed Sector, State Agricultural Universities (SAUs), Central Agriculture Universities (CAUs), National Seeds Corporation (NSC) and other National Level Agencies working in field of seed such as NAFED, IFFDC, KRIBHCO, HIL, NFL and BBSSL. Those States/UTs/Agencies that are not using SATHI Portal will not be eligible for assistance.

B. SUPPORT FOR SEED CERTIFICATION AGENCIES (100% GoI)

The State Seed Certification Agencies are self-sustained autonomous bodies involved in ensuring availability of Foundation and Certified Seeds. In order to strengthen Seed Certification System for ensuring seamless supply of Foundation and Certified Seeds, financial assistance to the State Seed Certification Agencies is available. The assistance for meeting expenditure on Staff Cost and Travelling Allowances of Staff of Certification Agency involved in field inspection, sampling, monitoring, analysis, etc. is available.

Assistance for the Staff Cost: The composite grant of upto Rs.100.00 lakh or 60% of total Staff Cost (whichever is less) to each State Seed Certification Agency per year is available.

- i. The assistance will be available for only the staff hired on contractual/outsource basis, which are involved in seed management; field inspection; sampling; analysis; monitoring; evaluation, certification, pre/post-harvesting supervision, etc.
- ii. Primary responsibility for the payment of staff salary shall remain with Seed Certification Agency only.
- iii. The entire staff cost will not be borne by GoI.
- iv. This assistance will also be available to the Seed Certification Agencies are working under Departments of Agriculture of States/UTs.

Travelling allowance: To conduct effective field inspection, sampling, monitoring, analysis and other seed certification related activities the assistance for Travelling Allowances of Staff of Certification Agency is available. The maximum assistance available for this is upto Rs. 20.00 lakh or actual (whichever is less) per year.

Implementing Agencies: State Seed Certification Agencies (SSCAs). The assistance is available for the SSCAs that are using SATHI portal.

C. DEVELOPMENT OF MODERN/ADVANCE GENETIC PURITY TESTING FACILITIES (100% GoI)

DNA Finger Printing/Varietal Purity Testing Facilities: To ensure genetic purity of seeds and planting materials, DNA Finger Printing Lab is imperative. It is advanced, accurate and quick method of testing of genetic purity of Seeds/Planting Materials. Accordingly, it is proposed to establish at least one DNA Finger Printing Facility Lab in each State.

- i. **Equipment:** The financial assistance of upto Rs. 200.00 lakh or actual (whichever is less) is available for purchase of advance/modern equipment for establishment of DNA finger-printing facilities. The list of equipment may be seen at **Annexure-VII**.

Development/Strengthening of Conventional Genetic Purity Testing: To promote genetic purity through conventional methods, financial assistance is available. This component will covers following two activities:

- i. **Strengthening of Grow-out Test Farm:** Financial assistance for strengthening of Grow-out facilities for upto Rs. 50.00 and Rs. 100 lakh or actual (whichever is less) for strengthening of 2 hectares and 5 hectares farms respectively is available. No fund for purchasing land will be allowed. The amount will be available on pro-rata basis for different size of farms. The activities covered under the component are as under:
 - a. Essential civil works at site/sheds, stores, pump houses, workshop, road, fencing, electrification, drying platforms, threshing yards' buildings, etc. for the centre as a whole.
 - b. To develop irrigation/drainage setup, pipelines, water tanks, slab channels etc.
 - c. Land development, levelling, mapping, topography adjustments, bounding, plot lay out, etc.
 - d. Mould board plough, disc harrow, tillers, levellers, rigger, bund former and such other implements/farm machinery, essential tools for repair and maintenance with trolley. Tractor 35 HP-1 etc.
 - e. Mobility for field visit.
 - f. The activity wise breakup may be seen at **Annexure-VIII**.
- ii. **Green/Net/Poly House Facility:** The financial assistance for upto Rs. 15.00 lakh or actual (whichever is less) is available for establishment of Green/Net/Poly House facility. The activity wise breakup details are enclosed in **Annexure-IX**.

Implementing Agencies: The Departments of Agriculture of Governments/UTs, State Seeds Corporations (SSCs), State Seed Certification Agencies (SSCAs), ICAR/CSIR-Institutes working in Seed Sector, State Agricultural Universities (SAUs), Central Agriculture Universities (CAUs),

National Seeds Corporation (NSC) and other National Level Agencies working in field of seed such as NAFED, IFFDC, KRIBHCO, HIL, NFL and BBSSL.

Note: The infrastructure created under this component will be mapped on SATHI portal. Those States/UTs/Agencies that are not using SATHI Portal will not be eligible for assistance.

D. SPECIALIZED SEED HEALTH TESTING UNIT (100% GoI)

The quality of a seed lot very much depends on seed health and vigour which indicate presence or absence of disease organisms, pathogens, insect and pests on seeds and its sustainability in the field during adverse climatic conditions. One-time financial assistance upto Rs. 70.00 lakh or actual (whichever is less) is available for purchase of advance/modern equipment and other related expenditure for establishment/strengthen each specialized Seed Health Testing Laboratory under the Sub-Mission. The list of equipment is enclosed in **Annexure-X**.

Implementing Agencies: The Departments of Agriculture of Governments/UTs, State Seeds Corporations (SSCs), State Seed Certification Agencies (SSCAs), ICAR/CSIR-Institutes working in Seed Sector, State Agricultural Universities (SAUs), Central Agriculture Universities (CAUs), National Seeds Corporation (NSC) and other National Level Agencies working in field of seed such as NAFED, IFFDC, KRIBHCO, HIL, NFL and BBSSL.

Note: The infrastructure created under this component will be mapped on SATHI portal. Those States/UTs/Agencies that are not using SATHI Portal will not be eligible for assistance.

E. CAPACITY BUILDING (100% GOI)

In order to have skilled manpower to strengthen the seed sector in the country, the training on advance technologies, handling of modern equipment, methods of seed testing, certification system and other related activities is required. The technical officials/staff involved in various activities need to update their technical knowledge/skill on regular basis. The financial assistance is available for organising training and workshops for the technical officials/staff engaged in the fields of Seed Certification, Production, Testing, Distribution and other seed related activities. The financial assistance will be available as per following details:

Table-I: Assistance for Training and Workshops		
S. No.	Training and workshop	Maximum Amount Eligible (Rs. in lakh)
1	01 Day Training to 100 Participants	Rs. 1.00
2	03 Days Training to 50 Participants	Rs. 1.50
3	01 Week (05 Days) Training of 50 Participants	Rs. 2.50
4	15 Days Training of 30 participants	Rs. 4.50
Note:		
1. The number of participants and duration of training will be as per the requirement of implementing agency.		
2. The amount eligible is @ Rs.1000 per participants per day or actual (whichever is less).		

Implementing Agencies: The Departments of Agriculture of Governments/UTs, State Seeds Corporations (SSCs), State Seed Certification Agencies (SSCAs), ICAR/CSIR-Institutes working in Seed Sector, State Agricultural Universities (SAUs), Central Agriculture Universities (CAUs), National Seeds Corporation (NSC) and other National Level Agencies working in field of seed such as NAFED, IFFDC, KRIBHCO, HIL, NFL and BBSSL.

Note: The details and location of trainings conducted will be mapped on Krishi Mapper. Those States/UTs/Agencies that are not using SATHI Portal will not be eligible for assistance.

F. PARTICIPATION IN VARIOUS INTERNATIONAL ORGANISATIONS (100% GoI)

Participation in events organized by international organizations such as FAO, ISTA, UPOV, OECD, etc., is essential to promote research, support seed and planting material exports, and gain expertise in advanced seed testing procedures, modern equipment handling, seed certification systems, and other vital aspects of contemporary seed systems. Similarly, obtaining memberships, subscriptions, and paying annual contributions to these organizations, such as ISTA, OECD, ITPGRA, etc., is also necessary. Traveling allowances (in accordance with entitlements and existing rules) and related expenditures for attending such events are reimbursed on an actual basis. The specific activities covered are detailed below:

Table-J: Assistance available for participation in Events, Membership and other Initiatives	
S. No.	Details
1	For organization of one Seed Congress per year an assistance upto Rs. 50 lakh or actual (whichever is less) is available.
2*	- For promotion of Seed Export including OECD Seed Scheme an assistance upto Rs. 200 lakh or actual (whichever is less) is available. The demand driven proposals from Designated Authority under OECD Seed Scheme may be submitted and assistance may be given on case-to-case basis. - For purchase of books and computers upto Rs. 10.00 lakh or actual (whichever is less) is available. - For technical staff upto Rs. 10.00 lakh or actual (whichever is less) is available. - Payment of consultancy service for OECD consultants upto Rs. 50.00 lakh or actual (whichever is less) is available (including OECD Seeds Certification Tag).
3	For exchange of germplasm upto Rs. 200.00 lakh or actual (whichever is less) is available.
4	- For International Seed Testing Association (ISTA) Membership & Technical Audit of Seed Laboratory assistance of upto Rs. 15.00 lakh or actual (whichever is less) for membership and assistance of upto Rs. 30.00 lakh or actual (whichever is less) for technical audit per laboratory is available. The remaining amount is to be borne by the Implementing Agency. - Financial assistance of upto Rs.15.00 lakhs or actual (whichever is less) is available to the Seed Testing Laboratories of National Seed Research and Training Centre (NSRTC), Departments of Agriculture of Governments/UTs, State Seeds Corporation (SSCs), National Seeds Corporation (NSC), State Seed Certification Agency (SSCA), National Cooperatives (defined by Ministry of Cooperation), ICAR/CSIR-Institutes working in Seed Sector, State Agricultural Universities (SAUs) and National Level Government Agencies working in seed sector for obtain and running the membership of International Seed Testing Association (ISTA).

	Similarly, financial assistance of upto Rs. 5.00 lakhs or actual (whichever is less) is available for technical audit of the such seed laboratories is available.
* This will be one time grant during entire mission period.	

G. ASSISTANCE FOR STRENGTHENING OF SEED LAW ENFORCEMENT (100% GOI)

To regulate the quality of seeds sold to farmers' proper enforcement of seed laws are necessary. Financial assistance is available for the cost of specified seed samples drawn by Notified Seed Inspectors, Travelling Allowance for Notified Seed Inspectors, Creation of Awareness through Printing and Distribution of Booklets and Pamphlets. The details of assistance available is as follows:

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- i. The Department of Agriculture of States/UTs will be eligible for financial assistance for re-imbursement of Cost of Seed Samples for upto Rs. 20.00 Lakh or actual (whichever is less).
- ii. Travelling Allowance upto Rs. 5.00 Lakh or actual (whichever is less) for the Notified Seed Inspectors of Seed Law Enforcement Authority (as per the admissible rate).
- iii. To Creation Awareness assistance upto Rs. 5.00 lakh or actual (whichever is less) for Printing and Distribution of Booklets and Pamphlets on Seed Quality is available.

Implementing Agencies: Departments of Agriculture of Governments/UTs.

Note: The details of sample drawn shall be captured on "Seed inventory Module" of SATHI. Those State/UTs that are not using SATHI Portal will not be eligible for assistance.

H. DEVELOPMENT AND STRENGTHENING DIGITIZATION FACILITIES (INCLUDING SEED TRACEABILITY PORTAL) (100% GoI)

To ensure efficient dissemination and easy access to information in the seed sector, thereby facilitating ease of doing business, it is necessary to enhance digitalization facilities. The details of implementing agencies along with the items and activities covered are provided below:

- i. The financial assistance of upto Rs. 100 lakhs or actual (whichever is less) each for strengthening digitalization facilities as one time grant to the agency.
- ii. Following items will be covered under this: -
 - a. Office Automation.
 - b. Computerization.
 - c. Information System.
 - d. Communication Facilities.
 - e. Purchase of equipment for traceability of viz. specialized printers, scanners, cameras, and machines for printing of certification tags (including OECD certification tags), etc.

Implementing Agencies: The Departments of Agriculture of Governments/UTs, State Seeds Corporations (SSCs), State Seed Certification Agencies (SSCAs), ICAR/CSIR-Institutes working in Seed Sector, State Agricultural Universities (SAUs), Central Agriculture Universities (CAUs), National Seeds Corporation (NSC) and other National Level Agencies working in field of seed such as NAFED, IFFDC, KRIBHCO, HIL, NFL and BBSSL.

Note: Those States/UTs/Agencies that are not using SATHI Portal will not be eligible for assistance.

I. STRENGTHENING OF CENTRAL SEED COMMITTEE (CSC) AND CENTRAL SEED CERTIFICATION BOARD (CSCB) (100% GoI)

Financial assistance is provided to support the functioning of the Central Seed Committee (CSC), Central Seed Certification Board (CSCB), and the Cotton Seeds Price Control Order, 2015. Up to Rs. 20.00 lakh per year or the actual expenses incurred (whichever is lower) is available for traveling and daily allowances for non-official members and farmer representatives of the CSC, CSCB, and the Cotton Seeds Price Control Order, 2015, along with its sub-committees. Additionally, funding is available for the printing and publication of seed-related compendiums, official publications, and other relevant materials.

8. NATIONAL SEED RESERVE

The National Seed Reserve (NSR) is a component aimed at ensuring the availability of high-quality certified and foundation seeds for farmers, especially during times of crisis or natural calamities. The reserve is managed by different government agencies across the country to maintain a stockpile of seeds that can be quickly distributed to affected areas to support agricultural recovery and food security.

Implementing Agencies: National Seed Reserve (NSR) will be implemented by National Seeds Corporation, State Seeds Corporations and Department of Agriculture of State Governments/UTs (where State Seeds Corporations are not there).

COST OF SEEDS (REVOLVING FUND)

- i. It has been proposed that 100% cost of total value of Foundation and Certified Seeds will be given to the agency in the form of Revolving Fund.
- ii. The funds would be released to the agency according to the quantity of seeds allocated to be produced and maintained by them in the National Seed Reserve (NSR).
- iii. The revolving fund would be given to the agency as one-time assistance.
- iv. The implementing agency would be bound to maintain the National Seed Reserve (NSR) at least for 5 years continuously.
- v. After receiving the revolving fund from the Government of India, the implementing agencies will keep a separate account of revolving fund and this fund will be replenished from the sale proceeds of seed from National Seed Reserve (NSR) every year.

MAINTENANCE COST INVOLVES THE FOLLOWING ACTIVITIES

- i. Processing charges, cost of packing materials, labour costs involved in the packing, cost of certification @ Rs. 300/Quintals or actual cost incurred (whichever is less) is available.
- ii. Transportation cost incurred on movement of seeds to storage points, handling charges (loading, unloading, stacking and de-stacking of seeds) @ Rs. 200/Quintals or actual cost incurred (whichever is less) is available.
- iii. For operation during storage of seeds like fumigation, sprays, maintenance of dust free environment assistance @ Rs.10/Quintals or actual amount incurred (whichever is less) is available.

COST OF CONDEMNATION/UNFIT SEEDS

- i. In case of non-disposal of seeds stored under NSR, the left-over quantity of seed stored for next year for revalidation if does not confirm to seeds standards and then the implementing agency would have incurred financial loss.

- ii. It is proposed that 10% quantity of targeted stock of the National Seed Reserve (NSR) may be considered as un-disposed.
- iii. For the purpose of price differential in respect of the left over 10% seed stocks declared as non-seed, the Seed Analysis Report received from the concerned State Seed Certification Agency is essentially required to be attached as evidence of unsold seed.
- iv. The implementing agencies will also obtain and submit grain price (for untreated seed) or other price (if seed is treated) from the open market in respect of unsold seeds.
- v. The cost of condemnation on unsold seeds would be calculated as per the formula proposed under: -

“Procurement value of 10% seeds of the reserved/maintained quantity (X) – Value of seeds this sold as commercial grain after condemnation (Y) = Reimbursable Amount (X-Y)”

A. CONDITIONALITY

- i. The cut-off dates in respect of Kharif and Rabi seasons seeds need to be adhered to strictly by the implementing agencies.
- ii. For Kharif season, seed will be maintained in the Seed Reserve up to 15th of August before which the participating agencies will be able to dispose the seeds only after getting permission from the Department of Agriculture & Farmers Welfare. After 15th of August the participating agencies will be able to sell the seeds as per their commercial policies.
- iii. Similarly, for Rabi season the seed will be maintained in the Seed Reserve up to 15th of December, before which the participating agencies will be able to dispose the seeds only after getting permission from the Department of Agriculture & Farmers Welfare. After 15th of December the participating agencies will be able to sell the seeds as per their commercial policies.
- iv. The seed kept in NSR shall be produced through SATHI portal.
- v. Only certified and foundation seed of short and medium duration varieties of Cereals, Coarse Cereals, Nutri-Cereals, Pulses, Oilseeds, Fibres and Fodder Crops are eligible for keeping under NSR by implementing agency.
- vi. Implementing agency under this component must strictly adhere to the proper generation system of seed production. The seed thus stored shall be produced through proper generation of seed production and production to be carried-out either on their own farms or through their locally registered seed growers, with documented proof of breeder seed procurement.

- vii. Only 1% of the seed as per last years seed availability shown by the state could be kept under NSR for the respective crops.
- viii. The targets of NSR will be uploaded by the Seeds Division on the MIS, crop/variety/class wise. The details of seed actually maintain against the targets will be uploaded by the implementing agency. The geo-coordinates of the location and photos of seed stock will also be uploaded on the MIS. The manner in which the seed is disposed of will also be declared by the Implementing Agency on the MIS.

Note: Those States/UTs/Agencies that are not using SATHI Portal will not be eligible for assistance.

9. ASSISTANCE FOR BOOSTING SEED PRODUCTION IN PRIVATE SECTOR

The private companies, individual entrepreneurs, self-help groups, seed co-operatives and partnership firms are eligible for subsidy. The component is implemented through Nationalised/ Commercial Banks and the National Co-operative Development Corporation (NCDC). The assistance (100% GoI) is for creation of infrastructure facilities relating to seed cleaning, grading, processing, seed treating, packaging and storage units as well as for seed testing facilities including R&D. National Seed Corporation is the Nodal Agency for implementation and monitoring of this component with rate of assistance as under:

1. Credit linked back ended subsidy @ 40% of the capital cost of the project in general areas and 50% in case of hilly and scheduled areas subject to an upper limit of Rs. 150 lakhs per project.
2. Two percent (2%) of the total fund utilized under the component will be allowed as administrative charges to the nodal agency.
3. The component has been closed for new applications w.e.f. 06.08.2021. At present, the component is continuing for payment of pending liabilities only.
4. Based on the recommendations of the Nodal Agency, that a project has been completed but the fund could not be released to the beneficiary and the loan account has been settled, in such cases, where funds have been released by the Government, the Nodal Agency shall decide on the transfer of eligible funds to the project's account.
5. The Nodal Agency shall invariably ascertain the actual status of the project through IT modules like geo-tagging, geo-referencing, etc. before disbursing the instalments.

Note: All the infrastructure created under this component will be mapped on SATHI portal by the Nodal Agency.

Annexures

I.ANNEXURE: DUTIES OF PMT/PMU AT NATIONAL, STATE & DISTRICT LEVEL

NATIONAL PMU/PMT	a. To provide technical guidance to the Mission Director on matters related to interventions proposed in the Mission. To develop standardized formats for sub-Mission of action plans b. To assist State in planning, formulation of NFSNM action plans, whenever required. c. To provide technical assistance to NFSNM staff in scrutinizing the action plans received from the States. d. To Establish timelines and indicators for completion of each activity e. To supervise the quality of implementation of various interventions proposed in the Mission for improving the production of rice, wheat and pulses. f. To assist Mission Director and other senior officers in synchronizing and synergizing with other divisions of DA&FW; State Governments; State Agriculture Universities; ICAR research institutions and other stake holders on technical front. g. To constitute teams for monitoring the progress of works in the States and provide technical guidance to them in conducting Monitoring and evaluation. h. To coordinate the work of State and District PMU/PMT. i. To visit the States periodically to provide technical guidance and impart knowledge about best practices. j. To assist in the conduction of specific central and regional workshops. k. To analyse the data received from various States and to come up with suggestions wherever improvements are required in the execution of the activities. l. Documentation and dissemination of contribution of various interventions of cluster demonstration and success stories. m. To render overall help to the technical staff working in the cell. n. To perform other tasks specified by the Mission Director. o. To procure, compile and analyse the State wise data relating to the proposed interventions of the Mission activities. p. To maintain relevant records/ file and data of the various Mission activities. q. To assist in developing uniform formats for submission of action plans; monitoring and evaluation formats. r. To scrutinize the action plans for the interventions proposed. s. To undertake field visits to assess the progress of the Mission activities. t. To assist senior officers of the NFSNM cell on all technical matters. u. To undertake other works assigned by the Mission director from time to time.
STATE PMU/PMT	a. Liaising with SAUs, ICAR Institutes & Commodity Directorates. b. Identification and delineation of acid/alkali soils in the State. c. Updating of package of practices of mandated crops and making the same available to the State/ districts. d. Assessment of requirement of inputs for the State based on targets approved by GOI. e. Development of training material and activity schedule for Cropping System based Training. f. Planning of field demonstrations and supervision of the same. g. Analysis of yield advantage attributable to improved practices/technology with due consideration to seasonal weather conditions, incidence of pest and diseases, soil conditions etc and reporting the same to the State Mission Director.

	h. Training of field staff engaged in NFSNM work. i. Identification of promising crop varieties/hybrids of the mandated crops for the State. j. Development of seed rolling plan for NFSNM districts in consultation with SAUs, State Seed Corporation & State Department of Agriculture. k. Making available technical information required by National Level Monitoring team during its visit to the State. l. Development of technical literature/ extension materials for farmers. m. Compilation and documentation of contribution of various interventions under cluster n. Demonstrations, lessons learnt and success stories from NFSNM districts. o. To procure, compile and analyse the district wise data relating to the proposed interventions of the Mission activities. p. To maintain relevant records/ file and data of the various Mission activities. q. To undertake field visits to assess the progress of the Mission activities. r. To undertake other works assigned by the State Mission director from time to time.
DISTRICT PMU/PMT	a. Liaisoning with KVK and other Agricultural Research Organizations located in the districts. b. Collection and maintenance of basic Agricultural and allied statistics of the district. c. Planning and supervising conduction of field demonstration and FFS and reporting yield, weather data to the State Mission Director/State Consultant. d. Development of technical/extension material for farmers in consultation with District Agricultural Officer and the State Consultant. e. Assessing input requirement of the district for NFSNM programme. f. Training of district extension staff in improved crop production practices with emphasis on mandated crops. g. Analyse and documentation of the contribution of various interventions under cluster demonstrations and success stories. h. Conduction of field demonstrations with the help of Panchayat level field extension functionaries. i. Assisting Consultants in performance of duties assigned to them at State/Districts level. j. Monitoring of crop condition, major incidence of insect/pest, nutrient deficiency and reporting to the District Officers.

II.ANNEXURE: ASSISTANCE UNDER DIFFERENT COMPONENTS OF NFSNM

S. No.	Interventions	Assistance
A. DEMONSTRATIONS		
1.	Rice	Rs. 9,000/Ha
2.	Wheat	Rs. 9,000/Ha
3.	Pulses	Rs. 9,000/Ha
4.	Coarse Cereals (Maize & Barley)	Rs. 7,500/Ha for Barley & Maize for varieties Rs.11,500/Ha for Maize Hybrid
5.	Nutri-Cereals (Jowar, Bajra, Ragi, Kodo, Barnyard, Proso, Foxtail and Little Millet)	Rs. 7,500/Ha
6.	Cropping System (in Rice, Wheat and Pulses)	Rs.15,000/Ha
7.	Intercropping in Coarse Cereals (Maize & Barley)	Rs.7,500/Ha
8.	Intercropping in Pulses	Rs. 9,000/Ha
B. SEED DISTRIBUTION		
9.	Hybrid Seeds in Rice, Maize, Jowar & Bajra	50% of cost or Rs. 10,000/Qtls. (whichever is less)
10.	Rice and Wheat (for varieties less than 10 years of age)	50% of cost or Rs. 2,000/Qtls. (whichever is less)
11.	Rice and Wheat (for varieties older than 10 years of age) *	50% of cost or Rs. 1,000/Qtls. (whichever is less)
12.	Pulses (for varieties less than 10 years of age)	50% of cost or Rs. 5,000/Qtls. (whichever is less)
13.	Pulses (for varieties older than 10 years of age) *	50% of cost or Rs. 2500/Qtls. (whichever is less)
14.	Coarse Cereals (Maize and Barley) (for varieties less than 10 years of age)	50% of cost or Rs. 3,000/Qtls. (whichever is less)
15.	Coarse Cereals (Maize and Barley) (for varieties older than 10 years of age) *	50% of cost or Rs. 1,500/Qtls. (whichever is less)
16.	Jowar (for varieties less than 10 years of age)	50% of cost or Rs. 3,000/Qtls. (whichever is less)
17.	Jowar (for varieties older than 10 years of age)	50% of cost or Rs. 1,500/Qtls. (whichever is less)
18.	Bajra (for varieties less than 10 years of age)	50% of cost or Rs. 3,000/Qtls. (whichever is less)
19.	Bajra (for varieties older than 10 years of age)	50% of cost or Rs. 1,500/Qtls. (whichever is less)
20.	Ragi (for varieties less than 10 years of age)	50% of cost or Rs. 3,000/Qtls. (whichever is less)
21.	Ragi (for varieties older than 10 years of age)	50% of cost or Rs. 1,500/Qtls. (whichever is less)
22.	Kodo Millet (for varieties less than 10 years of age)	50% of cost or Rs. 3,000/Qtls. (whichever is less)
23.	Kodo Millet (for varieties older than 10 years of age)	50% of cost or Rs. 1,500/Qtls. (whichever is less)
24.	Barnyard Millet (for varieties less than 10 years of age)	50% of cost or Rs. 3,000/Qtls. (whichever is less)
25.	Barnyard Millet (for varieties older than 10 years of age)	50% of cost or Rs. 1,500/Qtls. (whichever is less)
26.	Proso Millet (for varieties less than 10 years of age)	50% of cost or Rs. 3,000/Qtls. (whichever is less)
27.	Proso Millet (for varieties older than 10 years of age)	50% of cost or Rs. 1,500/Qtls. (whichever is less)
28.	Foxtail Millet (for varieties less than 10 years of age)	50% of cost or Rs. 3,000/Qtls. (whichever is less)
29.	Foxtail Millet (for varieties older than 10 years of age)	50% of cost or Rs. 1,500/Qtls. (whichever is less)

30.	Little Millet (for varieties less than 10 years of age)	50% of cost or Rs. 3,000/Qtls. (whichever is less)
31.	Little Millet (for varieties older than 10 years of age)	50% of cost or Rs. 1,500/Qtls. (whichever is less)
C. SEED PRODUCTION		
32.	Pulses (for Varieties)	Rs. 5,000/Qtls.
33.	Jowar (for Varieties)	Rs. 3,000/Qtls.
34.	Bajra (for Varieties)	Rs. 3,000/Qtls.
35.	Ragi (for Varieties)	Rs. 3,000/Qtls.
36.	Kodo Millet (for Varieties)	Rs. 3,000/Qtls.
37.	Barnyard Millet (for Varieties)	Rs. 3,000/Qtls.
38.	Proso Millet (for Varieties)	Rs. 3,000/Qtls.
39.	Foxtail Millet (for Varieties)	Rs. 3,000/Qtls.
40.	Little Millet (for Varieties)	Rs. 3,000/Qtls.
41.	Hybrids in Nutri-Cereals	Rs. 10,000/Qtls.
D. PLANT AND SOIL PROTECTION MANAGEMENT		
42.	Nutrient Management/Soil Ameliorants	50% of cost or Rs. 2500/Ha (whichever is less)
43.	Plant Protection Measures	50% of cost or Rs. 2500/Ha (whichever is less)
E. CROPPING SYSTEM TRAININGS		
44.	Trainings	Rs. 30,000 per four-session training, in alignment with ATMA cost norms of Rs. 250 per farmer per day
Note: Additional assistance of Rs. 500/ql will be provided for distribution of bio-fortified varieties of rice & wheat, over and above the assistance being given for latest varieties (less than 10 years old). * The allocation for seed distribution for varieties older than 10 years of age, having special characters, in case of Rice, Wheat, Pulses, Coarse Cereals & Nutri cereals should not be more than 20% of the total allocation for seed distribution.		

III.ANNEXURE: CAFETERIA OF INTERVENTIONS FOR DEMONSTRATIONS

CROPS	INTERVENTIONS
RICE	• Demonstration of potential of High Yielding varieties of rice (Transplanted and Direct Seeded)
	• Demonstration of SRI Technique with HYV
	• Demonstration of potential of Hybrids of Rice
	• Demonstration of SRI Technique with Hybrid Rice
	• Demonstration on newly released and notified high-yielding, climate-resilient, bio-fortified varieties, resistant to insect, pest and diseases varieties
	• Seed Treatment
	• Promotion of use of Micronutrients and bio-fertilizers
	• Zinc Sulphate
	• Boron (Borax deca hydrate, Borax penta hydrate)
	• Iron (Ferrous sulphate)
	• Bio-fertilizers (such as Azospirillum, Azotobacter, PSB, Potash mobilizing and zinc solubilizing bacteria)
	• Demonstration on use of lime/liming material to correct soil acidity
	• Demonstration on effectiveness of Weedicides
	• IPM in Rice (including Mechanical Devices)
	• Promotion of Mechanical Transplanting
WHEAT	• Moisture Stress Management Chemicals like PPFM bacteria
	• Green Manuring
	• Cropping System Based Demonstrations
	• Demonstration on newly released and notified high-yielding, climate-resilient, bio-fortified varieties, resistant to insect, pest and diseases varieties
	• Lime & Liming Material for acidic soils
	• Use of Gypsum/Phospho-Gypsum in Moderately Alkaline Soils
	• Promotion of use of Micronutrients and Bio-fertilizers
	• Zinc Sulphate
	• Boron (Borax deca hydrate, Borax penta hydrate)
	• Iron (Ferrous sulphate)
	• Bio-fertilizers such as Azospirillum,
	• Azotobacter, PSB, Potash mobilizing and zinc solubilizing bacteria
	• Demonstration on use of Sulphur as a Nutrient
	• Seed Treatment

	• Soil treatment for Termite control • Promotion of levelling using Laser land leveller • Promotion of Line Sowing using Seed Drills • Demonstration on use of Chemical Weedicides • Moisture Stress chemicals Potassium Chloride or Hydrogel • Green Manuring • Cropping System Based Demonstrations
PULSES	• Demonstration on newly released and notified high-yielding, climate-resilient, bio-fortified varieties, resistant to insect, pest and diseases varieties
	• Seed Treatment
	• Demonstration on Intercropping
	• Promotion of summer moong
	• Planting of Pulses in Rice Fallows and Rice Bunds
	• Demonstration on Planting of <i>Kharif</i> Pulses on Ridges (Urd, Moong, Arhar)
	• Demonstration on utera cropping
	• Promotion of use of Micronutrients and bio-fertilizers • Zinc Sulphate • Boron (Borax deca hydrate, Borax penta hydrate) • Iron (Ferrous sulphate) • Molybdenum • Rhizobium and PSB, Potash mobilizing bacteria and zinc solubilizing bacteria
	• Demonstration on use of Sulphur as a Nutrient
	• Demonstration on use of Weedicide
	• Demonstration on IPM (including Mechanical Devices)
	• Foliar Spray of Nutrients
	• Cropping System Based Demonstrations
COARSE CEREALS	• Demonstration on newly released and notified high-yielding, climate-resilient, bio-fortified varieties, resistant to insect, pest and diseases Varieties/Hybrids
	• Seed Treatment
	• Demonstration on Ridge Furrow Planting
	• Zinc sulphate (21%)
	• Weedicide
	• Pesticide
	• Bio-fertilizers (Azotobacter, PSB, Potash Mobilizing Bacteria and Zinc Solubilizing Bacteria)

	• Demonstration on IPM (including mechanical devices)
NUTRI CEREALS	• Demonstration on newly released and notified high-yielding, climate-resilient, bio-fortified varieties, resistant to insect, pest and diseases Varieties/Hybrids
	• Seed Treatment
	• Promotion of Line Sowing
	• Micronutrients (Zinc, Boron, Iron)
	• Weedicides
	• Insecticides
	• Protective Irrigation
	• Bio-fertilizers (Azotobacter, PSB, Potash Mobilizing Bacteria and Zinc Solubilizing Bacteria)
	• Demonstration on IPM (including mechanical devices)
Note: Interventions and inputs are illustrative and may be selected by the States in consultation with their SAUs/CAUs/ICAR-Institutes.	

IV. ANNEXURE: CROPPING SYSTEM FOR COMMERCIAL CROPS

CROP	STATE	CROPPING SYSTEMS
COTTON	Punjab, Haryana & Rajasthan	Cotton-Wheat, Cotton-Mustard
	Madhya Pradesh, Maharashtra & Gujarat	Mono-cropped Cotton, Cotton-Jowar (2 year rotation), intercropping with Blackgram, Greengram, Soybean, Groundnut and Pigeonpea.
	Andhra Pradesh	Mono-cropped Cotton, Cotton-Rice (sequence), Cotton-Jowar.
	Tamil Nadu	Mono-cropped Cotton, Rice-Cotton, Rice-Rice-Cotton, Cotton-Jowar, Cotton-Pulses-Jowar, Intercropping With Onion, Groundnut and Blackgram.
	Karnataka	Mono cropped Cotton, Cotton-Wheat, Intercropping With Chilli, Groundnut, Blackgram and Greengram.
CROP	GROWING CONDITIONS	CROPPING SYSTEM
JUTE	Rainfed Conditions	Jute-Lentil, Jute-Blackgram-Wheat, Jute-Rice-Toria, inter-crop with Greengram, Vegetables, etc.
	Irrigated Conditions	Jute-Rice-Potato, Jute-Rice-Lentil/Pea, Jute-Rice-Wheat, Jute-Rice-Mustard
CROP	SUB-TROPICAL REGION	TROPICAL REGION
SUGARCANE	Paddy-Autumn Sugarcane Ratoon-Wheat	Bajra-Sugarcane (pre-seasonal) Ratoon-Wheat
	Greengram- Autumn Sugarcane Ratoon-Wheat	Paddy-Sugarcane Ratoon-Finger millet
	Maize- Autumn Sugarcane Ratoon-Wheat	Paddy-Sugarcane Ratoon-Wheat
	Kharif Crops-Potato-Spring Sugarcane Ratoon-Wheat	Paddy-Sugarcane Ratoon-Gingelly
	Kharif Crops-Mustard-Spring Sugarcane Ratoon-Wheat	Paddy-Sugarcane Ratoon-Blackgram
	Kharif Crops-Pea/Coriander-Spring Sugarcane Ratoon-Wheat	Cotton-Sugarcane Ratoon-Wheat
	Kharif Crops-Wheat-Late Planted Sugarcane Ratoon-Wheat	Sugarcane Ratoon-Kharif Rice-Winter Rice.

V. ANNEXURE: ASSISTANCE IN DIFFERENT COMPONENTS NFSNM COMMERCIAL CROPS

COTTON BASED CROPPING SYSTEM			
S. No.	Component	Unit cost (Rs.)	Implementing agency
1	Insecticide Resistant Management (IRM)	Project Mode	Central Institute of Cotton Research (CICR), Nagpur/Indian Council of Agricultural Research (ICAR)/State Department of Agriculture (SDA)
2	Online Pest Monitoring and Advisory Services (OPMAS)	Project Mode	National Centre for Integrated Pest Management (NCIPM), New Delhi/ICAR/SDA
3	Front Line Demonstration on Integrated Crop Management (ICM)	Rs.8000/ha (Rs. 7000 for Inputs & Rs. 1000 for Contingency)	State Department of Agriculture (SDA)/Indian Council of Agricultural Research (ICAR)/State Agriculture Universities (SAUs)/Krishi Vigyan Kendras (KVKs)
4	Front Line Demonstration on Desi & ELS-Cotton/ELS-Cotton Seed Production.	Rs.9000/ha (Rs 8000 for inputs & Rs. 1000 for Contingency)	State Department of Agriculture (SDA)/Indian Council of Agricultural Research (ICAR)/State Agriculture Universities (SAUs)/Krishi Vigyan Kendras (KVKs)
5	Front Line Demonstration on Intercropping	Rs.8000/ha (Rs. 7000 for inputs & Rs. 1000 for Contingency)	State Department of Agriculture (SDA)/Indian Council of Agricultural Research (ICAR)/State Agriculture Universities (SAUs)/Krishi Vigyan Kendras (KVKs)
6	Front Line Demonstration on Natural Colour Cotton	Rs.8000/ha (Rs. 7000 for inputs & Rs. 1000 for Contingency)	State Department of Agriculture (SDA)/Indian Council of Agricultural Research (ICAR)/State Agriculture Universities (SAUs)/Krishi Vigyan Kendras (KVKs)
7	Trials on High Density Planting System	Rs.10000/ha (Rs. 9000 for inputs & Rs. 1000 for Contingency)	State Department of Agriculture (SDA)/Indian Council of Agricultural Research (ICAR)/State Agriculture Universities (SAUs)/Krishi Vigyan Kendras (KVKs)
8	Distribution of Plant Protection Chemicals and Bio-agents	Rs 500/ha or 50% of the cost (whichever is less)	State Department of Agriculture (SDA)/Indian Council of Agricultural Research (ICAR)/
9	National Level Trainings (25 participants x 3 days)	Rs.80000/ training	Indian Council of Agricultural Research (ICAR)/Directorate of Cotton Development (DOCD), Nagpur
10	State Level Trainings (20 participants x 2 days)	Rs.40000/ training	State Department of Agriculture (SDA)
11	Local Initiatives	As per the State Specific need limited to 25% of total allocation	
12	Contingencies & Electronic Print Media	Need Based	Directorate of Cotton Development (DOCD), Nagpur

JUTE & ALLIED FIBRES BASED CROPPING SYSTEM

S. No.	Component	Unit cost (Rs.)	Implementing agency
1	Seed Production • Production of Foundation Seed • Production of Certified Seed	• Rs.12000/qtl • Rs. 5500/qtl	SDA/NSC/ICAR/CRIJAF/SAUs/KVK
2	FLDs on alternate Retting Technologies	Rs. 20000/FLD (Rs. 17000 for Inputs & Rs. 3000 for Contingency)	SDA/ICAR/SAUs/KVKs
3	FLDs on Production Technologies/Intercropping	Rs.9000/ha (Rs. 8000 for Inputs & Rs. 1000 for Contingency)	SDA/ICAR/SAUs/KVKs
4	National Level Training (25 Participants X 3 days)	Rs.80000/Training	ICAR/CRIJAF/NINFET/SAUs/DOJD
	State Level Training (20 participants X 2 days)	Rs. 40000/Training	SDA
5	Distribution of Certified Seeds	Rs 100/kg or 50% of the cost (whichever is less)	SDA/ICAR/NSC
6	Distribution of Nail Weeder	Rs 1000/machine or 50% of the cost (whichever is less)	SDA/ICAR
7	Distribution of Microbial Consortium such as CRIJAF SONA	Rs 25/kg or 50% of the cost (whichever is less)	SDA/ICAR
8	Local Initiatives	As per the state specific need limited to 25% of total allocation	
9	Contingencies & Electronic Print Media	Need Based	DOJD, Kolkata

SUGARCANE BASED CROPPING SYSTEM			
S. No.	Component	Unit Cost	Implementing Agency
1	Demonstration on Intercropping & Single Bud Chip Technology with Sugarcane	Rs.9000/Ha (Rs. 8000 for inputs & Rs. 1000 for contingency)	SDA/ Cane Commissioner/ ICAR/SAUs/ KVKs
2	Assistance for Breeder Seed Production	Rs. 40000/Ha (Rs. 34000 for inputs & Rs. 6000 for Contingency)	SDA/ Cane Commissioner/ ICAR/Sugarcane Research Institute of Central or State Govt.
3	Production/Supply of Tissue Culture Plantlets/Seedlings	Rs. 3.5/Seedling	SDA/ Cane Commissioner/ ICAR/Sugarcane Research Institute of Central or State Govt.
4	National Level Training (25 participants x 2 days)	Rs. 50000/Training	ICAR/IISR/SBI/UPCSR/DOSD
5	State Level Training (20 participants x 2 days)	Rs. 40000/Training	SDA/Cane Commissioner
6	Distribution of Plant Protection Chemicals and Bio-agents	Rs 500/ha or 50% of the cost (whichever is less)	SDA/ Cane Commissioner/ ICAR
7	Local Initiatives	As per the State Specific need limited to 25% of Total Allocation	
8	Contingencies & Electronic Print Media	Need Based	DOSD, Lucknow

VI. ANNEXURE: EQUIPMENT FOR SEED TESTING LAB

S. No.	Particulars	No.	Specification	Cost (in Rs. per unit)
1	Lux Meter (0-200000)	1	0-200000 lux	5000
2	Thermometer Zeal England (Wet & Dry)	4	20-50 °C	5000
3	Thermometer Zeal England (Max Mini)	2	—	3000
4	Hygrometer (Range 0-100%)	1	65 mm Size, 0-100% RH	5000
5	Counting Board	2	—	80000
6	pH Meter	2	Range 0-14 pH Microprocessor based LCD display; Accuracy: pH±0.01	25000
7	Sleeve Type Trier (with Closed Compartments)	2	900 mm length	15000
8	Top Loading Weighing Balance	2	DS 852 3 kg capacity	200000
9	Generator (upto 70 KVA)	1	—	100000
10	Electronic Weighing Balance	1	0.1 mg-200 mg;	70000
11	BOD Incubator	2	Temp: 5-50 °C Air Circulating Fan Digital Temperature Controller/Indicator (Capacity 280 Litres)	200000
12	Digital Electronic Moisture Meter	1	—	15000
13	Hot Air Oven	2	0-220 °C	400000
14	Vacuum Counter	2	—	600000
15	Herbarium Cabinet	2	Model HCD with HT2, Tray Size 17" x 11", Heavy Duty Wood Cabinet 19" x 12" x 28"	200000
16	RH control unit for prefabricated Germination Room (with Temp & RH Control)	1	Temp: 5-60 °C RH: 60-100% (±5%)	1325000
17	Seed Storage Chamber	1	Temp: 5-60 °C RH: 30-50% (± 5%)	550000
18	Seed Blower	1	Size: 27" x 31" x 36" Voltage: 220 V, 50 Hz	350000
19	Seeds Scarifier	1	Voltage: 220 V, 50 Hz Capacity: 60 IBS; 7HR	500000
20	Gamet Divider	1	Dimension: 20" x 12" x 13"; D1/4 HP Motor; Hopper Capacity : 2 kg	300000
21	Cabinet Germinator	1	Temp: 5-60 °C; RH: 90-95% ; Illumination: 4 No's of Florescent Tubes	100000
22	Electronic Weighing Balance	1	0.1 mg to 320 mg	800000
23	Seed Grinder	1	Domestic Flour Mill	210000
24	EC Meter	2	—	150000
25	Sand Sieves	5	45 Micron-850 Micron	20000
26	Illuminated Purity Work Board (with illuminated magnifier)	1	Dimension: 33 1/2" L × 13" W × 4 1/2 " H with	50000

			Circline Magnifier 28" Floating Arm.	
27	NABL Certified Weight Box	1	1 g – 200 g	9000
28	Sieves Brass	2	—	20000
29	Vacuum Cleaner	2	—	50000
30	Reverse Osmosis System	1	—	400000
31	Digital Temperature & Humidity Indicator	2	Wall mounted Digital Temp & Humidity Indicator Model (7100W Resolution) 1% for RH, 0.1% for Temp, (Range: 0 - 99% RH, 0 - 99°C Temp) (Accuracy ± 2% RH & 2 °C Temp)	3000
32	Refrigerator	1	—	100000
33	Seed Imager	1	—	500000
34	Autoclave (with auto cut-off system)	2	—	200000
35	Laminar Flow	1	—	300000
36	ELISA Plate Reader (with accessories and washer)	1	—	400000
37	UV Chamber	1	—	100000
38	PCR Machine	1	—	550000
39	Rotary Shaker	1	—	40000
40	Gel Documentation System (with accessories)	1	—	400000
41	Iso-electric Focusing Unit (with power pack and cooling unit)	1	—	2000000
42	Water Bath Shaker	1	—	50000
43	Major Renovations (as per ISTA)			400000
44	Consumables			200000
Total Expenditure				12000000

Note: The cost of various item is approximate and tentative. If required by the STL the equipment not covered in the above list may also be considered for financial assistance based on justification.

VII. ANNEXURE: EQUIPMENT FOR DNA FINGER PRINTING LAB

S. No.	Items	Qty.	Cost (Rs in lakhs)
1.	DNA Electrophoresis System (with power supply)	4	8.00
2.	Gel Documentation Unit	1	10.00
3.	PCR machine/Thermal-Cycler	4	12.00
4.	Refrigerated Centrifuge	1	10.00
5.	Micro Centrifuge	1	2.00
6.	Multipurpose Digital Shaker/Orbital Shaker	1	2.00
7.	Water Bath	1	1.50
8.	Rotary Mixture	1	0.50
9.	Heating Block	2	1.00
10.	Water Purification/Double Distillation System	1	8.00
11.	Refrigerators	4	2.00
12.	Analytical Balances	2	3.00
13.	Plastic Wares & Glassware	-	6.00
14.	UPS (with batteries)	-	10.00
15.	Autoclave	2	5.00
16.	Computer & Laser Printer	4	6.00
17.	Fluorimeter	1	0.35
18.	Freezer (- 20°C to - 80°C)	2	5.00
19.	Fume-hood	1	1.50
20.	Hot Air Oven	1	2.00
21.	Hot Plate-cum-Stirrer	1	0.40
22.	Liquid Nitrogen Cans	2	2.00
23.	Microwave Oven	2	0.60
24.	pH Meter	1	0.15
25.	Micropipettes	-	5.00
26.	UV Spectrophotometer	1	5.00
27.	Real-time PCR (with Accessories)	1	20.00
28.	Ice Flake Machine	1	2.00
29.	Vortex Mixer	2	1.00
30.	Laminar Air Flow Chamber	2	3.00
31.	Renovation for Molecular Work Lab (including installation of ACs, Dehumidifiers, etc.)		15.00
32.	Miscellaneous		50.00
Total			200.00

Note: The cost of various item is approximate and tentative. If required, the equipment not covered in the above list may also be considered for financial assistance

VIII. ANNEXURE: SPECIFICATIONS OF GROW OUT TEST FARM

S. No	Activity/Particulars	Amount (Rs. in lakh)	
		For 2 Hectare	For 5 Hectare
1	Essential civil works like sheds, stores, pump houses, workshop, road, fencing, electrification, drying platforms, threshing yards buildings etc. for the centre as a whole.	10.00	20.00
2	Irrigation/drainage setup, pipelines, water tanks, slab channels etc.	10.00	20.00
3	Land development, levelling, mapping, topography adjustments, bounding, plot lay out, etc.	10.00	20.00
4	Mould board plough, disc harrow, tillers, levellers, rigger, bund former and such other implements/farm machinery, essential tools for repair and maintenance with Tractor (35 HP) and Trolley, etc.	15.00	30.00
5	Mobility for Field Visit (hiring of vehicles)	5.00	10.00
Total		50.00	100.00

Note: Rate quoted is approximate and tentative.

IX. ANNEXURE: SPECIFICATIONS OF GREEN HOUSE FACILITIES

S. No	Product and Specifications/Technical Details	Item wise cost (Rs. in lakh)
1.	Photo-synthetically Active Radiation Lamp	3.00
2.	Normal Tube Lights	0.25
3.	Microprocessor Photosynthesis Monitor-panel	0.875
4.	Water-pad Cooling System	0.875
5.	Heating System (by electric heat convector system)	0.75
6.	Piltz Timer (for humidity)	0.25
7.	Misting Unit (heavy duty motor with nozzles, filter, pipes sintex polymer tank 1000 litre)	1.50
8.	Polycarbonate Sheet Double Walled (6 mm thick)	1.00
9.	Roof Screen 50% (Shading) Colour Green Manually Rollable	0.35
10.	Super Structure Module Aluminium Anodized Covering Strip Infra Structure	0.50
11.	Benching System Size {9' x 4' x 2' (LxWxH)} Mild Steel Rust Resistant with Movable Top	1.00
12.	Foundation of Green House	1.50
13.	Flooring of Green House (with crushed stone or gravel)	0.75
14.	Electrical Wiring (of entire Green House) and other works	1.15
15.	Pro Tray 50 Cells (50 No)	0.75
16.	Miscellaneous	0.50
Total		15.00

Note: The cost of various item is approximate and tentative.

X. ANNEXURES: EQUIPMENT FOR SEED HEALTH TESTING LAB

S. No.	Equipment	No. Required	Amount in Rs.	
			Rate of Equipment	Total
1	Refrigerated Centrifuge (up to 20,000 rpm)	1	8.00	8.00
2	Centrifuge Table Top (up to 5,000 rpm)	1	1.50	1.50
3	Clean Bench	1	1.00	1.00
4	Automatic Rotary Shaker	1	0.75	0.75
5	Double Distillation Apparatus	1	2.00	2.00
6	Incubation Chambers (25-32°C)	1	4.00	4.00
7	NUV Incubator (21°C) (with automatic time switch for lamps)	1	0.75	0.75
8	Bacteriological Incubators	1	0.75	0.75
9	Haemocytometer	1	0.30	0.30
10	Growth Chamber of Standard Size	1	3.50	3.50
11	Filtration Apparatus	1	1.00	1.00
12	Electrostatic Air Cleaner	1	1.50	1.50
13	Phase-Contrast Microscope	1	3.00	3.00
14	Fluorescence Microscope	1	3.00	3.00
15	Universal ELISA Plate Reader (EL x 800 Ms)	1	3.00	3.00
16	Immuno-Blotter & Accessories	1	1.50	1.50
17	Advanced Laminar Flow	1	1.50	1.50
18	Electrophoresis & Gel Documentation System	1	3.00	3.00
19	Western Blot	1	1.00	1.00
20	UV-Spectrophotometer	1	2.50	2.50
21	Ultra-microtome	1	2.00	2.00
22	Millipore Water Purification Unit (with Bacteriological Filter)	1	1.50	1.50
23	Elisa Microplate Washer (EL x 405 Select) - 96 Well	1	0.50	0.50
24	Microplate Dispenser (96 Well)	1	0.50	0.50
25	pH meter (Table Top & Digital)	1	0.50	0.50
26	Shaking Incubator	1	1.50	1.50
27	Micropipettes	1 Set	0.50	0.50
28	Blender/Mixer Reputed Brand	1	0.50	0.50
29	Autoclave (Vertical)	1	0.50	0.50
30	Kits for Total Aflatoxins, Deoxynivalenol, Total Fumonisin, Ochratoxin A, T-2 Toxin and Zearalenone, Mycotoxin Tests.	1	6.00	6.00
31	Allergen ELISA Test Kit	1	0.75	0.75
32	Grinding Machine	1	1.20	1.20
33	Microscope (with Image Analyser)	1	2.50	2.50
34	Renovation of Lab	-	8.00	8.00
			Total	70.00

Note: Rate quoted is approximate and tentative. If required by the Seed Testing Lab (STL) the equipment not covered in the above list can also be considered for financial assistance based on justification.



सत्यमेव जयते

NATIONAL MISSION ON EDIBLE OIL-OILSEEDS (NMEO-OS)

OPERATIONAL GUIDELINES (2024-25 TO 2030-2031)



Oilseeds Division

**Department of Agriculture & Farmers Welfare
Ministry of Agriculture & Farmers Welfare
Government of India
Krishi Bhawan, New Delhi**



National Mission on Edible Oils – Oilseeds (NMEO - OS)



Operational Guidelines (2024-25 to 2030-31)

**Oilseeds Division
Department of Agriculture & Farmers Welfare
Ministry of Agriculture & Farmers Welfare
Government of India
Krishi Bhawan, New Delhi**

शिवराज सिंह चौहान
SHIVRAJ SINGH CHOUHAN



कृषि एवं किसान कल्याण और
ग्रामीण विकास मंत्री
भारत सरकार
कृषि भवन, नई दिल्ली
Minister of Agriculture & Farmers Welfare
and Rural Development
Government of India
Krishi Bhawan, New Delhi

D.O. No. 216 /AM



Message

Oilseeds and edible oils are two of the most sensitive essential commodities. India is one of the largest producers of oilseeds in the world and this sector occupies an important position in the agricultural economy. Around 57% of edible oil requirement is met through imports as the domestic production is unable to meet the demand. India contributes about 5-6% of the world oilseeds production. Export of oil meals, oilseeds and minor oils was about 5.44 million tons in the financial year 2023-24 valued at Rs 29,587 crores.

The Hon'ble Prime Minister of India has emphasized the urgency of boosting domestic edible oil production to reduce this dependency. Reducing the import bill and stabilizing the prices of agricultural commodities are major priorities of the government. To achieve this, the Ministry of Agriculture and Farmers' Welfare launched the National Mission on Edible Oils – Oilseeds (NMEO-OS) a landmark initiative aimed at boosting domestic oilseed production and achieving *atmanirbharta* (self-reliance) in edible oils. The Mission is being implemented over a seven-year period, from 2024-25 to 2030-31, with a financial outlay of Rs 10,103 crore.

The mission focuses on enhancing the production of key primary oilseed crops such as Rapeseed-Mustard, Groundnut, Soybean, Sunflower, and Sesamum, as well as increasing collection and extraction efficiency from secondary sources like Cottonseed, Rice Bran, and Tree Borne Oils. The mission aims to increase primary oilseed production from 39 million tonnes (2022-23) to 69.7 million tonnes by 2030-31. The Mission also seeks to expand oilseed cultivation by an additional 40 lakh hectares by targeting rice and potato fallow lands, promoting intercropping, and promoting crop diversification. Support will be extended to FPOs, cooperatives, and industry players to establish or upgrade post-harvest units, enhancing recovery from sources such as cottonseed, rice bran, corn oil, and Tree-Borne Oils (TBOs). Furthermore, the Mission will promote awareness of recommended dietary guidelines for edible oils through an Information, Education, and Communication (IEC) campaign.

I am confident that the Operational Guidelines will prove to be useful to the State Governments and Agencies in formulation of Annual Action Plans for implementation and monitoring of NMEO-OS more effectively.


(Shivraj Singh Chouhan)

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DEVESH CHATURVEDI
SECRETARY



भारत सरकार
कृषि एवं किसान कल्याण मंत्रालय
कृषि एवं किसान कल्याण विभाग
Government of India
Ministry of Agriculture & Farmers Welfare
Department of Agriculture & Farmers Welfare



FOREWORD

Oilseed crops rank as the second most crucial component of the agricultural economy, following cereals among field crops. The COVID-19 pandemic disrupted global trade and heightened the demand for protectionist policies, aligning with India's national strategy of 'Atmanirbharta' and 'Vocal for Local.' While the 'Yellow Revolution' of the early 1990s enabled India to achieve self-sufficiency in edible oil production, a sharp rise in per capita consumption has led to increasing dependence on imports, with 15.6 million tonnes imported in 2023-24. Enhancing self-sufficiency in edible oils is essential to reducing vulnerability to volatile international markets and ensuring food security.

The National Mission on Edible Oils – Oilseeds (NMEO-OS) is a strategic initiative aimed at minimizing India's dependence on imported edible oils and advancing self-reliance by strengthening domestic oilseed production and improving farmer incomes. The mission addresses a substantial yield gap of approximately 60% in oilseed crops and focuses on key areas to drive sustainable growth in the sector. It prioritizes the production of major oilseeds such as rapeseed-mustard, groundnut, soybeans sesame, sunflower, safflower, niger, linseed, and castor while also making targeted interventions for secondary oilseeds and tree-borne oilseeds (TBOs). Additionally, a 'Sub-Mission on Minor Vegetable Oils' has been incorporated to enhance oil extraction from secondary sources like cottonseed, rice bran, and TBOs through specialized interventions. The initiative will also leverage advanced global technologies, including genome editing, to develop high-quality seeds.

Furthermore, over 600 Value Chain Clusters will be established across the country, covering more than 10 lakh hectares annually. These clusters will be managed by value chain partners such as Farmer Producer Organizations (FPOs), cooperatives, and public or private entities. Farmers within these clusters will benefit from access to high-quality seeds, training in Good Agricultural Practices (GAP), and advisory services on weather and pest management.

I am confident that the operational guidelines will provide a robust framework for the seamless implementation of the Mission, fostering the prosperity of our farmers and contributing to the sustainable economic growth of our nation.

(Devesh Chaturvedi)

New Delhi
April 08, 2025

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Guidelines

“NATIONAL MISSION ON EDIBLE OILS – OILSEEDS (NMEO-OS)”

1. National Mission on Edible Oils – Oilseeds (NMEO-OS)

1.1. Introduction:

Government of India has sanctioned a new mission namely ‘National Mission on Edible Oils- Oilseeds (NMEO-OS)’ as a Centrally Sponsored Scheme (CSS) under Krishonnati Yojana (KY) of the Department of Agriculture & Farmer’s Welfare (DA&FW) from 2024-25 to 2030-31 subsuming the existing National Food Security Mission - Oilseed (NFSM-OS) with an outlay of ₹ 10103.38 Cr (Central share ₹ 7481.67 Cr). The Mission will support boosting production of oilseed crops with a primary focus on Rapeseed-Mustard, Groundnut and Soybean and making targeted interventions in other oilseed crops including secondary oilseeds and tree-borne oilseeds (TBOs). ‘Sub Mission on Minor Vegetable Oil’ will also form a part of the NMEO-OS Mission to improve oil extraction from secondary sources like cottonseed, rice-bran, and TBOs through targeted interventions.

1.2. Objective:

The National Mission on Edible Oils – Oilseeds (NMEO-OS) is strategically designed to reduce India's reliance on imported edible oils, and drive towards *atmanirbharta* by boosting domestic oilseed production and improving farmer incomes. This will be achieved through addressing the significant yield gap (~60%) in oilseed crops and targeting multiple key areas to ensure sustainable growth in the sector.

The mission aims to:

1. **Harness innovations:** Utilizing already available and early-maturing innovations and technological breakthroughs for addressing the yield gap.
2. **Accelerate dissemination:** Promoting the rapid dissemination of improved seed varieties (released in the last five years) and technologies within crop-specific clusters involving cooperatives, FPOs, and the private sector.
3. **Targeting expansion:** Encouraging the expansion of oilseed cultivation in fallow areas specially in eastern states and promoting intercropping through demonstrations.
4. **Increasing availability of improved seeds:** Addressing deficiencies in the seed production and distribution system to ensure availability and accessibility of quality seeds.
5. **Enhance market access:** Linking oilseed farmers and value chain partners (VCPs) with processors to improve their market access and ensure better returns.
6. **Support extraction and collection of secondary oilseeds:** Bolstering the production of secondary oilseeds and Tree Borne Oils (TBOs) through targeted interventions.

1.3. Key Activities:

To achieve the above objectives, the Mission will undertake following key activities:

- i. Formation of **over 600-value chain clusters covering approximately 10 lakh hectares annually**, involving FPOs, Cooperatives, and private corporations as VCPs.
- ii. Conducting Frontline Demonstration (FLD), Cluster Frontline Demonstration (CFLD) and **Block demonstrations** over an area of 2.8 lakh hectares annually including in fallow areas and to demonstrate intercropping.
- iii. Establishment of **65 additional seed hubs** and **50 specialized storage units**, particularly for Groundnut and Soybean seeds to optimize seed infrastructure.
- iv. **Preparing 5-year seed rolling plan and advance tie-ups with seed-producing agencies** to ensure timely availability of improved seed varieties to farmers.
- v. Support to establish **post-harvest infrastructure** for processing of oilseeds and improving collection and extraction efficiency in secondary oilseeds and TBOs.
- vi. **Targeted interventions in project mode** for addressing issues in secondary sources and TBOs.
- vii. **Monitoring** mission activities **through digital technologies** to track progress.
- viii. Implementation of a **robust Information, Education and Communication (IEC) campaign** for public education on dietary guidelines and capacity building for stakeholders.

2. Structure of the Mission

A multi-level governance structure, led by the Union Minister of Agriculture and Farmers Welfare and supported by a National Steering Committee on NMEO-OS (NSC-OS), will oversee the mission's implementation at national level. State/UT and District-level authorities will ensure local implementation through State and District Missions.

2.1. National Level

2.1.1. National Review and Governing Council (NRGC)

2.1.1.1. *A National Review and Governing Council (NRGC)* for NMEO-OS Mission under the chairpersonship of Hon'ble Minister of Agriculture and Farmers' Welfare will be constituted by DA&FW and will hold the primary responsibility for overall policy guidance and monitoring in the NMEO-OS Mission. As an apex body overseeing the mission, the NRGC shall provide strategic direction and ensure that the mission's objectives—such as boosting domestic oilseed production, reducing dependence on imports, and enhancing farmer livelihoods—are achieved. Its core function is to monitor the mission's progress, conducting regular reviews of data from the national, state, and district levels to evaluate performance against key targets, including the adoption of technology and sustainability initiatives. Through periodic assessments, the NRGC shall identify challenges and recommend corrective measures to refine strategies. **The NRGC will meet at least once a year.**

2.1.2. National Steering Committee on NMEO-OS (NSC-OS)

2.1.2.1. A multi-stakeholder **National Steering Committee on NMEO-OS (NSC-**

OS) under the Chairmanship of Secretary, DA&FW will be constituted by DA&FW to steer the NMEO-OS Mission at the National level. The NSC-OS shall periodically review, appraise, evaluate the progress of the mission and recommend norms and standards for various components within the overall ambit of the Cabinet approval.

2.1.3. **Mission Director (NMEO-OS)**

2.1.3.1. The Additional Secretary/Joint Secretary (Oilseeds) shall be the **Mission Director of NMEO-OS Mission**. Mission Director (NMEO-OS) shall be the Member Secretary of both NRGC and NSC-OS. Mission Director (NMEO-OS) shall be responsible for -

- i. Preparing strategy for implementation of NMEO-OS within the ambit of cabinet approval, NRGC and NSC-OS directions and GoI's policies.
- ii. Preparing targets at National and State levels and accordingly developing National Annual Action Plan and scrutinizing State Annual Action Plans following the guidelines as prescribed from time to time.
- iii. Annual Action Plan shall be placed to the Secretary DAFW for approval where State Mission director shall present the plan and strategy.
- iv. Ensuring efficient fund disbursement, optimal resource allocation, and providing technical support to state officials for adopting new technologies.
- v. Overseeing mission management, including seed distribution, infrastructure development, and support for expanding oilseed cultivation in potential regions.
- vi. Preparing modalities and standard operating procedures (SOPs) for various components and ensuring collaborations between agencies for smooth implementation of the Mission.
- vii. Facilitating convergence of NMEO-OS activities with other programs (such as crop insurance, micro-irrigation, agricultural credit etc.) to align with overall objective of bolstering oilseed cultivation in the country.
- viii. Designing and running a suitable IEC campaign in association with relevant industries, departments and agencies.
- ix. Developing suitable digital portals and applications for efficient monitoring of mission implementation.

2.1.3.2. A **National Executive Committee (NEC)**, consisting of technical experts and concerned officers from the DA&FW, shall be separately constituted to assist the Mission Director (NMEO-OS) in making day-to-day decisions on technical matters related to the scheme's implementation. The NEC shall also estimate and recommend rates of FLD/CFLD and maximum limit of support for seed component for various oilseed crops to the competent authority. This committee shall meet periodically, as needed.

- 2.1.3.3. **Project Management Unit (PMU):** There shall be a PMU constituted in the Oilseed Division at DA&FW. The project management expenditure/admin component of the Krishonnati Yojana (KY) shall be used for meeting the project management expenses (PME).

2.2. State Level

2.2.1. State Oilseeds Mission (SOSM)

- 2.2.1.1. Every State or UT shall have a **State Oilseeds Mission (SOSM)** under the chairmanship of the Chief Secretary (or Advisor in UT) to oversee and steer the activities of the Mission in the State. Its primary responsibility shall be to ensure that the mission's objectives are translated into effective outcomes on the ground while coordinating with state agencies, district bodies, and the central government.

- 2.2.1.2. The Agriculture Production Commissioner/ Principal Secretary / Secretary (Agriculture) of the State/UT shall act as the **State Mission Director (NMEO-OS)** in their respective State/UT. Suggested composition of the SOSM shall be as follows:

S. No	Particulars	Committee Member
1	Chief Secretary / Advisor (UT)	Chairman
2	ACS / Agriculture Production Commissioner / Principal Secretary Agriculture / Secretary Agriculture	Member
3	Secretary (Cooperation)	Member
4	Secretary dealing with Food Processing Industries	Member
5	Secretary (Rural Development)	Member
6	Secretary (Finance)	Member
7	Secretary (Food & Public Distribution)	Member
8	Vice Chancellor(s) of CAUs / SAUs of the State/UT concerned*	Member
9	Director, Agriculture of State / UT concerned	Member
10	Director/Project Directors of ICAR Institutes located within the state	Member
11	State In-charge of NABARD	Member
12	Nodal officer – State Level Bankers Committee	
13-14	2 Representatives of Oilseed FPOs/Cooperatives, VCPs,	Member
15-16	2 Industry representatives dealing with oilseeds, vegetable oils, seed production etc. as nominated by Chairman	Member
17	Representatives from DA&FW, GoI	Member
18	State Mission Director (NMEO-OS)	Member Secretary

*In case there is no Central or State Agriculture university (CAU/SAU) in the state/UT, the representative of CAUs / SAUs having a regional center in the state or adjoining state/UT may be considered.

2.2.1.3. States may modify the SOSM composition to align with local needs, provided it remains within the established framework. However, the ex-officio chairman and member secretary must remain unchanged.

2.2.1.4. The SOSM shall have the following responsibilities:

- i. Overall monitoring of the mission implementation in the State / UT within the overall policy guidelines prescribed for the mission to achieve the mission objectives.
- ii. Finalizing State/UT Oilseed Action Plan for oilseed cultivation and production based on APY targets assigned to the state and its monitoring.
- iii. Finalizing prospective and Annual State Action Plan in consonance with the mission's goals and objectives before its submission to the DA&FW.
- iv. Monitoring mission's progress at the State/UT level by tracking key performance indicators (as listed in **Annexure 1**) with regular reports submitted to the DA&FW.
- v. Overseeing the state-level financial resource allocation to develop essential infrastructure and post-harvest processing facilities etc.
- vi. Monitoring the functioning and progress of district missions, value chain partners (VCPs) and technical support agencies (TSAs) and issue instructions and prescribe SOPs for increasing their efficiency.
- vii. Ensuring convergence with other central and state schemes by coordinating with relevant departments (agriculture, irrigation, finance, rural development etc.) to streamline mission implementation and align it with state agricultural policies and development plans.
- viii. Any other matter relevant for efficient implementation of the mission in the State/UT.

2.2.1.5. The Chairman may invite experts to take part in the committee's proceedings as per requirement. The State Mission Director (NMEO-OS) shall be the Member Secretary of SOSM. **The mission shall meet periodically as decided and at least twice in a year.**

2.2.2. State Mission Director (NMEO-OS)

2.2.2.1. The Agriculture Production Commissioner/ Principal Secretary / Secretary (Agriculture) shall be the **State Mission Director of NMEO-OS Mission**. The State Mission Director (NMEO-OS) shall be responsible for -

- i. Preparing State/UT Oilseed Action Plan for oilseed cultivation and production based on APY targets assigned to the state and its monitoring.
- ii. Preparing prospective and Annual State Action Plan in consonance with the Mission's goals and objectives and submitting the same to the SOSM for approval and concurrence.
- iii. Executing the State Action Plan and ensuring proper utilization of funds received from Government of India.

- iv. Ensuring efficient fund disbursement, optimal resource allocation, and providing technical support to district missions/officials for implementing the programs.
- v. Overseeing mission management, including seed distribution, infrastructure development, and support for expanding oilseed cultivation in potential regions.
- vi. Converging other programs (crop insurance, micro-irrigation, agricultural credit) with NMEO-OS activities to align with broader scheme objectives.
- vii. Identifying and recommend suitable seed varieties (as per State's agro-climatic condition) to NSC-OS. States may submit proposals for the inclusion of new varieties as and when required, preferably before the annual Rabi and Kharif Conferences.
- viii. Convening SOSM periodically and ensuring that the district missions and other committee functions properly.
- ix. Organizing workshops, seminars and training programmes for farmers and other stakeholders at the State/UT level in collaboration with SAUs, ICAR institutes and other reputed institutes/agencies.
- x. Organizing at least one annual conference on oilseeds, aimed at raising awareness, sharing progress as prescribed, capacity building, innovations, best practices, and new ideas in the sector.
- xi. Ensuring timely lifting and distribution of seeds by coordinating with District administrations and VCPs to avoid delays.
- xii. Tracking and update seed production and distribution data on the centralized portal SATHI for transparency and accountability.
- xiii. Identifying and empaneling Technical Support Agencies (TSAs) other than the KVKs.
- xiv. Preparing 5-year Seed Rolling Plan and its updation on SATHI portal.
- xv. Undertaking suitable advance tie-ups for seed production after taking requisition from district missions to ensure timely availability of oilseeds to farmers.
- xvi. Overseeing the multiplication of high-quality seed varieties, collaborating with certified seed producers, seed hubs, research institutions, and farmers to ensure sufficient seed production as per the State/UT seed requirement approved in the State Action Plan.
- xvii. Any other responsibilities as assigned by GoI and SOSM from time to time.

2.2.2.2. **State Project Management Unit (SPMU):** A State level PMU may be set up suitably to provide assistance to the State Mission Director (NMEO-OS) with approval of the NSC-OS. The expenditure thereof shall be met out of project management expenditure/admin component of Krishonnati Yojana (KY), which shall not exceed 2.5% of the overall State /UT allocation for NMEO-OS.

2.3. District Level

2.3.1. District Oilseed Mission (DOSM)

2.3.1.1. Every implementing district will have a District Oilseed Mission (DOSM), headed by the District Collector/CEO of Zila Parishad, which shall i) oversee and manage the overall on-ground execution of the NMEO-OS, ii) facilitate Value Chain Partner (VCP) and Technical Support Agency (TSA) in performing their responsibilities in accordance with scheme guidelines, iii) Facilitate convergence with other schemes, and iv) Ensure proper fund utilization monitoring and audit.

2.3.1.2. The District Head of the Agriculture Department (Deputy/Assistant Director Agriculture/Chief Agriculture Officer / District Agriculture Officer as the case may be) shall be the **District Mission Director for NMEO-OS**. Suggestive composition of the DOSM will be as follows:

S. No	Particulars	Committee Member
1	District Collector/CEO of Zila Parishad	Chairman
2	Representatives from line Departments (Cooperatives, Irrigation, and Horticulture)	Members
3	One representative each of KVK, ICAR institutes and SAU situated in the district	Member
4	Project Director of ATMA	Member
5	Representatives of Lead Bank and NABARD	Member
6	Two representatives of Oilseed FPOs/Cooperatives, Seed Agencies (private & public)*	Member
7	One representative each of Oilseed Value Chain Partner in the district	
8	District Mission Director (NMEO-OS) (District head of Agriculture department)	Member Secretary

*To be nominated by the Chairman (DOSM)

2.3.1.3. States may modify the DOSM composition to align with local needs, provided it remains within the established framework. However, the ex-officio chairman and member secretary must remain unchanged.

2.3.1.4. The Chairman, DOSM may invite experts to participate in the meetings of DOSM as necessary. The mission shall meet periodically as and when required.

2.3.1.5. The DOSM shall have the following responsibilities:

- Preparing district plan of oilseed cultivation based on APY targets assigned to the district by the State/UT.

- ii. Preparing Annual Plan of NMEO-OS for the district following the physical and financial targets assigned to the district by the State/UT.
- iii. Consolidating demands of seeds of VCPs and preparing 3-year rolling plan for submission to the State Mission Director.
- iv. Ensuring distribution of seeds to the eligible and identified farmers including lifting of samples for testing.
- v. Ensuring training of farmers and organizing farmer field schools through Technical Support Agencies (TSA).
- vi. Coordinating and monitoring CFLDs being conducted in the district by KVKs.
- vii. Ensuring convergence of relevant schemes like crop insurance, micro-irrigation, and agricultural credit initiatives, beekeeping etc. with NMEO-OS activities to maximize support to oilseed farmers in clusters.
- viii. Monitoring and evaluating the mission's progress, tracking key performance indicators like oilseed yield improvements, seed distribution, and farmer participation etc., with regular reports submitted to the SOSM.
- ix. Coordinating training programs in collaboration with TSAs and VCPs to build farmer capacity in improved cultivation techniques, modern oilseed varieties, and post-harvest management.
- x. Any other responsibilities as assigned by the GoI and SOSM from time to time.

2.3.2. District Executive Committee (DEC)

2.3.2.1. Every District will have a **District Executive Committee (DEC)** headed by District Collector/CEO of Zila Parishad, which shall:

- i. Manage, approve and oversee the expenditure related to CFLD and Block demonstrations, VCPs and all other expenditure under NMEO-OS at district level.
- ii. Select the Crop Specific Value Chain Partner in the district and formation of clusters
- iii. Conduct day to day monitoring of the implementation of the scheme
- iv. Identify and approve projects for setting up post-harvest infrastructure units for collection, extraction and processing.
- v. Identifying and selecting FPOs, Cooperatives, Public or Private agencies as VCPs within the district following the scheme guidelines, in oilseed-growing areas to enhance productivity and resource access.
- vi. Identifying and coordinating with Technical Support Agencies (TSAs) such as KVKs, SAUs, SAMETIs for conducting farmer trainings and organizing farmer field schools (FFSs).
- vii. Monitor fund utilization along with value chain partner audits and financial reviews. The composition of the committee is given below:

S. No	Particulars	Committee Member
1	District Collector/CEO of Zila Parishad	Chairman
2	District Mission Director (NMEO-OS)	Member
3	Representatives from Finance department at district level	Member
4	Representative of Project Director ATMA	Member

The committee shall meet periodically as and when required.

3. Funding Pattern & Fund Flow

- The NMEO-OS will be implemented in all States/UTs with the funding pattern of **60:40** in case of general States, Delhi & Puducherry and **90:10** in case of North-Eastern States and hill States, and **100%** funding for UTs and Central Agencies.
- However, there are many components which are fully supported by GoI i.e. purchase of breeder seeds, CFLD/FLD etc. Component wise details of fund sharing, and assistance pattern has been provided at **Annexure 2**.
- Since NMEO-OS is a part of the Umbrella Scheme of Krishonnati Yojana (KY), the funding pattern and fund flow will align to the KY and is subject to changes in line with modification of fund flow of KY. State/UT and District shall follow the relevant directions issued in this regard from time to time by GoI.

4. Value Chain Clusters

4.1. Cluster Formation:

4.1.1. The cluster approach under NMEO-OS aims to accelerate the adoption of newly released crop varieties and recommended practices. States must ensure that the total area designated for clusters for each crop aligns with the cluster area targets assigned to the State/UT under the mission, as outlined in **Annexure 3**.

4.1.2. The minimum cluster size should be maintained as follows:

- **Major oilseed crops** (Soybean, Groundnut, Rapeseed-Mustard): 500 ha (250 ha for Northeast and hilly states).
- **Minor oilseed crops** (Sesame, Sunflower, Niger, Safflower): 200 ha (100 ha for Northeast and hilly states).
- **Exclusive clusters for FRA holders:** 100 ha for any major/minor oilseed. However, FRA patta holders can also be part of any other cluster.

4.1.3. Clusters must be entirely within the boundaries of a single district. Overlapping clusters across districts are not permitted. Similarly overlapping of clusters within the district should also not be there. Efforts should be made to keep the

number of clusters to be minimum and **farmers of one geographical area or administrative unit (block/tehsil /taluka) should be in one cluster only.**

4.1.4. The overall area of all the clusters in the district should not be more than the ceiling prescribed by the SOSM.

4.1.5. A suggested list of districts for cluster formation is provided in **Annexure 4**. However, states may propose and establish clusters in other districts with prior approval from SOSM, ensuring state-specific cluster area targets are met.

4.1.6. Each crop cluster should include a minimum of 200 farmers (100 farmers in North-eastern and hilly states). While these farmers do not need to be in a contiguous area, they must reside within the same district. However, the same farmer should not get the assistance under a cluster for more than one year in one crop.

4.1.7. If a district lacks sufficient area for a single crop cluster, a multi-crop cluster can be formed. However:

- i. Multi-crop clusters should ONLY be created when forming a single crop cluster is not feasible.
- ii. The total cluster size must still meet the minimum requirement of 500 ha (250 ha for Northeast and hilly regions).

4.1.8. Areas under intercropping of oilseeds should be included when calculating the total area for a cluster.

4.1.9. Each cluster will be managed by a Value Chain Partner (VCP), which can be a Farmer Producer Organization (FPO), Multistate or State Cooperative, Public/Private Corporation & active APMCs operating in oilseed sector.

4.1.10. The District Executive Committee (DEC) is responsible for identifying and selecting VCPs for these clusters within their respective districts, following the scheme guidelines. Priority should be given to farmers' collectives such as FPOs and Cooperatives. If no eligible FPO or Cooperative is available in a district, other public or private corporations may be appointed as VCPs, adhering to the procedures detailed in subsequent sections.

4.2. Eligibility criteria for VCPs

4.2.1. The DEC shall invite applications from eligible FPOs and Cooperatives and public/private corporations to form crop-specific clusters following the scheme guidelines.

4.2.2. The DEC shall finalize the application based on the eligibility criteria mentioned here by adopting a marking system based on defined parameters (details of the scoring parameters are mentioned in **Annexure 5**).

4.2.3. Oilseed farmers within the clusters shall be given priority under convergence schemes such as Sub-Mission on Agricultural Mechanization (SMAM) and Per Drop More Crop (PDMC). Special emphasis will be placed for support under the National Beekeeping and Honey Mission.

4.2.4. Eligibility criteria For FPOs / Cooperatives: FPOs and Farmers' Cooperatives fulfilling the following criteria shall be eligible:

- i) Should be registered under the Companies Act or Cooperatives Act
- ii) Should have an experience of at least 3 years working in the district where the cluster is formed
- iii) At least 200 farmers (100 for Northeast and Hilly regions) should be registered in the FPO or Cooperative
- iv) Average annual turnover in the past 3 years should be greater than Rs 9 lakhs
- v) Equity of at least Rs 3 lakhs by the farmers in the FPO. Recipients of any Equity Grant by the Government shall be given preference.

4.2.5. FPOs formed under the 10000 FPOs scheme, FPOs set up under NFSM & MIDH, FPOs associated with oilseeds registered with public agencies engaged in edible oil value chain etc shall be given preference subject to fulfilling of eligibility criteria prescribed in 4.2.4. Those FPOs should be given priority that have maximum potential for area and yield expansion under the Mission.

4.3. Eligibility criteria for Public or Private Corporations

- i. Centre or State Public Sector Undertaking working in the seeds, edible oil, fertilizer sector, and Private Corporations registered with The Solvent Extractors Association of India (SEA), The Soybean Processors Association of India (SOPA), Mustard Oil Producers Association of India (MOPA), Indian Vegetable Oil Producers' Association (IVPA), National Seed Association of India (NSAI), Federation of Seed Industry of India (FSII) shall be considered for forming VCPs.
- ii. Public or Private Corporations fulfilling the following criteria shall be selected based on the performance matrix given at **Annexure 5**.
 - Minimum annual turnover of Rs 10 Cr
 - No defaults of taxes in last 3 years
 - Working as a producer of seeds, fertilizers, and edible oil for at least the last 5 years.

4.4. Role of Value Chain Partners (VCPs)

4.4.1. **Registration of Farmers:** VCPs shall identify eligible farmers within the cluster to participate in seed distribution and training programs. These farmers must be registered on the Krishi Mapper Application to ensure streamlined coordination. In cases where the state is already mapping farmers on a different state portal, the

required information must be shared with DA&FW via API integration into the **Krishi Mapper portal**. Additionally, registration on the e-Samriddhi portal of NAFED, e- Samyukti portal of NCCF or similar State portals for procurement will be mandatory to facilitate seamless procurement processes.

4.4.2. **Mandatory Soil Health Testing:** Before seed distribution, VCPs shall ensure that all registered farmers undergo mandatory soil health testing. This step is essential to align seed selection with local soil conditions and enhance productivity.

4.4.3. **Selection and Distribution of Seeds:** DOSM and VCPs shall finalize the type and quantity of seeds to be distributed in the value chain clusters, selecting from the prescribed list for the respective district/state. VCPs will have the autonomy to choose seed varieties from the approved list shared by NSC-OS. VCPs shall estimate the seed requirements of registered farmers and communicate these to the DOSM for inclusion in the State Action Plan. Any additional cost for procuring seeds beyond the financial support provided under the mission shall be borne by the farmers or VCPs.

4.4.4. Seed distribution shall be conducted by State agencies in presence of VCPs. VCPs shall be responsible for organizing the distribution. Seeds shall be distributed using devices such as Point-of-Sale (POS machines) for verification of beneficiaries.

4.4.5. VCPs shall also be responsible for ensuring forward linkages of sale-of-produce either by setting up their own processing units or coordinating with other agencies. Support for setting up of post-harvest infrastructure as prescribed under NMEO-OS should be utilized. Besides VCPs should also take benefit of schemes such as Agriculture Marketing (AMI), Agriculture Infrastructure Funds (AIF) and similar other programs for creating post-harvest infrastructure like storage or processing.

4.4.6. **Farmer Training and Field Schools:**

- VCPs shall coordinate with Technical Support Agencies (TSAs) within the cluster to organize training sessions for farmers, while ensuring that all training activities are documented in the Krishi Mapper App.
- VCPs will also organize Farmer Field Schools (FFS) for unregistered farmers who have farms within the cluster area, ensuring these sessions are likewise recorded in the Krishi Mapper app.

4.4.7. **Dissemination of Advisory Services:** VCPs shall facilitate the dissemination of advisories to farmers through platforms such as WINDS, Gramin Krishi Mausam Seva, VISTAAR, and any other prescribed methods.

4.4.8. **Management and Outreach Assistance:** VCPs shall receive management and outreach assistance equivalent to 1.5% of the total expenses incurred

on seeds and training within the cluster. This amount shall be included in the State Annual Action Plan and debited from the PME/Admin component of KY, adhering to the permissible limits of the state. The assistance shall only be disbursed to VCPs upon the successful sowing of the seeds provided.

4.5. Procedure to be followed in Value Chain Clusters

4.5.1. Advance Procurement and Supply Arrangements:

- The State Mission Director shall consolidate seed requirements for all varieties and make advance procurement and supply arrangements with seed agencies as part of a 3-year advance arrangement, specifying the varieties to be supplied to each VCP in each district.
- For FY 2024-25 and 2025-26, the availability of certified seeds shall be assessed in advance from various seed agencies, as the production of certified seeds on short notice may not be feasible. Assistance for seed procurement shall be determined based on the availability of seeds. VCPs will be linked with seed supply chains in consultation with the DOSM to ensure timely availability to farmers.
- For the following two years, advance procurement tie-ups with seed agencies must be finalized by or before June 2025. These tie-ups shall be based on seed requisitions received from DOSM, ensuring that seed varieties are available in time for the cropping seasons.

4.5.2. Tri-Partite Agreements: Each implementing district shall establish a tri-partite agreement between the designated seed-producing agency, the identified VCP, and the DOSM. State Governments will pre-identify crop-wise seed suppliers for each district based on requisitions submitted by the districts. District missions must ensure availability of the allocated seeds in a timely manner as stipulated in the agreements. To avoid delays, all advance procurement tie-ups with seed suppliers must be completed at least six months prior to the start of the cropping season.

4.5.3. Performance Guarantees and Payment to Seed Suppliers: The seed supplier shall submit a performance guarantee, as determined by the State Government, to the District Executive Committee (DEC). Payments to the seed supplier shall be disbursed in the following stages:

- **First Instalment (50%):** Released upon receipt of a certificate from the VCP confirming the delivery of seeds.
- **Second Instalment (25%):** Released upon receipt of laboratory reports certifying the quality of the seed samples.
- **Final Instalment (25%):** Released after post-harvest evaluation, ensuring satisfaction with the seed quality and performance. The criteria for determining post-harvest satisfaction shall be established by the State Government in consultation with Technical Agencies.

4.5.4. Performance guarantees shall NOT be required for government agencies

such as central and state seed agencies, central and state seed cooperatives, seed hubs and ICAR institutions.

4.5.5. **Seed Quality Assurance:** State officials distributing seeds shall ensure that samples of the supplied seeds are collected in the presence of VCPs and sent to empanelled, accredited laboratories designated by the State Government for quality testing.

4.5.6. **Provision of Free Seed:** Farmers will be provided free seeds for cultivation, limited to a maximum of 1 hectare per farmer.

4.6. Technical Support Agencies (TSAs)

4.6.1. Each VCP will be supported by a Technical Support Agency (TSA) identified by the DOSM to facilitate farmer training and capacity-building activities. Preferably, the KVKs within the district will serve as TSAs, or any other public institution (such as Central Agricultural Universities (CAUs), State Agricultural Universities (SAUs), State Agricultural Management and Extension Training Institutes (SAMETIs), or ICAR institutions) as determined by the DOSM within the overall direction of SOSM. These TSAs will provide assistance to farmers within the value chain cluster through the following activities:

- i) Conduct training of farmers registered in the Value Chain Cluster on Good Agricultural Practices (GAP)
- ii) Organize Farmer Field Schools (FFS) to engage and train farmers not registered in the value chain cluster but located in the vicinity.
- iii) Assist in creating and disseminating timely weather, soil, and pest advisories to farmers.
- iv) Leverage forecasting tools and integrated pest management systems such as Gramin Krishi Mausam Sewa (IMD) and WINDS (DA&FW) to provide data-driven insights.
- v) Use the VISTAAR platform to disseminate customized and contextual advisories and information in the local language for better accessibility and impact.
- vi) Support the verification of seed quality to be distributed within the cluster by sending seed samples to accredited seed testing laboratories. The verification report shall be uploaded on the Krishi Mapper application for transparency and record-keeping.
- vii) Funds for farmer training and farmer field schools (FFS) shall be transferred to the TSA by DEC as per the norms detailed in section 10 of the guidelines.

4.7. Advisory support:

- Farmers registered in the cluster shall receive weather, soil health and pest management advisories utilizing existing systems and digital applications. The VISTAAR/GKMS/NPSS and other available infrastructure shall be utilized for

generating and disseminating advisories.

- TSAs will create SOPs for dissemination of customized advisories to the farmers in the cluster using various communication modes.

4.8. Handholding support to VCPs:

Cluster-Based Business Organizations (CBBOs), major cooperatives, federations of cooperatives, FPOs, private agencies, and oil industry associations established at the state or cluster level under the 10,000 FPO Scheme or other relevant Central or State Government schemes, as identified by the DEC, shall be encouraged to provide handholding support to VCPs in developing the agricultural value chain for respective oilseeds.

4.9. Performance Monitoring of VCPs:

Regular performance audits shall be conducted for all VCPs through a committee constituted by District Collector. This evaluation/ audit will be conducted based on the KPIs prescribed by the Government of India, supplemented by any additional parameters deemed necessary by the SOSM. Non-performing VCPs shall be blacklisted from receiving government grants, subsidies, or support under any other schemes, including NMEO-OS.

5. Seed Related Interventions:

5.1. Breeder Seed Support:

5.1.1. The State Mission Director shall prepare a five-year online seed rolling plan based on the targets provided by GoI. This plan will outline the production requirements for high-quality breeder, foundation, and certified seeds, involving State Seed Corporations, Central Seed Multiplication Agencies, FPOs, Cooperatives, Seed Hubs etc. States should specify in the rolling plan agency multiplying breeder seed, foundation seed & expected certified seeds for use in future seasons, as per the Mission targets. The plan will be reviewed periodically before the Kharif, Rabi and Summer seasons.

5.1.2. Full financial support, covering 100% of the cost as determined by DA&FW, will be provided for the procurement of breeder seed varieties notified within the last five years. These seeds must be sourced exclusively from ICAR institutes, Central Agricultural Universities (CAUs), and State Agricultural Universities (SAUs).

5.1.3. Eligible Seed Multiplication Agencies, including public and private corporations, KVKs, Seed Hubs, FPOs, and cooperatives, can avail of this support. Claims for reimbursement shall be made through the respective State/UT Departments in alignment with the approved Annual Action Plan.

5.1.4. **Advance Agreements for Seed Production:** The SOSM shall establish advance tie-ups and agreements with Central Agencies such as NSC/ NAFED/ KRIBHCO/ IFFCO/ IFFDC/ HIL/ NCCF/ BBSSL/KVSSL/NDDB, etc., State seed-

producing agencies, including cooperatives, Farmer Producer Organizations (FPOs), and public and private seed corporations. These agreements will secure commitments for a minimum period of three years to avoid delays in seed availability. All details of these agreements shall be recorded on the SATHI portal to ensure transparency and streamlined coordination.

5.1.5. The SOSM, through the State Mission Director or an authorized state officer, shall establish enforceable tripartite contracts among the State, the seed producer, and the purchaser. These contracts will ensure the procurement of produced seeds and their appropriate use in the production of foundation and certified seeds.

5.1.6. All breeder seed producers and purchasers must register on the central seed portal, SATHI to upload relevant data, ensuring complete traceability and adherence to quality standards throughout the seed production and procurement process.

5.1.7. The National Steering Committee on NMEO-OS (NSC-OS) will release a notified list of oilseed varieties developed within the last five years for each oilseed crop for every State/UT. Based on this list, the SOSM shall set breeder seed purchase targets aligned with state-specific goals under the mission.

5.1.8. The States should make an effort to ensure notification of the seed varieties developed for the state but not yet notified. For this purpose, they should seek assistance of ICAR / CAUs / SAUs. This will ensure that assistance becomes available to such varieties as well.

5.1.9. The procurement of breeder seeds for specific varieties or hybrids must strictly follow the allocations outlined in the State Annual Action Plan approved by DA&FW. Agencies responsible for lifting breeder seeds must adhere to the proper seed production chain and update all relevant information on the SATHI portal.

5.1.10. To facilitate timely procurement, seed-producing agencies must submit a report immediately after the cut-off date, detailing unclaimed breeder seed stocks. This report should also identify agencies that failed to lift their allocations, along with reasons for any delays.

5.1.11. **Quality Certification and Genetic Verification:** All breeder seeds must be supplied with a quality certificate issued by an accredited laboratory. Breeder seed suppliers are also required to provide the genetic make-up of the seeds, which will be securely held by the State Government. This genetic data will be used to verify the quality and authenticity of certified seeds at later stages. Any quality concerns must be promptly reported to the Head of the Breeder Seed Producing Agency, the Assistant Director General (Seeds) at ICAR, and other relevant authorities.

5.1.12. All stakeholders involved in the seed production and distribution process must comply with Standard Operating Procedures (SOPs) and directives issued by the Government of India and the respective State Governments to maintain seed quality.

5.1.13. The State/UT Department of Agriculture shall reimburse 100% of the cost of breeder seeds to eligible agencies. This reimbursement will align with the approved targets specified in the State Annual Action Plans and adhere to cost norms prescribed by DA&FW.

5.2. Identification and Distribution of Certified Seed (CS)/Truthfully Labeled (TL) Seeds in the Value Chain Cluster:

5.2.1. TL/Hybrid Seeds can also be supported subject to the following criteria

- i. DSIR-compliant variety of an R&D-based company having a presence in the country for more than 5 years, **and**
- ii. Testing of variety has been done in the last 2 years under the supervision of a public authority displaying high-yield

5.2.2. CS/TL seeds for support under this mission must be selected from the list approved by the DA&FW. VCPs will have the flexibility to choose seed variety for the cluster from the notified list of varieties shared by NSC-OS.

5.2.3. The maximum support for CS/TL seeds shall adhere to the cost limits prescribed by DA&FW for the specific crop and seed type. Agencies supplying TL seeds must ensure that the seed prices remain within the ceiling set by DA&FW. Support shall be limited to the market price, or the cost determined by the DA&FW, GoI, whichever is lower. If the State Government determines that a particular variety of TL seed with a higher cost should be promoted, the additional cost exceeding the permissible limit must be borne by the State Government.

5.3. Seed Hubs

5.3.1. 65 additional Seed hubs shall be established at selected SAUs and ICAR institutes through the State Governments concerned or Indian Institute of Oilseeds Research (IIOR), Hyderabad. These hubs aim to produce an adequate quantity of high-quality seeds of improved varieties and hybrids of oilseeds including breeder seeds. They shall also assist in maintaining a reasonable seed buffer stock with a well-defined rolling plan.

5.3.2. The SAUs and ICAR Institutes shall consult the States for establishment of Seed Hubs in specific locations.

5.3.3. These seed hubs will be producing breeder as well as foundation and certified seeds and any agency can tie-up directly with seed hubs for procuring breeder and certified seeds for getting support under this scheme.

5.4. Specialized Seed Storage Units

5.4.1. Assistance shall also be provided @ **Rs. 1.00 crore per unit** to SAUs / ICAR institutes for constructing 50 controlled seed storage units particularly to optimize the seed infrastructure. These infrastructures should provide support to seed hubs and other seed producing industries for storage of seeds on a prescribed fee.

6. Post-harvest Value Chain Support

- For increasing the efficiency of oilseed collection, oil extraction & recovery, Government/Private industries, FPOs and cooperatives shall be supported under the mission for setting up post-harvest infrastructure including improving the capacity or efficiency of existing infrastructure. VCPs shall be given preference for assistance under this component.
- The DOSM shall invite and review applications for the projects. Assistance for the selected projects (as per the below pattern) shall be disbursed through the State Action Plans.
- Scale of assistance for Post-harvest Value Chain –

Component	Pattern of Assistance
Machinery & Equipment for Oil extraction units (10 tonne capacity) and processing of oilseeds	33% of the project cost upto a maximum of ₹ 9,90,000

Assistance shall not be provided for land and building, nor shall their costs be considered when calculating the project cost.

7. Demonstrations:

Three types of cluster-based interventions are proposed under the mission:

7.1. Frontline Demonstrations (FLDs) by ICAR:

- Frontline Demonstrations (FLDs) on oilseeds under NMEO-Oilseeds shall be conducted by National Agricultural Research System (NARS) under the supervision of ICAR.
- The maximum area under FLD will be one ha per farmers under each crop. The size of FLD plot will be of one ha but not less than 0.4 ha and financial assistance shall be on pro-rata basis.
- All other terms and conditions as prescribed by DA&FW and ICAR from time to time shall be followed.

7.2. Cluster Front Line Demonstrations (CFLDs):

- Cluster Front Line Demonstrations (CFLDs) shall be organized through the KVKs working in the respective districts, in consultation with DOSM.
- KVKs shall prepare CFLD plan in consultation with DOSM preferably near to the concentration of fields identified by VCPs. However this shall not apply in case of CFLD for promotion of oilseed crop in fallow area or for intercropping.
- KVKs shall submit their plan through ATARI and ICAR and will be approved by

DA&FW.

- iv. Funds will be released to the KVKs directly by DA&FW / ICAR however their performance shall be monitored through DOSM, ATARI and ICAR as well as oilseed directorates.
- v. Expenditure for conducting CFLD shall be approved by DEC and utilization certificate shall be submitted through ATARI and ICAR.
- vi. CFLD of each oilseed crop should be organized in cluster approach (at least 10 ha for each cluster).
- vii. All other terms and conditions as prescribed by DA&FW and ICAR from time to time shall be followed.

7.3. Block Demonstrations by States:

- i. Block Demonstrations shall be organized in similar manner as CFLD through the agencies identified by the SOSM including SAUs.
- ii. Block Demonstrations shall be organized in cluster mode with a contiguous area of 20 ha in a village/villages/block except hilly regions/terrains, where the size of the cluster should not be less than 10 ha.
- iii. One demonstration shall be allowed to one farmer with a ceiling of one ha under each crop. The assistance will be on pro-rata basis with the reduction in area as per availability of land with individual farmer.

7.4. Other General Norms for conducting FLD/CFLD/Block Demonstrations:

The following conditions shall be followed for conducting FLDs/CFLDs/Block Demonstrations:

- i. Only 5 years old varieties/ hybrid of various oilseed crops shall be included in the demonstrations.
- ii. Area norms for FLD/CFLD shall be subject to revision as per ICAR guidelines from time-to-time through a general or specific order.
- iii. Critical inputs such as seed, seed treatment, micronutrients, organic/bio agents, organic/bio fertilizers, soil ameliorants, ecofriendly light traps etc., shall be provided to the farmers. Farmers shall apply recommended dose of chemical fertilizers to obtain potential yield.
- iv. All demonstrations shall be integrated, demonstrating the impact of seeds and other technologies together. There shall be no separate demonstration for separate technologies.
- v. Maximum 10% cost of demonstrations shall be utilized for preparation of sign boards/printed material, monitoring, distribution of literature and organization of field day, etc. and 90% expenditure shall be made for providing inputs and technology at farmers' field.
- vi. Soil health testing for all demonstrations shall be done and details shall be updated on the Soil Health portal before the start of demonstrations.
- vii. Krishi Mapper shall be utilized for comprehensive documentation of spatial and non-spatial data related to demonstration plots and crop cultivation. The services

of Self-Help Group (SHGs) or Krishi Sakhi or any other suitably trained ground level worker should be availed for this activity.

- viii. All Demonstrations shall preferably use digital crop estimation surveys using the DGCES mobile application under GCES wherever feasible replacing traditional manual processes.
- ix. Rates for FLD/CFLD/Block Demonstration for various oilseeds crops shall be declared by the DA&FW from time to time.

8. Area Expansion through Targeting Fallow Areas- Oilseeds and Intercropping:

- To enhance the area under cultivation and production of oilseeds, targeted efforts will focus on utilizing rice/potato fallow areas and promoting intercropping practices. The Government of India will provide 100% financial support for conducting demonstrations, either through special CFLDs or block-level demonstrations, in collaboration with KVKs, Cooperatives, and other relevant agencies. These demonstrations will be implemented in areas identified as having high potential by ICAR or other technical agencies.
- Fallow area and intercropping demonstrations will be restricted to states identified by ICAR. An indicative list of these regions is provided in **Annexure 6**. Additional areas may be included following consultation with ICAR and other technical experts.
- The following conditions shall be followed for implementation of the project:
 - i. Ensure implementation of various activities strictly as per the approved norms/ Guidelines of NMEO-Oilseeds.
 - ii. The demonstrations of each oilseed crop shall be organized in cluster approach (at least 10 ha for each cluster).
 - iii. CFLD or Block demonstration norms, terms and conditions (mentioned in section 7) as the case may shall apply for demonstration in TRFA and Intercropping.

9. Sub Mission on Minor Vegetable Oil:

- The sub-mission will support oil production through edible secondary sources, including cottonseed, coconut, and rice bran, as well as TBOs. It shall assist Farmer Producer Organizations (FPOs), cooperatives, and private industries in enhancing seed collection and oil extraction efficiency.
- For increasing efficiency of collection, transport, oil extraction and oil recovery, Processing Partners shall be supported under the mission. Government/Private industries, FPOs and cooperatives can become the processing partners. It must be ensured that there is no duplicity in support from other existing schemes. However, availing interest subvention may be allowed along with the above-mentioned infrastructure support.
- These partners may also develop other value chain facilities like weighing, soil testing, seed testing, sale of fertilizers, IPM/INM inputs, seed processing and

treatment (not covered under other schemes) and farmer advisory etc.

- The DEC shall invite, review and approve applications for the projects. Assistance for the selected projects shall be disbursed through the State Action Plan.
- **Proposed scale of assistance for the post-harvest value chain as outlined in section 6 of the guidelines.**

9.1. Project Based Assistance for Secondary Sources including Tree Borne Oilseeds (TBOs)

- Tree Borne Oilseeds (TBOs), predominantly sourced from forests and have the versatility to thrive in diverse agro-climatic conditions and can be cultivated in the country's vast forest and wasteland. Promotion of TBOs plantation not only holds promise for augmenting the availability of both edible and non-edible oils but also presents a significant opportunity for generating employment, particularly in tribal and rural areas. However, support under this component shall only be made available for edible sources of tree-borne oilseeds. Several TBOs such as Mahua, Simarouba, Kokum, Apricot, Cheura, Olive, Sal, Mango, Dhupa, Phulwara and Avocado etc. have significant potential. Given the substantial forest cover in India and the livelihoods of tribal populations dependent on forest produce collection, enhancing the production efficiency of edible oil from TBOs is paramount.
- Project-specific assistance on 100% funding from GoI shall be provided to the technical agencies related to the Secondary Sources including TBOs to address inefficiencies in collection and extraction, in collaboration with relevant technical agencies, ensuring the optimization of potential of Tree Borne Oilseeds (TBOs) and other secondary sources. Projects will be approved by DA&FW.
- Illustrative activities shall be target based including:
 - i. Integrated development of nurseries & plantation on the new wasteland as well as existing wasteland/ degraded forest land
 - ii. Maintenance of TBO Plantation till gestation period
 - iii. Standardization of package of practices for intercropping, designing and development of pre-processing and processing tools
 - iv. Value addition and Post-Harvest Techniques of various Tree Borne Oilseeds (TBOs) and
 - v. Analysis of various other parameters of TBOs for their alternate use, etc.

10. Farmer Field School (FFS)

- Value Chain Partners in coordination with the Technical Support Agency in the cluster organize Farmers Field School (FFS) of various oilseed crops to impart training on latest technologies and good agriculture practices including Integrated Pest Management (IPM), Integrated Nutrition Management, etc. to the farmers on farmer facilitator's field so that a large number of farmers can see live demonstration on latest technologies and good agriculture practices including Integrated Pest Management (IPM), Integrated Nutrition Management and various other technologies.

- FFS is a season long program to impart training to the farmers on one predetermined/fixed day in a week throughout the season in various aspects of production & protection technologies. Oilseeds cultivating farmers including local field staff from the village will be selected as trainees. FFS training is field oriented discovery based, learning by doing & participatory management. FFS is a "learning field" where farmers conduct experiments & comparison trials. The training curriculum will be based on local needs. FFS will be conducted in the morning and for about 4-5 hours. The total number of sessions in a season will be fourteen (14).
- Agro-Eco-System Analysis (AESAs) is one of the main FFS activities, through which farmers make crop management decision. At the end of FFS, farmers are expected to grow healthy crop by conserving natural pest enemies of crop and become experts in taking right crop management decisions in IPM.
- FFS will be conducted under the supervision of Technical Support Agencies designated for Value Chain Clusters. A separate manual of FFS will be developed by the Department of Agriculture for each of the oilseeds crops so that uniformity can be maintained across the country. Maximum of 1 FFS on 1000 hectare of a crop area will be organized the details of item wise breakup of cost of FFS are given below:

S. No.	Activities	Amount in Rs.
1.	Training material including IPM kit@ 200/- per kit	6000.00
2.	IPM literature & agricultural implements for cultural/mechanical practices @ 150/- per trainee	4500.00
3.	Pheromones/bio-pesticides, emergency spray, other relevant training material including planting of at least 100 neem trees	3000.00
4.	Contingent expenditure, banner during inauguration of FFS	2700.00
5.	Contingent expenditure on POL/hiring of vehicles	3000.00
6.	Refreshment for 14 sessions	9800.00
7.	Farmers' Field Day (one day) Miscellaneous contingent expenditure	2000.00
8	Honorarium for 2 facilitators/trainers @ Rs. 2000/- each for complete season.	4000.00
	Total expenditure for conducting one FFS	35000.00

10.1. Farmers' Training

Value Chain Partners in coordination with Technical Support Agencies will organize farmers trainings for the farmers in the cluster. Support of Rs. 30000/training for a batch of **30** farmers for 2 days will be provided to the Technical Support Agencies to organize the trainings. The breakup of expenditure on farmers' training is as under:

Components	Rate	Amount (Rs.)
Training material/ stationery/ venue cost/ Audio-visual aids etc.	Rs. 3000/- per training (maximum)	3000.00
Dormitory/ Travel/ Transport field visit etc.	Rs.5000/- per training (maximum)	5000.00
2 Meals /Refreshment for farmers	Rs.316.5/day X 30 farmers X 2 days	19000.00
Honorarium to SMS/ Scientist etc.	Rs.500/lecture X 6 Lectures in two days (maximum)	3000.00
TOTAL		30000.00

11. Soil Health Testing

- To enhance soil health and optimize fertilizer use while minimizing environmental impact, it is crucial to assess the fertility and nutrient status of the soil regularly. This evaluation provides valuable insights into the soil's nutrient availability, helping farmers make informed decisions on fertilizer application, thus promoting sustainable agricultural practices.
- Soil testing is an essential tool in this process, enabling the creation of a Soil Health Card for each farmer. The Soil Health Card serves as a personalized guide, offering a comprehensive analysis of the nutrient profile of the soil and providing recommendations for nutrient management. By identifying the exact requirements of the soil, farmers can apply fertilizers in precise, targeted doses, avoiding excess or insufficient usage, which leads to cost savings and improved crop productivity.
- To ensure widespread adoption of soil testing and its benefits, it has been made mandatory for all farmers registered in the clusters. This will be tracked through integration of Soil Health Portal with the National Mission on Edible Oils – Oilseeds (NMEO-OS) portal for seamless data exchange. This integrated approach will create a more efficient and standardized system for soil health management across the country.
- Support for soil testing is provided at a subsidized rate of ₹110 per Soil Health Card or convergence with the Soil Health Card Scheme. This support is a crucial step in making soil testing accessible to farmers, particularly those in rural or underserved areas, who might otherwise face financial barriers to testing. By ensuring that soil testing is both affordable and mandatory, the initiative aims to promote long-term soil health improvement, increase fertilizer use efficiency, and contribute to sustainable agricultural practices that benefit both farmers and the environment.

12. Digital Monitoring of the Mission

- Under this Mission, a comprehensive data tracking and monitoring system will be implemented using Krishi Mapper, a digital platform developed by the DA&FW. This system will ensure the accurate and real-time tracking of all activities related to the mission, enabling better decision-making and more effective implementation at the grassroots level.
- To facilitate seamless data collection and ensure broad participation, Self-Help Groups (SHGs) will play a pivotal role. These groups, particularly Krishi Sakhis (women community leaders), will be engaged to collect and update vital data on the Krishi Mapper platform. Their local presence and knowledge of the farming community make them ideal for this task, enabling efficient data entry and continuous monitoring. Their involvement also supports empowerment and capacity-building within rural communities, enhancing the sustainability of the initiative.
- In addition to SHGs, VCPs are tasked with registering participating farmers in advance. This process will be done through digital platforms such as Krishi Mapper, which will facilitate streamlined data collection, ensuring that all farmers are accurately registered and tracked throughout the program. This digital integration enhances transparency and accountability, making the monitoring process more efficient and effective.
- To ensure the effective implementation of this data collection system, support is provided at a rate of ₹30 per farm per season. This financial assistance is specifically for the hiring of Krishi Sakhis to update and maintain data on Krishi Mapper. This subsidy will help incentivize and compensate SHGs for their work, ensuring their sustained involvement in the scheme. By providing this support, the Mission ensures that the data collection process is robust, consistent, and efficient, leading to more accurate tracking, better monitoring, and timely interventions when needed.

13. Flexi Fund

State Govt. shall include IEC and other such activities under Flexi Fund which are not covered as an intervention under the programme within 10% of total allocation on sharing of expenses between Central and State Government in the ratio of 60:40 (General States, Delhi and Puducherry)/90:10 (NE & Himalayan states) and 100:00 for UTs.

13.1. Information, Education and Communication (IEC)

- Awareness initiatives under NMEO-OS shall focus on two primary target groups: producers (farmers) and consumers. Producer-centric efforts will concentrate on educating farmers about sustainable oilseed cultivation practices, capacity building of stakeholders, adoption of high-yielding varieties, and the benefits of government schemes. Consumer-centric awareness will focus on promoting optimal consumption of edible oils, raising awareness of their nutritional value, and generating demand for healthy indigenous oils.

- To facilitate producer and consumer centric education and engagement, VCPs, TSAs, ICAR, State Agricultural Universities and other institutions will be involved in creating and disseminating relevant content. MANAGE will play a crucial role in providing guidance and assistance to these institutions to ensure alignment with the goals of NMEO-OS. These efforts will include training programs, workshops, demonstrations of new technologies, and distribution of educational materials.
- Besides local governance bodies such as panchayats and municipal corporations, will also be roped in for generating awareness among the general public. Key activities will include community outreach programs, local workshops, and media campaigns to increase awareness and consumer participation.
- States may undertake activities under Flexi-Fund as per the Guidelines for Flexi- Fund within Centrally Sponsored Schemes issued on 6th September 2016 (see **Annexure 7**).

Annexure 1**Key performance metrics to monitor progress of the Mission**

S.no	Parameter	Units
1.	Crop-wise Area under Primary Oilseeds	Million Ha
2.	Crop-wise production of Primary Oilseeds	Million MT
3.	Crop-wise average Yield of Primary Oilseeds	Kg / ha
4.	Crop-wise oil Production from Primary Oilseeds	Million MT
5.	Oil production from edible secondary sources (rice bran, SEOs etc.) and edible TBOs	Million MT
6.	Number of crop wise cluster established	Number
7.	Number of Processing Partners supported	Number
8.	Number of Value Chain clusters established	Number
9.	Number of farmers benefitted from scheme benefits	Number
10.	Number of area covered under the scheme for seed distribution, demonstration, TRFA and inter-cropping	Ha
11.	Number of seed varieties demonstrated	Number

Pattern of Fund Sharing

S.no	Component	Pattern of sharing (GoI: State)	Assistance
1	Purchase of breeder seed	100%	100% cost of seed
2	Seed Distribution in Clusters	60:40 / 90:10 / 100:0	100% cost of seed in value chain clusters
3	CFLD / FLD / Special Demonstrations (TRFA and Intercropping)	100%	Rates for FLD/CFLD/Block Demonstration for various oilseeds crops to be declared by the DA&FW periodically
4	State Level Demonstrations	60:40 / 90:10 / 100:0	
5	Seed hubs and Storage units	100%	Seed hubs: - ₹ 50 lakhs for infrastructure - ₹ 100 lakhs in revolving funds Storage units: - Project specific as per CPWD norms @ Rs. 1.00 crore per unit.
6	Farmer Trainings and Farmer Field Schools	60:40 / 90:10 / 100:0	- ₹ 30,000 per batch of 30 farmers, - 1 FFS per 1000 ha @ ₹ 35,000 per FFS
7	Management and Outreach Assistance for VCPs	60:40 / 90:10 / 100:0	@ 1.5% of Training and Seed distribution cost
7	Post-Harvest Infrastructure Support	60:40 / 90:10 / 100:0	33% of the project cost upto a maximum of ₹ 9,90,000
8	Flexi Fund	60:40 / 90:10 / 100:0	As per the DoE guidelines

Annexure 3
State-wise annual targets for crop clusters

State	Crop	Cluster Area Target (Ha)
Andhra Pradesh	Castor	2000
	Groundnut	15500
	Safflower	250
	Sesamum	6800
	Soybean	400
	Sunflower	4200
Assam	Niger	650
	Rapeseed-Mustard	24000
Bihar	Soybean	2000
	Sunflower	1050
	Rapeseed-Mustard	5000
Chhattisgarh	Groundnut	400
	Niger	3700
	Sesamum	800
	Soybean	6400
Gujarat	Castor	32200
	Groundnut	42500
	Rapeseed-Mustard	15000
	Sesamum	11600
	Soybean	25950
Haryana	Groundnut	4000
	Rapeseed-Mustard	27000
	Sunflower	2900
Jammu and Kashmir	Rapeseed-Mustard	2000
Jharkhand	Groundnut	800
	Linseed	3600
	Niger	250
	Rapeseed-Mustard	46000
Karnataka	Groundnut	21400
	Safflower	7450
	Sesamum	5600
	Soybean	11400
	Sunflower	22900
Madhya Pradesh	Groundnut	19500
	Linseed	6000
	Niger	1300
	Rapeseed-Mustard	40500
	Sesamum	26100

State	Crop	Cluster Area Target (Ha)
	Soybean	81100
Maharashtra	Groundnut	16000
	Niger	650
	Safflower	6800
	Sesamum	1600
	Soybean	62000
	Sunflower	3900
Nagaland	Soybean	1200
Odisha	Niger	3300
Punjab	Sunflower	250
Rajasthan	Castor	12000
	Groundnut	32300
	Rapeseed-Mustard	73500
	Sesamum	31700
	Soybean	23800
Sikkim	Soybean	800
Tamil Nadu	Groundnut	40900
	Sesamum	6000
	Sunflower	1550
Telangana	Groundnut	14500
	Safflower	1200
	Sesamum	6000
	Soybean	10400
	Sunflower	5050
Uttar Pradesh	Groundnut	10000
	Linseed	4400
	Rapeseed-Mustard	59500
	Sesamum	30100
	Soybean	2400
Uttarakhand	Soybean	400
West Bengal	Rapeseed-Mustard	24000
	Sunflower	400

Illustrative list of Crop-wise Districts Identified for Clusters

State	Crop	District
Andhra Pradesh	Castor	Anantapur
	Groundnut	Anantapur, Kurnool, Chittoor, Kadapa, Spsr nellore, Srikakulam, Guntur
	Safflower	Kadapa
	Sesamum	Vizianagaram, Prakasam, Srikakulam, Visakhapatanam, Kadapa
	Soybean	Kurnool
	Sunflower	Kadapa, Anantapur, Kurnool, Prakasam, Chittoor, Spsr nellore, Srikakulam, East godavari
Assam	Niger	Barpeta, Kokrajhar
	Rapeseed-Mustard	Lakhimpur, Barpeta, Kamrup, Kokrajhar, Darrang, Dhubri, Dhemaji, Karbi anglong, Sonitpur, Chirang, Nagaon, Baksa
Bihar	Soybean	Begusarai, Khagaria, Lakhisarai
	Sunflower	Supaul, Madhepura, Khagaria, Purnea, Katihar, Bhagalpur, Banka, Araria, Saran, Gopalganj, Gaya, Jehanbad, Madhepura, Kishanganj
	Rapeseed-Mustard	Begusarai, Purnia, Rohtas, Samastipur, Muzaffarpur
Chhattisgarh	Groundnut	Jashpur
	Niger	Jashpur, Balrampur, Surguja, Bastar, Surajpur, Kondagaon
	Sesamum	Balrampur, Raigarh
	Soybean	Rajnandgaon, Kabirdham, Bemetara, Durg
Gujarat	Castor	Kachchh, Patan, Mahesana, Banas kantha, Surendranagar, Ahmadabad, Vadodara, Sabar kantha, Gandhinagar, Aravalli, Kheda, Morbi, Panch mahals, Rajkot, Jamnagar, Mahisagar, Bharuch
	Groundnut	Rajkot, Junagadh, Devbhumi dwarka, Amreli, Jamnagar, Banas kantha, Bhavnagar, Morbi, Gir somnath, Porbandar, Sabar kantha, Aravalli, Surendranagar, Kachchh, Mahesana, Botad, Gandhinagar, Kheda
	Rapeseed-Mustard	Banas kantha, Kachchh, Patan, Mahesana, Surendranagar, Devbhumi dwarka, Morbi

State	Crop	District
	Sesamum	Kachchh, Surendranagar, Botad, Amreli, Morbi, Bhavnagar, Devbhumi dwarka, Jamnagar, Rajkot
	Soybean	Junagadh, Aravalli, Gir somnath, Dohad, Chhotaudepur, Sabar kantha, Rajkot, Amreli, Vadodara, Surat, Tapi, Bharuch, Panch mahals, Narmada, Mahisagar, Dang
Haryana	Groundnut	Fatehabad, Sirsa
	Rapeseed-Mustard	Bhiwani, Mahendragarh, Hisar, Sirsa, Rewari, Charki dadri, Jhajjar, Mewat, Gurgaon, Fatehabad, Rohtak, Jind
	Sunflower	Kurukshetra, Ambala, Panchkula, Yamunanagar
Jammu and Kashmir	Rapeseed-Mustard	Anantnag
Jharkhand	Groundnut	Gumla, Simdega
	Linseed	West singhbhum, Simdega, Sahebganj, Latehar, Godda
	Niger	Gumla
	Rapeseed-Mustard	Garhwa, Latehar, Palamu, Godda, Dumka, Saraikela kharsawan, Giridih, Ranchi, Deoghar, Jamtara, Gumla, Koderma, Hazaribagh, Sahebganj, Simdega, East singhbhum, Chatra, Khunti, Pakur, West singhbhum, Lohardaga, Bokaro, Ramgarh
Karnataka	Groundnut	Chitradurga, Tumkur, Bellary, Gadag, Chikballapur, Dharwad, Haveri, Belgaum, Kolar, Koppal, Davangere
	Safflower	Bidar, Gulbarga, Dharwad, Gadag, Bijapur, Belgaum, Koppal
	Sesamum	Mandya, Koppal, Hassan, Mysore, Chamarajanagar, Chikmagalur
	Soybean	Bidar, Belgaum, Dharwad, Gulbarga, Haveri, Bagalkot
	Sunflower	Gadag, Koppal, Raichur, Bagalkot, Chamarajanagar, Belgaum, Bijapur, Bellary, Haveri, Dharwad, Chitradurga, Gulbarga, Mysore, Davangere, Yadgir, Chikmagalur, Hassan, Shimoga
Madhya Pradesh	Groundnut	Shivpuri, Chhatarpur, Tikamgarh, Datia, Niwari, Alirajpur, Neemuch, Barwani, Chhindwara

State	Crop	District
	Linseed	Seoni, Balaghat, Anuppur
	Niger	Dindori, Chhindwara, Anuppur, Mandla
	Rapeseed-Mustard	Bhind, Morena, Shivpuri, Guna, Sheopur, Ashoknagar, Gwalior, Chhatarpur, Rajgarh, Datia, Rewa, Panna, Tikamgarh, Mandsaur, Singrauli, Satna, Neemuch, Vidisha
	Sesamum	Chhatarpur, Sheopur, Panna, Datia, Singrauli, Satna, Tikamgarh, Sidhi, Katni, Bhind, Rewa, Morena, Shahdol, Sagar, Gwalior, Shivpuri, Umaria, Damoh, Niwari, Raisen
	Soybean	Ujjain, Rajgarh, Dewas, Mandsaur, Dhar, Ratlam, Shajapur, Sehore, Vidisha, Guna, Indore, Ashoknagar, Betul, Khandwa, Sagar, Shivpuri, Agar malwa, Neemuch, Harda, Bhopal, Jhabua, Khargone, Alirajpur, Damoh, Raisen, Barwani, Chhindwara, Sheopur, Hoshangabad, Burhanpur, Chhatarpur, Narsinghpur, Tikamgarh, Dindori, Satna, Anuppur, Seoni, Shahdol, Umaria, Panna
Maharashtra	Groundnut	Kolhapur, Sangli, Satara, Nashik, Dhule, Pune, Ahmednagar, Aurangabad
	Niger	Nashik, Ahmednagar
	Safflower	Latur, Osmanabad, Parbhani, Chandrapur, Hingoli, Nanded, Nanded, Gadchiroli, Solapur
	Sesamum	Jalgaon, Latur, Beed, Buldhana
	Soybean	Latur, Buldhana, Nanded, Washim, Beed, Yavatmal, Osmanabad, Parbhani, Hingoli, Amravati, Akola, Jalna, Nagpur, Wardha, Ahmednagar, Nashik, Chandrapur, Satara, Sangli, Solapur, Kolhapur, Nandurbar, Pune, Jalgaon, Dhule, Aurangabad
	Sunflower	Osmanabad, Solapur, Jalgaon, Latur, Ahmednagar, Sangli, Nanded, Pune
Nagaland	Soybean	Mon, Dimapur, Zunheboto
Odisha	Niger	Koraput, Rayagada, Kalahandi, Malkangiri, Kandhamal
Punjab	Sunflower	Patiala
Rajasthan	Castor	Jalore, Barmer, Sirohi, Jodhpur, Pali, Jaisalmer

State	Crop	District
	Groundnut	Bikaner, Jodhpur, Churu, Jaipur, Jaisalmer, Sikar, Nagaur, Jalore, Chittorgarh, Sirohi, Tonk, Jhunjhunu, Bhilwara, Dausa, Hanumangarh, Barmer, Sawai madhopur
	Rapeseed-Mustard	Ganganagar, Tonk, Alwar, Bharatpur, Hanumangarh, Bikaner, Jodhpur, Sawai madhopur, Jalore, Jaipur, Churu, Baran, Jhunjhunu, Karauli, Nagaur, Dholpur, Bundi, Kota, Dausa, Bhilwara, Pali, Ajmer, Jhalawar, Sikar, Jaisalmer, Barmer, Chittorgarh, Sirohi, Udaipur, Pratapgarh
	Sesamum	Pali, Sirohi, Jodhpur, Sawai madhopur, Jalore, Karauli, Bikaner, Bhilwara, Nagaur, Ajmer, Dausa, Churu, Tonk, Barmer, Jaisalmer, Hanumangarh, Jaipur, Dholpur
	Soybean	Jhalawar, Baran, Kota, Pratapgarh, Chittorgarh, Banswara, Udaipur, Dungarpur, Bundi, Bhilwara, Sawai madhopur, Rajsamand
Sikkim	Soybean	Namchi, Pakyong
Tamil Nadu	Groundnut	Tiruvannamalai, Namakkal, Villupuram, Salem, Erode, Dharmapuri, Krishnagiri, Vellore, Ariyalur, Tirupathur, Pudukkottai, Cuddalore, Ranipet, Thanjavur, Tiruppur, Tiruchirappalli, Kallakurichi, Chengalpattu, Thiruvallur, Dindigul, Virudhunagar
	Sesamum	Thanjavur, Kallakurichi, Erode, Karur, Cuddalore, Nagapattinam, Salem
	Sunflower	Virudhunagar, Thoothukudi, Dindigul, Karur, Ariyalur
Telangana	Groundnut	Nagarkurnool, Nalgonda, Wanaparthy, Jogulamba, Mahbubnagar, Vikarabad, Narayanapet
	Safflower	Sangareddy, Rangareddy, Vikarabad
	Sesamum	Jagitial, Nirmal, Nizamabad
	Soybean	Adilabad, Nirmal, Kamareddy, Nizamabad, Sangareddy, Komaram bheem asifabad
	Sunflower	Nizamabad, Siddipet, Kamareddy, Medak, Sangareddy, Bhadradi, Rangareddy, Rajanna, Mahabubabad, Karimnagar, Nirmal, Peddapalli
Uttar Pradesh	Groundnut	Jhansi, Mahoba, Lalitpur, Hardoi, Kheri
	Linseed	Mahoba, Sonbhadra, Mirzapur

State	Crop	District
	Rapeseed-Mustard	Agra, Mathura, Budaun, Aligarh, Sitapur, Kheri, Kanpur dehat, Jalaun, Etawah, Barabanki, Balrampur, Etah, Fatehpur, Hamirpur, Shahjahanpur, Kanpur nagar, Unnao, Auraiya, Bareilly, Hardoi, Sambhal, Hathras, Pilibhit, Firozabad, Kasganj, Jhansi, Kushi nagar, Bulandshahr, Kannauj
	Sesamum	Jhansi, Hamirpur, Mahoba, Jalaun, Hardoi, Banda, Unnao, Fatehpur, Sitapur, Lalitpur, Shahjahanpur, Kheri, Sonbhadra, Bareilly, Rae bareli, Kanpur nagar, Budaun, Farrukhabad, Kanpur dehat, Kannauj, Agra, Pilibhit
	Soybean	Lalitpur, Jhansi
Uttarakhand	Soybean	Nainital
West Bengal	Rapeseed-Mustard	Murshidabad, Nadia, Dinajpur dakshin, Dinajpur uttar, Birbhum, Maldah, paraganas north, Coochbehar, Purba bardhaman, Bankura, Medinipur west
	Sunflower	South Paraganas
	Groundnut	Jalpaiguri, Howrah, Hoogly, Paschim, Midnapur, Jhargram, Purba Midnapur
	Sesamum	Murshidabad, Nadia, North 24 PGS, South 24 PGS, Howrah, Hoogly, Purba Burdwan, Birbhum, Bankura, Paschim Midnapur & Jhargram

Annexure 5**Scoring matrix for the selection of FPO / Cooperative as VCP.**

S.no	Parameter	Weightage (%)
1	Years of operation	30
2	Number of farmers	30
3	Average revenue	30
4	Market / Industry Linkages	10

***In case of a tie of score**, FPOs formed under the 10000 FPOs scheme, FPOs associated with oilseeds registered with public agencies such as NAFED, NSC-OS etc. shall be given preference.

Scoring matrix for the selection of Public / Private Corporation as VCP.

S.no	Parameter	Weightage (%)
1	Years of operation	25
2	Average Revenue	25
3	Experience in Oilseeds / Edible Oil sector	15
4	Past experience in cluster development	15
5	Capability to address the value chain concerns of the farmer including procurement	20

Annexure 6

Illustrative list of Identified regions for TRFA demonstrations

#.	Crop	States/Regions
1	Castor + Cluster Bean	S. K. Nagar in arid eco-system
2	Groundnut	Rice- and potato- fallows in Gujarat and Western UP; rice fallows in Odisha and Jharkhand; NEH region; intercrops with sugarcane in UP, Odisha and Karnataka, etc.
3	Rapeseed- Mustard	NEH region, part of Telangana, Andhra Pradesh, West Bengal, Bihar and Karnataka under conserved moisture and assured irrigated conditions
4	Soybean	Andhra Pradesh, Arunachal Pradesh, HP, Jharkhand, UP, Uttarakhand, Punjab, Haryana and Odisha
5	Sesame	Parts of Bihar, Haryana, Punjab, Assam, and NEH region
6	Sunflower	Parts of Punjab, Haryana, Bihar, West Bengal, NEH region, Telangana, UP, and Madhya Pradesh
7	Safflower	Parts of Bihar, Haryana, Punjab, Assam, and NEH region

Identified Regions for Intercropping demonstrations

#.	Intercropping	Locations
1	castor + cluster bean	S. K. Nagar in arid eco-system
2	cotton + groundnut	Junagarh, under semi-arid ecosystem
3	wheat+ linseed	Sehore under sub humid ecosystem
4	maize + groundnut	Ranchi under sub humid ecosystem
5	rice + soybean	Jabalpur under sub humid ecosystem
6	rice + groundnut	Kalyani under humid ecosystem
7	wheat + mustard	Navsari under coastal ecosystem
8	mustard + black gram	Karjat under coastal ecosystem
9	groundnut + sunflower during kharif and groundnut + pigeon pea during rabi	Medak, Prakasam and Cuddapah districts of Andhra Pradesh
10	pigeon pea+ groundnut	Ranchi district of Jharkhand
11	wheat + mustard and chickpea + mustard	western zone of Haryana
12	pigeon pea + sunflower	Bellary district of Karnataka
13	chickpea+ mustard	Mandla and Morena
14	chickpea + mustard	Ujjain and Ratlam district of Madhya Pradesh
15	chickpea + mustard	Udaipur and Tonk district of Rajasthan
16	pigeon pea + groundnut	north central plateau of Orissa
17	wheat + mustard	Nasik and Dhule districts of Maharashtra
18	black gram + groundnut	Chengalpattu districts of Tamil Nadu

Guidelines for Flexi Fund

F.No. 55(5)/PF-II/2011
Ministry of Finance
Department of Expenditure
Plan Finance-II Division

New Delhi, dated 6th September, 2016

Office Memorandum

Subject: Guidelines for Flexi-Funds within Centrally Sponsored Schemes.

Reference is invited to this Department OM of even no. dated 6th January, 2014 on the subject mentioned above. It was stipulated that the Central Ministries should provide 10% of their budget under each CSS as a flexi-fund, except for schemes which emanate from a legislation or where the whole or a substantial proportion of the budgetary allocation is flexible.

2. Based on the recommendations of the Sub-Group of Chief Ministers and consultations with stake holders, NITI Aayog has issued instructions for Rationalization of CSS, vide OM No. O-11013/02/2015-CSS & CMC dated 17th August, 2016. As per para 6 of the said OM, flexi-funds available in each CSS has been raised from the current level of 10% to 25% for States, and 30% for UTs, of the overall annual allocation under each scheme.

3. These instructions will be applicable for Centrally Sponsored Schemes, except those which emanate from a legislation (e.g. MGNREGA), or, schemes where the whole or a substantial proportion of the budgetary allocation is flexible (e.g. Rashtriya Krishi Vikas Yojna, Border Area Development Program, Shyama Prasad Mukherjee Rurban Mission etc.). The provisions of this Department's OM No.55(5)/PF-II/2011 dated 6th January, 2014 *ibid* are substituted as follows:

Objectives

4. The flexi-fund component within the Centrally Sponsored Schemes can be used to achieve the following objectives:

- (i) To provide flexibility to States to meet local needs and requirements within the overall objective of any given Scheme at the sub-head level;
- (ii) To pilot innovation to improve efficiency within the overall objective of any given Scheme at the sub-head level;
- (iii) To undertake mitigation/ restoration activities in case of natural calamities, or to satisfy local requirements in areas affected by internal security disturbances.

Fund Allocation and Approval

5. States may, if they so desire, set aside 25% of any Centrally Sponsored Scheme (including the central and state share for any given scheme in a financial year) as flexi fund to be spent on any sub-scheme or component or innovation that is in line with the overall aim and objectives of the approved Scheme.

6. The States, who want to avail of the flexi-fund facility, should constitute a State Level Sanctioning Committee (SLSC) on the lines of RKVY to sanction projects or activities under the flexi-fund component. However, participation of the concerned Central Ministry would be mandatory in the SLSC before the flexi-fund facility is invoked under any Centrally Sponsored Scheme.

7. It may be noted that the Name, Acronym and the Logo are the core feature of any Centrally Sponsored Scheme, which must be retained for the flexi fund component as well. If the States change any of these core features, the central contribution will cease and the flexi fund component will become a purely state scheme.

Use of flexi-funds

8. The flexi-fund would continue to be part of the parent Centrally Sponsored Scheme. It may be operated at the level of the Scheme, Sub-scheme and its Components, but not at the level of the Umbrella Program, *for example*, flexi-funds can be spent on any sub-scheme or component, including creation of a new innovative component, under the primary education scheme, but cannot be used to move primary education funds to the higher education or to any other sector. However, it would be permissible to use flexi-funds to converge different schemes under an umbrella program to improve efficiency and effectiveness of outcomes, *for example*, nutrition mission can be used to converge anganwadi services with maternity benefits, and health care networks can be used to provide a continuum of health care services across the primary, secondary and tertiary levels.

9. It may also be noted that the purpose of flexi-funds is to enable the States to satisfy local needs and undertake innovations in areas covered by the Centrally Sponsored Schemes. Flexi-funds should not be used to substitute State's own schemes and project expenditures. It should also not be used for construction/repair of offices/residences for government officials, general publicity, purchase of vehicles/furniture for offices, distribution of consumer durables/non-durables, incentives/rewards for staff and other unproductive expenditures.

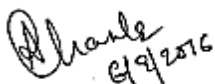
Monitoring, Evaluation & Audit

10. Web-based reporting for the use of flexi-funds may be designed by adding modules to the existing MIS. Outcomes (medium term) and outputs (short term) should be part of the MIS along with pictures/images and good practices to ensure greater transparency and learning across States.

11. Evaluation of flexi-funds may be done through the existing evaluation mechanism, including those set by the Ministries, NITI Aayog, or by independent third parties. Terms and conditions for evaluation may be designed in such a manner that outcomes of the Scheme as a whole, as well as the flexi-funds are well identified and measurable.

12. Flexi-funds within each CSS will be subject to the same audit requirements as the parent Centrally Sponsored Scheme, including audit by the Comptroller & Auditor General.

13. *These guidelines issue with the approval of the Finance Minister and come into force with immediate effect.*


(Arunish Chawla)

Joint Secretary to the Government of India

1. Secretaries, All Departments/Ministries, Government of India.
2. Chief Secretaries, All States/Union Territories.



सत्यमेव जयते

Oilseeds Division
Department of Agriculture & Farmers Welfare
Ministry of Agriculture & Farmers Welfare
Government of India
Krishi Bhawan, New Delhi

National Mission on Edible Oils - Oil Palm

(NMEO-OP)



**Operational Guidelines (2021-22* to 2025-26)
(*Effective 1st November 2021)**

**Department of Agriculture & Farmers Welfare Ministry of
Agriculture & Farmers Welfare Government of India
Krishi Bhawan, New Delhi-110001
April, 2022**

OPERATIONAL GUIDELINES OF NATIONAL MISSION ON EDIBLE OILS-OIL PALM
(NMEO-OP) (2021-22 to 2025-26)

1. CURRENT STATUS OF EDIBLE OIL PRODUCTION

1.1 India is dependent on imports to meet its edible oil requirements and is the largest importer of edible oils in the world. During 2020-21, India imported around 133.52 lakh tonnes of edible oils costing around ₹ 80,000 crore. Out of all the imported edible oils, the share of palm oil is about 56%, followed by soybean oil at 27%, and sunflower at 16%. Domestic edible oil production has not been able to keep pace with the growth in consumption which is above 25 million tonnes. The per capita consumption which was 15.8 kg per person per annum in 2012-13 has increased to around 19.00 kg at present. During 2020-21, the domestic production of edible oils was 122.89 lakh tonnes. The year wise production, import and export along with consumption of edible oils in the country is given in Table 1:

Table 1: Year wise Production and import of edible oils during last 6 years
(Quantity in lakh tonnes)

Year (Nov.-Oct.)	Domestic Availability	Imports of Edible Oils	Total Availability/ Consumption	% Self sufficiency	% Share of import s	Per capita availability of Edible Oil (Kg/yr)
2015-16	86.30	148.50	234.80	36.8	63.2	19.10
2016-17	100.99	153.17	254.16	39.7	60.3	18.75
2017-18	103.80	154.00	249.72	41.6	58.4	19.30
2018-19	103.52	150.00	259.22	40.0	60.0	18.26
2019-20	106.00	144.56	250.56	42.3	57.7	18.76
2020-21	122.89	133.52	256.41	47.92	52.07	18.25

2. OIL PALM DEVELOPMENT PROGRAMME

2.1 Oil Palm (*Elaeis guineensis*), which originated from West Africa is comparatively a new crop in India and has highest vegetable oil yielding capability per ha. It produces two distinct oils, i.e. palm oil and palm kernel oil, which are used for culinary as well as industrial purposes. Palm oil is derived from the fleshy mesocarp of the fruit, which contains about 45-55% of oil. Palm kernel oil, obtained from the kernel of oil palm, is the source of lauric oils. With quality planting material, irrigation and proper management, oil palm has the potential to produce 20-25 MT fresh fruit bunches (FFBs) per ha after attaining the age of 8-9 years. In comparative terms the yield of palm oil is 5 times the yield of edible oil obtainable from traditional oilseeds.

2.2 Government of India has continuously been making efforts to increase the area production of oil palm. For increased availability of edible oils in the country and to reduce the import burden, various interventions since 1991-92 through schemes such as the Technology Mission on Oilseed & Pulses (TMOP), Integrated Scheme on Oilseeds, Pulses, Oil Palm and Maize (ISOPOM), Oil Palm Area Expansion (OPAE), National Mission on Oilseeds and Oil Palm (NMOOP) and the National Food Security Mission (NFSM)–Oilseeds & Oil Palm were under implementation in 13 States viz; Andhra Pradesh, Telangana, Chhattisgarh, Tamil Nadu, Kerala, Gujarat, Karnataka, Odisha, Mizoram, Nagaland, Assam, Arunachal Pradesh, Manipur with the funding pattern of 60:40 in case of general States and 90:10 in case of North-Eastern States and hill States.

2.3 As a result of the developmental efforts over the years, the oil palm area which was 8585 ha in 1991-92, has increased to 3.70 lakh ha in 2020-21. Similarly, the production of Fresh Fruit Bunches (FFBs) from which oil palm is extracted, has increased from 0.21 lakh tonnes to 16.89 lakh tonnes in 2020-21. Crude Palm Oil (CPO) has increased from 0.01 lakh tonnes to 2.72 lakh tonnes during the same period.

3. OIL PALM GROWING STATES

3.1 Andhra Pradesh, Telangana and Kerala are the major Oil palm growing States and account for 98% of the total production. Karnataka, Tamil Nadu, Odisha, Gujarat and Mizoram also have a sizable area under Oil palm cultivation. Recently Arunachal Pradesh, Assam, Manipur and Nagaland have also initiated Oil palm plantation programmes.

3.2 Oil palm cultivation takes place in the States based on a catchment area allocated by the State Government to the Oil palm processors/industry. The prices for FFBs are either governed through the Oil Palm Acts of the State Governments, or through Regulations and Orders. The reasons behind the slow pace of development of oil palm in India are manifold, the most significant being the lack of assured price for the FFBs for the oil palm farmers and the uncertainty in the payment of price of FFBs since it is linked to the landed CPO price which is prone to major fluctuations in the payment. Further, there was no support from the Government of India for the FFB price to the farmer.

4. ASSESSMENT OF OIL PALM POTENTIAL AREAS IN INDIA

4.1 The reassessment committee of ICAR- Indian Institute of Oil Palm Research (IOPR) 2020 has assessed in the year 2020, a total area of around 28 lakh hectares fit for oil palm cultivation in India. Out of the total 27.99 lakh ha potential area, an area of 18.37 lakh is in the general states, and 9.62 lakh in the NE States. Presently in the North East the coverage is around 38,992 hectares against the potential of 9.62 lakh hectares, leaving much scope for expansion. During 2020-21, the production of CPO was around 2.72 lakh tonnes, obtained from 1.87 lakh hectares of fruiting area.



Potential Area and Area Coverage under Oil Palm in India

Potential Area

27.99 lakh Ha.

Area Covered

3.50 lakh Ha.
i.e. 13%

Fruiting Area

1.89 lakh ha

The state-wise potential area assessed by ICAR-IIOPR in 2020 and coverage up to March 2020 is given in **Annexure I**.

5. NATIONAL MISSION ON EDIBLE OILS- OIL PALM (NMEO-OP)

5.1 Considering the growing domestic demand for edible oils, the staggering deficiency and the cost to the exchequer on account of imports, the urgency of scaling up the oil palm area is of national interest and does not need any over emphasis. Therefore, to fulfil the national interest, **National Mission on Edible Oils - Oil Palm (NMEO-OP)** has been launched with the aim to enhance the edible oilseeds production and oils availability in the country by harnessing Oil Palm area expansion, increasing CPO production and to reduce import burden on edible oils. The State Department of Agriculture, State Department of Horticulture, Central University, ICAR-Institutions, CDDs, SAUs, KVKs, Central Agencies/Cooperatives, Oil palm processors/Associations, DD Kisan etc will be the implementing stake holders of the NMEO-Oil palm.

6. TARGET OF NMEO-OP:

- 6.1 Around 9 million tonnes of palm oil is imported every year which is around 56 % of the total imports of edible oil.
- 6.2 The target fixed for Oil palm area expansion by 2025-26 under NMEO-Oil palm is as under:
- To increase area of oil palm to 10 lakh hectares from 3.5 lakh ha during 2019-20 by 2025-26 (additional 6.50 lakh ha). The target for general states is 3.22 lakh hectares and 3.28 lakh ha for North Eastern states, with targeted FFB production of 66.00 lakh tonnes.
 - To increase in Crude Palm Oil production from 0.27 lakh tonnes during 2019-20 to 11.20 lakh tonnes by 2025-26 and 28 lakh tonnes by 2028-29.
 - Increase consumer awareness to maintain consumption level of 19.00 kg/person/annum till 2025-26. The state wise area expansion target for General and NE states is given in **Annexure- II**

7. YEAR WISE OUTPUTS AND DELIVERABLES:

The year wise area expansion (lakh ha), FFBs and CPO production (lakh tonnes) by 2025-26 is given below:

Oil palm	2021-22	2022-23	2023-24	2024-25	2025-26	Total
General states						
Area Expansion (ha)	40000	53000	69000	78000	82000	322000
Fruiting area (ha)	182425	193748	205659	218056	258056	
FFBs production (MT tonnes)	2138738	2514680	4199529	5399582	6599559	20852090
CPO production (MT)	362953	426942	712915	915925	1119920	3538656
North East states						
Area Expansion (ha)	10000	15000	126000	152000	25000	328000
Fruiting area (ha)	17417	21333	24686	27810	22819	31783
FFBs production (MT) @ 15 T/ha	261.24	319.99	470.25	417.15	440.92	1909.55
CPO production (MT) @ 18% OER	47.00	57.55	84.53	74.95	79.29	343.32
TOTAL (General & NE)						
Area Expansion (lakh ha)	0.50	0.68	1.95	2.30	1.07	6.50
FFBs production (lakh tonnes)	21.39	25.15	42.00	54.00	66.00	208.54
CPO production (lakh tonnes)	3.63	4.27	7.13	9.16	11.20	35.39

* Target proposed for area expansion in provision/tentative which may increase/decrease based on the proposal for Area expansion from the State/UTs.

8. STRATEGY

8.1 The strategy to implement NMEO-OP will include increasing production of seedlings by establishment of seed gardens and nurseries of oil palm to assure domestic availability of seedlings as per target fixed under NMEO-OP. Improving productivity of FFBs, increasing drip irrigation coverage under oil palm, diversification of area from low yielding cereals crops to oil palm, inter- cropping during gestation period of 4 years, would provide economic return to the farmers when there is no production.

The scheme would be implemented in a mission mode through active involvement of all the stakeholders. Fund flow would be monitored to ensure that benefit of the Mission reaches the targeted beneficiaries in time to achieve the targeted results.

9. FUNDING PATTERN & FUND FLOW:

9.1 NMEO-OP is a Centrally Sponsored Scheme and the cost will be shared as 60:40 between the Central and the State Government for General states and 90:10 for NE states and 100% for UTs and for central agencies. As per ICAR-IIOPR Report 2020, oil palm can be cultivated in 20 states covering 284 districts. All the potential states and districts identified by ICAR- IIOPR will be under NMEO-OP including NE states and Andaman and Nicobar Islands. Further, if States identify other districts suitable for cultivation, they will also be considered.

9.1.2 However, the potential districts having more than 4000 to 5000 ha will be given special focus for oil palm area expansion and productivity enhancement of FFBs. The State Governments will develop long term agreement between farmers, processors and states through the Oil Palm Act or any other mechanism prevalent in the state. They will also involve industries, ICAR, KVKs in the formulation, prioritization of activities & identification of beneficiaries at grass root level and ensure involvement of Panchayati Raj Institutions (PRI) . The assistance will be provided for water harvesting & irrigation through PRI and the details of assistance is given as **Annexure-III**.

9.2 The Department of Agriculture/Horticulture of the State Governments will be the Nodal agency for undertaking area expansion programme of Oil Palm in their States under NMEO-OP with close partnership with Processors. The funding pattern is 60:40 in case of general category States and 90:10 in case of North-Eastern states between Central and State Governments in all components except R&D projects, seed gardens, nurseries and viability gap payment (100% GOI share). ICAR, CDDs/CAU/SAU will be associated on 100% funding basis. The allocation of funds to the States would be made on the basis of their Annual Action Plan (AAP). For UTs it will be 100% funding for all components.

9.3 The states will involve processors/associations as per tripartite agreement for the implementation of the oil palm scheme in the state. The processors are also eligible for setting up of seed gardens and nurseries, distribution of planting material etc. The processors will submit their oil palm area expansion target and component wise AAP to the State for its inclusion in the AAP of the state, approved by SLSC.

9.4 The states will nominate Mission Directors of NMEO-OP under the Chairmanship of Secretary Agriculture/ Horticulture. The annual action plan of NMEO-OP of each state has to be approved by State Level Sanctioning Committee (SLSC) headed by the Chief Secretary.

9.5 The funds will be released to the State Departments of Agriculture/Horticulture through their respective State Governments. DBT will be used for transfer of funds to the State /Agencies/ Farmers/Processors/SAUs. The private sector and NGOs could be involved through the State Department of Agriculture, Horticulture & ICAR.

9.5.1 The Government of India will release the funds to the agencies for the 100% funded components/activities at Central level. The oil palm development programme of NFSM (OP) along with committed liability of the approved programme of 2020-21 and 2021-22 will be subsumed under the NMEO-OP. No permanent posts will be created by the Central or the

State Governments under NMEO- OP.

9.6 Release of Central and States' share for this scheme will be through **an escrow account** mechanism. Both the GoI and State share of funds shall be transferred to the escrow account. The Secretary, Department of Agriculture & Farmers Welfare would be authorized to release up to two instalments of 25% each to States without insisting on release of State's share. A Tripartite Agreement between Centre, State and the Bank would be signed for this purpose Annexure-XIV

9.7 Majority of the interventions of NMEO-OP are beneficiary oriented. The resources for Schedule Caste (17%) and Schedule Tribe (8%) will be earmarked for utilization under all the components of NMEO. However, states will be allowed to make allocation to SC/ST farmers proportionate to their population in the States/Districts. In addition, adoption of cluster approach is advocated for ensuring the participation of all farmers belonging to small/marginal, SC/ST/Minority/Women categories in a cluster. No area restriction is applicable for individual farmers for availing subsidy/ intervention.

10. NMEO-OP STRUCTURE

10.1 The progress in the implementation of NMEO-OP will be monitored by **General Council (GC)** and **Executive Council (EC)** at national level and **State Level Sanctioning Committee (SLSC)** at state level as given below:

10.2 A **National level General Council (GC)** will be constituted for suitable directives and guidance for each component chaired by Hon'ble Minister of Agriculture and Farmers Welfare, MoA&FW along with all members from stake holders. Joint Secretary (OS), DA&FW will act as Member Secretary of the GC. The GC is empowered to lay down and amend the operational guidelines, change the components/ intervention as per the requirement inclusion of new components, decide need-based reallocation of resources across the states and districts and approve projects as per requirement for all components of NMEO-OP. The composition of NMEO-OP GC will be as under. The GC will meet at least twice a year:-

Minister of Agriculture and Farmers Welfare	Chairperson
Secretary DA&FW	Member
Secretary (DARE) & DG (ICAR)	Member
Secretary, Department of Expenditure	Member
Secretary, Department of Commerce	Member
Secretary, DoNER	Member
Secretary, Department of Consumer Affairs	Member
Secretary, Department of Information & Broadcasting	Member
Secretary, Department of Food and Public Distribution	Member
Secretary, Department of Food Processing	Member
Secretary, Department of Rural Development	Member
Secretary, Department of Panchayati Raj	Member
Secretary, Department of Water Resources	Member
Additional Secretary and Financial Advisor, DA&FW	Member
Additional Secretary & Chairman of Viability Gap Payment Committee	Member
CEO, NRAA	Member
Adviser (Agriculture), NITI Aayog	Member
Agriculture Commissioner, DA&FW	Member
Advisor, Trade, DA&FW	Member
Joint Secretary, Marketing	Member

Joint Secretary, Extension	Member
Joint Secretary, Digital	Member
Advisor, (DES)	Member
Joint Secretary (Oilseeds), Mission Director	Member Secretary

10.3 A National level Executive Committee (EC) will be constituted under the Chairmanship of Secretary (A&FW) to oversee activities of NMEO-OP and to approve the Annual Action Plans (AAP) of the states and implementing Agencies. Joint Secretary (Oilseeds) will be the Member Secretary of EC. The EC will be empowered to decide need-based allocation/re-allocation of resources/ fund within the component/ inter-component or vis across States/Implementing Agencies. The Chairman may nominate additional members to the Committee as per the requirement. The JS/ Member Secretary, however, approve inter-component /inter-se diversion/changes in the approved AAP within the overall target out lay of the year. The Chairman, EC would be empowered to take decisions on file subject to ratification by the Committee. The NMEO- Oil Palm EC will meet once in every quarter. The Chairman of the Executive Committee may include any other member/ experts in addition to members tabulated below. The composition of the Execution Committee will be as under:

Secretary (DA&FW)	Chairperson
Additional Secretary & Financial Advisor (DA&FW)	Member
Additional Secretary & Chairman of Viability Price Fixation Committee	Member
Agriculture Commissioner, DA&FW	Member
Joint Secretary Marketing	Member
Joint Secretary Food Processing	Member
Joint Secretary Rural Development	Member
Joint Secretary Commerce	Member
Joint Secretary Panchayati Raj	Member
Joint Secretary, Seeds, DA&FW	Member
Advisor, Trade, DA&FW	Member
Horticulture Commissioner, DA&FW	Member
DDG (Hort.) ICAR	Member
Director, Institute of Oil Palm Research, ICAR	Member
Oilpalm Processors (any two on rotational basis viz. Ruchi Soya, Godrej Agrovet, 3F Oil palm Ltd Limited, and others)	Member
President , Oil Palm Development Association, Hyderabad	Member
Director, Doordarshan & DD Kisan	Member
Representative of MCX	Member
VC, CAU, Imphal	Member
Central agencies for Oilpalm FPO (any one on rotational basis)	Member
Six representatives from states on rotation basis (3from GS and 3 from NER)	Member
Joint Secretary (Oilseeds), DA&FW Mission Director	Member Secretary

**Nominee not less than the rank of Director*

10.4 State Level Standing Committee (SLSC) will be constituted by the State Government under the Chairmanship of the Chief Secretary to oversee the activities of the mission in the state and will be empowered to approve the Annual Action Plan of NMEO-OP of the state. Agriculture Production Commissioner/Principal Secretary/Secretary (Agriculture/Horticulture) of the State will act as Member Secretary of the SLSC to decide the priorities, to consider AAPs and review of their progress of each component in the

respective States. The State Government could involve the officials of various line Departments /Ministries and stake holders. A State Mission Director will be designated by the State Governments. The State Mission Director should at least be an officer of the level of Commissioner/Director of the Department of Agriculture/ Horticulture. The State Government will constitute a Project Management Team (PMT) at District Level for smooth implementation & monitoring of the various activities of NMEO- OP.

Chief Secretary of the respective state	Chairperson
Principal Secretary, Finance	Member
Principal Secretary , Irrigation	Member
Principal Secretary, Road & transport	Member
Principal Secretary, Cooperation	Member
Principal Secretary, Industry	Member
Principal Secretary, Panchayati Raj	Member
Director of Agriculture/Horticulture	Member
Vice chancellor of SAUs	Member
Representative of ICAR Institutions	Member
Representative of processors	Member
Representative of Oilpalm Associations/ Farmers Associations	Member
Nominee from DA&FW and Director of CDDs of respective state	Member
Principal Secretary Agriculture/ Horticulture Mission Director	Member Secretary

11. ROLE OF PANCHAYATI RAJ INSTITUTIONS:

11.1 The State Governments may develop a sound mechanism for involvement of PRIs in the formulation, prioritization of activities & identification of beneficiaries at grass root level and ensure involvement of NGOs, Self Help Groups and Private companies for the following activities:

- Selection of beneficiary for oil palm plantation
- Identification and mapping of priority areas / activity mapping for the implementation of Mission interventions
- Capacity Building of PRI Officials
- Implementation of Local Initiatives in the identified districts.
- Liaising with processors, state officials and SAUs
- Involving NGOs/SHGs/Private companies (Active/renowned)
- Member of the district level officers from cooperative

11.2 Gazette Notification for implementation of **Direct Benefit Transfer (DBT)** will be notified for NMEO-Oil palm. The DBT would be implemented to transfer NMEO-oil palm funds for identified interventions to all beneficiaries. The details of data bank related to beneficiaries would be uploaded to MIS of respective portals. The states and central agencies are therefore liable to make the beneficiaries entries in the National DBT portal of DA&FW.

12. AREA OF OPERATION:

12.1 NMEO-OP will be implemented in the various States as per recommendation of IOPR Report or State recommendation. NMEO-GC headed by Hon'ble Agriculture Minister would be

empowered for inclusion of additional potential States/districts with consultation of ICAR/ IOPR in addition to the identified areas as per the Report of IOPR, 2020. For NMEO- OP: Potential states and districts are of Andhra Pradesh, Chhattisgarh, Goa, Gujarat, Maharashtra, Madhya Pradesh, Mizoram, Karnataka, Kerala, Odisha, Tamil Nadu, Telangana, Arunachal Pradesh, Assam, Bihar, Manipur, Meghalaya, Nagaland, Tripura, Uttar Pradesh, West Bengal and Andaman & Nicobar islands.

13. MONITORING, REPORTING & EVALUATION:

13.1 Monitoring : National Level Monitoring Teams (NALMOTs) comprising of the technical officers from Department/Crop Development Directorates (CDDs), States Departments of Agriculture/Horticulture & the scientists of ICAR/SAUs including retired scientists with specialization in the crops concerned will be constituted under the Mission for field monitoring of the Mission activities by DA&FW. The progress of implementation would also be reviewed by the senior officers of the Department during their visits to the states concerned. The overall progress of implementation would be reviewed regularly by the Executive Committee (EC), and General Council (GC) of the Mission would be apprised of the consolidated outcome of monitoring activities for taking necessary corrective measures, if any. The States would constitute State Level Monitoring Team (SALMOT) at State level and Project Management Team (PMT) at district level. The Technical Support Groups would be actively involved in monitoring activities both at National & States level. Information Communication Technology (ICTs) tools like, mobile App, Video Conferences would also be utilized for facilitating interactions on implementation & monitoring, reporting and evaluation. Specialized software for the reporting, monitoring and evaluation reflecting the details of benefit extended to the individual beneficiaries will be developed through NIC. Updation of records/progress is the responsibility of the state government and the state will develop systems for seamless transfer of data to the Central Government on a monthly basis.

13.2 The concurrent, mid-term after 24-30 months and plan end (2025-26) impact evaluation of the Mission will be undertaken at National level through e-procurement and e-tendering as per GFR guidelines. An evaluation will also be undertaken during the third year of the implementation to assess the impact of NMEO-OP. Besides the State Government would also undertake concurrent & impact assessment on a year to year basis. A district wise baseline survey will be conducted by the Joint committee of State Department of Economic & Statistics, Department of Agriculture/Horticulture & Department of Revenue at the ground level to ascertain the target area, and existing productivity level of oil palm prior to inception to NMEO-Oil palm. This will be conducted by the State Mission Director at farmer's fields.

13.3 Reporting System: Separate websites and information technology tools developed in collaboration with NIC will be used for monitoring and evaluation of the mission. States and implementing agencies will compile & furnish the physical and financial status on implementation of the Mission through a Web-enabled Monitoring System. The State Mission Director will be responsible for reporting the progress of implementation of the Mission and will update the progress each month. The Central Government too will operate a separate website for the purpose in which seamless flow of data will flow from the states.

13.4 The States will be allowed to dovetail the resources with other programmes of GoI, wherever required to supplement the efforts of NMEO-OP. Complementary support / services

extended under the existing schemes of DA&FW such as RKVY, PMKSY, SMAM, MIDH will be dovetailed with the approved programme through a mechanism of inter-division consultations at different levels viz GOI, State Government and Districts to ensure delivery of comprehensive package of services without duplication to meet the desired targets of NMEO-OP. There will be convergence with Ministry of Rural Development and Panchayati Raj at the National level.

13.5 Under NMEO-OP, flexibility will be given to the States for inter component diversion of funds up to 10% except seedlings, intercropping and maintenance components. Inter Component changes in the approved AAPs of the states under NMEO-OP can only be allowed with the approval of NMEO-OP-EC. Small, marginal, SC/ST and women farmers involved in cultivation of Oil Palm will be given priority for providing benefits and support under Mission.

13.6 The States will be allowed to cover local initiatives which may be crucial and not covered as an intervention under NMEO-OP. The State may include such interventions with subsidy not more than 50% of the cost of the item/services. The format for monthly, quarterly and yearly progress report along with the submission of Annual Action Plan is annexed (**Annexure IVa&b and Annexure V**)..

14. INTERVENTIONS OF NMEO – OP

14.1 The present guidelines are applicable to NMEO- OP for its implementation from 2021-22 to 2025- 26, but will be subject to corrections after review of scheme as mentioned above. The NMEO-OP will cover all aspects of oil palm promotion having long term agreement with Farmers, Processors, States, Plantation & re-plantation support, FFBs price fixation, payment of viability gap of FFBs to the farmers, special package for NorthEast states *etc.* On the basis of the current needs, the various components of existing NFSM (OP) have been modified with increased assistance. The details of pattern of assistance under NMEO- OP is given in **Annexure-VI**.

15. SUPPLY OF PLANTING MATERIAL

15.1 Quality of planting materials coupled with proper management practices used greatly determines the enhanced productivity and higher production of FFBs. Assistance will be provided to the farmers through the State Department of Agriculture/Horticulture/ Oil palm processors for purchasing of planting material @ Rs. 20,000/ha for domestic seedlings and Rs. 29,000/ha for imported seedlings (at the rate of 150 plants per ha) for the entire land holding and planting area of the farmer. The performance of seed gardens & seed museums will be reviewed periodically by the Oilseeds Division of DA&FW. The assistance for imported sprouted seed/ planting material involves following expenses:

- **Non recurring expenses:** Sprout cost, Sprout transport & handling charges, Poly bag, Red Earth, Sand, FYM, Neem cake, Layout & bag filling, Nursery Establishment, *etc.*
- **Recurring expenses:** Fertilizers, Pesticides, Electricity, Diesel, Repair & Maintenance Labour. Overheads and administrative expenses, *etc.*

15.2 The planting material is more crucial in oil palm as the crop is perennial giving economic yields up to nearly 30 years. The base mother palms are from Thodupuzha in Kerala which are moderate yielders in terms of Fresh Fruit Bunch (FFBs). Selection was done for mother palms

having high FFB yield combined with more oil in mesocarp of the fruit, i.e., higher oil yield. Through repeated crossing and selection for a period of three decades, India has achieved a stage of third generation material with 15-20% improvement in FFB yield, and 5-6 tonnes of oil/ha/year.

15.3 Government of India has taken an ambitious target to cover 6.5 lakh ha in next 5 years from current area for which huge quantities of seedlings are required. As per the target, total seedlings requirement could be 975 lakh numbers in the next 5 years. The permission of import of germinated seed/ seedling/planting material could be allowed with NOC for non availability of domestically produced sprouted seed/planting material from IOPR or concerned State Govt. Import of Oil Palm sprouts take 7 months from placing of order and 12 months for quarantine. The sprouts are placed in a primary nursery for 3 months and a secondary nursery for 9 months to attain 3- 4 leaf stage. Therefore, the import of seedlings should be linked with actual plantation. The respective State Government may identify the districts wise 5 year advance area coverage planning for planning the year wise requirement of Oil Palm seedlings. A monitoring mechanism needs to be developed to monitor the permission granted for import and actual imported seedlings by the processor/State govt. The domestically produced seedling needs to be increased periodically and reduce imported seedling in phase manner. The requirement of seedling as per the provisional target of year wise/ state wise is tabulated below. However, year wise seed requirement may vary from year to year depending on the proposal for area expansion received from the States and approval granted by the competent authority.

The Plant Protection Division, DA&FW will be responsible for checking the quarantine requirements etc. necessary for the imported material.

Requirement of Oil Palm seedling by 2025-26

States	Approximately requirement of seedlings as per target (lakh no.) @ 150 seedlings/ha					
	2021-22	2022-23	2023-24	2024-25	2025-26	Total
Rest of India (RoI)	60	79.5	103.5	117	123	483
NE states	15	22.5	189	228	37.5	492
Total*	75	102	292.5	345	160.5	975

* Importer of the sprouted seed/ planting material of Oil Palm will be held responsible to execute permission granted for import timely of sprouted seed/planting material and ensure that all regulatory norms are adhered.

16. MAINTENANCE AND INTERCROPPING DURING GESTATION PERIOD

16.1 Support will be provided to the farmers for inputs of inter-crops and the concept of integrated farming will be incorporated during gestation period for entire land holding / plantation area for purchase of seeds/ fertilizers/ INM/ IPM/ fertigation/ tree guards and PP chemicals etc. During gestation period of 4 years, assistance for maintenance to the farmers will be given @ 50% of the cost limited to Rs. 50,000/ha (Rs. 6,250/ha per year for Maintenance and Rs. 6,250/ha per year for Inter-cropping) in NE/A& N Islands & Rs. 42,000/ha (Rs. 5,250/ha per year for Maintenance and Rs. 5,250/ha per year for Inter-cropping) for General States. The cost of maintenance & intercropping involves the following items:

- **Fertilizers, Organic Manure & Pesticide:** Fertilizers, Fertilizer application, OrganicManure, Manure application, Plant Protection, PP application, *etc.*
- **Other inputs :** Land preparation, Layout, pitting, planting, Basin preparation, Weed management, Repair & maintenance and Misc. expenses, *etc.*

16.2 Oil Palm starts producing Fresh Fruit Bunches (FFBs) after 3-4 years of its plantation and therefore, it becomes essential to maintain the plantation for 4 years through irrigation, fertilizer, intercultural operations, insect pest control, basin making, fencing *etc.* Growing of intercrops in oil palm such as cocoa, red ginger, heliconia, bush pepper, banana and ornamental crops would support the farmers during the initial non productive period of 4 years. This along with integrated farming should be converged.

17. ESTABLISHMENT OF SEED GARDENS AND SEED NURSERIES

17.1 Seed Garden:

17.1.1 Assistance will be provided for setting up of new oil palm seed garden under NMEO-OP on 100% funding basis by Government of India to the State Governments, FPOs Cooperatives, ICAR and processors, NGOs, start-up companies, *etc.* through the State. One-time assistance as subsidy for necessary infrastructure & setting up of new seed garden for a capacity 10.00 lakh seedlings per year and having at least 15 ha area will be provided. All the stake holders will also be provided revolving fund for import of sprouts, packing/levelling & accreditation of the garden *etc.* The assistance for RoI states will be Rs 40.00 lakh as one time grant and Rs. 40.00 lakh for revolving fund with a breakup of Rs. 20.00 lakh in the first year and Rs. 20.00 lakh in the 2nd year to sustain the seed garden. Similarly, the assistance for NE states will be Rs 50.00 lakh as one time grant and Rs. 50.00 lakh for revolving fund with a breakup of Rs. 25.00 lakh in the first year and Rs. 25.00 lakh in the 2nd year to sustain the seed garden.

One time grant (Rs in lakh/garden)	Revolving fund (Rs. In lakh)
40.00 for General states (RoI)	40.00 in two installments
50.00 for NE states and UTs	50.00 in two installments

2nd installment will be released only after satisfactory utilization of funds. State Govt. may ensure flow of fund as per provision & satisfactory performance.

17.1.2 Young entrepreneurs/start ups, NGOs, SHGs and Private companies having strong background & experience in agriculture/horticulture will be eligible for promotion and production of quality seedling. To increase production of indigenous planting material, establishment of Oil Palm seed garden in the country with enhanced cost norms is supported under NMEO-OP. To strengthen indigenous Oil Palm seed production, the following initiatives can be taken;

- (i) Availability of 3rd/ 4th generation mother palms with capacity to produce more than 30-40 tonne FFBs/ha/year
- (ii) Low cost production strategy
- (iii) Strengthen well acclimatized and suitable for irrigated conditions
- (iv) Planting material with slow vertical growth with high water use efficiency

For quality checks of indigenously produced seed production, following checks are required to be observed:

- (i) Continuous quality checks during seed production procedure are mandatory with the technical support from the ICAR-IIOPR along with supply of mother palm.
- (ii) Sprouted seed must be tested by Molecular marker developed by IIOPR for fruit type identification at seedling stage randomly upto 1% of population to avoid admixture of Dura of hybrid seed supplied to farmers.

The agency wise expected availability of seedlings both from domestic and import over the years is given in **Annexure-VII**. Operational issues of the seed garden and seed nursery will be finalized separately on the basis of technical backup/inputs received from IIOPR/ ICAR/SAUs/State Govts/Processors *etc.* The provisional outline of seed garden is given at **Annexure-VIII**

17.1.3 The State Governments may also setup/ start joint venture/lease out seed gardens to processors, farmers' Self Help Groups/FIGs/ Women Group/NGOs/Cooperative Societies/FPOs through State Government within the State AAP. The assistance for Seed Gardens involves following expenses such as Land lease, Land development, Drip irrigation infrastructure, Bore well & pump sets *etc.*, Transformer and Electrical appliances, Buildings and germination chamber, Laboratory, Fencing & Civil works, Security, Miscellaneous. For any other expenditure required, approval may be obtained from the Oilseeds Division, DA&FW.

17.2 Establishment of Seed Nurseries: The provision of funding on 100% basis for establishment of seed nursery of 10 ha size has been made for raising seed nursery to the cost of Rs 40 lakhs for RoI, and Rs 50 lakh for NE states and UTs through farmers association, cooperatives, NGOs, SHGs, private companies, *etc.* The proposal should be routed and approved through State Govt. The State Govt. should release funds in two installments on satisfactory performance.

17.2.1 The germinated seeds are planted in the nursery and maintained by entrepreneurs for 12 months in two stages (primary and secondary) and then they are planted in the main field (farmer's field). The seed nursery owner is responsible for keeping the seedlings in the net house and its maintenance as per standard defined by IIOPR/ICAR/SAUs and follow the cost norms to produce quality seedlings to compete with the imported seedlings in due course. Random checks in all the oil palm nurseries will be carried out by the GoI as well as the State Govt.

17.2.2 Activities for quality production of seedling under nursery include land lease, Shade net and infrastructure (primary nursery), drip irrigation system installation, installation of mainline from bore wells to main nursery, overhead irrigation system, Others (bore well, Power & Water connections), pond excavation with HDPE line (500micron), Bore well motor, pump set *etc.*, trenching and land preparation, fencing, plant quarantine and compliances, transformer and electrical appliances, Security, Miscellaneous. For any other expenditure required, approval may be obtained from Oilseed Division, DA&FW. The provisional outline for establishment of seed nursery is given at **Annexure-IX**.

18. DRIP IRRIGATION

18.1 Drip irrigation support will be given to the oil palm growers under NMEO-Oil Palm

for installing micro irrigation system as **Per Drop More Crop micro irrigation component of PMKSY operational guidelines**. The technical details and cost of installation for different crop spacing given in the operational guideline of **PMKSY** should be adhered. Drip irrigation system in states with low penetration and drip irrigation system for NE states would be implemented as per the norms of PMKSY. The specification for drip irrigation should be applicable as per PMKSY norms.

18.2 It is proposed to cover 50% of the approved targeted area (6.50 lakh ha) to be brought under drip irrigation for which assistance will be as per PMKSY norms. The tentative year-wisetarget to be cover under drip irrigation is given below:-

Drip irrigation	2021-22	2020-23	2023-24	2024-25	2025-26	Total
Target area (lakh ha)	0.25	0.50	0.75	0.7	0.75	3.25
General states	0.187	0.40	0.577	0.575	0.56	2.50
NE states	0.06	0.10	0.175	0.175	0.187	0.75

These targets are provisional subject to change with the demand from the State Govt as per their requirement.

19. BORE WELL, PUMP SETS, WATER HARVESTING STRUCTURE, VERMI COMPOST UNIT

19.1 Pump set: Oil Palm growers to take up 2 ha or more area under Oil Palm plantation will be provided assistance for pump sets as per the norms of Sub-Mission on Agriculture Mechanization (**SMAM/MIDH**) for (diesel/electric/petrol) Solar pumps will also be encouraged as per norms of PM-KUSUM. The distribution of pump set could be in addition to the drip irrigation. These cost norms are provisional subject to change in norms of the respective schemes/programmes such as SMAM/MIDH/PM-KUSUM.

19.2 Water harvesting structure: The assistance of water harvesting structure/ Ponds/ tanks will be as per MIDH guidelines and convergence of other schemes of Government of India should be explored. The cost norms are subject to change as per respective programmes/schemes.

19.3 Bore wells: The assistance for construction of bore wells/ tube wells @ 50% limited to Rs. 50000/unit would be admissible, subject to condition that these are not installed in critical, semi critical and water exploited ground water zones.

19.4 Vermicompost support will be available @50% of the cost limited to Rs. 15000/ vermicompost unit with a size of 15m length, 0.9m width and 0.24 m depth at oil palm field/garden of the farmers.

20. MACHINERY/ HARVESTING TOOLS

20.1 FFBs of oil palm is a perishable item and Harvesting of FFBs need special tools, machinery and skilled labor. The modern tools available are costly. Therefore, the assistance for harvesting tools like cutter, wire mesh, motorized chisel, portable ladder/poles, chaff cutter, tractor & trolley etc have been revised. Items included in SMAM are also eligible for assistance.

20.2 The States may also support Farmer's Association/NGOs/Self Help Groups/Farmers Groups/ Women Groups/Cooperative Societies/FPOs for this component under AAP. Support will be provided for equipments/tools up to 50% of the cost and/or up to the

amount, for equipments/tools:

- (i) Manually handled/high reach oil palm cutter –Rs 2500 per unit
- (ii) Oil Palm protective wire mesh-Rs 20,000 per unit
- (iii) Motorized Chisel – Rs 15,000 per unit
- (iv) Aluminium Portable ladder – Rs 5000 per unit
- (v) Chaff cutter for chaffing of oil palm leaves– Rs. 50000/- per unit
- (vi) Tractor up to 20 HP with trolley as per SMAM guidelines and ny other machinery recommended by ICAR/SAUs, which is useful to the oil palm growers could be included under local initiatives covered under flexi fund.
- (vii) Import of machinery viz; mechanical sprayer for young oil palm fields, mechanical oil palm harvesting machine, compact FFBs transporter/sprayers etc. with specific approval of DA&FW is permitted.

21. CUSTOM HIRING CENTRE CUM HARVESTER GROUPS

21.1 Custom hiring centres cum FFBs harvester group by processors/State/SHGs/FPOs/Registered societies will be created in each states. Interested persons will form a group consisting of 20 persons as Self Help Group / Association / Registered society / group etc. Farmers will inform their requirement for harvesting FFBs from their oil palm plantations. One time grant for Rs.25.00 lakh per unit for equipments, tools, training, contingencies, maintenance etc. will be given. One HG will cover 500 hectares.

21.2 Oil palm crop comes to production during 4th year and continues till 25-30 years. Nearly 25- 30% of cost is involved for harvesting. Harvesting of bunches is a skill oriented job. Harvesting involves cutting of leaves and bunches from different age, height palms, either with chisel (used for harvesting of bunches from small palms) or sickle attached to aluminium pole (used for harvesting bunches from tall palms) extendable up to a height of 35±10 ft. Harvesting of Fresh Fruit Bunches (FFB) should be done in a specific time immediately after ripening of bunches and sent to the processing factory.

21.3 Custom Hiring Centre for oil palm harvesters will render their services in particular zone/Block/Village panchayat based on notified area of oil palm plantation. Farmers will inform their requirement for harvesting FFBs from their oil palm plantations well in advance to reduce wastage.

22. OILPALM PROCESSING MILLS IN NE STATES

22.1 FFBs are highly perishable in nature and therefore, require crushing within 24 hrs of harvesting. Therefore, creation of processing units is a pre-requisite for under taking area expansion of oil palm. In order to provide a complete package for oilpalm development, new mills will be setup in NE states @ 50% of the cost limited to Rs. 500.00 lakhs for a FFB processing unit of 5 MT/hr for newly planted oil palm area. The assistance will be given to processors, Cooperatives, Federations, Government recognised farmer associations, state Government Agencies through State Government. The assistance on setting up of FFBs processing unit will increase, proportionately for additional capacity of processing/hours. The land for mills will be provided by the State Govt to the processor on

lease/rent/purchase basis. Provision of assistance for Oilpalm Processing Mills is confined to NE States/UTs only.

23. SPECIAL PACKAGE FOR North Eastern States

The North East States though have ample scope of oil palm area expansion. However the high terrain and different agro- climatic situations need additional investment for oilpalm cultivation. Therefore, the following special package of oil palm in NE states is to be provided.

- i) 50% of the actual cost and 20% of total outlay on Oil Palm for roads from field to nearest FFB collection/ processing centre.
- ii) Assistance for clearance of land before oil palm plantation (Rs.3000/- per ha)
- iii) Half-moon terrace (Rs.4000/- per ha)
- iv) Bio fencing with bamboo and other means in oil palm field by way of suitable fencing (Rs.4000/-per ha).
- v) Integrated farming system @ Rs. 10000 per ha. for back yard poultry, animal, fodders, kitchen gardening *etc.*

24. TRAINING OF FARMERS AND OFFICERS

24.1 Farmers Training: As per the norms of NMEO-Oilpalm, support @ Rs. 30000/training for a batch of 30 farmers for 2 days will be provided to organize the trainings to the farmers. The breakup of expenditure on farmers' training is as under:

Components	Rate	Amount (Rs.)
Training material/stationery/venue cost/ Audio-visual aids <i>etc.</i>	Rs. 3000/- per training (maximum)	3000.00
Dormitory/Travel/Transport field visit <i>etc.</i>	Rs.5000/- per training (maximum)	5000.00
2 Meals /Refreshment for farmers	Rs.316.5/day X 30 farmers X 2 days	19000.00
Honorarium to SMS/ Scientist <i>etc.</i>	Rs.500/lecture X 6 Lectures in two days (maximum)	3000.00
TOTAL		30000.00

Farmers training preferably is required to be organized before the peak season the planting or at the time of fruiting.

24.2 Officers Training: The extension officers, field workers in the processing mills, technical persons and other field functionaries are first source of information to the farmers. The extension officials and representative of processors need to be trained and made aware of the new technologies and developments in oil palm cultivation so that they communicate the same to the farmers. Support will be provided @ Rs. 40000/- per training for a batch of 20 participants of extension officials and input dealers for organizing orientation/refresher training. ICAR-IIOPR will also organize such trainings subject to inclusion in the FLD Annual Action Plan. Scientist /expert of this field from Govt./SAUs/KVKs/ retired Scientists/experts are eligible for honorarium. No TA/DA will be given for attending training of working scientist/experts.

Components	Rate	Amount (Rs.)
Training material/stationery/venue	Rs. 5000/- per training	5000.00

cost/ Audio-visual aids etc		
Lodging/Travel/Transport/Visits etc	Rs.17000/- per training	17000.00
Honorarium to Trainer/Scientist	Rs.500/lecture X 8 Lectures in two days	4000.00
2 Meals /Refreshment for officers/extension workers	@Rs.350/day X 20 officers/extension workers X 2 days	14000.00
TOTAL	40000.00	

25. REPLANTING OF OLD GARDEN

Oil palm has an economic life span of around 30 years. The plantations made during 1991-92 have become more than 30 years old which need immediate replanting. Similarly, every year old plantation of 25- 30 years need to be replanted to maintain the overall planting area. Replanting involves uprooting of tree, removing of tree from the field and digging of new pits, all of which are labor consuming activities. A new component of Rs. 250 per plant assistance has been provided for the purpose. The assistance for planting materials for replanting may be obtained separately in addition to the planting material components.

26. RESEARCH & DEVELOPMENT (R&D) SCHEMES

26.1 Need based 100% support will be given for new R&D schemes of CAU/ICAR-IIOPR/SAUs, Central Agency, NGOs Registered Societies. Registered Societies/ NGOs/SHGs must have experience of 10-15 years of the field of Agriculture/Horticulture/plantations etc. Financial support will also be provided for need based, time bound target oriented research projects to bring break through yield improvement of oil palm. Besides, funds will also be provided for import of germplasm, and maintenance of existing seed gardens of oil palm, demonstration fields, inter-cropping, Kisan Mela, Seminar, Workshop, Exhibition, Consumer awareness, Oil palm promotion campaign Doordarshan programmes, All India Radio, etc.

26.2 Conducting Oil Palm Meet/Conference at National Level: To assess the demand of the oil palm germinated seed from indigenous sources, preparation of supply schedule for ensuing season/years from various seed gardens and quality related issues needs to be addressed. The meet shall be attended by the all concerned stake holders such as DA&FW, State Govt. officials, owners of the seed garden/ seed nursery, entrepreneurs, processors and scientists from IIOPR/ICAR/SAUs, etc. to discuss area expansion, quality check parameters and problems related to planting material, etc. Expenses for this account will be met from OE/OAE.

27. FLEXI FUND

State Govt. may include such activities under Flexi Fund which are not covered as an intervention under the programme NMEO Oil palm within 10% of total allocation under Oil palm. The activities under Flexi Fund may cover the following:

- i. Essential activities required for improving oil palm area and production of FFBs viz; transport cost of seedling of oil palm, assistance for harvesting of FFBs from tall palm tree, ring well, FFBs transportation charges from field to processing mills etc. with prior permission of DA&FW.
- ii. Support for publicity programme by the implementing States on Oil Palm under NMEO-Oil Palm.
- iii. Support for organizing exposure visits (inter and intra state) of farmers and/or officers and for organizing Seminar/Conference/Workshop, awareness campaign etc.

by the implementing states/ processors on oil palm crop & its technologies and support to states for use of ICT.

- iv. Concurrent/Mid Term and end of the Mission evaluation and miscellaneous expenses of NMEO-Oil Palm components by an independent agency.
- v. Any other interventions in the state as state specific local initiative which may be crucial for effective implementation & adoption of best practices in increasing production and productivity of palm oil and to encourage farmers to grow oil palm crop under the programme, but not covered as an intervention. Pro-forma for submission of Annual Action Plan is at **Annexure-IV a&b** and submission of Monthly/Quarterly progress report is at **Annexure-V**.

28 PROGRAMME MANAGEMENT EXPENSES (PME):

28.1 Programme Management Expenses (PME)/Technical Support Group (TSG) at National Level:

Up to 1% of the funds allocated under NMEO- Oil Palm will be earmarked at national level to meet the contingency expenditure including engagement of contractual manpower for monitoring of implementation of the Mission. Under NMEO- Oil Palm the provision for Technical Support Group (TSG), comprising 2 National Consultants, 3 Young Professionals, 5 Data Entry Operators (DEOs) and 5 MTS on contractual basis will be engaged for the next three years. The basic qualification, experience, honorarium of consultant, Young Professionals/DEO/MTS is given at **Annexure-X**.

At National Level Technical Support Group (TSG) of contractual staff will be engaged under NMEO-OP as per table given below:

Approved Contractual Staff at National Level

Post	Rate of Honorarium (Rs. per months)	Number
National Consultant (One for NER & one for RoI)	90000	2
Young Professionals (one IT background & remaining from Agriculture/Agri-Business Management)	60000	1+2=3
Data Entry Operator (DEO)	30000	5
Multi Tasking Service (MTS)	22000	5

- As per the existing pattern of support to CDDs for outsourcing PMU, each CDD can outsource one Consultant, two Technical Assistants and one DEO/Stenographer with honorarium at par to state level PMU.

28.2 Programme Management Team (PMT)/Technical Support Group (TSG) at State Level:

PMT at state Level upto 3% of total allocation under NMEO-Oil Palm will be provided for engaging state/district level consultant/Technical assistant and DEOs. The PMT will have the responsibility to ensure collaboration among various line departments in the circle/state/district to achieve the target of oil palm production. The appointment of technical manpower will be made on contract basis with the terms of reference laid down for the purpose of NMEO-EC. The PMT will provide the technical service/advice. The basic qualification, experience, honorarium of consultant, Technical Asstt. is also given in NMEO-OP guideline **Annexure-XI**.

Approved Contractual Staffs at State Level

Post	Rate of Honorarium (Rs. per months)	No.
At State HQ		
Consultant (Oil palm)	65000	1
TA (Oil palm)	40000	1
At District level (Only for identified District)		
TA	35000	2
DEO	25000	2

28.3 Programme Management Unit (PMU) at District Level: A maximum of two Technical Assistants (TA) for the project period having a basic degree in agriculture with computer skills may be engaged purely on contractual basis to support at district level within the 5% of total allocation of the state. The qualification of district level TA can be relaxed with consultation with Mission director to Graduate level preferably from Biological science/Life science. The basic qualifications and experiences required for Consultants /Technical Assistant/ DEO is given in **Annexure-XII**.

The following activities will be covered under this intervention:

- i. States will be allowed to engage state level consultants/ supporting staff as Technical Support Group (TSG) purely on contractual basis. Hiring of vehicles/ Monitoring of scheme/attending workshop/meetings by state functionaries *etc.* for implementation of the programme is allowed. No purchase of vehicles and no permanent post will be created.
- ii. States will be allowed to incur any other expenditure that may be essential for smooth implementation of the programme such as office stationery, office equipments, expenses towards monitoring *etc.* at the discretion of the State Govt. within the allocation of PME.

29. Viability Price, Formula Price, Viability Gap Payment & FFBs Price fixation (Annexure XIII)

I. Viability Price for price of FFBs as assured returns to the farmers

- (i) Since India remains heavily dependent on imports, international CPO prices will continue to affect the prices of domestic FFBs. Hence it is necessary to insulate the farmers from this volatility in prices. Thus a new mechanism has been formulated in the interest of the farmers to ensure their remunerative returns to build up their confidence to undertake Oil Palm plantation.
- (ii) A **Viability price (VP) for the price of FFBs has been introduced**, which will be the mechanism for the assured returns to the farmers, to take care of the fluctuations, and will guarantee a price for their produce with an objective formulation.
- (iii) For assurance to the farmers for the prices of FFBs during the Oil Palm Year (OPY), which is from 1st November till 31st October for next year, the Viability Price (VP) shall be declared in November of each year. **This VP of FFB per ton shall be 14.3% of the annual average price of CPO of the last 5 years adjusted with wholesale price index (WPI) of all India.** Every year starting with OPY from the month of 1st November, the Government of India shall declare

the VP for that OPY by a committee of the Department of Agriculture & Farmers Welfare. Through declaration of this VP, the farmers will know at the beginning of the year the price they will be paid for their produce of FFBs.

II. Formula Price (FP):

- (a) For the assured payment to the farmers, a concept of formula price has been introduced. **The simpler formula is, FFB price = 14.3% of CPO price. This will replace the CACP Formula of 2012.** The FP will be average monthly (of the preceding month) landed CPO price multiplied by a multiplication factor 14.30%, as applicable in case of the Viability Price. **The Formula price would be used only for the calculation of viability gap funding calculation in every month.**
- (b) Though the calculation of 14.3 % has been taken for the calculation of FFB price for conversion from the CPO price, but for a PAN India scheme, **CPO price for this scheme will be the CPO price for Kandla delivery traded on Multi Commodity Exchange India (MCX), moderated on a lower side by 1.5 %.**

III. Viability Gap Payment (VGP):

The Industry pays the farmers for their FFB produce based on the monthly prices fixed for the FFBs. **If the payment to farmers by the industry is below the VP, the Government will provide a VGP to ensure that the farmers payment reaches the VP.** In this scenario, the farmer would be entitled for payment of VGP, which **shall be the VP for the Oil Palm Year (OPY) minus the Formula price (FP) for that particular month, in case the farmers payment by the industry is less than VP.** The VGP from, 1st Nov, 2021 to 31st Oct, 2028, shall be 100% difference between the VP and the FP price for a particular month. Thereafter, every 3 years (1st Nov, 2028 to 31st Oct, 2031; 1st Nov, 2031 to 31st Oct, 2034 and 1st Nov, 2034 to 31st Oct, 2037), will decrease by 25 % to reach landed CPO price in 2037. **There will be no VGP liability for the Government from 1st November 2037.**

IV. Industry Payment in Rest of India , NER and Andaman & Nicobar Islands :

- (a) While for the calculation of FP, a constant of 14.3 % of CPO has been taken, for the minimum industry payment to the farmers, this will increase gradually. Industry will pay based on 14.3% of the average monthly price of CPO from 1st November 2021 to 31st October 2028. This payment by the industry shall increase by 0.25 % every three years from 1st November 2028, till 31st October 2037 to reach 15.3 % on 1st November 2037. From 1st November 2037, the farmers will be paid 15.3 % of CPO as FFB Price. Details of the CPO price traded at Kandla Exchange will be provided by the Government of India through a portal and will be shared to the state governments on a daily/monthly basis.
- (b) To give impetus to the North East (NE) and Andaman & Nicobar Islands (A&N Islands), specially because of the existing terrain, tough conditions and need for investment in the industry, Government of India will provide a special payment for NER and A&N Islands, to ensure that the farmers are paid at par with the rest of India

V. Presently through the Oil Palm Acts/ Regulations/Orders, State Governments are fixing the price for the FFBs which is paid by the industry to the farmers. In case States do not adopt the industry payment as per this scheme, they shall be at liberty to continue with their own payment system, and in

such a case the industry will be mandated to pay the State mandated price. **In case States do not adopt the industry payment pattern of the scheme, then industry shall pay the state mandated price and in such a case, neither VGF or special NE payment shall be payable by GoI. Thus the payment of VGF or special NER payment by GOI shall be applicable only if the states adopt the formulation of payment of FFB price of the scheme. For this the states adopting the approved scheme payment pattern by the industry will sign a memorandum of Understanding (MOUs) with the Government of India for the same. A sample of the MoU is at Annexure XVI. The payment by Government of India & the Industry as mentioned above has been summarized in the table below.**

Payment pattern of the scheme, the payment by GoI and Industry as per the MoU:

Oil Year	Minimum Payment schedule by industry to farmers (as % of CPO)		Difference to be paid by GoI to the farmers	
	Rest of India	N states & A & N Islands	Difference to be paid by GOI in North East states & (A&N) Islands for parity with ROI	Payment of VGP by GOI to farmers as (Viability price-Formula price)
1st Nov 21 to 31st Oct 28	14.30	12.30	14.30-12.30=2%	(Viability price-Formula price)x 100%
1st Nov 28 to 31st Oct 31	14.55	13.05	14.55-13.05=1.5%	(Viability price-Formula price)x 75%
1st Nov 31 to 31st Oct 34	14.80	13.80	14.80-13.80=1.0%	(Viability price-Formula price)x 50%
1st Nov 34 to 31st Oct 37	15.05	14.55	15.05-14.55=0.5%	(Viability price-Formula price)x 25%
1st Nov 37 onwards	15.30	15.30	15.30-15.30=0%	0

** Subject to the condition that together with industry payment and NER and A&N Islands special payment by GOI, it does not exceed the viability price declared by the GOI.*

Though the funding for the approved NMEO (OP) for five years has been kept till 2025-26, since the sunset clause will be from November, 2037, thus the Government of India liabilities would continue till that time for the scheme as applicable. The farmers already cultivating oil palm would also be considered for VGF along with future growers of oil palm so that the confidence in the farmers is enhanced to go for oil palm cultivation.

VI. Viability Price Fixation Committee (VPFC):-

The Viability Price Fixation Committee (VPFC) of Fresh Fruit Bunches (FFBs) of Oil Palm has been constituted under the Chairmanship of Additional Secretary, Department of Agriculture & Farmers Welfare to declare Viability Price in every Oil Palm Year (OPY) (1st Nov to 31st Oct of next year). The composition of the Committee is given below:

S. No.	Constitution of the committee	Status
1.	Additional Secretary of DA&FW (Senior most)	Chairman
2.	Managing Director, MCX or his representative	Member
3.	Adviser (Trade), DA&FW	Member
4.	Adviser (Costs), DES	Member
5.	Joint Secretary (Customs)	Member
6.	Joint Secretary (Capital Markets, DEA)	Member
7.	Director (Finance), DA&FW	Member
8.	Joint Secretary (Crops/Oilseeds)	Member Secretary

Terms of References (ToRs) of the Committee are given below:

- (i) To declare the VP on 1st November of every year starting from 1st November 2021 based on the formulation approved by the Cabinet. (copy enclosed)
- (ii) To maintain data of CPO price on a regular basis for distribution to the relevant authorities.
- (iii) A sub-committee will prepare report based on the daily/monthly data.

Order of constitution of Viability Fixation Committee is given as Annexure-XV

The Formula Price and Viability Price are only to be used for purposes of viability gap funding by the Government of India if the need arises. For the payment by the Industry to the farmers where there is no occasion for Government to intervene, the payment to the farmers would be as per the agreement signed between the State, farmers and the processors.

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Annexure-I

The state-wise potential area assessed by ICAR-IIOPR in 2020

Sl. No	State	Area	No. of Districts	Name of Districts
1	Andhra Pradesh	531379	10	East Godavari, Guntur, Krishna, Kurnool, Nellore, Prakasam, Srikakulam, Vishakapatnam, Vizianagaram, West Godavari
2	Chhattisgarh	57149	15	Bastar, Bijapur, Bilaspur, Dantewara, Janjgir Champa, Jashpur, Kanker, Kawardha, Korba, Mahasamund, Narayanpur, Raigarh, Raipur, Surguja
3	Gujarat	62361	14	Amreli, Anand, Bharuch, Bhavnagar, Dahod, Junagarh, Khera, Narmada, Panchmahal, Rajkot, Surat, Surendranagar, Tapi, Vadodara
4	Goa	2000		NA
5	Karnataka	72642	15	Ballary, Belgavi, Bidar, Chikkamagaluru, Dharwad, Hassan, Haveri, Kalburgi, Koppal, Mandya, Mysuru, Raichur, Shivamogga, Vijayapura, Yadgir
6	Odisha	34291	17	Anugul, Balangir, Baleshwar, Baragarh, Gajapathi, Ganjam, Kalahandi, Kandhamal, Kendujhar, Koraput, Malkangiri, Mayurbhanj, Nabarangapur, Rayagarha, Sambalpur, Subarnapur, Sundargarh
7	Tamil Nadu	95719	17	Ariyalur, Cuddalore, Erode, Kanchipuram, Karur, Madurai, Pudukkottai, Ramanathapuram, Sivaganga, Thiruvavarur, Tiruchirapalli, Tiruvallur, Tiruvannamalai, Tuticorin, Villupuram, Virudhunagar, Tanjavur
8	Telangana	436325	27	Adilabad, Bhadradi Kothagudem, Jagitial, Jangaon, Jayashankar Bhupalapally, JogulambaGawal, Kamareddy, Khammam, Kumarambheem sifabad, Mahabubabad, Mahabubnagar, Mancherial, Medchal Malkajgiri, Nagar Kurnool, Nalgonda, Nirmal, Nizamabad, Peddapalle, Rajanna Sircilla, Rangareddy, Sangareddy, Siddipet, Suryapet, Vikarabad, Wanaparthy, Warangal, Yadadri Bhuvanagiri
9	Kerala	43676	8	Alappuzha, Ernakulam, Idukki, Kozhikode, Malappuram, Palakkad, Pathanamthitta, Thrissur
10	Bihar	123148	35	Arariya, Arwal, Aurangabad, Banka, Begusarai, Bhabua, Bhagalpur, Bhojpur, Buxar, Darbhanga, Gaya, Gopalganj, Jahanabad, Katihar, Khagaria, Lakhisarai, Madhepura, Madubani, Munger, Muzzaffarpur, Nalanda, Nawda, PachimChamparan, Patna, PurbaChamparan, Purnia, Rohtas, Saharsa, Samastipur, Saran, Sheikhpura, Sitamarhi, Siwan, Supaul, Vaishali
11	Madhya Pradesh	118079	29	Alirajpur, Anuppur, Balaghat, Barwani, Betul, Bhopal, Burhanpur, Chhindwara, Dewas, Dhar, Dindori, East Nimar, Guna, Harda, Hoshangabad, Indore, Jhabua, Mandla, Mandsaur, Nimach, Raisen, Rajgarh, Sehore, Seoni, Shahdol, Shajapur, Ujjain, Videsha, West Nimar
12	Maharashtra	162210	28	Ahmadnagar, Akola, Amravati, Aurangabad, Bhandra, Bid, Buldhana, Chandrapur, Dhule, Gadchiroli, Gondiya, Hingoli, Jalgaon, Jalna, Latur, Nagpur, Nanded, Nandurbar, Nasik, Osmanabad, Parbhani, Pune, Sangli, Satara, Solapur, Wardha, Washim, Yavatmal

13	Uttar Pradesh	48663	9	Azamgarh, Ballia, Chandauli, Deoria, Gazipur, Gorakhpur, Kushinagar, Maharajganj, Mau
14	West Bengal	45463	11	Bankura, Bardaman, Birbhum, East medinipur, Haora, Hugli, Malda, Mursidabad, PaschimMedinipur, Puruliya, South 24 Paraganas
15	Arunachal Pradesh	133811	11	Changlang, East Kameng, East Siang, Lohit, Lower Dibang Valley, Lower Subansiri, Pampum-Pare, Tawang, Tirap, West Kameng, West Siang
16	Andaman & Nicobar	3000	NA	NA
17	Assam	375428	10	Cachar, Chirang, Dhemaji, Dibrugarh, Hailakandi, Jorhat, Karimganj, Lakhimpur, N.C Hills, Tinsukia
18	Manipur	66652	6	Bishnupur, Chandel, Churachandpur, Imphal West, Thoubal, Ukhrul
19	Meghalaya	122637	4	East Garo Hills, East Khasi Hills, Jaintia Hills, West Khasi Hills
20	Mizoram	66792	8	Aizawl, Champhai, Kolasib, Lawngtlai, Lunglei, Mamit, Saiha, Sechhip
21	Nagaland	51297	6	Dimapur, Kiphire, Wokha, Mokhokchung, Peren, Tuensang
22	Tripura	146364	4	Dhalai, North Tripura, South Tripura, West Tripura
	Total	2799086	284	

Annexure –II

The state wise area expansion target in General and NE State

Sl no.	States	Left over potential area(ha)	Area expansion target (ha)					
	ROI states		2021-22	2022-23	2023-24	2024-25	2025-26	Total
1.	Andhra Pradesh	346739	15000	20000	24000	25000	28000	112000
2.	Chattisgarh	51607	500	1500	4300	5000	5100	16400
3.	Goa	1030	0	200	200	200	200	800
4.	Gujarat	56147	500	1000	3000	4000	4200	12700
5.	Karnataka	25688	2000	3300	4000	5000	5000	19300
6.	Kerala	37988	0	1000	1500	2000	2000	6500
7.	Odisha	11161	1500	2000	2000	2500	2500	10500
8.	Tamil Nadu	62737	1500	2000	5000	5000	5000	18500
9.	Telangana	414943	19000	22000	25000	29300	30000	125300
	Total (ROI)	1008040	40000	53000	69000	78000	82000	322000
	NE States							
10.	Assam	373579	1500	2500	86000	100000	10000	200000
11.	Arunachal Pradesh	132487	2500	4000	11000	17500	5000	40000
12.	Mizoram	37767	2000	3000	10000	10000	2000	27000
13.	Nagaland	47225	1500	2000	10000	12500	4000	30000
14.	Manipur	66652	2500	3500	9000	12000	4000	31000
	Total (NE)	657710	10000	15000	126000	152000	25000	328000
	Grand total (ROI+NE)	1665750	50000	68000	195000	230000	107000	650000

The above is indicative and is subject to modifications based upon action plan of the State Governments.

Annexure-III

Pattern of Assistance for water harvesting and irrigation through PRI

Broad Activity	Sub Activity	Pattern of Assistance	Name of Scheme
Water Harvesting & Irrigation	Plastic/RCC based water harvesting structure/ farm pond/construction of community tank (100 meter x 100 meter x 3 meter) For smaller size ponds/tanks, cost will be admissible on pro rata basis, depending upon command area	Rs. 20 lakhs per unit in plains; and Rs. 25 lakhs per unit in hilly areas with 500 micron plastic lining/ RCC lining, for 10-hectare command area	As per NHM/HMNEH/NMSA guideline Sub schemes under MIDH
	Water Storage in Farm Pond/ Dug well (Measuring 20 meter x 20 meter x 3 meter) by individual. For smaller size ponds/dug wells, cost will be admissible on pro rata basis	50% of cost and limited to Rs. 0.75 lakhs per beneficiary for plains & Rs. 0.90 lakhs / beneficiary for hilly areas with 300 micron plastic lining/RCC lining, for 2-hectare command area. In case of non-lined ponds 30%, less assistance will be provided.	
	Restoration/Renovation of small tank	50% of the cost of renovation limited to Rs. 15,000/- per unit	As per NMSA guideline
	Recharge of defunct bore well	50% of the cost of recharging limited to Rs. 5000/- per unit	
	Pipe/pre-cast distribution system	50% of the cost of system limited to Rs. 10,000/- per ha.	
	Water Harvesting System for individuals	50% of cost (Construction cost Rs. 125/- for plain / Rs. 150/- per cu m for hilly areas) limited to Rs. 75,000/-, for plain areas and Rs. 90,000/- for hilly areas including lining. For smaller size of the ponds/dug wells, cost admissible on pro rata basis. Cost for non-lined ponds/tanks will be 30% less.	
	Lining of Tanks/ Ponds constructed under MNREGA/WSDP etc.	50% cost of plastic/RCC lining limited to Rs. 25,000/- per pond/tank/well.	

	Water Harvesting System for communities: Construction of Community tanks / on-farm ponds/check dams/reservoirs with use of plastic/RCC lining on public land.	100% of the cost limited to Rs. 20 lakhs/unit in plain areas, Rs. 25 lakhs/unit in hilly areas, for 10 ha of command area. For any other smaller size on pro rata basis depending upon the command areas. Cost for non-lined ponds/tanks will be 30% less.	
Source: https://rkvy.nic.in/static/schemes/WaterHarvestingIrrigation.html https://nmsa.dac.gov.in/pdfdoc/NMSA_Guidelines_English.pdf https://midh.gov.in/PDF/Annexure-V.pdf			

Annexure- IV (a)

Format for submission of Annual Action Plan under Oilpalm for ROI

Name of the state.....

Year.....

Total potential area..... ha

Area covers so far..... ha

Target..... ha

Sl no	Interventions	Pattern of assistance (in Rs.)	Unit	Targets for current year			
				Physical	Financial (Rs in lakh)		
					GOI share	State share	Total
1.	Planting Material	Rs. 20,000/ha for indigenous	Ha				
		Rs. 29,000/ ha imported					
2.	Management and Inputs for intercropping upto gestation period (4 yrs)	Rs. 42,000/ha	Ha				
3.	Establishment of Seed Gardens	Rs. 80.00 lakh/seed garden for infrastructure and revolving fund	No.				
4.	Nursery	Rs. 40.00 lakhs/ nursery	No.				
5.	Drip irrigation	As per PMKSY norms	Ha				
6.	Bore well/ Pump set/ water harvesting structure/ Vermi compost unit, Solar pumps	As per MIDH guidelines Solar pumps: As per PM-KUSUM norms	No.				
7.	Harvesting tools						
	Cutter	Rs. 2500/ unit	No.				
	Wire Mash	Rs. 20000/ unit	No.				
	Motorized chisel	Rs. 15000/ unit	No.				
	Potable ladder/polls	Rs. 5000/ unit	No.				
	Chaff Cutter	Rs. 50000/ unit	No.				
	Tractor Trolley	Rs. 200000/ unit	No.				
8.	Custom hiring centre cum Harvester Groups	Rs. 25.00 lakh per unit for equipment, tools, training, contingencies, maintenance etc.	No.				
9.	Farmers training	Rs. 30000/- per training	No.				
10.	Officers training	Rs. 40000/- per training	No.				
11.	Replanting of old oil palm garden	Rs. 250/- per plant (uprooting, replacing, and digging of new pit)	Ha				
12.	Flexi fund	10% as flexi-fund	Rs.				
13.	Programme Management Expenses	3 % of total allocation	Rs.				
	Total						

Annexure-IV (b)

Format for submission of Annual Action Plan under Oilpalm

for NE states Name of the state-

Year-

Total potential area..... ha

Area covers so far..... ha

Target..... ha

Sl no	Interventions	Pattern of assistance (in Rs.)	Unit	Targets for current year			
				Physical	Financial (Rs in lakh)		
					GOI share	State share	Total
1.	Planting Material	20,000/ha for indigenous	Ha				
		29,000/ ha imported					
2.	Management and Inputs for intercropping upto gestation period (4 yrs)	50,000/ha	Ha				
3.	Establishment of Seed Gardens	100.00 lakh/ seed garden for infrastructure and revolving fund	No.				
4.	Nursery	50.00 lakhs/ nursery	No.				
5.	Drip irrigation	As per PMKSY norms	Ha				
6.	Bore well/ Pump set/water harvesting structure/ Vermi compost unit, Solar pumps	As per MIDH guidelines Solar pumps: As per PM-KUSUM norms	No.				
7.	Harvesting tools						
	Cutter	2500/ unit	No.				
	Wire Mash	20000/ unit	No.				
	Motorized chisel	15000/ unit	No.				
	Potable ladder/polls	5000/ unit	No.				
	Chaff Cutter	50000/ unit	No.				
	Tractor Trolley	200000/ unit	No.				
8.	Custom hiring centre cum Harvester Groups	25.00 lakh per unit for equipment, tools, training, contingencies, maintenance etc.	No.				
9.	Oil Palm processing Mills	500.00 lakh/ mill	No.				
10.	Special Package for NE						
	clearance of land	3000/- per ha	Ha				
	Half-moon terrace	4000/- per ha	Ha				
	Bio fencing	4000/- per ha	Ha				
	Integrated farming system	10000/- per ha	Ha				
11.	Farmers training	30000/- per training	No.				
12.	Officers training	40000/- per training	No.				
13.	Replanting of old oil palm garden	250/- per plant (uprooting, replacing, and digging of new pit)	Ha				
14.	Flexi fund	10% as flexi-fund	Rs.				

15.	Programme Management Expenses	3 % of total allocation	Rs.				
	Total						

Format for submission of monthly/quarterly progress report NMEO-OP

Sl. No.	Intervention s	Unit	Progress last year				Targets for current year			
			Physical	Financial (Rs in Lakh)			Physical	Financial (Rs in Lakh)		
				GOI Share	State Share	Total		GOI Share	State Share	Total
1	Planting Material	ha								
2	Maintenance Cost during gestation period									
	1st Year	ha								
	2nd Year	ha								
	3rd year	ha								
	4th year	ha								
3	Input for intercropping in oil palm	ha								
	Total (1 to 3) fund 50 to 70 %									
4	Drip Irrigation	ha								
5	Diesel / Electric Pump Sets	Nos .								
6	Bore well/ water harvesting structure /ponds at oil palm farm	Nos .								
7	Establishment / Maintenance of seed garden	Nos .								
8	Costruction of vermi compost unit at oil palm farm	Nos .								
9	Machinery Tools									
	(i) Oil Palmcutter	Nos .								
	(ii) Oil Palm protective wiremesh	Nos .								
	(iii) Motorised	Nos .								

	chisel									
	(iv) aluminium portable ladder	Nos								
	(v) chaff cutter	Nos								
	(vi) Small Tractor with Trolley	Nos								
10	Special component for NE/Hilly States /LW Area / Region									
11	Farmer's training	Nos (Batch)								
12	Training of extension workers/officers/ input dealers	Nos (Batch)								
13	Demonstrations	ha								
	Total (4 to13) fund 20 to 30 %	...	..				...			

Annexure-V Contd....[illegible]

Part –B

Progress of area expansion and production of Oil Palm for the year.....

Area Expansion (in ha)		Production (in MTS)		Prices (in Rs. Per MT)		Nos. of Farmers Identified for Oil Palm Cultivation	No. and Names of Districts Identified for Oil Palm Cultivation
Target	Achievement	FFB's	CPO	FFB's	CPO		

PART-C

Progress of allocation/approved and Release of fund for the year

(Rs. In lakh)

Openi ng Balan ce (GOI)	Allocation/ Approved Funds			Release of Funds			Total Availabilit y ofGOI Funds	Expenditure			Unspe nt Balan ce (GOI)
	GOI	State	Total	GOI	State	Total		GOI	State	Total	

PART-D

Progress of component-wise SC/ST & Women farmers are being benefitted for NMEO-OP for the Year

Month:

State:

Sl. No.	Component	S C		S T		Wom en	
		No. of Beneficiaries	Amount Spent(in Rs.)	No. of Beneficiaries	Amount Spent (in Rs.)	No. of Beneficiaries	Amount Spent (in Rs.)
1	2						
1.	Planting Material						
2.	Drip-Irrigation						
3.	Diesel Pump sets						
4.	Bore well/ water harvesting structure/ ponds						
5.	Vermi-compost Units						
6.	Machinery & Tools						
7.	Training						
8.	Other components						
	Total						

PART-E

Format for submission of Annual Action Plan under Oilpalm by the Processors

1. **Name of the Processors:**
2. **Name of the State:**
3. **Details of Factory Zone and Allotted Districts**

District	Potential Area (ha)	Area allotted (ha)	Area covers sofar (ha)	Target (ha) (2021-22)
Total				

- #### 4. Target of Area expansion in next 5 years

4. Target of Area Expansion in next 5 years					
District	Area expansion target (ha)				
	2021-22	2022-23	2023-24	2024-25	2025-26
Total					

- ### 5. Planting material requirement in next 5 years

(In 1000 no.)

2021-22		2022-23		2023-24		2024-25		2025-26	
Domestic	Imported	Domestic	Imported	Domestic	Imported	Domestic	Imported	Domestic	Imported
Total									

- ## 6. Planting material availability in next 5 years

(Quantity in '000 no.)

[illegible]

7. **Maintenance and inter cropping during gestation period**

(Area in ha)									
2021-22		2022-23		2023-24		2024-25		2025-26	
Mainten ance	Inter cropp ing	Mainten ance	Inter cropp ing	Mainten ance	Inter cropp ing	Mainten ance	Inter cropp ing	Mainten ance	Inter cropp ing
Total									

8. **Establishment of Seed Gardens**

Location and address	Area of seed garden (ha)	Status of Land lease process	Infra structure available	Infra structure require	Information on mother plant	Characteristic s of mother plant	Year of sprout production and quantity (lakh no.)
Total							

8.1 **Infra structure development of Seed Garden**

S. No	Infra structure development		Revolving fund	
	Particular	Amount (Rs.per15 ha)	Particulars	Amount (Rs.)
1.	Land lease		Import of mother plan/sprouts	
2.	Land development		Packing/labeling	
3.	Parental material and establishment		Accreditation of the garden	
4.	Drip irrigation infrastructure		International cooperation	
5.	Bore well & pump sets etc.		Any specific items	
6.	Transformer and Electrical appliances			
7.	Buildings and germination chamber			
8.	Laboratory (Lab, heating chamber, germination chamber:			
9.	Fencing& Civil works			
10.	Security and manpower requirement			

11.	Miscellaneous and operational expenses			
	Total			

8.2 The seed garden wise expected availability of sprouts both from domestic and import over theyears

Location of Nursery	Capacity to produce sprouts (No. in lakh)				
	2021-22	2022-23	2023-24	2024-25	2025-26
Total					

9. Establishment of Seed Nurseries

Location and address	Area of seed nurseries (ha)	Status of Land lease process	Infra structure available	Infra structure require	Information on sources of sprouts	Characteristic s of sprouts	Year/ Capacity of seedling production (lakh no.)
Total							

9.1 Infra structure development of Seed nurseries

S.N .	Infra structure development	
	Particular	Amount (Rs. in lakh)
1.	Land lease	
2.	Domestic purchase and Import of sprouts	
3.	Shade net and infrastructure (primary nursery)	
4.	Drip irrigation system installation	
5.	Installation of mainline from bore wells to mainnursery	
6.	Overhead irrigation system	
7.	Others(bore well, Power & Water connections)	
8.	Pond excavation with HDPE line (500micron)	
9.	Bore well motor, pump set etc.	
10.	Trenching and land preparation	
11.	Fencing & Civil works	
12.	Plant quarantine and compliances	
13.	Transformer and electrical appliances	
14.	Security and manpower requirement	
15.	Miscellaneous and operational expanses	

	Total	

9.2 Nursery wise expected availability of seedlings both from domestic and import over the years

Location of Nursery	Capacity to produce seedlings (No. in lakh)				
	2021-22	2022-23	2023-24	2024-25	2025-26
Total					

10. Drip irrigation (50% of the target area)

Name of the districts	Target of drip irrigation (ha)					Total
	2021-22	2022-23	2023-24	2024-25	2025-26	
Total						

11. Bore well/ Pump set/water harvesting structure/ Vermi compost unit, Solar pumps

Particulars	Target of 5 years (no.)					Total
	2021-22	2022-23	2023-24	2024-25	2025-26	
Bore well						
Pump set						
water harvesting structure/						
Vermi compost unit						
Solar pumps						

12. Harvesting tools

Harvesting tools	Target of 5 years (no.)					Total
	2021-22	2022-23	2023-24	2024-25	2025-26	
Cutter						
Wire Mash						
Motorized chisel						
Potable						

ladder/polls						
Chaff Cutter						
Tractor Trolley						

13. Custom hiring centre cum Harvester Groups

Name of the FPO/S HG/ Organisation	Operational District / Block/ Zone	Target of custom hiring center									
		2021-22		2022-23		2023-24		2024-25		2025-26	
		Physical (no.)	Harvesting area (ha)	Physical (no.)	Harvesting area (ha)	Physical (no.)	Harvesting area (ha)	Physical (no.)	Harvesting area (ha)	Physical (no.)	Harvesting area (ha)

Note: One HG will take care of minimum 500 ha.

13.1 Infrastructure development of CHC cum HG

S.No	Infra structure development of CHC	
	Particular	Amount (Rs. in lakh)
1.	Harvesting tools	
2.	Tractor	
3.	Tractor Trolley	
4.	Chaff cutter	
5.	Motorized chisel	
6.	Potable ladder/polls	
7.	Hydraulic ladder	
8.	Import of machinery	
9.	Training of skill harvester	
10.	Management & contractual services	
11.	Registration and administrative cost of HG	
	Total	

14. Farmers training

Name of the districts	Target of training (no.)					
	2021-22	2022-23	2023-24	2024-25	2025-26	Total
	Farmers	Farmers	Farmers	Farmers	Farmers	Farmers

Total						

15. Replanting of old oil palm garden

Name of the districts	Target of Replanting of old garden (ha)					
	2021-22	2022-23	2023-24	2024-25	2025-26	Total
Total						

Summary of Component-wise annual action plan for the year by Processors in ROI

Sl no.	Interventions	Pattern of assistance (inRs.)	Unit	Targets for current year	
				Physical	Financial (Rs in lakh)
1.	Planting Material	20,000/ha for indigenous	Ha		
		29,000/ ha imported			
2.	Management and Inputs for intercropping upto gestation period (4 yrs)	42,000/ha	Ha		
3.	Establishment of Seed Gardens	80.00 lakh/ seed garden	No.		
4.	Nursery	40.00 lakhs/ nursery	No.		
5.	Drip irrigation	As per PMKSY norms	Ha		
6.	Bore well/ Pump set/water harvesting structure/ Vermi compost unit, Solar pumps	As per MIDH guidelines Solar pumps: As per PM-KUSUM norms	No.		
7.	Harvesting tools				
	Cutter	2500/ unit	No.		
	Wire Mash	20000/ unit	No.		
	Motorized chisel	15000/ unit	No.		
	Potable	5000/ unit	No.		

	ladder/polls				
	Chaff Cutter	50000/ unit	No.		
	Tractor Trolly	200000/ unit	No.		
8.	Farmers training	30000/- per training	No.		
9.	Replanting of old oil palm garden	250/- per plant	Ha		
	Total				

The details of pattern of assistance under NMEO-OP

S. No	Sub Components	Pattern of funding	Assisted Rate of Assistance(2021-22)						
1	PlantingMaterial	60:40 90:10 100:0 for general, NE states and UTs, respectively	For purchasing of planting material, during 1st year, ₹ 20,000/ha indigenous & ₹ 29,000/ ha imported (including transport cost) will be provided to the farmers for entire land holding.						
2	Management up to gestation period (4 yrs)	60:40 90:10 100:0	During gestation period for 4 years, ₹ 42,000/ha will be provided to farmers in ROI & ₹ 50,000/ha for NE States and Andaman & Nicobar Islands for inter-cropping and maintenance cost.						
3	Inputs for intercropping	60:40 90:10 100:0							
4	Establishment of Seed Gardens	100	One time assistance as subsidy for necessary infrastructure & setting up of new seed garden (capacity 10.00 lakh seedlings per year) having at least 15 ha area will be provided as per table given below: <table><tr><th>Crop</th><th>One time grant (₹ / garden)</th><th>Revolvin fund</th></tr><tr><td>Oil palm</td><td>₹ 40.00 lakh for ROIand ₹ 50.00 lakh for NE states and Andaman & Nicobar Islands</td><td>₹ 40.00 lakh for ROI and ₹ 50.00 lath for NE states and Andaman & Nicobar Islands</td></tr></table> For nursery ₹ 40.00 lakhs and ₹ 50.00 lakhs for NE states and Andaman & Nicobar Islands	Crop	One time grant (₹ / garden)	Revolvin fund	Oil palm	₹ 40.00 lakh for ROIand ₹ 50.00 lakh for NE states and Andaman & Nicobar Islands	₹ 40.00 lakh for ROI and ₹ 50.00 lath for NE states and Andaman & Nicobar Islands
Crop	One time grant (₹ / garden)	Revolvin fund							
Oil palm	₹ 40.00 lakh for ROIand ₹ 50.00 lakh for NE states and Andaman & Nicobar Islands	₹ 40.00 lakh for ROI and ₹ 50.00 lath for NE states and Andaman & Nicobar Islands							
5	Drip irrigation	60:40 90:10 100:0	As per PMKSY norms						

6	Bore well/Pump set/water harvestingstructure/ Vermi compost unit	60:40 90:10 100:0	As per MIDH guidelines. Solar pumps: As per PM-KUSUM norms Vermi compost unit @50%of the cost limited to ₹ 15000/unit of 15m length, 0.9m width and 0.24 m depth.														
7	Harvestingtools	60:40 90:10 100:0	Assistance as under <table><tr><td>Tools</td><td>₹ per unit</td></tr><tr><td>Cutter</td><td>2500</td></tr><tr><td>Wire Mash</td><td>20000</td></tr><tr><td>Motorized chisel</td><td>15000</td></tr><tr><td>Potable ladder/polls</td><td>5000</td></tr><tr><td>Chaff Cutter</td><td>50000</td></tr><tr><td>Tractor withTrolley</td><td>200000</td></tr></table>	Tools	₹ per unit	Cutter	2500	Wire Mash	20000	Motorized chisel	15000	Potable ladder/polls	5000	Chaff Cutter	50000	Tractor withTrolley	200000
Tools	₹ per unit																
Cutter	2500																
Wire Mash	20000																
Motorized chisel	15000																
Potable ladder/polls	5000																
Chaff Cutter	50000																
Tractor withTrolley	200000																
8	Custom hiringcentre cum Harvester Groups	60:40 90:10 100:0	Custom hiring centre cum FFBs harvester group by processors/ State/ SHGs/ FPOs/ Registered societies will be created in eachstates One time grant for ₹ 25.00 lakh per unit for equipment, tools, training, contingencies,maintenance etc.														
9	Oil Palm processingMills	60:40 90:10 100:0	For NE states 50 % of the cost limited to ₹ 500.00 lakh for a unit of 5.00 MT/Hr for new oil palm Mill with pro rata increase.														
10	Special Package for NE states andAndaman & Nicobar Islands	90:10 100:0	(i) 50% of the actual cost and 20% of total outlay on Oil Palm for roads from field to nearest FFB collection/ processing centre. (ii) Assistance for clearance of land / waste lands before oil palm plantation (₹ 3000/- per ha) (iii) Half-moon terrace (₹ 4000/- per ha) (iv) Bio fencing with bamboo and other														

			means in oil palm field by way of 11 suitable fencing (₹ 4000/- per ha). (v) Integrated farming system @ ₹ 10000 for back yard poultry, animal, fodders, kitchen gardening etc.
11	Farmers & Officers training	60:40 90:10 100:0	(i) Farmers Training: ₹ 30000/- per training for a batch of 30 farmers for 2 days (@ 500/- per participant per day). (ii) Input dealers included. (iii) Officers training ₹ 40000/- per training for a batch of 20 officers for 2 days. (@ 1000/- per participant per day).
12	Replanting of old oil palm garden	60:40 90:10 100:0	After 25-30 years of age one time grant 50% of the cost @ ₹ 250/- per plant (uprooting, replacing, and digging of new pit) will be provided for replanting of old gardens. State holders: State/processors
13	R&D and Centre of Excellence	100	Need based/ Time bound, target oriented/ research project will be funded to bring break through yield improvement of oil palm including Mela, seminar, workshop, exhibitions etc.
14	Flexi fund	60:40 90:10 100:0	Flexi 10% as flexi-fund to provide flexibility to States to meet local needs and requirement within the overall objective of oil palm promotion
15	Programme Management Expenses	60:40 90:10 100:0	Implementing States/ agencies/ enterprises will be allowed to utilize 3 % of their total allocation for contingency expenditure towards monitoring & evaluation, Operational costs, consultancy, Publicity/Exposure visits (inter and intra state) of farmers and/ or officers/Seminar/Conference/Workshop/ meetings/ Tiltan Mela/ engage state level consultants/ supporting staff on contractual basis. Hiring of vehicles/ Monitoring of scheme/ Purchase of vehicles will not be allowed. No permanent post will be created. Concurrent/Final evaluation by an independent agency.
16	Viability Price	100%	Viability Price (VP) Formula:- This VP for the OPY shall be the annual average price of CPO of the last 5

			years adjusted with WPI and thereafter for conversion to FFB price to be multiplied by 14.3%. Every year starting with OPY from the month of 1st November, the Government of India shall declare the VP for that Oil Palm Year (OPY) by a duly constituted committee of the DA & FW. The Viability Gap Payment (VGP):- The committee will also calculate the VGP for the payout given to the farmers for the FFB supplied to the industry. Viability gap payment shall be the VP for the oil palm year minus the FP for that particular month. The farmers already cultivating oil palm would also be considered for VGF along with future growers of oil palm . Viability Price (VP) Declaration:- For assurance to the farmers for the prices of FFBs during the year, the concept of Viability Price (VP) will be declared in Oil Palm Year (OPY) – (1st November to 31st October of next year). The Government of India will declare the VP for assurance to the farmer of the payment of FFBs price starts for the OPY. The first Viability Price for the oil year of 2021- 22 will be applicable from 1st November 2021 to 31st October 2022.

Annexure-VII

The agency wise expected availability of seedlings both from domestic and import over the years

Agency	Capacity to produce seedlings2021-22	Capacity to produce seedlings2022-23	Availabilit yof seedlings 2023-24	Availabilit yof seedlings 2025-26	Availabilit yof seedlings 2032-33
Godrej Agrovat	11	20	25	25	30
Ruchi Soya	12	16	20	20	25
Radhika Veg	2	3	3	3	5
TS Oil Fed	20	160	160	160	170
AP Oil Fed	3	4	10	20	25
3F Oil Palm	7.5	15	20	25	30
ICAR-IIOPR	12	27	30	35	40
OPIL	10	15	17	20	25
Total	77.5	260	285	308	350

*Above target are provisional subject to change based on the need/approval and compliance of all regulatory approvals.

Details of Seed Gardens with cost norm

(i) **Basics for establishment of seed garden:** Oil palm classified into three types of palms based on its fruit types, thick shelled *dura*, shell less *pisifera* and thin shelled *tenera* which is a cross between *dura* and *pisifera*. Oil palm *dura* used as a mother palm having dominant genotype $sh+sh+$, carries fruits with a thick shell and a thin mesocarp. For establishing an oil palm seed garden it is recommended to have 40 acres of land (30 acres for planting of *dura* (mother palms) block and 10 acres for TxT (pollen parent) block). Accordingly, the DPR has been prepared for 40 acres (14+2 ha) of land. Requirement of planting material for the approved seed garden in 40 acres is 2400 seedlings. About 150 seedlings with a provision of 7 seedlings for gap filling are required for each hectare of planting. To get 150 seedlings ready for field planting, it is better to raise 200 nos. of germinated seed (sprouts) in the primary nursery. However, ICAR-IIOPR, Pedavegi would be supplying the seedlings (both *Dura* and TxT) on payment basis (at present cost of seedling is Rs.1200/- per seedling +GST) as secondary stage nursery seedlings. Requirement of seedlings along with payment may be informed at least 18- 24 months in advance as the availability of quality germinated seeds is subjected to several factors.

Nursery Management: If germinated seeds are procured, then two stage nursery system should be followed. For rising the sprouts in the nursery, please refer to our technical bulletin on 'Nursery Management in Oil Palm' which will give complete details of nursery

Planting the seedlings in main field: Healthy seedlings of 12 months of age, with a minimum of 13-14 functional leaves and having a girth of approximately 25 cm should be field planted. Regular method of planting, equilateral triangular system with 9m x 9m x 9m spacing accommodating 143 palms per ha is recommended for oil palm seed garden. Planting should be preferably done during the monsoon and can go till the onset of summer. At the time of planting, 2 baskets (25 kg) of organic manure, 400g of SSP or 250g DAP and 50g of phorate granules can be applied. The gap in the pit should be filled with the soil and pressed firmly leaving top portion, so that the seedling bole will be 25 cm below the ground level. Soon after planting, form a basin around the plant and give copious irrigation. Recommended package of practices for basin, Irrigation, fertilizer and weed management should follow. In a seed garden, it's not advised to go for intercrops

Hybridization

Selection of parents: To understand the individual palm with respect to morphological, phenological and yield related traits, it is suggested to go for recording of data on sex ratio, vegetative (number of leaves, height, girth, etc), reproductive growth (male, female, hermaphrodite flowers), yield (number & weight of bunches) from 4th year onwards. The entire process is normally called as recording of annual biometric observations. This will be done on quarterly and annually, till the selection of mother palms are completed. The bunch production gradually increases from 4th to 8th year (pre-stabilizing period). From 8th year, it is expected that the yield is stabilized, hence, data on the performance of the palms during these years should be analysed and utilised for selection of mother palms.

Data from 6th to 8th year may be used to start the process of tentative selection of parents and thereby early hybridization could be possible. The process of selecting parents especially mother palms should be continued every year even after 8th year of selection.

Bunch analysis procedure in oil palm: Mainly two types of oils extracted commercially from oil palm fruits, crude palm oil (CPO) from mesocarp and palm kernel oil (PKO) from kernel. Bunch (FFB) analysis in oil palm is essential for evaluation of a palm or genotype for its oil yield. Oil palm being a cross pollinated crop, performance of individual palm varies from each other and hence, assessment of individual palm is utmost important.

A. Approx Cost for Bunch Analysis Laboratory is 32.50 lakhs

S N	Name of the item	Purpose	Quantity	Cost (Rs in lakh)
1	Steel rack – 6 x1.5 ft	Mesocarp drying	4	1.50
2	Weighing machine	Weighing bunches, mesocarp, kernel, nut, ground samples etc	1 each	2.00
	i)100g capacity analytical balance)			
	ii) 25Kg			
	iii)100Kg			
3	Hot air sterilizer	Drying mesocarp, nut and kernels	2	2.00
4	Micro wave oven	Drying mesocarp, kernel and pollen samples	2	1.00
5	BOD incubator	Viability/germination test of pollen	1	1.00
6	Soxhlet unit	Oil estimation	2	0.50
7	Refrigerator	Storage of pollen, chemicals etc	2	2.00
8	Deep freezer (-20°C)	Pollen Storage	1	1.50
9	Chipping Machine	Chipping	2	1.00
10	Lab establishment	For bunch analysis	1	20.00
Total				32.50

Selection standards of parent palms for commercial D x P seed production

Requirements differ depending on the type of materials used and source of parent palms for commercial DxP seed production. Material of both unknown pedigree and performance should not be used for commercial DxP seed production. The bunch parameters especially oil to mesocarp, kernel to mesocarp and oil to bunch are to be estimated by bunch analysis procedure. With respect to planting materials of both known pedigree and performance the following criteria may be followed for selection of parent palms.

The minimum standards required for the Dura parent palms are:

- Fresh fruit bunch (FFB) yield, min : 200 kg/palm/year
- Mesocarp to fruit (MF), min : 60-80 %
- Shell to fruit (SF), max : < 30 %
- Oil to dry mesocarp (O/DM), min : 70-80%
- Oil to bunch (O/B), min : 16-18%

The minimum standards required for the Tenera in the Progeny test are as follows:

- Fresh fruit bunch (FFB) yield, min. : 200 kg/palm/year.
- Oil to bunch (O/B), min : 24%
- Kernel to bunch (K/B), min : <10%

Preparation of male and female inflorescence, Pollination, Hybrid seed extraction, Seed treatment and Dormancy breaking and germination as per the standard protocols.

B. Approx Cost for seed processing Laboratory: Rs. 46.50 lakhs

S N	Name of the item	Purpose	Quantity	Cost (lakh)
1	Heating chamber			
	1.1 Heaters	Seed Dormancy breaking	2	1.00
	1.2 Racks etc	Seed Dormancy breaking	10	3.00
2	Steel rack-6x1.5ft	Seed drying	4	1.5
3	Weighing machine			
	3.1 100 kg	Weighing bunches	2	0.50
	3.2 1 Kg	Weighing mesocarp, kernel, nut	2	0.25
	3.3 250 g	ground samples etc	2	0.25
4	De-pericarper	Pericarp separation	2	2.00
5	Hot air oven / sterilizer	Drying seed to analyse seed moisture content	2	4.00
6	Incubators	Seed moisture content analysis	2	2.00
7	Plastic ware, buckets, trays etc	Seed Processing	As Required	1.00
7	Miscellaneous equipments	Mixer, grinder, heating mantle and others	As required	5.00
8	Vehicle	Bunch transport	1	6.00
9	Seed lab	Seed processing	1	20.00
		Total		46.50

C. Approx Cost for seed germination Laboratory: Rs. 21.00 lakhs

S N	Name of the item	Purpose	Quantity	Cost (lakh)
1	Racks	Seed germination	10	3.00
2	Dehumi difier	To maintain humidity	1	0.50
3	Air conditio ner	To maintain cool temperature	4	3.50
4	Glass chamber	For germination	1	14.0 0
		Total		21.0 0

Total Cost of Expenditure (A+B+C) = 100.00 lakhs

The expenditure is calculated for a well maintained and managed oil palm seed garden by considering all crop growing factors as normal. The returns are projected based on the current market price and demand. The expenditure may further reduce by using molecular assisted technology for fruit form identification

(ii) **Basics of the oil palm seedlings in nursery :**Oil palm (*Elaeis guineensis* Jacq) is mainly propagated by seedlings which are raised in double stage nursery for 12 months *i.e.*, primary stage with 4 months under shade net structure and secondary stage for 8 months in open condition. The main source of the planting material in oil palm is seed sprouts which are produced either indigenously or directly imported from other countries. Direct planting of germinated oil palm seeds in the field is not recommended for the fear of insect/rodent damage and lack of genetically uniform stand subsequently. So, the nursery is inevitable in oil palm as it lays the foundation for successful and fruitful plantations in the country.

The main objective of nursery is to produce vigorous and healthy seedlings having the potential for higher yield. There is a great need for intensive care during the nursery period to have maximum growth as leaf area of the seedlings is directly related with fresh fruit bunch yield in plantation. So, any shortcoming in planting material and improper care during the nursery may lead to unproductive or under productive palms in farmers' plantations. Therefore, production of superior quality seedlings mainly depends on planting of good quality seed sprouts, proper nursery management and finally effective roughing/culling of abnormal seedlings.

Cost components used for estimation of cost of oil palm nursery.

The following are the components used for estimation of cost for raising oil palm nursery for 12 months duration. Cost components or parameters are broadly categorized into basic materials, fixed/establishment cost and variable/recurring cost.

Basic materials/consumables

Planting material: Germinated oil palm seed sprouts either indigenous or imported ones are used for raising nursery. Actual cost of sprouts and transport charges are to be included for indigenous seed sprouts while for imported seed sprouts, import duty and handling charges can be taken into account. Five per cent extra seed sprout supply has to be taken into account while estimating the cost.

Growing medium: Combination of tank silt and any organic manure is mainly used as growing medium. In addition, neem cake needs to be added to the medium for controlling incidence of soil borne pests. Cost includes price of soil, organic manure/compost, neem cake and their quantity, loading and transport charges.

Polythene bags: Low cost recycled black coloured poly ethylene bags are used. Price of polythene bags and transport charge can be taken into account for cost calculation.

Inorganic fertilizers: Di-ammonium phosphate (DAP), NPK (17:17:17/19:19:19) complex fertilizers are normally used for 10 months i.e., from 2nd to 11th month. Cost includes type of fertilizers, quantity, price of fertilizers and handling charges. Application of Mg SO₄ and borax is need based.

Pesticides: Normally recommended insecticides, fungicides and herbicides are used for controlling diseases and insect pests and weeds in the nursery. Type of pesticides, quantity, price of pesticides and their transport charges have to be included in cost calculation.

Mulching material: Oil palm empty fruit bunch (EFB) fibre, saw dust, rice husk, coconut fibre and dry grass can be used for mulching in bags during the secondary stage of nursery. Cost includes type of mulch, quantity, price of mulch and transport charges.

Fuel for generator: Here, cost includes price of diesel, quantity and transport charges.

B. Fixed/establishment cost components

Land preparation, lay out and roads/paths: Charges for land preparation by removing trees, bushes and weeds, ploughing and leveling of the land by engaging tractor, dividing of area into different blocks and laying of approach roads or paths for the movement of vehicles and nursery staff can be accounted and the amount spent on this should be equally distributed over 10 years and only cost per annum can be included in estimation.

Irrigation system: Cost includes installation of sprinkler/drip system of irrigation in an area of 13.5 acres. Life of the irrigation system can be taken for 10 years, so expenditure on irrigation system can be distributed equally over 10 years.

Shadenet house/pandal: Shadenet house or pandal is required for raising oil palm seedlings during the primary stage of nursery and 1500m² area is needed for raising one lakh seedlings. Life of shadenet pandal should be taken as 10 years and the amount spent on this structure can be distributed over 10 years.

Motor, electrical fittings and water pumping system: Price of electric motor, cabling, electric panel board and rain proof shelter for panel board, water filtration unit etc have to be considered for cost calculation. Life of above items can be taken as 10 years and money can be distributed equally for 10 years.

Office room cum storage shed: Low cost or semi permanent shed is required for staying nursery staff, resting of casual workers, keeping of nursery tools and appliances, temporary storage of fertilizers, pesticides, fuel etc. Money spent on construction of the shed and life

(10yrs) of the structure has to be taken into account for cost estimation.

Security cabin and gate: Here, cost includes amount spent on making of semi permanent security cabin and fixing of gate.

Generator/solar power pump set: Generator/solar power pump set is compulsory to meet water demand of oil palm nursery as nurseries are located in rural areas/isolated places, frequent power cuts and change in timings of power supply. Life of generator/solar pump set can be taken as 10 years and cost of it can be distributed equally over 10 years.

C. Variable/recurring cost components

Nursery operations: Quality of oil palm seedlings mainly depends on carrying out good nursery management practices in scheduled time. Management of nursery includes various operations viz. preparation of nursery site, preparation of growing medium by mixing soil and organic manure, filling of poly bags with growing medium, transporting of filled bags to exact nursery spot, proper arrangement of bags, planting of seed sprouts, shifting of primary seedlings to the secondary nursery spot, transferring of primary seedlings on to secondary bags, regular watering, periodical application of fertilizers and pesticides, periodical weeding in bags, inter space and around the nursery, preparation of seedlings by removing dry leaves, tilting of bags three weeks in advance of distribution, loading of seedlings onto tractor/truck, disposal of abnormal seedlings and removal of bags wherein seedlings are died. Here, cost includes labour charges for carrying out above mentioned activities and actual cost should be worked out based on the nature of work, quantity of work, activity frequency (watering, weeding, fertilizer & pesticide application) and area of work.

Man power: Man power cost includes salary of permanent nursery staff i.e., nursery manager, technical person, supporting persons and watch and ward. Planning, monitoring and supervision of nursery operations, procurement of inputs, observations on growth and health of seedlings, management of nursery operations as per the schedule, culling of abnormal seedlings, proper disposal of discarded seedlings, receiving, explanation and accompanying visitors, maintenance of registers and fixed assets, security of the nursery round the clock etc.

Electricity charges: Here, cost includes electricity charges paid at monthly interval.

Repair and maintenance of fixed assets: Charges for repair and upkeep of fixed assets as and when required can be taken into account for cost calculation.

Payment for PEQ team: Cost includes TA and DA and honorarium for periodical visits of Post Entry Quarantine team for monitoring of pest incidence in oil palm nursery.

Miscellaneous expenditure: Cost includes price of bio-fertilizers and bio-pesticides and their application charges, charges for fixing of metal boards and display of needed information on boards at each block, purification of water, unexpected expenditure as and when required etc.

Mortality of sprouts and seedlings: Due to faulty planting of sprouts and serious pest incidence, death of seedlings prior to emergence of sprout and after emergence of one or two leaves is common in oil palm nursery during the primary stage. On average, mortality is about 5% for indigenous as well as imported stock. Only the expenditure incurred on raising 5,000

seed sprouts during the primary nursery stage can be taken into account for calculation of cost since 5% mortality is compensated by 5% extra seed sprout supply.

Abnormality of seedlings: Roughing or culling of genetically abnormal seedlings is an important and compulsory practice to avoid the loss to the farmer/grower in future. In addition to genetically abnormal seedlings, badly affected ones by pests and nutrient deficiency have to be removed and this is about 10% both in indigenous and imported seedlings. Here, the cost includes price of seed sprouts and expenditure made on 10,000 seedlings during the nursery period.

Details of Seed Nursery with cost norms

Land lease, shade net pandal, irrigation system, digging of farm pond, generator/solar pump set, semi permanent structures like office cum storage shed etc. are components required for development of nursery area of 15 acres for raising one lakh oil palm seedlings. Considering the price variations and geographical locations in different oil palm growing states, approximate price prevailed during the year 2021 is followed for cost calculations of all the components. The item wise particulars are furnished in the following Table.1.

Table 1: Cost of establishing oil palm nursery for raising one lakh seedlings.

S. No.	Particulars	Amount (Lakhs)
1	Land lease-15acres.	8,25,000
2	Land preparation, roads and paths.	1,50,000
3	Shade net pandal for primary nursery-1500m ²	7,50,000
4	Installation of drip irrigation system for secondary nursery-13.5acres.	13,50,000
5	Pond excavation with HDPE lining, pump and other accessories.	3,00,000
6	Generator/solar pump set.	8,00,000
7	Office room cum storage shed, security cabin and gate.	5,00,000
8	Miscellaneous (nursery tools & appliances, metal boards, furniture etc.) items.	3,25,000
	Total	50,00,000

Annexure-X

The basic qualifications and experiences required for Consultants /Young professional/ DEO/MTS at National Level.

Level and post	Educational Qualification & Experience	Honorarium (Rs./Month)	Conveyance / Travelling Allowance (Rs./Month)	Daily Allowance (Rs./Day)
A. National Level				
National Consultants (2)	1. Doctorate Degree in Agronomy / Agriculture Extension / Soil Science / Plant Breeding/Crop Improvement / Plant Protection / or any other agricultural subject or M. Tech in Agricultural Engineering with minimum 15 years of field experience Agriculture/Horticulture/Plantation crop production/Agriculture mechanization. In case of departmental candidate having at least 5 years working experience in relevant field as Deputy Commissioner or above. 2. Ability to analyze data and preparation of projects, writing reports/seminar notes/articles as evidenced by publication in national and international journals. 3. The person should have the ability of team leadership & motivation. 4. Maximum Age Limit 65 years or as per instruction of the Department. Suitable candidates beyond 65 years of age will also be considered with approval of NMEO-OP-GC.	90,000	4,000	TA and other items as per GoI rules (Equates to Grade "A" Gazetted Officer)
Young Professional (1+2=3) (One IT background & remaining from Agriculture Business Management)	1. YP-I, B. Tech in Computer Science/MCA/ BE (Computer Science) & two year working experience in relevant field (Website developer, programming and AAP developing etc.). 2. YP-II, Bachelor degree in Agriculture followed by M.sc. Ag/ Agri Business Management (two years programme) MBA in Agri. Business etc. and two year experience in relevant field. 3. Ph.D. Research Scholar and working in field of Oil palm cultivation will be given preference. 4. The criteria of essential qualification may be relaxed to Departmental experienced personnel by competent	60,000	3,000	As per GoI rules (Equates to Grade "B" Gazetted Officer)

	authority.			
Data Entry Operator(DEO) (5)	1. Graduate with six months computer course. Well versed with MS Word, Excel, PPT and Access GIS <i>etc.</i> 2. Minimum 2 years' experience in relevant field of work.	30,000	1,000	As per GOI rules (Equates to Grade "C" Officer)
Multi Tasking service (5)	1. Matriculate	22,000	1,000	As per GOI rules (Equates to Grade "D" Officer)

Annexure-XI

The basic qualification, experience, honorarium of consultant/Technical Assistance/ DEO at State Level.

Level and post	Educational Qualification & eXperience	Honorarium(Rs./Month)	Conveyance / Travelling Allowance (Rs./Month)	Daily Allowance (Rs./Day)
A. State Level				
Consultants (1)	1. Doctorate Degree in Agronomy/ Agriculture Extension/ Soil Science /Plant Breeding/ Plant Protection /Agriculture Engineering/or any other agricultural subject having at least 10 year of filed experience Agriculture/Horticulture/Plantation crop production or in case of departmental experienced personnel, qualification may be relaxed by the NMEO-OP-EC. 2. Ability to analyze data and preparation of projects, writing reports/seminar notes/ articles as evidenced by publication in national and international journals. 3. The person should have the ability of team leadership & motivation.	65,000	3,000	200 (for 10 days in a month) or as per state rules
Technical Assistant (1)	1. Master Degree in Agriculture with specialization in management of Agriculture/Horticulture/Plantation crop production. Knowledge of computer essential. 2. Person with experience of research and extension will be given preference.	40,000	2,500	150 (for 10 days in a month) or as per state rules
Data Entry Operator(DEO) (1)	1. Graduate with six months computer course. Well versed with MS Word, Excel, PPT and Access GIS etc. 2. Minimum 2 years' experience in relevant field of work.	30,000	1,000	150 (for 10 days in a month) or as per state rules

Annexure-XII**The basic qualifications and experiences required for Technical Assistant/ DEO at District Level**

Level and post	Educational Qualification & eXperience	Honorarium(Rs./Month)	Conveyance / Travelling Allowance (Rs./Month)	Daily Allowance (Rs./Day)
A. District Level				
Technical Assistant (2)	1. Bachelor degree in agriculture with computer skills. In case of non- availability of agriculture graduates, candidates with Bachelor degree in sciences may be considered. 2. Person with experience of research and extension will be given preference.	35,000	1,500	150 (for 10 days in a month) or as per state rules
Data Entry Operator(DEO) (2)	1. Graduate with six months computer course. Well versed with MS Word, Excel, PPT and Access GIS <i>etc.</i> 2. Minimum 2 years' experience irrelevant field of work.	25,000	1,000	150 (for 10 days in a month) or as per state rules

The details of viability price, formula price and viability gap price calculation and its illustrations

1. Industry Payment in Rest of India, NER and Andaman & Nicobar Islands:

- I. The minimum industry payment from 1st November 2021 shall be 14.3% of the monthly CPO price. Industry will pay based on 14.3% of the average monthly price of CPO from 1st November 2021 to 31st October 2028. This payment by the industry shall increase by 0.25 % during next every three years from 1st November 2028, till 31st October 2037.
- II. To give impetus to the North East (NER) and Andaman & Nicobar Islands (A&N), specially because of the existing terrain, tough conditions and need for investment, the industry instead of FFB payment of 14.3 % of CPO price from 1st November 2021, shall start with a payment of 12.3 % of CPO price and Government of India will pay the differential 2 % of CPO price , as special NER and A&N Islands payment, to ensure that the farmers of the NER and A&N Islands are paid at par with the rest of India. This payment by the industry as % of CPO in NER and A&N Islands shall increase by 0.5 % on every three years till 1st November 2037, while for NER and A&N Islands, special payment by Government of India shall reduce from 2 % to 0 % by 2037.
- III. From 1st November 2037, the farmers will be paid 15.3% of CPO as FFBs Price.
- IV. Presently through the Oil Palm Acts/ Regulations/Orders, State Governments are fixing the price for the FFBs which is paid by the industry to the farmers. In case States do not adopt the industry payment approved in this scheme, they shall be at liberty to continue with their own payment system, and in such a case the industry will be mandated to pay the State mandated price.
- V. To ensure that State do not fix arbitrary prices, which hampers investment in the oil palm sector, it is approved to put a condition that payment of VGF or special NER payment by GOI shall be applicable only if the states adopt the formulation of payment of FFB price of the scheme. For this the states adopting the approved scheme payment pattern by the industry, they will sign a memorandum of Understanding (MOUs) with the Government of India for the same .
- VI. The VGF and special payments to NER/A&N Islands A&N payout whenever due to the farmers is approved to be paid by DBT directly in the farmers account. As this is a support mechanism for the farmers, it is approved that 100% VGF & Special payments for NER and A&N Islands is made by the Government of India.

2 Viability Gap Payment (VGP):

The VGP shall be the payout given to the farmers for the FFB supplied to the industry. This shall be calculated on monthly basis during the Oil Palm Year (OPY). This viability gap payments shall be the VP for the oil palm year minus the formula price for that particular month. From, 1st Nov 2021 to 31st Oct 2028, Government of India shall pay 100% difference between the VP and the FP price for a particular month in case it is positive. Thereafter, every 3 years (1st Nov 2028 to 31st Oct 2031; 1st Nov 31 to 31st Oct 2034 and 1st Nov 2034 to 31st Oct 2037), the payment will decrease by 25 % to reach landed CPO price in 2037 at sunset stage.

a) Oil Palm Year

The Oil Palm Year (OPY) is considered from 1st November till 31st October of next year.

b) Crude Palm Oil Price (CPO) and Formula Price

- (i) At present the Kandla port handles around 35% of the landed CPO and the prices of Kandla port is a major factor for the CPO market. The major CPO is traded in the MCX exchange for delivery at Kandla. Analysis of MCX traded CPO price with AP Government price shows that Kandla price is 1.5 % more compared to the AP price.
- (ii) Thus, it is approved to define the CPO price for this scheme as CPO price for Kandla delivery traded on MCX moderated on a lower side by 1.5 %.

Formula price = 14.3% of CPO price.

3. Viability Price

For the assured payment to the farmers, for the prices of FFBs during the Oil Palm Year (OPY), which is considered from 1st November till 31st October for next year, the viability Price (VP) shall be declared in November of each year. **This VP of FFBs per tonne shall be 14.3% of the annual average price of CPO of the last 5 year adjusted with wholesale price index (WPI) of all India.** Every year starting with OPY from the month of 1st November, the Government of India shall declare the VP for that OPY by a duly constituted committee of the Department of Agriculture & Farmers Welfare. Through declaration of this VP, the farmers will know at the beginning of the year the price they will be paid for their produce of FFBs.

4. Formula Price

The Formula price will be arrived on the basis of average monthly landed CPO price. Therefore, the formula price will be average monthly (of the preceding month) landed CPO price multiplied by a multiplication factor 14.30%, as applicable in case of the Viability Price. The Formula price would be used for the calculation of viability gap funding calculation in every month.

For Wholesale Price Index (WPI),

- The all India WPI data will be obtained from office of the Economic Adviser, Department of Commerce presently available at <https://eaindustry.nic.in> and calculation of WPI adjusted with traded CPO price of Kandla port at MCX portal.
- Based on this all India average of WPI (all Commodities) 5 years average of CPO price, WPI adjusted, shall be calculated as per the following illustration:

For the year 2021-22, price shall be declared based on average of the prices in 2016-17 adjusted by 4 years till 2020-21 by WPI, plus 2017-18 price adjusted with WPI for 3 years, plus 2018-19 price adjusted by WPI for 2 years, 2019-20 price adjusted by WPI for one year and 2020-21 price. This 5-year average CPO price adjusted with WPI shall be multiplied by 14.3% to calculate the annual Viability price for the FFBs for the oil palm year.

Viability Gap Payment (VGP):

The Industry pays the farmers for their FFB produce based on the monthly prices fixed for the FFBs. **If the payment to farmers by the industry is below the VP, the Government will provide a VGP to ensure that the farmers payment reaches the VP.** In this scenario, the farmer would be entitled for

payment of VGP, which shall be the VP for the Oil Palm Year (OPY) minus the Formula price (FP) for that particular month, in case the farmers payment by the industry is less then VP. The VGP from, 1st Nov, 2021 to 31st Oct, 2028, shall be 100% difference between the VP and the FP price for a particular month. Thereafter, every 3 years (1st Nov, 2028 to 31st Oct, 2031; 1st Nov, 2031 to 31st Oct, 2034 and 1st Nov, 2034 to 31st Oct, 2037), will decrease by 25 % to reach landed CPO price in 2037. **There will be no VGP liability for the Government from 1st November 2037.**

A. Summary

In summary based on the above analysis, in case the states adopt the payment pattern of the scheme, the payment by GoI and Industry shall be as follows:

Oil Year	Minimum Payment schedule by industry to farmers (as % of CPO)		Difference to be paid by GoI to the farmers	
	Rest of India	N E states & A & N Islands	Difference to be paid by GOI in North East states & (A&N) Islands for parity with ROI	Payment of VGP by GOI to farmers as (Viability price-Formula price)
1st Nov 21 to 31st Oct 28	14.30	12.30	14.30-12.30=2%	(Viability price-Formula price)x 100%
1st Nov 28 to 31st Oct 31	14.55	13.05	14.55-13.05=1.5%	(Viability price-Formula price)x 75%
1st Nov 31 to 31st Oct 34	14.80	13.80	14.80-13.80=1.0%	(Viability price-Formula price)x 50%
1st Nov 34 to 31st Oct 37	15.05	14.55	15.05-14.55=0.5%	(Viability price-Formula price)x 25%
1st Nov 37 onwards	15.30	15.30	15.30-15.30=0%	0

** Subject to the condition that together with industry payment and NE and A&N Islands special payment by GOI, it does not exceed the viability price declared by the GOI.*

In case States do not adopt the industry payment pattern of the scheme, then industry shall pay the state mandated price and in such a case, neither VGF or special NE payment shall be payable by GoI.

Though the funding for the approved NMEO (OP) for five years has been kept till

2025-26, since the sunset clause will be from November, 2037, thus the Government of India liabilities would continue till that time for the scheme as applicable. The farmers already cultivating oil palm would also be considered for VGF along with future growers of oil palm so that the confidence in the farmers is enhanced to go for oil palm cultivation.

(g) **MOU between State and Central Government:** .If the State is ready to adopt the approved payment pattern of FFBS, states have to sign MOU with the Government of India.

(h) Viability Price Fixation Committee (VPFC):-

The Viability Price Fixation Committee (VPFC) of Fresh Fruit Bunches (FFBs) of Oil Palm has been constituted under the Chairmanship of Additional Secretary, Department of Agriculture & Farmers Welfare to declare Viability Price in every Oil Palm Year (OPY)(1st Nov to 31st Oct of next year). The composition of the Committee is given below:

S . N o .	Constitution of the committee	Status
1	Additional Secretary of DA&FW (Senior most)	Chairman
2	Managing Director, MCX or his representative	Member
3	Adviser (Trade), DA&FW	Member
4	Adviser (Costs), DES	Member
5	Joint Secretary (Customs)	Member
6	Joint Secretary (Capital Markets, DEA)	Member
7	Director (Finance), DA&FW	Member
8	Joint Secretary (Crops/Oilseeds)	Member Secretary

Terms of References (ToRs) of the Committee are given below:

- To declare the VP on 1st November of every year starting from 1st November 2021 based on the formulation approved by the Cabinet. (copy enclosed)
- To maintain data of CPO price on a regular basis for distribution to the relevant authorities.

Order of constitution of Viability Fixation Committee is given as **Annexure-XV**

Annexure-XIV

Memorandum of Agreement Between

Government of India

Ministry of Agriculture & Farmers Welfare

Department of Agriculture & Farmers Welfare National

Mission on Edible Oils – Oilpalm (NMEO-OP)

And

State Agriculture / Horticulture Department, State/UT of _____

And

Scheduled Commercial Bank (Date) _____, 2021

[Ref: DA&FW F.No.2-4/2021-CA-II (101830)]

NMEO-OP, DA&FW
Govt. of India

ACS/ Prl. Secy./ Secy.
....., STATE DEPT OF AGRICULTURE/HORTICULTURE, Bank

Branch Manager

Memorandum of Agreement

THIS MEMORANDUM OF AGREEMENT made at New Delhi on the day of _____, 2021.

BETWEEN

The President of India acting through the Secretary, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Government of India having office at Krishi Bhawan, Dr. Rajendra Prasad Road, New Delhi-110001, hereinafter referred to as the "**NMEO-OP, DA&FW, MoA&FW**" (which expression shall, unless repugnant to the context or meaning thereof, include his successors in Office) **OF THE FIRST PARTY**

AND

State Department of Agriculture/Horticulture, Govt. of _____ (Name of State)/ Administration of _____ (Name of UT) having its office at _____ hereinafter referred to as "**State Department**" (which expression shall, unless repugnant to the context or meaning thereof, include its successors and assigns) **OF THE SECOND PARTY**

AND

_____, a scheduled commercial bank, and having its Head Office at _____ And one of its Regional Offices at _____ hereinafter referred to as "**Bank**" (which expression shall, unless repugnant to the context or meaning thereof, include its successors and assigns) **OF THE THIRD PARTY**

(NMEO-OP, DA&FW, MoA&FW; State Department and Bank collectively here in after referred to as the parties)

WHEREAS

- (i) A new Centrally Sponsored Scheme NMEO (Oil Palm) is launched in the next five years (2021-22 to 2025-26) to support Oil palm and edible oil sector in the country.
- (ii) The Government of India and State share for Rest of India and North East states will be in the ratio 60:40 and 90:10 respectively.
- (iii) There is a provision for 100% funding from the Government of India for the Viability Gap Payment and for the special payment component for NE states and Andaman and Nicobar Islands. The Scheme will be launched till 2025-2026 and the payment of the Viability gap

NMEO-OP, DA&FW
Govt. of India

ACS/ Prl. Secy./ Secy.
_____, STATE DEPT OF AGRICULTURE/HORTICULTURE _____, Bank

Branch Manager

funding and special payment for North East and Andaman and Nicobar Islands will be till 31st October 2037.

(iv) The total cost for the schemes of NMEO-OP may be approved for Rs. 11,040 crore with Rs. 8844 crore as Government of India share and Rs 2196 crore as State share as per the following details:-

Year wise allocation under NMEO (OP) during next five years

(` in Cr)

S.No.	States	Year	GOI Share	State Share	Total
1	ROI	2021-22	303	202	505
2	NE states and ANI		521	58	579
3	ROI	2022-23	601	294	895
4	NE states and ANI		784	87	871
5	ROI	2023-24	700	298	998
6	NE states and ANI		1047	116	1163
7	ROI	2024-25	848	353	1201
8	NE states and ANI		1364	151	1515
9	ROI	2025-26	1108	463	1571
10	NE states and ANI		1568	174	1742
11	Total ROI (60:40)		3560	1610	5170
12	Total NE states (90:10) and ANI		5284	586	5870
13	Total (ROI+NE and ANI)		8844	2196	11040

(v) For the release of Central and States' share for this scheme, in relaxation of the extend guidelines, an escrow account mechanism shall be adopted. Both the GoI and State share of funds shall be transferred to the escrow account. The Secretary, DA&FW would be authorized to release upto two installments of 25% each to States without insisting on release of State's share.

NOW THEREFORE THIS AGREEMENT WITNESSTH THAT:

1. RIGHTS AND OBLIGATIONS OF STATE DEPT OF AGRICULTURE/HORTICULTURE

i.) The State Government/ UT Administration through STATE DEPT OF AGRICULTURE/HORTICULTURE hereby:

a.) Undertakes to take all such steps as may be deemed necessary for smooth implementation of NMEO-OP strictly as per operational guidelines for the implementation of NMEO-OP and other guidelines/ rules/ instructions issued from time to time by the NMEO-OP, DA&FW, MoA&FW for utilizing the Central/State grants-in-aid, provided by NMEO-OP, DA&FW, MoA&FW and respective State Governments/ UT Administration;

- b.) undertakes to adhere to the policy specified at 'Annex-II' for making any expenditure from the ESCROW account;
- c.) undertakes to ensure timely transfer of corresponding State share within 40 days of the Central release or as per the extant guidelines issued by the Ministry of Finance (MoF), Government of India, from time-to-time, to the 'escrow account' against the Central grants-in-aid made available for the State by NMEO-OP, DA&FW, MoA&FW;
- d.) agrees to allow NMEO-OP, DA&FW, MoA&FW/ State Govt./ UT Administration to verify/ cause to verify/ audit of its books of accounts, vouchers, papers, document(s), etc., and any other financial/ non-financial document(s) of STATE DEPT OF AGRICULTURE/HORTICULTURE pertaining to the Central/ State fund for NMEO-OP and its utilization;
- e.) undertakes to submit such information/ documents relating to the grants-in-aid/ loan for implementation of NMEO-OP as may be required by NMEO-OP, DA&FW, MoA&FW;
- f.) agrees to execute/ cause to execute such supplementary documents as required by NMEO-OP, DA&FW, MoA&FW to carry out its obligations under this agreement;
- g.) agrees to submit to NMEO-OP, DA&FW, MoA&FW the details of funds released under NMEO-OP and its utilization and progress. Utilization of funds by States/Uts and progress of work will be monitored by NMEO-OP, DA&FW, MoA&FW;
- h.) undertakes to ensure that all financial transactions are routed through Public Finance Management System (PFMS);
- i.) undertakes to maintain and update from time-to-time the communication details of the parties of this tripartite agreement and intimate the same to NMEO-OP, DA&FW, MoA&FW;
- j.) to ensure transfer of available fund of NMEO-OP with SNA of STATE DEPT OF AGRICULTURE/HORTICULTURE as well as with State treasury to the escrow account of STATE DEPT OF AGRICULTURE/HORTICULTURE opened/ operationalized indicating the Central and States share separately, under intimation to the NMEO-OP, DA&FW.
- k.) the NMEO-OP funds released to the State Government/ UT Administration to be transferred to the ESCROW account;
- ii.) As per the Ministry of Finance (Department of Expenditure)'s OM No. 1(13)/PFMS/FCD/2021 dated 30.06.2021, total interest accrued/ earned out of the funds received in the Escrow account (both from the Central Government and State

Governments/ UT Administration) in the preceding financial year, shall have to be computed in the 1st week of April each year. The interest earned will be apportioned by Escrow account between the Central and State Governments/ UT Administration as per the approved funding pattern of NMEO-OP and shall be deposited in the respective Consolidated Funds. For the Central Government, the amount shall be deposited in the Major Head 0049, Sub Major Head- 01, Minor Head 800 (i.e. 0049-01-800) by the States and in the Major Head 0049, Sub-Major Head- 02, Minor Head 800 (i.e. 0049-02-800) by the UTs with Legislature.

Further, Addl. Chief Secretary/ Principal Secretary/ Secretary of STATE DEPT OF AGRICULTURE/HORTICULTURE shall furnish an undertaking to NMEO-OP in the proforma at Annex-III, every year before the release of 1st installment of funds under NMEO-OP.

2. RIGHTS AND OBLIGATIONS OF THE BANK

- i.) The Bank shall open an escrow account bearing the following title and be in the name of “National Mission on Edible Oils – Oilpalm – (the State/ UT’s name) - Escrow Account”. The account must be Savings Bank Account. The Parties further agree that the account shall be denominated in Indian Rupees.
- ii.) The bank shall get on boarded with PFMS through necessary registration so that all transfers made by t h e Central and State Governments/ UT Administration in the account and all payments made from this account get linked with the PFMS and get reflected in there ports;
- iii.) Strictly as per the policy specified at ‘Annex-II’, the Bank shall release the fund to the vendors/ actual executors of the works, etc., registered with PFMS, under NMEO-OP, asper the directions of signatories of STATE DEPT OF AGRICULTURE/HORTICULTURE, who are duly authorized by the State Governments/ UT Administration to utilize/ release/transfer offund;
- iv.) To ensure all the financial transactions are routed through Public Finance Management System (PFMS);
- v.) Any such modifications to the terms and conditions of sanction approved by the NMEO-OP, DA&FW, MoA&FW and respective State/ UT shall have the overriding effect over any prior sanctions received from the Officer of STATE DEPT OF AGRICULTURE/HORTICULTURE;
- vi.) As per the Ministry of Finance (Department of Expenditure)’s OM No. 1(13)/PFMS/FCD/2021 dated 30.06.2021, total interest accrued/ earned out of the funds received in the Escrow account (both from the Central Government and State

Governments/ UT Administration) in the preceding financial year, shall have to be computed in the 1st week of April each year. The interest earned will be apportioned by Escrow account between the Central and State Governments/ UT Administration as per the approved funding pattern of NMEO-OP and shall be deposited in the respective Consolidated Funds. For the Central Government, the amount shall be deposited in the Major Head 0049, Sub Major Head- 01, Minor Head 800 (i.e. 0049-01-800) by the States and in the Major Head 0049, Sub-Major Head- 02, Minor Head 800 (i.e. 0049-02-800) by the UTs with Legislature;

vii.) The Parties can terminate this account services by providing 30 days prior notice.

3. RIGHTS AND OBLIGATIONS OF NMEO-OP, DA&FW, MoA&FW

- i.) Definition of the suitable policy of the utilization of fund, viz. 'Annex-II' and making changes in it, if any, from time to time as per the requirement of NMEO-OP, DA&FW, MoA&FW and/ or directed by the Ministry of Finance, Government of India;
- ii.) NMEO-OP, DA&FW, MoA&FW shall release the Central grants-in-aid directly to the ESCROW account of the STATE DEPT OF AGRICULTURE/HORTICULTURE as far as possible and advise the State to release the matching State share against the Central fund to the ESCROW account strictly as per the extant instructions of the Union Ministry of Finance issued from time to time;
- iii.) Secretary, DA&FW would be authorized to release upto two installments of 25% each to States/UTs without insisting on release of State's share.
- iv.) Further release of the Central fund to the ESCROW Account shall not be made without ensuring release of the due matching State share for the previous release after the exhaustion of the escrow power of Secretary, DA&FW.
- v.) To ensure that release of the Central share is routed through Public Finance Management System (PFMS).

4. The Parties to this MoA may amend/ modify/ alter/ add/ delete any provision, except Annex-I & Annex-II of the agreement, with mutual consent. Annex-I & Annex-II may only be amended/modified by NMEO-OP, DA&FW, MoA&FW.

NMEO-OP, DA&FW
Govt. of India

ACS/ Prl. Secy./ Secy.
....., STATE DEPT OF AGRICULTURE/HORTICULTURE, Bank

Branch Manager

5. DISPUTERE SOLUTION

- i.) Any dispute, difference or claim arising out of or in connection with this agreement, which is not resolved amicably, shall be decided finally by reference to arbitration to a Board of Arbitrators comprising one nominee of each party to the dispute and where the number of such nominees is an even number, the nominees shall elect another person to such Board. Such arbitration shall be held in accordance with the Rules of Arbitration of the International Centre for Alternative Dispute Resolution, New Delhi (the "Rules") or such other rules as may be mutually agreed by the parties and shall be subject to the provisions of the Arbitration and Conciliation Act, 1996.
- ii.) The arbitrator shall issue a reasoned award and such award shall be final and binding on the Parties. The place of arbitration shall be Delhi and the language of the arbitration proceeding shall be English.

In witness whereof, the Parties have signed this Memorandum of Agreement on the day, month and year first above mentioned.

Signature with seal of _____,

Secretary/Authorized representative of Secretary

National Mission on Edible Oils - Oilpalm

Department of Agriculture & Farmers Welfare

Ministry of Agriculture & Farmers Welfare

Govt. of India, New Delhi - 110001

Acting in the premises for and on behalf of and under the authority of President of India

In the presence of

1.

2.

Signature with seal of _____,

Additional Chief Secretary/ Principal Secretary/ Secretary, State/UT of _____

For and on behalf of State/ UT National Mission on Edible Oils - Oilpalm, State/UT of _____
_____(Address of STATE DEPT OF AGRICULTURE/HORTICULTURE)

In the presence of

1.

2.

Signature with seal of _____,

Branch Manager in-charge ,For and on behalf of

_____, Scheduled Commercial Bank

_____,(Address of Bank)

In the presence of

1.

2.

Procedure for fund release under NMEO-OP

	Instalment	Conditions
Initial Year of launching of NMEO-OP	First instalment	At the initial launching of NMEO-OP, 60% of the allocation shall be released to States/UTs. The unspent balance with States/UTs under National Food Security Mission (Oilpalm) –NFSM (OP) shall be refunded by the States/UTs to the Consolidated Fund of India. The committed liabilities, if any, for physical works already completed shall be settled under NMEO-OP.
	Second instalment/ Subsequent instalment	Remaining funds shall be released upon utilization of 60% of available Central fund released as first instalment and corresponding State matching share.
Subsequent Year(s) of launching of NMEO-OP	First instalment	Upon submission of UCs (12-C format) and physical-financial report of the previous year, upto 60% of the allocation minus USB of previous year shall be released to States/UTs. Committed liability, if any, for the works already completed in the previous year shall be indicated separately in the physical-financial report.
	Second instalment/ Subsequent instalment	Remaining funds shall be released upon utilization of 60% of available Central fund released as first instalment and corresponding State matching share.
Additional grant, viz. Viability Gap Payment, Special Fund, Performance incentive, etc.		As per operational guidelines/extant instructions.

General terms and conditions for release/ transfer/utilization of funds through escrow account for implementation National Mission on Edible Oils-Oilpalm

The Secretary, DA&FW would be authorised to release upto two instalments of 25% each to States/UTs without insisting on release of State's share.

Instalment	Conditions	% of release
First release to the Escrow Account	60% of available central expenditure without insisting on State's share	25% of the annual action plan for the State/UT. If the State has committed liability against the physical works completed, then the release percentage to the escrow account will be 25% of annual action plan including committed liability.
2nd release to the Escrow Account	60% of available central expenditure without insisting on State's share	25% of the annual action plan for the State/UT. If the State has committed liability against the physical works completed, then the release percentage to the escrow account will be 25% of annual action plan including committed liability.

As per the Ministry of Finance (Department of Expenditure)'s OM No. 1(13)/PFMS/FCD/2021 dated 30.06.2021, total interest accrued/ earned out of the funds received in the Escrow account (both from the Central Government and State Governments/ UT Administration) in the preceding financial year, shall have to be computed in the 1st week of April each year. The interest earned will be apportioned by Escrow account between the Central and State Governments/ UT Administration as per the approved funding pattern of NMEO-OP and shall be deposited in the respective Consolidated Funds. For the Central Government, the amount shall be deposited in the Major Head 0049, Sub Major Head- 01, Minor Head 800 (i.e. 0049-01-800) by the States and in the Major Head 0049, Sub-Major Head- 02, Minor Head 800 (i.e. 0049-02-800) by the UTs with Legislature.

NMEO-OP, DA&FW
Govt. of India

ACS/ PrI. Secy./ Secy.
....., STATE DEPT OF AGRICULTURE/HORTICULTURE, Bank

Branch Manager

Government of _____ (State/ UT)

Department of _____

No. _____

Dated: _____

Undertaking

It is hereby certified that an amount of Rs. _____ was earned as interest from the funds received in the Single Nodal Account/ Escrow Account of National Mission on Edible Oils-Oilpalm (NMEO-OP) during the financial year _____. The funds under NMEO-OP are shared between the Centre and the State/ UT in the ratio ____ : _____. Therefore, out of the interest earned during the financial year, an amount of Rs. _____ has been deposited in the Consolidated Fund of India vide No. _____ dated _____ and an amount of Rs. _____ has been deposited in the Consolidated Fund of the State/ UT.

Name: _____

Designation: _____

Signature with seal of _____

Secretary/Authorized representative of Secretary

National Mission on Edible Oils - Oilpalm

Department of Agriculture & Farmers Welfare

Ministry of Agriculture & Farmers Welfare

Govt. of India, New Delhi-110003

Acting in the premises for and on behalf of and under the authority of President of India

NMEO-OP, DA&FW
Govt. of India

ACS/ Prl. Secy./ Secy.
....., STATE DEPT OF AGRICULTURE/HORTICULTURE....., Bank

Branch Manager

In the presence

of1.

2.

Signature with seal of_____

Additional Chief Secretary/ Principal Secretary/ Secretary, State/UT of _____

For and on behalf of State/ UT Water & Sanitation Mission, State/UT of _____

_____(Address of STATE DEPT OF AGRICULTURE/HORTICULTURE)

In the presence

of1.

2.

Signature with seal of_____

Branch Manager in-charge, For and on behalf of

_____,Scheduled Commercial Bank

_____(Address of Bank)

In the presence

of1.

2.

Constitution of Viability Price Fixation Committee (VPFC) for FFBs

F. No. 3-14/2021-OP (SB)
Government of India
Ministry of Agriculture & Farmers Welfare
Department of Agriculture & Farmers Welfare

Krishi Bhawan, New Delhi
Dated 1st October, 2021

Subject: Constitution of Viability Price Fixation Committee (VPFC) of Fresh Fruit Bunches of Oil Palm – reg.

With the approval of the competent authority, a Viability Price Fixation Committee (VPFC) of Fresh Fruit Bunches (FFBs) of Oil Palm has been constituted under the Chairmanship of Additional Secretary, Department of Agriculture & Farmers Welfare to declare Viability Price in every oil year (1st Nov to 31st Oct of next year). The composition of the Committee is given below:

1.	Additional Secretary of DA&FW (Senior most)	Chairman
2.	Managing Director, MCX or his representative	Member
3.	Adviser (Trade), DA&FW	Member
4.	Adviser (Costs), DES	Member
5.	Joint Secretary (Customs)	Member
6.	Joint Secretary (Capital Markets, DEA)	Member
7.	Director (Finance), DA&FW	Member
8.	Joint Secretary (Crops/Oilseeds)	Member Secretary

Terms of References (ToRs) of the Committee are given below:

- i. To declare the VP on 1st November of every year starting from 1st November 2021 based on the formulation approved by the Cabinet. (copy enclosed)
- ii. To maintain data of CPO price on a regular basis for distribution to the relevant authorities.

Encl: As above


 (Bipul Kumar Srivastava)
 Deputy Commissioner (Oilseeds)
 E-mail: srivastava.bipul@nic.in
 Phone: 011-23385781

Distribution to:

1. Additional Secretary (Senior most) of DA&FW, Krishi Bhawan, New Delhi
2. Adviser (Trade), DA&FW, Krishi Bhawan, New Delhi
3. Adviser (Costs), DES, Krishi Bhawan, New Delhi
4. Joint Secretary (Customs), Room No. 156-B, North Block, New Delhi.
Email: jscus@nic.in
5. Joint Secretary (Capital Markets), Department of Economic Affairs, North Block, New Delhi.
6. Director (Finance), DA&FW, Krishi Bhawan, New Delhi
7. Joint Secretary (Crops/Oilseeds), Krishi Bhawan, New Delhi

Copy to:

1. PS to Hon'ble Minister of Agriculture & Farmers Welfare, Krishi Bhawan, New Delhi
2. PPS to Secretary (A&FW), Krishi Bhawan, New Delhi

MOUs

F. No. 3-30/2021-NMEO-OP(SB); E-102771
Government of India
Ministry of Agriculture & Farmers' Welfare
Department of Agriculture & Farmers' Welfare

Krishi Bhawan, New Delhi
Dated: 11th October, 2021

To,
The Principal Secretary (Agriculture)
Govt. of Arunachal Pradesh, Assam, Manipur, Mizoram & Nagaland

Subject: Memorandum of Understanding (MoU) for Payment of VGP or special NER Payment by Government for FFBs of Oil Palm to the farmers - reg.

Sir,

I am directed to forward herewith a copy of the Memorandum of Understanding (MoU) for Payment of VGP or special NER Payment by Government for FFBs of Oil Palm to the farmers and requested to kindly return the same after signature to this Department by **15th October, 2021 positively** to enable us to take further necessary action in the matter.

Yours faithfully,


(Ranvir Singh)

Assistant Commissioner (Oil Palm)

Copy to:

1. PPS to Secretary (A&FW), Ministry of Agriculture, Govt of India, Krishi Bhawan, New Delhi.
2. PPS to Joint Secretary (Oilseeds), DA&FW, Krishi Bhawan, New Delhi.
3. Director/Commissioner (Agriculture/Horticulture), Govt of Arunachal Pradesh, Assam, Manipur, Mizoram & Nagaland.
4. Director, Directorate of Oilseeds Development, Telhan Bhawan, Hyderabad.

MEMORANDUM OF UNDERSTANDING (MoU)

This Agreement is made of this -----day of ----- by and among;

1. The Government of India represented by the Joint Secretary (Oilseeds/Crops), Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare (herein after referred to as "**Government**" which expression shall mean and include its successors / representatives) of the First part.
2. The Government of ----- State represented by the Principal Secretary (Agriculture/Horticulture), Government of -----(herein after referred to as "**State Government**" which expression shall mean and include its successors / representatives) of the Second part
3. Whereas the Government has approved the National Mission on Edible Oils (Oil Palm) hereinafter referred to as the "**Mission.**" Whereas the Area Expansion programme for the Mission has been approved by Government of India (herein after referred to **Annual Action Plan (AAP)** and include component wise physical and financial target and is being implemented by the State Government in the potential districts here in after called the "**Project Area**"
4. And Whereas State Government has divided the project area into zone and allotted the zones to various Implementing Partners for area expansion and oil palm development. The State Government to demarcate the potential Districts, Blocks, Villages, number of beneficiaries, target area and to pass on the list of farmers to Implementing Partners/Oil Palm Processors.
5. And whereas the State Government will involve Implementing Partners for the development of Oil palm in the state and execute a Tripartite Agreement between the state government, implementing partner and oil palm farmers for the same. The roles of each party will be defined in this Tripartite Agreement.
6. And Whereas the Government to monitor and review the progress of the Mission and to take corrective measures time to time. Both the State Government

and Implementing Partners will be responsible for furnishing monthly progress report of the Mission as per specified format of Government.

7. And whereas the progress in the implementation of the Mission will be monitored by General Council (GC) and Executive Council (EC) at Government level and State Level Sanctioning Committee (SLSC) at state Government level as given in guidelines of the Mission.

8. And Whereas in order to protect the farmers interest, the Government to declare viability price of the Fresh Fruit Bunches (FFBs) on the 1st November of every year as per the formula specified in the Guidelines of the Mission.

9. And Whereas through declaration of the Viability price (VP) for the price of FFBs, this would be the assured returns to the farmers. Every year starting with Oil Palm Year (OPY) from the month of 1st November, the Government will declare the VP for that OPY by a duly constituted committee of the DA & FW.

10. And Whereas the Formula Price (FP) will be average monthly (of the preceding month) landed CPO price multiplied by a multiplication factor 14.30%, The Formula price would be used for the calculation of viability gap funding calculation in every month.

11. And whereas if the payment to the farmers by the Implementing partner is below the VP, the Government will provide a VGP to ensure that the farmers payment reaches the VP.

12. And Whereas for industry payment to the farmers, the industry will pay based on 14.3 % of the average monthly CPO price from 1st November 2021 to 31st October 2028. This payment by the industry shall increase by 0.25 % every three years from 1st November 2028, till 31st October 2037. From 1st November 2037, the farmers will be paid 15.3 % of CPO as FFB price (As per table attached in Annexure I).

13. (For NE states)-And Whereas to give impetus to NE states, Government will provide a special payment for NER as given in table in Annexure I.

14. And Whereas, in case the State Government does not adopt the formulation of the Government for payment by the Implementing Partner proposed in this scheme (As per Annexure I), they shall be at liberty to continue with their own payment system, and in such a case, the Implementing Partner will be mandated to pay the State Government mandated price.

15. And Whereas the payment of VGP or special NER payment by Government shall be applicable only if the State Government adopts the formulation of payment of FFB price of the Mission (As per Annexure I).

16. And Whereas the VGP and special payments to NER payout will be paid by DBT directly in the farmer's account by Government as per mechanism set out in the Guidelines for the Mission.

17. And Whereas to develop and maintain data of all the beneficiaries of oil palm by Government, State Government and Implementing partner to ensure foolproof data base of the beneficiaries verified through geo tagging.

18. And Whereas the Government will release the funds to the State Governments as per guidelines of the Mission.

19. The guidelines of the Mission issued by the Government to be strictly adhered to by State Government.

20. And Whereas the MOU shall remain effective till 31st October 2037.

21. And Whereas, the State Government shall have the liberty to back out of the MOU during the period of validity with the prior consent of the Government of India.

22. And Whereas the Government of India shall have the liberty to rescind the MOU with immediate effect if any of the conditions listed above are not met by the State Government.

23. In consideration of the MoU given as above, the Government and the State Government accept the same.

Government
(Joint Secretary)

State Government
(Principal Secretary)

Annexure-I

Payment prescribed for the FFBs to the farmers

Oil Year	Minimum Payment schedule by industry to farmers (as % of CPO)		Difference to be paid by GOI to the farmers	
	Rest of India	North East states	Difference to be paid by GOI in North East states for parity with ROI	Payment of VGP by GOI to farmers as (Viability price-Formula price)
1st Nov 21 to 31st Oct 28	14.30	12.30	$14.30 - 12.30 = 2\%$	(Viability price-Formula price) x 100%
1st Nov 28 to 31st Oct 31	14.55	13.05	$14.55 - 13.05 = 1.5\%$	(Viability price-Formula price) x 75%
1st Nov 31 to 31st Oct 34	14.80	13.80	$14.80 - 13.80 = 1.0\%$	(Viability price-Formula price) x 50%
1st Nov 34 to 31st Oct 37	15.05	14.55	$15.05 - 14.55 = 0.5\%$	(Viability price-Formula price) x 25%
1st Nov 37 onwards	15.30	15.30	$15.30 - 15.30 = 0\%$	0

* Subject to the condition that together with Industry payment and NER special payment by GOI, it does not exceed the viability price declared by the GOI.

F. No. 3-30/2021-NMEO-OP(SB); E-102771
Government of India
Ministry of Agriculture & Farmers' Welfare
Department of Agriculture & Farmers' Welfare

Krishi Bhawan, New Delhi
Dated: 11th October, 2021

To,

The Principal Secretary (Agriculture / Horticulture)
Govt. of Andhra Pradesh, Chhattisgarh, Goa, Gujarat, Kerala, Karnataka, Odisha,
Tamil Nadu & Telangana

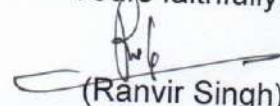
**Subject: Memorandum of Understanding (MoU) for Payment of VGP by Government
for FFBs of Oil Palm to the farmers - reg.**

Sir,

This is in continuation of this Department's letter even no. dated 11.10.2021 forwarding therewith a copy of the Memorandum of Understanding (MoU) for Payment of VGP by Government for FFBs of Oil Palm to the farmers. In this context, it is requested to kindly furnish your comments, if any, to this Department within one week to enable us to take further necessary action in the matter.

Encl: As above

Yours faithfully,



(Ranvir Singh)
Assistant Commissioner (Oil Palm)

Copy to:

1. PPS to Secretary (A&FW), Ministry of Agriculture, Govt of India, Krishi Bhawan, New Delhi.
2. PPS to Joint Secretary (Oilseeds), DA&FW, Krishi Bhawan, New Delhi.
3. Director/Commissioner (Agriculture/Horticulture), Govt of Andhra Pradesh, Chhattisgarh, Goa, Gujarat, Kerala, Karnataka, Odisha, Tamil Nadu & Telangana
4. Director, Directorate of Oilseeds Development, Telhan Bhawan, Hyderabad.

F. No. 3-30/2021-NMEO-OP(SB); E-102771
Government of India
Ministry of Agriculture & Farmers' Welfare
Department of Agriculture & Farmers' Welfare

Krishi Bhawan, New Delhi
Dated: 11th October, 2021

To,

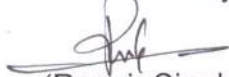
The Principal Secretary (Agriculture / Horticulture)
Govt. of Andhra Pradesh, Chhattisgarh, Goa, Gujarat, Kerala, Karnataka, Odisha,
Tamil Nadu & Telangana

Subject: Memorandum of Understanding (MoU) for Payment of VGP by Government for FFBs of Oil Palm to the farmers - reg.

Sir,

I am directed to forward herewith a copy of the Memorandum of Understanding (MoU) for Payment of VGP by Government for FFBs of Oil Palm to the farmers and requested to kindly return the same after signature to this Department by **15th October, 2021 positively** to enable us to take further necessary action in the matter.

Yours faithfully,


(Ranvir Singh)

Assistant Commissioner (Oil Palm)

Copy to:

1. PPS to Secretary (A&FW), Ministry of Agriculture, Govt of India, Krishi Bhawan, New Delhi.
2. PPS to Joint Secretary (Oilseeds), DA&FW, Krishi Bhawan, New Delhi.
3. Director/Commissioner (Agriculture/Horticulture), Govt of Andhra Pradesh, Chhattisgarh, Goa, Gujarat, Kerala, Karnataka, Odisha, Tamil Nadu & Telangana
4. Director, Directorate of Oilseeds Development, Telhan Bhawan, Hyderabad.

MEMORANDUM OF UNDERSTANDING (MoU)

This Agreement is made of this -----day of ----- by and among;

1. The Government of India represented by the Joint Secretary (Oilseeds/Crops), Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare (herein after referred to as "**Government**" which expression shall mean and include its successors / representatives) of the First part.
2. The Government of ----- State represented by the Principal Secretary (Agriculture/Horticulture), Government of -----(herein after referred to as "**State Government**" which expression shall mean and include its successors / representatives) of the Second part
3. Whereas the Government has approved the National Mission on Edible Oils (Oil Palm) hereinafter referred to as the "**Mission.**" Whereas the Area Expansion programme for the Mission has been approved by Government of India (herein after referred to **Annual Action Plan (AAP)** and include component wise physical and financial target and is being implemented by the State Government in the potential districts here in after called the "**Project Area**"
4. And Whereas State Government has divided the project area into zone and allotted the zones to various Implementing Partners for area expansion and oil palm development. The State Government to demarcate the potential Districts, Blocks, Villages, number of beneficiaries, target area and to pass on the list of farmers to Implementing Partners/Oil Palm Processors.
5. And whereas the State Government will involve Implementing Partners for the development of Oil palm in the state and execute a Tripartite Agreement between the state government, implementing partner and oil palm farmers for the same. The roles of each party will be defined in this Tripartite Agreement.
6. And Whereas the Government to monitor and review the progress of the Mission and to take corrective measures time to time. Both the State Government

and Implementing Partners will be responsible for furnishing monthly progress report of the Mission as per specified format of Government.

7. And whereas the progress in the implementation of the Mission will be monitored by General Council (GC) and Executive Council (EC) at Government level and State Level Sanctioning Committee (SLSC) at state Government level as given in guidelines of the Mission.

8. And Whereas in order to protect the farmers interest, the Government to declare viability price of the Fresh Fruit Bunches (FFBs) on the 1st November of every year as per the formula specified in the Guidelines of the Mission.

9. And Whereas through declaration of the Viability price (VP) for the price of FFBs, this would be the assured returns to the farmers. Every year starting with Oil Palm Year (OPY) from the month of 1st November, the Government will declare the VP for that OPY by a duly constituted committee of the DA & FW.

10. And Whereas the Formula Price (FP) will be average monthly (of the preceding month) landed CPO price multiplied by a multiplication factor 14.30%, The Formula price would be used for the calculation of viability gap funding calculation in every month.

11. And whereas if the payment to the farmers by the Implementing partner is below the VP, the Government will provide a VGP to ensure that the farmers payment reaches the VP.

12. And Whereas for industry payment to the farmers, the industry will pay based on 14.3 % of the average monthly CPO price from 1st November 2021 to 31st October 2028. This payment by the industry shall increase by 0.25 % every three years from 1st November 2028, till 31st October 2037. From 1st November 2037, the farmers will be paid 15.3 % of CPO as FFB price (As per table attached in Annexure I).

13. And Whereas, in case the State Government does not adopt the formulation of the Government for payment by the Implementing Partner proposed in this scheme (As per Annexure I), they shall be at liberty to continue with their own payment system, and in such a case, the Implementing Partner will be mandated to pay the State Government mandated price.

14. And Whereas the payment of VGP by Government shall be applicable only if the State Government adopts the formulation of payment of FFB price of the Mission (As per Annexure I).
15. And Whereas the VGP will be paid by DBT directly in the farmer's account by Government as per mechanism set out in the Guidelines for the Mission.
16. And Whereas to develop and maintain data of all the beneficiaries of oil palm by Government, State Government and Implementing partner to ensure foolproof data base of the beneficiaries verified through geo tagging.
17. And Whereas the Government will release the funds to the State Governments as per guidelines of the Mission.
18. The guidelines of the Mission issued by the Government to be strictly adhered to by State Government.
19. And Whereas the MOU shall remain effective till 31st October 2037.
20. And Whereas, the State Government shall have the liberty to back out of the MOU during the period of validity with the prior consent of the Government of India.
21. And Whereas the Government of India shall have the liberty to rescind the MOU with immediate effect if any of the conditions listed above are not met by the State Government.
22. In consideration of the MoU given as above, the Government and the State Government accept the same.

Government of India
(Joint Secretary)

State Government
(Principal Secretary)

Annexure-I

Payment prescribed for the FFBs to the farmers

Oil Year	Minimum Payment schedule by industry to farmers (as % of CPO)	Difference to be paid by GoI to the farmers
	Rest of India	Payment of VGP by GoI to farmers as (Viability price-Formula price)
1st Nov 21 to 31st Oct 28	14.30	(Viability price-Formula price) x 100%
1st Nov 28 to 31st Oct 31	14.55	(Viability price-Formula price) x 75%
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1st Nov 34 to 31st Oct 37	15.05	(Viability price-Formula price) x 25%
1st Nov 37 onwards	15.30	0

* Subject to the condition that together with Industry payment and VGP by GoI, it does not exceed the viability price declared by the GoI.

OPERATIONAL GUIDELINES OF ATMA SCHEME, 2025

**CENTRALLY SPONSORED SCHEME 'SUPPORT
TO STATE EXTENSION PROGRAMMES FOR
EXTENSION REFORMS' UNDER SUB- MISSION ON
AGRICULTURE EXTENSION (SMAE) of
KRISHONNATI YOJNA**



Directorate of Extension
Department of Agriculture & Farmers Welfare
Ministry of Agriculture & Farmers Welfare
Government of India
Krishi Bhawan, New Delhi -110001

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TABLE OF ABBREVIATIONS	
Abbreviation	Expansion
ACABC	Agri-Clinics & Agri-Business Centers
AEM	Agricultural Extension Management
AES	Agro-Ecological Situation
AGRISNET	Agriculture Resources Improvement System Network
APC	Agriculture Production Commissioner
ATMA	Agricultural Technology Management Agency
BAP	Block Action Plan
BDO	Block Development Officer
BFAC	Block Farmers Advisory Committee
BTM	Block Technology Manager
BTT	Block Technology Team
C-DAP	Comprehensive District Agriculture Plan
CIGs	Commodity Interest Groups
CRS	Community Radio Station
CSC	Common Service Centre
DA&FW	Department of Agriculture & Farmers' Welfare
DAAP	District Agriculture Action Plan
DFAC	District Farmers Advisory Committee
DoE	Directorate of Extension
Dy. PD	Deputy Project Director
DFI	Doubling of Farmers Income
EEIs	Extension Education Institutes
EMS	Electronic Monitoring System
EV	Exposure Visit
FACs	Farmers Advisory Committees
FF	Farmer Friend
FFS	Farmers Field School
FIAC	Farm Information & Advisory Centre
FIGs	Farmers Interest Groups
FLD	Front Line Demonstration
FOs	Farmers Organizations
FS	Farm School
GB	Governing Board
ICAR	Indian Council of Agricultural Research
ICT	Information & Communication Technology
IDWG	Inter Departmental Working Group
IPM	Integrated Pest Management
ITD	Innovations in Technology Dissemination
KCC	Kisan Call Centre
KVK	KrishiVigyan Kendra
M&E	Monitoring & Evaluation
MANAGE	National Institute of Agricultural Extension Management
MC	Management Committee
MOU	Memorandum of Understanding

NATP	National Agricultural Technology Project
NCF	National Commission on Farmers
NDC	National Development Council
NeGP	National e-Governance Plan
NFSM	National Food Security Mission
NGOs	Non-Governmental Organizations
NPF	National Policy for Farmers
NPMSF	National Project on Soil Health & Fertility Management
NRM	Natural Resource Management
PD	Project Director
PGDAEM	Post Graduate Diploma in Agricultural Extension Management
POL	Petrol Oil & Lubricants
PRA	Participatory Rural Appraisal
PRIs	Panchayati Raj Institutions
PS	Principal Secretary
R-E-F	Research-Extension-Farmer linkage
PM-RKVY	Pradhan Mantri -Rashtriya Krishi Vikas Yojana
SAMETI	State Agricultural Management and Extension Training Institute
SAU	State Agricultural University
SEWP	State Extension Work Plan
SHG	Self Help Group
SFAC	State Farmers Advisory Committee
SLSC	State Level Sanctioning Committee
SMS	Subject Matter Specialist
SNO	State Nodal Officer
SREP	Strategic Research & Extension Plan
VAP	Village Action Plan
ZRS	Zonal Research Station
RPL	Recognize Prior Learning
KY	Krishonnati Yojana
ATM	Assistant Technology Manager

I. Background & Strategy

Sub-Mission on Agricultural Extension (SMAE)

1. Background and Strategy:

1.1 SMAE: Erstwhile ‘Sub-Mission on Agricultural Extension (SMAE)’ was being implemented under ‘National Mission on Agricultural Extension & Technology (NMAET)’ w.e.f. 2014-15 which has been subsumed as a sub-scheme of Umbrella Scheme ‘*Krishonnati Yojana*’ from the financial year 2017-18.

Restructuring and strengthening of agricultural extension machinery has to be a judicious mix of extensive physical outreach of personnel, enhancement in quality through domain experts & regular capacity building, interactive methods of information dissemination, pervasive & innovative use of Information & Communication Technology (ICT) / Mass Media, Federation of groups and convergence of extension related efforts under various schemes and programmes of Government of India and the State Governments. The objective of this Sub-Mission is to appropriately strengthen, expand and up-scale existing Extension Schemes. The on-going Extension Schemes include the ‘Central Sector’ and ‘Centrally Sponsored Schemes’ being implemented by the ‘Extension Division/Directorate of Extension’. Even in the case of Central Sector Schemes which are proposed to be subsumed within the Sub-Mission, a greater role has been envisaged for the States through their active involvement in planning, implementation and monitoring. The continuation of SMAE beyond 12th Plan period includes the following components:-

A. Centrally Sponsored Scheme

Support to State Extension Programme for Extension Reforms(ATMA) Scheme.

B. Central Sector Schemes

(i). Agri-Clinics & Agri-Business Centre (AC&ABC); (ii) Kisan Call Centre (KCC); (iii) Mass Media Scheme in Agricultural Extension (MMSAE) including strengthening of **Digital Agriculture Extension Framework**; (iv) Diploma in Agricultural Extension Services for Input Dealers (DAESI); (v) Extension Education Institutes (EEIs); (vi) National Institute of Agricultural Extension Management (MANAGE) merging NIAM; & (vii) Exhibition/Fairs.

II. SUPPORT TO STATE EXTENSION PROGRAMME FOR EXTENSION REFORMS (ATMA SCHEME GUIDELINES)

2. Support to State Extension Programme for Extension Reforms (ATMA Scheme Guidelines)

2.1 INTRODUCTION: The extension system is an important pillar in agricultural development, to empower farmers with relevant information, technology, skills and support, all of which are necessary to enhance sustainability, farmers' income and agriculture as an enterprise. Agriculture provides ample opportunities for the farmers to undertake several income generating agri-enterprises which are on-farm, off-farm and non-farm in nature. Agri-enterprises include nursery, seed production, custom hiring, vermi-composting, bee-keeping, managing common storage, processing units, agri-tourism, milk chilling unit, mushroom cultivation etc. require skills, investment and market linkages. Income addition to farmers through these activities contributes significantly for doubling income not only for the enterprising farmer but also for others who use these quality inputs and services.

Extension also needs to focus on these areas so as to create the Small-Medium Enterprises (SMEs) at Village level. Thus, extension services require re-aligning themselves with Crop Diversification, Integrated Farming System, Climate Resilient Agriculture, Natural Farming, Market-Led Extension, Risk Management, in both production and marketing for sustainable crop production. In order to increase outreach of extension services to large number of farmers and addressing their four common concepts, viz. what to grow?, how to finance?, what input to use? and where & how to sell?, an urgent need was felt to further upscale the existing extension initiatives and revamp the main public extension scheme, i.e. Agricultural Technology Management Agency (ATMA).

Need for reforms in Agricultural Extension have been explicitly raised in the report of the Committee on "Doubling of Farmers' Income" (DFI) by 2022. Keeping the recommendations of the DFI report and policy initiatives in view and to strengthen and make ATMA scheme more vibrant, a futuristic vision has been developed to empower the farmers.

2.2 VISION

To empower farmers with information, technology, skill, risk and farm management practices across agriculture sub-sectors and commodity specific agriculture value chains, so as to enable them to realize higher net income from their enterprises on a sustainable basis.

2.3 AIMS AND OBJECTIVES

- a. The Scheme ‘Support to State Extension Programme for Extension Reforms’ popularly known as ATMA scheme, aimed at promoting decentralized, farmer friendly extension system in the country with an objective to support State Government’s efforts to revamp the agricultural extension system **focusing on Natural Farming, Climate Resilient Agriculture, Crop Diversification, National Pest Surveillance System, Soil Health Card, Digital Agriculture Mission** and making available the latest agricultural technologies and good agricultural practices to the farmers.
- b. Keeping in view the changed focus of ATMA scheme, the objectives of the scheme have been revised as under :-
 - i) More emphases of extension services on post-production management, surplus management and marketing.
 - ii) To converge extension activities of various Divisions of DA&FW in ATMA Cafeteria.
 - iii) Convergence between research and extension.
 - iv) Extension outreach to farmers through Video Conferencing.
 - v) Skill Development Training of Rural Youth (minimum 200 hours).
 - vi) To promote climate resilient agriculture, according to requirement of various agro-climatic zone.
 - vii) Adopting group approach to extension in line with the identified needs and requirements of the farmers in the form of CIGs/FIGs/FSGs and consolidate them as FPOs.
 - viii) Addressing gender concerns by mobilizing women farmers into groups for their capacity building
 - ix) Recognition of Prior Learning (RPL) based farmers training.

2.4 CHANGES IN THE EXISTING ATMA SCHEME

In order to accomplish the vision, guiding elements of DFI report and key objectives/reforms, the following changes have been made in the Scheme:-

2.4.1 Production to Market Orientation:

Focus of extension services will be given on marketing aspects along with a quality production. Farmers training shall be organized on the themes of Post-Harvest Management, Surplus Management, Agriculture Marketing, various initiatives of Government, etc. For ensuring implementation of activities with changed focus towards marketing, States may take up the following steps:-

- i. All extension personnel (ATMA & Non-ATMA) are targeted to be trained in market led extension training programmes. The training modules on market led extension for field functionaries and farmers have been developed which may be seen in **Annexure-VI & Annexure-VII** respectively.

- ii. Farmers training programmes (within District) under the scheme henceforth shall be two days duration. Training module shall include RPL based farmers training followed by their up-skilling. A certificate of progressive farmers will be provided to them on successful completion of the training programme. Such farmers' trainings shall be organized at the level of Gram Panchayats. In special cases, States may also organize such trainings at Block level at a larger scale. The certified progressive farmers are expected to disseminate acquired knowledge and skill among their fellow farmers. The concept of RPL may be seen at **Annexure-XII**.

2.5. Converge Extension Activities of various Divisions of Department of Agriculture & Farmers' Welfare (DA&FW) in ATMA Cafeteria:

Extension activities of various Divisions of DA&FW have been identified and made these eligible to converge in ATMA cafeteria. These identified thematic areas include Post-Harvest Management, Surplus Management, Marketing, Diversification, Integrated Farming System, Seed Production & Seed Technology, Integrated Development of Horticulture, Soil Health Management, Integrated Pest Management, Agricultural Mechanization, Micro Irrigation, etc. Duration and cost norms along with certification may be as per specified guidelines of respective schemes of various Divisions of DA&FW.

2.6 Convergence of Extension with Ministry of Rural Development and Ministry of Fisheries, Animal Husbandry & Dairying:

Services of Krishi Sakhis & Pashu Sakhis nurtured by DAY-NRLM may be suitably used for creating awareness among the farmers under ATMA Scheme after providing them training in relevant subjects.

2.7 Convergence between Research and Extension:

In order to implement convergence circular jointly signed by the DG, ICAR & the Secretary (AC&FW) in letter and spirit, a convergence matrix has been prepared for reporting/monitoring with quantifiable targets as per details given below :-

- a. Monthly Interface Meeting
- b. Pre-seasonal Technical Updation
- c. Farmer-Scientist Interactions at District level
- d. Designating Experts at District level for instant technical help of ATM/BTM
- e. Joint Visits in identified villages by ATMA and KVK
- f. Reporting and Monitoring mechanism.

States may ensure regular implementation and reporting of progress on convergence between research and extension on the above matrix. The detailed guidelines regarding convergence may be seen in the Chapter **No. IV**.

2.8 Extension through Interaction:

In order to provide greater opportunities of interaction between farmers and experts on regular basis, a mechanism of Video Conferencing for interaction between experts and farmers shall be made as an eligible activity under ATMA cafeteria.

2.09 Skill Development Training of Rural Youth (Minimum 200 hours):

In order to enhance self-employment opportunities and entrepreneurship development in agriculture and allied sectors, 'Skill Training for Rural Youth' component is being included in ATMA. This component was earlier implemented from RKVY funding and skill trainings were conducted through Krishi Vigyan Kendras (KVKs). As per revised Guidelines, the District ATMA to implement this component in consultation with respective KVK.

2.10 Promotion of Innovative ATMA set-up based on Agro-Ecological Zones:

In order to improve mechanism of agricultural extension system in the country, States may consider various innovative and flexible ideas like organising ATMA activities agro-ecological zones in a district. States may consider such innovative ideas based on the agro-ecological zones in each district prescribing farmers to adopt appropriate technologies and cropping patterns. **Manpower support under the scheme, however, shall not exceed the maximum permissible limit, based on the number of administrative districts in State.**

III. ATMA Set-up & Human Resource (HR)

3.1 ATMA set-up at different levels is given below:-

3.1.1 State Level

- (i)** The State Level Sanctioning Committee (SLSC) set up under Rashtriya Krishi Vikas Yojana (RKVY) is the apex body to approve State Extension Work Plan (SEWP) which will form a part of the State Agriculture Plan (SAP). In those cases where SLSC meeting cannot be held in time or there is any other administrative reason, SEWP can be approved by the Executive Committee of SMAE on the recommendation of Inter Departmental Working Group (IDWG).
- (ii)** The SLSC may be supported by the IDWG which is responsible for day-to-day coordination and management of the Scheme activities within the State.

(iii) The State Nodal Cell (SNC), consisting of State Nodal officer, State Coordinator, Gender Coordinator and supporting staff (Computer Programmer & Accountant-cum-Clerk) will ensure timely receipt of District Agriculture Action Plans (DAAPs), formulation of State Extension Work Plan (SEWP) duly incorporating farmers' feedback obtained through State Farmer Advisory Committee (SFAC) and its approval by the SLSC. The SNC will then convey the approval and monitor implementation of these work plans by State Agricultural Management & Extension Training Institutes (SAMETIs) and ATMAs. The SAMETIs will draw-up and execute an Annual Training Calendar for capacity building of the Extension Functionaries in the State. While doing so, the SAMETI will check duplication and overlapping of training content, training schedule, and trainees themselves. The SAMETIs table to ensure effective coordination with MANAGE, Hyderabad for finalizing the Annual Training Calendar through their participation and indepth discussion in the National annual Training Planning Workshop at MANAGE involving all the stakeholders.

3.1.2 District Level

ATMA is an autonomous institution set up at district level to ensure delivery of extension services to farmers. ATMA Governing Board is the apex body of ATMA which provides overall policy direction. ATMA Management Committee is the executive body looking after implementation of the scheme. District Farmers Advisory Committee is a body to provide farmers' feedback for district level planning and implementation. With dedicated staff provided for the ATMA, it will continue to be the district level nodal agency responsible for overall management of agriculture extension system within the district, including preparation of Strategic Research and Extension Plan (SREP). The process flow for formulating Action Plans has been described in **Para 3.2** below.

3.1.3 Block Level

The Block ATMA Cell consisting of Block Technology Team (BTT) (a team comprising officers of agriculture and other allied departments within the block) and Block Farmers' Advisory Committee (BFAC) (a group exclusively consisting of selected farmers of the block) will prepare the Block Action Plan (BAP) and provide necessary extension support within the Block in its execution.

3.1.4. Village Level

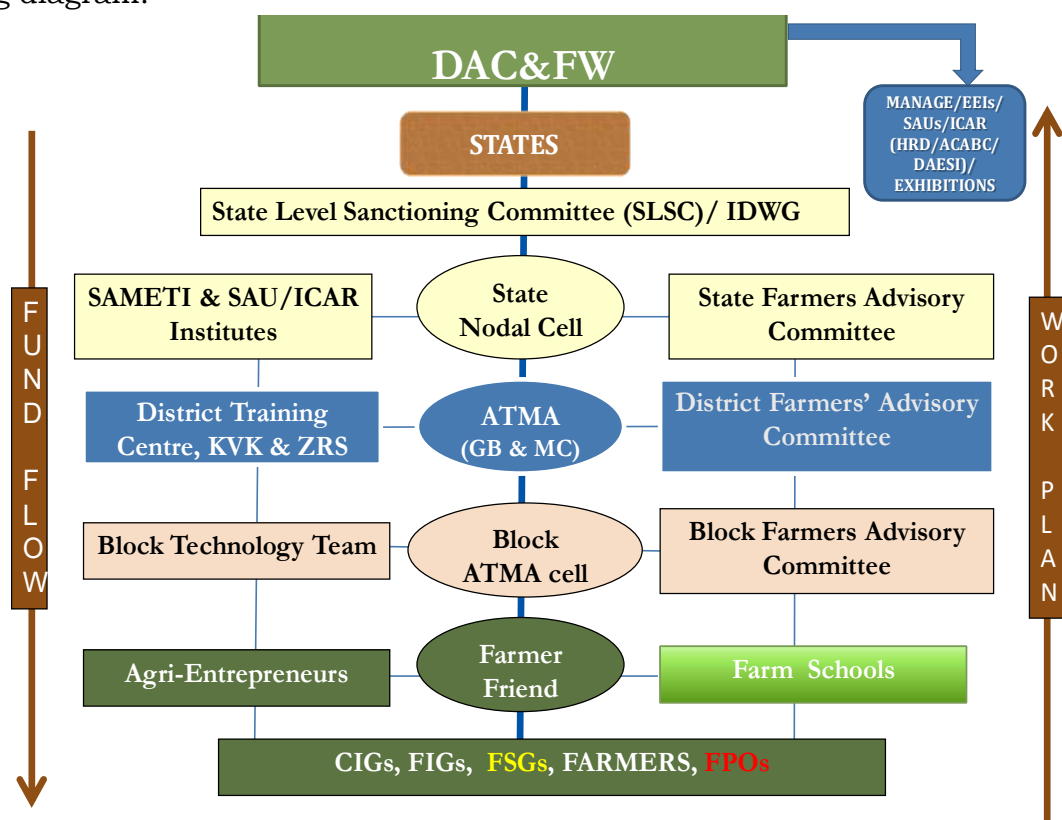
- (i) The Farmer Friend (FF) will serve as a vital link between extension system and farmers at village level (one for every two villages).
- (ii) Agri-entrepreneurs, Diploma holders in Agricultural Extension Services for Input Dealers (DAESI), Input Dealers and extension workers in non-

governmental sector will supplement the efforts of extension functionaries in public extension system.

(iii) Commodity Interest Groups (CIGs), Farmer Interest Groups (FIGs) and Food Security Groups (FSGs) will serve as a nodal point for information & technology dissemination among its members and federating in Farmers Producers Organizations (FPOs) to ensure group approach.

(iv) Farm Schools will serve as a mechanism for farmer-to-farmer extension at every Block.

3.1.5. The organizational structure at various levels has been depicted in the following diagram:



3.1.6. The following Committees shall be set up at various levels.

- **State Level:**
 - (i) Inter-Departmental Working Group (IDWG)
 - (ii) SAMETI Executive Committee
 - (iii) State Farmers Advisory Committee (SFAC)
- **District Level:**
 - (i) ATMA Governing Board
 - (ii) ATMA Management Committee
 - (iii) District Farmers Advisory Committee (DFAC)
- **Block Level:**
 - (i) Block Technology Team (BTT)
 - (ii) Block Farmers Advisory Committee (BFAC)

The composition, functions and mandate of these Committees have been given at **Annexure III (a) to III (f)**.

3.2. Process Flow for Action Plans

SREP is a comprehensive document identifying research/extension priorities of the district, keeping in mind agro-ecological situations and existing gaps in technology generation & dissemination in all agriculture and allied sector areas/activities including Horticulture, Animal Husbandry, Dairying & Fisheries. All extension related activities under other schemes of DA&FW would naturally form part of SREP. SREPs will be prepared in coordination with the line departments, NGOs, Krishi Vigyan Kendras (KVKs), Panchayati Raj Institutions (PRIs), Private Sector, farmers and other stakeholders at the district level.

Similar training & field extension related components in other programmes of DA&FW and State Governments will also be implemented through ATMA. Funds earmarked for such activities under different Schemes/ Programmes will be utilized through ATMA. Similarly, ATMA funds also will be suitably used to cover training & field extension objectives/activities of other Schemes/ Programmes. Such convergence arrived at through SREP/ SEWP will avoid duplication and ensure wider coverage in terms of outreach to farmers and gamut of activities.

Various Action Plans shall emanate from SREP as follows:

- (i) These SREPs are Five-year vision documents which shall be revisited after every 5 years to accommodate newly identified gaps and emerging areas of importance viz. **market plan based on cross-sector value chain approach, skill development, agri start-ups and off-farm income generating options.**
- (ii) SREPs will form the basis for formulation of Block Action Plans (BAPs) on an annual basis. Block Action Plans are then consolidated at the District level to prepare the District Agriculture Action Plans (DAAPs).
- (iii) The DAAPs will be consolidated in the form of State Extension Work Plan (SEWP) which then forms a part of consolidated Annual Action Plan (AAP) under KY.

3.3. ATMA Human Resource provided at different levels is given below:

For ensuring effective implementation of the scheme at the grass root level and addressing the need of the farmers, provision of a robust and dedicated specialist and extension functionaries has been made in the scheme. The details of manpower support provided are given below:-

- a) Over 28,000 posts of extension functionaries have been provided under the scheme at the state, district and block level.
- b) Remuneration of those field functionaries has been enhanced, whose remuneration was not revised since 2014-15 onwards. This may certainly motivate ATMA functionaries and accelerate implementation of the Scheme activities on the ground.
- c) Average 3 Assistant Technology Managers (ATMs) and 1 Block Technology Manager (BTM) are envisaged per block under this scheme. Detailed justification for deciding number of ATMs in a Block may be seen in **para 3.3.3(ii)**.
- d) Extension related manpower is proposed at three levels viz. State, District and Block level. Specialist and functionary support eligible under the scheme is given at **Annexure IV(a)**.
- e) Roles and responsibilities of extension related manpower provided under this Scheme is given in **Annexure-IV(b)** and abstract of number of posts, eligibility and qualification, remuneration (enhanced considerably in case of contractual or outsource basis functionaries), etc. at **Annexure-IV(c)**.
- f) Hierarchical structure of officials under SMAE (including ATMA) is as follows:

3.3.1 State Level

- a. **State Nodal Cell** : the State Nodal Cell (SNC) will consist of State Nodal Officer, State Coordinator, Gender Coordinator and supporting staff. Under supporting staff at SNC level, **One Computer Programmer/Computer Operator and One Accountant-cum-Clerk is also being provided** . In order to carry out State level activities, as specified in ATMA Cafeteria, and to ensure convergence with various departments at State level and to assist the State Nodal Officer (i.e. Director/Commissioner of Agriculture) in overall management of agricultural extension system within the State, two Coordinators (one-State Coordinator & one-Gender Coordinator) have been approved for each State/Union Territory. The State Nodal Officer (SNO) shall be designated by the State Government, which will also provide requisite Ministerial support. The State Coordinator & Gender Coordinator are to be engaged on contractual / outsource basis under this Scheme. The functions of State Coordinator and Gender Coordinator are given in **Annexure-IV (b)**. The Gender Coordinator will perform the functions as per the **Annexure-IV (b)** to safeguard the interest of women farmers. The Gender Coordinator will share all gender related findings and strategies with the State Coordinator and function under the overall supervision of State Coordinator, and the State Coordinator under the overall supervision of State Nodal Officer. **SAMETI:** In order to ensure regular training and skill upgradation of State and

District/Block level extension functionaries and for reaching out to the grass root level extension functionaries and farmers through field visits, the following manpower is provided for SAMETI in each State. Director, SAMETI shall work under the overall guidance of the State Nodal Officer identified under ATMA scheme. However, in cases where the State Nodal Officer is not an officer of equivalent or higher rank than Director, SAMETI, may work under the overall guidance of the officer under whom State Nodal Officer is placed. The Faculty Members (Deputy Directors) of SAMETI shall report to Director SAMETI. The duties of Director SAMETI/Faculty are given in **Annexure-IV (b)**.

- b.** The overall staff position at State level is given below:

Posts No. of Blocks	State HQ.	SAMETI				Total Staff
	State Coordinator + Gender Coordinator+ Accountant+ Computer Programmer	Director	Dy. Director	Accountant-cum-Establishment- Clerk	Computer Programmer/ Operator	
< 100	1 + 1+1+1	1	4	1	1	11
100 – 400	1 + 1+1+1	1	8	1	1	15
> 400	1 + 1+1+1	1	12	1	1	19

3.3.2 District Level:

- (i) Each ATMA Unit consisting of the following core staff of five persons, under the overall supervision of PD, ATMA, will be responsible for management of agricultural extension services within the District including holding of regular meetings of ATMA Management Committee (MC) and ATMA Governing Board (GB):

a) Project Director	1
b) Deputy Project Directors	2
c) Accountant-cum-Establishment-Clerk	1
d) Computer Programmer/ Operator	1

- (ii) The Project Director ATMA shall report to the Chairman, ATMA GB and also function as Chairman of ATMA Management Committee. The two Deputy PDs would work under the administrative control of PD, ATMA. The duties & responsibilities of PD & Deputy PD Accountant-cum-Clerk and Computer Programmer/Operator are given at **Annexure-IV (b)**.

3.3.3 Block Level:

- (i) One Block Technology Manager (BTM) is provided in each Block to co-ordinate the ATMA related activities of the BTT and BFAC. BTM will work

under the overall supervision of the BTT Convener for all ATMA related activities at the Block level.

- (ii) On an average three Assistant Technology Managers (ATMs) are to be placed in each Block (2 to 4 depending on size of the Block) exclusively for delivery of extension services in agriculture and allied sectors as per priority areas for various Blocks. Out of 3 ATM, at least one ATM should be Women.
 - (a) In N.E. States and other hilly States viz. H.P., J&K, and Uttarakhand, the number of ATMs deployed per block should be based on the criteria i.e. Blocks having upto 5000 farm households and the area of the Block being upto 800 sq. kms, 2 ATMs would be deployed. However, if the area of the Block is more than 800 sq.km, 3 ATMs could be considered;
 - (b) In all other States Blocks having upto 12000 farm households and the area of the Block being upto 1000 sq. km, 2 ATMs would be deployed. However, if the number of farm households/Block exceeds 20000 and the area of the block is more than 1000 sq.km, the deployment of ATM can go up to 4. All other Blocks will have 3 ATMs. However, average figure of more than 3 ATMs per state will need to be concurred by the Government of India, so that overall country average does not exceed 3.
 - (c) The areas of expertise (i.e. Agriculture, Horticulture, Animal Husbandry, Dairying, Fisheries etc.) of these ATMs will be decided based on priorities for various Blocks. These ATMs shall be provided requisite connectivity and mobility to perform the assigned functions. The duties of BTMs and ATMs are given at **Annexure IV (b)**.
 - (d) Block level and District level manpower available under various schemes will be pooled for regular coverage of groups of Villages/Panchayats for extension related expertise. However, domain expertise of various extension personnel in a Block/District will be suitably used to ensure all-round outreach to farmers.

3.4 Mode of Recruitment and Remuneration:

3.4.1 The BTMs and ATMs at Block Level may be engaged by Project Director (PD), ATMA on contractual /outsource basis through a mechanism identified by the State. BTMs and ATMs should be preferably below 45 years of age (upper age limit of 45 years would, however, not be applicable on those candidates who have already served as BTM/ ATM as they have gained working experience under the scheme), as their work involves extensive travel execution of field activities. While, the ATMs will remain

under the administrative control of BTM, the BTM will work under administrative control of PD, ATMA.

3.4.2 The posts of State Coordinator, Gender Coordinator, BTM & ATM at Block level and Computer Programmer/Computer Operator (at State & District Level) may be filled on contractual /outsource basis with lump-sum remuneration.

3.4.3 Following emoluments are suggested to be paid to the contractual / outsourced manpower:

1. State Coordinator:	Rs 60,000/-
2. Gender Coordinator:	Rs.50,000/-
3. BTM:	Rs.30,000/-
4. ATM	Rs 25,000/-
5. Computer Programmer	Rs 25,000/-

3.4.4 All other posts (Director SAMETI, Deputy Director SAMETI, PD ATMA, DPD ATMA and Accountant cum Clerk) may be filled by deputation / secondment / appointment for the scheme period or such other mode as the State Government may deem appropriate. State government may take necessary measures to fill up these posts / vacancies by deputation/secondment/appointment only. Henceforth, regular posts may not be filled on contractual/outsourced basis. However, States(UTs may retain their existing deployed manpower filled on contract basis viz. Accountant-cum-clerk, Dy. Project Director (ATMA), Dy. Director SAMETI revising their remuneration to Rs. 30,000/ , Rs. 52,000/- and Rs. 55,000/- per month respectively w.e.f. 01.04.2025 till the time these vacancies are filled on regular basis.

3.4.5 Following norms regarding contractual/outsourced manpower may be followed:

- (i) Concerned contractual/outsourced/regular persons may be given the stipulated emoluments through digital/online mode of payment.
- (ii) The contractual/outsourced manpower shall also be eligible for getting benefits of EPF, ESIC as admissible from time to time as per prevalent laws & instructions and/or options exercised by the stakeholders concerned. GST, statutory dues, bonus if applicable, as per relevant statutory norms, and contractor's margins are to be indicated separately under the expenses shown for manpower component. **While renewing the contract, the State Government may give preference to the existing/experienced contractual / outsourced manpower and do not terminate their services without assigning any reason.** States may consider contractual /outsourced manpower deployment co-terminus with the scheme. Satisfaction of the Agriculture Department of the State at an appropriate level may be the determining factor regarding continuation of persons after initial period of deployment.

- (iii) **Annual increase in the remuneration of contractual/outsourced ATMA manpower** : Rate for annual increase can be upto 5% for those contractual/outsourced manpower who have already crossed the revised **initial ceiling** and upto 10% for those contractual/outsourced manpower who have not yet crossed the revised initial ceiling. For example : in case a Computer Programmer (CP) deployed in 2014 with the existing monthly remuneration @ Rs.16,000/- (fixed in 2014) is presently getting gross monthly emoluments more than revised initial ceiling of Rs.25,000/-, he / she will be eligible for getting an annual increase @ upto 5% (flat and not compounding) while a CP who is presently getting only say Rs.18,000/- per month (i.e. less than the revised initial ceiling) will be eligible for getting an annual increase @ upto 10% (flat and not compounding), till he/she reaches up to the revised initial ceiling.

Note:

- a) *Higher amounts to existing contractual/outsourced manpower are payable only after performance review and screening on the lines described above. While fixing total emoluments to contractual/outsourced manpower of any post at enhanced rate, emoluments should not be less than total emoluments last paid to contractual/outsourced manpower.*
- b) *The amounts listed above are upper ceilings ‘for initial fixation of emolument’ and the State Governments may consider fixing the emoluments accordingly.*
- (iv) If, for reasons to be recorded in writing, the candidates for various posts with prescribed qualifications as given at **Annexure-IV(c)** are not available, the qualifications may be relaxed by the IDWG subject to ratification by the SLSC under intimation to the Government of India.
- (v) Leave/maternity leave etc. to contractual/outsourced ATMA manpower may be considered by the States/UTs at par with similarly placed contractual / outsourced manpower in other organizations in the State/UT concerned.

3.4.6 Support for Innovative Activity at Village Level (Farmer Friend)

- (i) It is necessary to identify and groom progressive farmers (including women farmers) with requisite qualification (Senior Secondary/High School) & experience as Farmer Friend (FF), one per two census villages. In case of non-availability of progressive farmers with requisite qualifications, at some places, a progressive farmer, with

required oral and written communication skills, may be considered. Only experienced and achiever farmers (say, with an age of more than 40 years or so, as the State Government may deem appropriate) are to be designated as Farmer Friends. Preference may be given to awardee/progressive farmers while identifying farmer friend. Farmer Friend will lead by example and is expected to have up-graded skills and would be available in the village to advice on agriculture and allied activities. Since FFs provide a vital link between public extension system and farmers at village level, it is essential to select experienced, progressive and practicing farmers who are not looking forward to this task as an alternative means of livelihood. The Farmer Friend will be identified by BTM on a resolution of Gram Panchayat (GP), which will, in turn, consult CIGs/FIGs working in the Panchayat area.

- (ii) Farmer Friends will be provided with special opportunity for upgradation of skills through trainings, study tours and visits to SAUs/other institutes, by utilizing support available under ATMA. Rs.18,000/- per Farmer Friend per year will be shared between the Centre and the State as per pattern of assistance approved for all other activities under the scheme to meet contingency expenditure which FF incurs towards discharge of his duties, including incidental expenses incurred on acquisition of knowledge. It should not be perceived as remuneration. It is to clarify that identification of Farmer friends should not be seen as an employment opportunity in the State Government and this was never envisaged under the scheme.

IV. CAFETERIA OF ACTIVITIES

ATMA CAFETERIA OF ACTIVITIES:

In order to implement extension activities with special focus on post-harvest management, marketing, etc. as recommended by the Committee on “Doubling of Farmers’ Income (DFI) by 2022, various extension activities are to be carried out at different levels addressing national priority areas **(Annexure-I)** suitably contributing in the national goal of doubling of farmers’ income. Extension services are being re-aligned with sustainability aspects of farming, for crop diversification, integrated farming system, climate resilient agriculture, risk management, Natural Farming in both production and marketing. Additional/innovative extension activities have included to be implemented under ATMA scheme, viz. extension through interaction etc., at Panchayat/Village level for providing door-step services and dissemination of information on Government schemes to farmers.

Unit cost and Activity ceiling limit norms of various Cafeteria activities under ATMA have been revised and indicated at **Annexure-V (a)**. The Cafeteria provides support for State, District and Block level activities. Apart from the national priority areas/thematic areas, States may also choose local area/theme in keeping with location specific needs of farmers for their capacity building as identified in Strategic Research and Extension Plan (SREP) of the District. The details of activities at different levels are given below:-

4.1 State Level (A):

A.1 Monitoring and Evaluation:

This activity includes three review workshops and R-E-F Linkage before each crop season (Rabi, Kharif and Zaid) on annual basis @ 1.00 lakh per workshop, concurrent monitoring & evaluation and expenses on IDWG meetings and other contingencies including opex for SNC, SC, GC including expenditure on convening meeting of SFAC.

A.2 Training Courses:

This item includes training programmes for National/Inter-State/Within State (SAMETI Level) for both Government and Non-Government extension functionaries (A.2.a), Induction Training of ATMA field functionaries (A.2.b), Refresher training of all ATMA field functionaries (A.2.c), Workshop for development of Quality Resource material (A.2.d). One DPD out of two at District level and one ATM out of three at Block level are to be essentially trained in marketing in order to acquaint them with market expertise.

A.3 Exposure Visit of Extension functionaries:

In order to enhance capacity building and expertise of extension functionaries, a provision of their exposure visit and PRI members to progressive States have been made in the guidelines.

A.4 Organization of State level Exhibitions/Kisan Mela:

As per cafeteria details

A.5 Participation in Krishi Expo and Regional Fairs organised/supported by DA&FW: As per cafeteria details

A.6 Award for Best performing ATMA: As per cafeteria details

A.7 Farmer Awards: As per cafeteria details

A.8 Operational Expenses at SAMETI Level: As per cafeteria details

4.2 District / Block Level Activities (B):

Capacity building of farmers through different extension activities at District level are now to be organized shifting focus from production oriented to post-harvest management, marketing and plant protection approaches like IPM, **Farmer Oriented Activities**–It includes development of SREP, farmers training, demonstrations, exposure visits of farmers, mobilization of farmer groups, women food security groups, rewards and incentives to farmers groups, and farmer awards.

B.1 Development of SREP:

Strategic Research Extension Plan (SREP) is essential for formulating State Extension Work Plan (SEWP) and annual action Plan(AAP). This document is prepared adopting integrated farming system approach, where extension and research gaps of all the sub-systems are identified through participatory methods. SREP is re-visited after every five years to accommodate newly identified gaps and emerging areas. The committee on DFI has since recommended paradigm shift from production to market-led-extension, States may include new areas in revised SREP like market-led-extension,mitigate crop loses, Skill Development, agri-start-ups and income generating livelihood options.

B.2 Farmers Training:

Farmers Training is an important component of capacity building of farmers in latest agriculture technologies and adoption of Good Agricultural Practices (GAPs). **Farmers Training** would focus on thrust areas like **Natural Farming, Climate Resilient Agriculture, Crop Diversification, National Pest Surveillance System, Soil Health Card, Digital Agriculture Mission etc.** In order to maintain quality of farmers training, farmers training shall be conducted in the specialized subject matter institutions viz: ICAR Institutes/ State Agriculture Universities/State Agricultural Management & Training Institutes/ MANAGE/ EEIs and KVKs etc. **[Annexure-V(a)].**

- i.** Under Inter-State and within State training of farmers activity, cost norms are inclusive of : (i) Travel cost by bus or second class sleeper (actual cost); (ii) Refreshments/Meals and Stay during training, (iii) Expenditure on training, training material; (iv) Training kit and agricultural inputs, if any; (v) Cost of honorarium and/or travel of the trainer (actual); (vi) Miscellaneous food cost during travel, if any, and(vii) Field visits etc.
- ii.** The amounts indicated in the cafeteria are top activity ceilings and only the actual cost should be paid after exercising economy. The Progress Reports should contain only these actual amounts. Any deviation from

these cost norms of training under items B.2 (a) to (c) should be got approved by the IDWG which includes State's Finance Secretary.

In case of within district farmers training, likely expenditure or State/location specific cost norms needs to be got approved in advance by the ATMA Governing Board.

- iii. Duration of the farmers training for inter-state, intra-State shall be 7 days & 5 days respectively, excluding journey time. Farmers training programmes (within District) under the scheme would be 2 days duration and these shall be organized at the level of Gram Panchayats. In special cases, States may also organize such trainings at Block level at a larger scale.
- iv. Beneficiary farmers should be selected in a transparent manner such that all panchayats in a block are covered on rotation basis. Repetition of farmers is not permissible, except when theme of training is different. Other guidelines regarding selection of beneficiaries may be referred in **Chapter-VII**.
- v. States shall develop module for these farmers training in consultation with domain experts. Training module shall include recognizing the **Prior learning of farmers** followed by their up-skilling by way of training. A certificate of progressive farmers will be provided to them on successful completion of the training programme. The certified progressive farmers are expected to disseminate acquired knowledge and skill among their fellow farmers.

Farmer Trainings may be organized by ATMA through respective domain experts of ICAR/KVKs, SAUs, National/State level Institutes, Government agencies and specialized Institutes etc.

- vi. The identified thematic areas of farmers training include:

National Priority Areas/Themes:-

- (i) Post-harvest management
- (ii) Organic production clusters
- (iii) Market led extension
- (iv) Seed production and seed technology aspects
- (v) Integrated farming, climate resilient cropping system, adaptation and good agricultural practices.
- (vi) Integrated pest management practices in major crops
- (vii) Holistic growth of Horticulture sector covering fruits, vegetables, root and tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cocoa and bamboo.
- (viii) Judicious use of chemical fertilizers based on the recommendations of Soil Health Card
- (ix) Promotion of oilseeds cultivation

- (x) Promotion of less water consuming nutri-cereal crops
- (xi) Registration of farmers on custom hiring Centre app
- (xii) Coarse cereals and coarse cereal based cropping systems for maize and barley
- (xiii) Federating FIGs/CIGs/FSGs as FPOs
- (xiv) Agricultural Mechanization
- (xv) Integrated Farming System in Rain-fed Areas
- (xvi) Honey bee
- (xvii) Kitchen Gardening
- (xviii) Extension trainings for Export clusters of APEDA
- (xix) Natural Farming
- (xx) Climate Resilient Agriculture
- (xxi) Any other allied activity like Animal husbandry, dairy, fishery, poultry, etc.

State Priority Areas - Based on the technological gaps arisen out of SREPs, States may also decide areas of training, exposure visits, demonstrations and farm schools as per their priority.

B.3 Demonstrations:

- i. Demonstration with an embedded philosophy of 'seeing is believing' is an important extension activity to teach new knowledge and skills to farmers. Demonstration shall be organized in those areas which have not been covered under other Schemes / Missions / Sub-Missions of the Ministry of Agriculture & Farmer's Welfare. **'Notified varieties for climate resilient agriculture and bio-fortified varieties'** of different crops would be promoted through these extension activities. Appropriate publicity should be accorded to the Demonstration and Farm Schools so that benefits can reach to the large number of farmers. A provision of **Rs.6,000/-** per acre is made under the scheme for one demo (Photographs of the event will be uploaded on Krishi Mapper). This provision shall be used for soil testing , seeds of improved variety of crops, fertilizer, IPM, display board etc. Selected farmer may also organize a controlled plot demonstration of 1 acre at his own cost, so that a comparison can be drawn. **Soil Testing /Soil Health Card is mandatory for conducting Demonstration.**
- ii. Demonstration shall be organized in a plot of 1 acre land, at place easily approachable/accessible to other farmers. There should be a prominent display board at the selected plot indicating the details of demonstration activity.
- iii. Beneficiary farmers should be selected in a transparent manner such that all panchayats in a block are covered on rotation basis. Repetition of

farmers is not permissible, except when crop of demonstration is different. Other guidelines regarding selection of beneficiaries may be referred in **Chapter-IX**.

- iv. For wider dissemination and increased outreach, State is expected to suitably popularize the demonstration activity among the targeted farmers. State may use various modes of publicity for reaching large number of farmers.

B.4 Exposure Visits of Farmers:

The exposure visits of farmers to exemplary farms either inter-state, within state and within district are considered as the best form of learning from new farming practices and modern, scientific and innovative farm technologies. **Exposure visits of farmers** will be conducted in national / international/ regional/ state and district level Agri-Fairs wherein advanced agriculture technologies are show-cased for creating awareness among large number of farmers. Travel and staying together with fellow farmers affords more time and is a good opportunity to share each other's experiences and establish rapport, which can result in actual adoption. The cost norms for inter-state, within state and within district exposure visits for farmers of General/NER States per manday are indicated in cafeteria table.

B.5 Mobilization of Farmer Interest Groups (FIGs):

Group approach is central to the restructured extension mechanism to make extension more demand-driven. ATMA is envisaged as a very effective instrument for promoting participatory planning and group based approaches with focus on learning and empowerment. The aim is to redirect extension activities towards diversification into high value crops and products thereby increasing farm income and rural employment. With this market-driven approach to extension, it was envisaged that the ATMA body will make efforts to promote group of farmers and organize them around specific crops for commodities. These village level FIGs/CIGs are to be ultimately federated at Block/District level such as Block Level Farmers' Association, District Level Farm Federations, etc. so as to make the technology generation/dissemination farmer-driven and farmer-accountable. A provision of Rs.10,000/- per FIG has been provided for mobilization of 1 group of 20 farmers and Rs.25,000/- as seed money (revolving fund) for viable FIG/CIG. There is a capping of 20 groups per

block per year. FIGs/CIGs/FSGs are required to be federated as Farmers Producers Organizations (FPOs).

Women Food Security Groups (B.5.c):

Rural women play a very important role in agriculture. As such, it is proposed that ATMA should lay focus and address women's' issues through special interventions. To ensure food and nutritional security at the household level, it is proposed to support promotion of Farm women's Food Security Groups (FSGs). These FSGs would be provided support for training, publication and access to inputs @ Rs.25,000/- per group. It is proposed that minimum 2 FSGs per Block per year is mandated under the scheme. These FSGs would serve as "Model Food Security Hubs" through establishing kitchen garden, backyard poultry, goatery, animal husbandry & dairying, mushroom cultivation, etc. These groups would essentially be provided input support including small tools, seeds, planting material for setting up backyard food security garden @ Rs.25,000/- per group.

B.6 Farmer Awards:

To incentivize best farmers representing different enterprises, a provision of Rs.10,000/- per farmer per year has been made. State may devise a transparent mechanism to select the best farmers in relevant enterprise involving technical and scientific agencies. In identifying potential awardees, preference may be given to the farmers recognized for their production/productivity or progressive farmers recognized for their innovative farming practices. These individuals may be actively involved at block or village-level activities such as Farm Schools and other local agricultural initiatives, contributing to the community's development and knowledge sharing.

B.7 to B.9 Farm Information Dissemination through exhibitions, Mass Media, publication:

This includes local level agricultural exhibitions, low cost publications, information dissemination through printed materials and development of technology packages in electronic form. The cost norms of these activities may be seen in **Annexure-V(a)**.

B.10 to B.12 Agriculture Technology Refinement, Validation and Adoption

This includes to designate expert for each District from the Scientists of KVKs/SAUs, organization of Farmer-Scientist Interaction at local level, joint visits by scientist and extension personnel for which substantial financial provision has been made in the cafeteria, organization of Field-days and Kisan Goshthies and assessment, refinement, validation & adoption for frontline technologies and other short term researchable

issues through KVKs and other local research centres. Cost norms of these activities are clearly indicated in the cafeteria. While designating District level experts from KVKs/SAUs, only those Scientists may be considered who have already participated in carrying out Farmers-Scientists-Interaction (FSIs) activity. Farmer Friend (FF) and Agri-Advisors (AAs) should also be involved actively in FSIs.

B.13 Administrative expenses:- As per details given in cafeteria.

B.14 Farm Schools :-

(i) An important means to upgrade the process of dissemination of information in agriculture and allied sector is farmer-to-farmer approach, which is found to be very pertinent. The key feature of the Farm Schools being promoted under ATMA is that at least three Farm Schools to be set up in each Block in the field of outstanding or achiever farmers. Farm Schools and Farm School Trainers for each season would be finally approved by the ATMA GB; main activities of Farm Schools would be to operationalize frontline demonstrations in one hectare land in one or more crops/allied sector activities. Farm Schools would provide season long technical backstroking/training to target farmers by having an interactive session one at least during each of the four critical stages in a cropping season. 50% representation may be given to small and marginal farmers while selecting the trainees of the Farm Schools. **Now, Farm Schools (FS) will be organized in two models viz: Model I- at Progressive Farmer's field @ Rs.32,400/FS and Model-II - at Awardee farmer's field @ Rs.20,200/FS.** Number of Critical stages have been reduced from existing Six to Four stages namely (i) Crown Root Initiation, (ii) Tillering, (iii) Flowering and (iv) Milk & Dough stage.

(ii) The detailed concept of Farm School and item-wise cost norms may be seen in **Annexure-V(b).**

B.15 Farmer Friend:

The Farmer Friend (FF) will serve as a vital link between extension system and farmers at village level (one for every two villages). An amount of Rs.18,000/- per annum is payable to a farmer friend as a contingency amount.

C Innovative Activities:

In order to encourage States for taking up innovative work in extension, it is proposed to provide Rs.25.00 lakh at State level and at District level @ Rs.0.50 lakh per block. For taking up innovative activities at State and District level, approval/rectification in the IDWG meeting would be required. Various innovative activities include:

C.1 PG Diploma in Agricultural Extension Management or Agricultural Marketing Management :-

PGDAEM or PGDAMM for in-service extension functionaries continue to be implemented through MANAGE/NIAM releasing central share directly to MANAGE.

C.2 Innovative Activities-State level

C.3 Innovative Activities-District level

C.4 SETTING UP OF COMMUNITY RADIO STATIONS (CRSs)

- i. Community Radio Stations (CRS) have to be promoted in a big way to expand the reach of localised technologies to the farmers located within a radius of 20 to 50 Kilometers.
- ii. A total amount of not more than Rs.65 lakh (including capital and recurring cost) is proposed to be provided as assistance for CRS spread over operational period. There will be a ceiling of Rs.14.50 lakh on the capital cost but the same can be reviewed if substantially higher range than the present standard of 20 Kms. radius is proposed to be covered. Support for content creation at a rate not exceeding Rs.3,500/-per hour normally with a diminishing support structure of 730,540 and 200 hours respectively for first, second and third year will be provided. Some NGOs and KVKs may also use innovative technologies meeting minimum system requirement or contribution from some private players to reduce the capital cost. Subject to compliance of minimum technical specification for setting up of Community Radio Station, break-up of Rs.65.00 lakh is permitted to be changed from capital cost to recurring cost or recurring cost from one year to another. If cost of production can be reduced without diluting quality norms or there is some other financial support like advertisement, revenue or part of capital cost is diverted to recurring expenditure or a time lag between setting-up of CRS and start of

programmes, recurring cost also can be taken to even beyond three years subject to overall cost ceiling. Further, year-wise cost ceilings per CRS have been given in the Cafeteria of Activities (D.2)

- iii. Funding to private institutions along with Government and Quasi-government organizations for setting up Community Radio Stations (CRSs) can be considered.
- iv. Community based organizations, Agencies/NGOs registered under Societies Registration Act, 1860 or any other such Act and recognized by the Central Government/State Government and serving in Agriculture and allied areas including SAUs and/KVKs are eligible for funding. Registration at the time of application should be at least three years old.
- v. The willing Organizations should have basic infrastructure and facilities in the form of a room of about 400 sq. feet/ electricity/ necessary manpower to run and operate the CRSs.
- vi. ATMA MC of the District concerned may select suitable proposal/s; recommend them to the Nodal Officer/Commissioner of Agriculture of the concerned State for onward transmission to DAC through the competent committee, i.e., the IDWG having representation of SAU/ICAR Institutes/KVKs concerned so that the proposals are not referred again to ICAR by I&B Ministry which causes a considerable delay in granting approvals.
- vii. The PD, ATMA would regularly review the performance of CRSs along with other activities with the BTMs. In addition, ATMA GB would review the performance in detail with regard to content creation, involvement of local community, suitability to local conditions, release/utilization of funds for/by CRS and convergence & synergy with SAU/KVKs.
- viii. Any organization already sought CRS funding for 3 years will not be eligible for funding again under the Scheme.

D Manpower Support

Details are given in chapter-III of this Guidelines and initial monthly remuneration rates mentioned in Activity D of ATMA Cafeteria, 2025.

B11(a) Farmer Scientist Interactions at District level

Farmer Scientist interactions at district level provide a platform for addressing farmers' concerns on new technologies developed by research institutes and help in bringing forth various technological options for the coming season which is suited to the local situations. ATMA Cafeteria provides for Farmer Scientist interaction for a group of 25 farmers for 2 days @**Rs.30,000/- per interaction**. At least 3 such interactions, one before each crop season per year may be organised in each district with active involvement of local KVK, SAU Scientists and PD, ATMA of the district.

B11(b) Joint Visits by Scientists and Extension Functionaries:

Joint visits by the PD ATMA/Extension workers at the district level KVK/SAU/ICAR scientists greatly helps in creating a common understanding of field level technological issues and providing an integrated solution to the problems faced by the farmers. In order to ensure proper mobility for field visits of the scientists accompanied by extension workers, funds have been provided under ATMA cafeteria for meeting the expenditure towards hiring of vehicles or POL @**Rs.2,000/- per visit per district**.

A.9 Extension through Interaction :

In order to provide greater opportunities of interaction between farmers and experts on regular basis, a mechanism through constitution of expert committees is proposed at State and National levels with involvement of domain experts of Agriculture, Horticulture, Animal Husbandry, Dairying, Fisheries, Veterinary, Sericulture and Agricultural Marketing, weather & meteorology etc. including those from banking and insurance sector.

For answering farmer's queries and to resolve their problems from a single platform on a regular basis, it is proposed to put in place two Committees viz. State Level Expert Committee and Central Level Expert Committee. The State Level Expert Committee (SLEC) is proposed to interact with farmers of the State through Video Conferencing on quarterly basis. It is proposed to collect, collate and prioritize farmers queries related to agriculture and all allied sectors across complete value chain i.e. from production to marketing, including other critical areas such as soil health, water use efficiency, waste/residue management etc. from all Blocks/Districts of a State using ATMA network. All important District Level queries are proposed to be documented at the level of State Nodal Cell (SNC). SNC is responsible to coordinate and implement interaction between farmers and scientists on regular basis through video conferencing. The cost norms for this activity are given at A.9 of the cafeteria.

The mechanism for Video Conferencing would be as under:-

- a) Interaction of 20-25 farmers per district with State Level Expert Committee (SLEC) at NIC District Centres.
- b) Such Video Conference may be organized on quarterly basis.
- a) Farmers' queries to be sourced from ATM/BTM at Blocks to PD/ATMA at District to State Nodal Cell(SNC).
- b) SNCs to scrutinize the farmers' queries and prepare reply through experts.
- c) Live interaction of experts with farmers on designated day through Video Conference.
- d) Webcasting of VC for larger dissemination

Suggestive composition of State Level Expert Committee (SLSC) would be as under:-

SN	Designation	Status
1.	Agriculture Production Commissioner/ Prin. Secretary (Agri.) /Secretary (Agri.)	Chairman
2.	Director of Agriculture	Vice-Chairman
3.	Director of Horticulture	Member
4.	Director of Animal Husbandry	Member
5.	Director of State Marketing Board	Member
6.	Director of Sericulture/Fishery/Veterinary etc.	Member
7.	Directors (ICAR Institutes located in the State)	Member
8.	Director (Extension) / Director (Research), SAUs	Member
9.	Head/Director, ICAR Institute	Member
10.	Zonal Project Director, ICAR	Member
11.	Director, Directorates of GOI located in the State	Member
12.	Regional Director of IMD	Member
13.	Director (SAMETI) / Addl. Director Agri (Extn.)	Member Secretary

4.3 Cost Norms under Cafeteria and activity ceiling:

- (i) The mandatory activities indicated in the Cafeteria should invariably form a part of the State Extension Work Plan. Administrative Expenditure including TA/DA, hiring of vehicles and POL and operational expenses at District/Block level shall not exceed the amount provided for in the cafeteria. Financial allocation has been made specifically for the conduct of BFAC, DFAC, and joint visits of Scientists & Extension Functionaries under the cafeteria. The States should compute their budgetary requirements for mandatory activities, cafeteria activities as per State's priorities, manpower support and emoluments as per approved norms. Any savings in administrative expenses can be diverted to other categories but not vice-versa.

- (ii)** The norms as laid down in these Guidelines have to be adhered to but in exceptional cases and for reasons to be recorded in writing, ATMA Governing Board (GB) may go beyond these ceilings by up to 10% without exceeding overall allocation. Similarly, IDWG can authorize relaxation of up to 15%. All such cases shall have to be reported in next year's Work Plan so that appropriate advisories can be issued. Any deviation of more than 15% from the prescribed norms/ceilings or any activity not specified in the guidelines can be taken up by States only with the prior approval of DA&FW.

V.Convergence between Agricultural Research and Extension

V. Convergence between Agricultural Research and Extension

5. With a view to improve farm income and livelihood security of the farming households, the Government has been implementing number of programmes under various Central Sector and Centrally Sponsored schemes through the Ministry of Agriculture and Farmers Welfare. This can be facilitated to a great extent through a demand driven technology development and its transfer to farmers in an effective way with a focus on ensuring convergence of efforts at different levels for rendering an integrated service delivery to the farmers. In particular, the linkages between National Agriculture Research System (NARS) and extension machinery at cutting edge level need to be strengthened.

5.1 While the concept of district level Agricultural Technology Management Agency (ATMA) has been promoted with an idea to provide a platform for integrated extension delivery involving all the stakeholders, Krishi Vigyan Kendras (KVKs) operating at the same level act as an outreach arm of National Agricultural Research System (NARS) facilitating validation and adoption of new technologies through frontline demonstrations, training & awareness programmes and other initiatives.

5.2 A detailed circular on research-extension convergence was last issued on 17th June, 2015 under joint signatures of Secretary, Department of Agriculture, Cooperation & Farmers Welfare and Secretary, Department of Agricultural Research & Education & DG, ICAR indicating agreed and actionable points for both extension system in the State (represented by ATMA) and the NARS (represented by the State Agricultural Universities, ICAR Research Institutes and KVKs at the cutting edge level. There has been varying levels of progress in implementation of these guidelines across the States. The situation has been reviewed in light of operational concerns expressed by different stakeholders in implementation of these guidelines and recent developments at policy and operational front which require reiterating salient points of the earlier circular apart from new initiatives.

5.3 In order to ensure that the technology development for grass root level is demand driven and captures the critical gaps existing at technology and extension front, the farmers are able to gain desired benefits out of these interventions. The action points which have been agreed between the two departments are elaborated in the following paras :-

5.4 All the steps as laid down in the revised ATMA Guidelines to ensure better convergence between research and extension will be considered to utilize the built-in provisions under the ATMA Cafeteria.

i. Farmer Scientist Interactions (FSI) at District level: Farmer Scientist interactions at district level provide a platform for addressing farmers' concerns on new technologies developed by research institutes and help in bringing forth various technological options for the coming season

which is suited to the local situations. ATMA Cafeteria provides for Farmer Scientist interaction for a group of 25 farmers for 2 days @**Rs.30,000/- per interaction**. At least 2 such interactions, one before each crop season per year may be organized in each district with active involvement of local KVK and SAU Scientists and PD, ATMA of the district.

ii. The SAU may designate an expert who would be in-charge of one District to provide instant guidance to extension functionaries in the District. He/she will work in tandem with District Head of Agriculture and Allied Departments, Project Director ATMA and Programme Coordinator, KVK. A fixed amount of **Rs.3000/- per month** per district has been provided to meet expert honorarium of these officials related to returning calls of the farmers and other stakeholders that they may receive. IDWG may decide on break-up of the amount among four such officers as above in every district after considering mobile phone expenses already being reimbursed by the State Government and other organisations concerned and actual comparative necessity.

iii. Joint Visits by Scientists and Extension Functionaries: Joint visits by the PD ATMA/Extension workers at the district level KVK/SAU/ICAR scientists greatly helps in creating a common understanding of field level technological issues and providing an integrated solution to the problems faced by the farmers. In order to ensure proper mobility for field visits of the scientists accompanied by extension workers, funds have been provided under ATMA cafeteria for meeting the expenditure towards hiring of vehicles or POL @**Rs.2,000/-per visit per district**.

iv. Organization of Kisan Goshthies: To strengthen Research – Extension – Farmer linkages 1 Kisan Goshthi per block in each of the 2 seasons is envisaged in the ATMA cafeteria. KVK and SAU Scientists may plan the same with PD, ATMA and actively participate in the said event. Cost norm revised to Rs. 25000 per programme.

v. Assessment, Refinement, Validation & adoption of Frontline technologies and other short-term researchable issues: ATMA cafeteria provided **Rs.7.00 lakh per district** for undertaking research or refinement and validation of technologies arising out of the Strategic Research and Extension Plan (SREP) or any of those which are to be undertaken through KVKs and other local Research Centres.

vi. ATMA Management Committee having Programme Coordinator, KVK as its member may review the progress of technology application - related activities funded by ATMA. Besides this, the KVK may also provide an Agricultural Technology Update (ATU) on half-yearly basis

i.e. before the start of Kharif and Rabi crop seasons to the ATMA for its wider dissemination among the farmers of the district.

vii. Interface meeting: Programme Coordinators of the KVKs in the District besides participating in the ATMA Governing Board should also have an interface meeting with the Project Director, ATMA once a month during the cropping season and work out a strategy of providing crop advisories to farmers for various stages of crop growth. Scientists available in the KVKs will advise and mentor Block Technology Teams in identifying technological needs in various Blocks in the District and programmatic interventions to meet such needs.

viii. Conduct of Field Days, Kisan Melas and Goshthies: ATMA and KVK should coordinate with each other in the conduct of Field Days, Kisan Melas, Goshthies and setting up of Farm Schools, so that there is no duplication in coverage and they should ensure percolation of appropriate scientific practices down to the field level.

ix. Release of Fund to KVKs: Funds for KVK activities under ATMA programme will be released directly to KVKs under intimation to respective controlling authorities i.e. Director Extension Education (DEE) & Comptroller and Directors of ICAR Institute in case of KVKs run by Agricultural Universities and ICAR institutes respectively. For the KVKs run by NGOs, funds will be released directly to KVKs under intimation to Zonal Project Directors of the zone concerned. Utilisation Certificates for the funds released by ATMA will be provided by the KVKs only. However, the respective host organisations and monitoring authorities (i.e. Agricultural Universities, ICAR institutes and Zonal Project Directors) will continue to supervise all activities of KVKs including the ones related to ATMA.

x. Documentation of Researchable Issues: The long term researchable issues may be documented, agro-climatic zone-wise with the involvement of Zonal Agricultural Research Stations (ZARS). These issues will be formally communicated to the concerned ZARS through the respective SAUs with the approval of the Inter- Departmental Working Group (IDWG). The IDWG having Vice- Chancellor/s of SAUs as well as Director(s) of ICAR institutes in the State as its members will review the progress of research work taken up by the ZARSs on such issues.

xi. Implementation of Flagship Programmes: KVKs will provide advice to ATMA and the District Administration for the implementation of Flagship programmes of the DA&FW covered under- RKVY and Krishonnati Yojana. The KVK Scientists will technically advise the Block Technology Teams (BTTs) and will also be actively involved in

preparation of Block Action Plans (BAPs), especially with regard to research related issues/gaps and strategies. Regular participation of a KVK scientist in the meetings of Block Technology Teams will be ensured at least once in a quarter. The participating scientist will also take feedback for his colleagues in the KVK in respect of their respective areas of expertise.

xii. Involvement of SAUs/KVKs in Training and capacity building of Extension Functionaries under ATMA and Kisan Call Centres:

The SAUs and KVKs act as a repository of technologies in agriculture and allied sector suited to specific local situations. Their active involvement in organizing orientation and refresher training programmes for these functionaries would greatly help them updating their technological knowledge for a better extension delivery.

xiii. Data Entry of Demonstrations by KVKs and SAUs: Data on demonstrations being organised by district ATMAs for agriculture and allied sectors (including diversification from one sector to another) is being entered in the Extension Reforms Monitoring System (ERMS) (<https://extensionreforms.dacnet.nic.in>). The details of the same can be fetched from ERMS as well as from the Farmers' Portal clicking at the link provided therein. However, some very useful and effective demonstrations carried out by SAUs / KVKs etc. have not been entered and thus not made part of the drillable database at the link given in the Farmers' Portal. State Agricultural Universities (including Horticultural, Veterinary and Fisheries), Zonal Project Directors and KVKs to start doing data entry on the ERMS interface, so that farmers can know about the demonstrations of their interest that are taking place in their area and a scientific analysis of efficacy of various agricultural practices, new technologies, varieties of seeds/species etc. can be carried out.

xiv. Use of mKisan Portal for Sending Text and Voice Based Advisories to

Farmers: The mKisan Portal launched by the DA&FW provides a very useful interface for sending text and voice based advisories to Farmers. Scientist working in ICAR Headquarters, Zonal Project Directors, Research Institutes, & AICRPs, SAUS and KVKs may register as users in the portal and keep sending useful and need based advisories to targeted farmers using the mKisan interface. Feedback may be taken from farmers during Field Visits about usefulness of advisories.

xv. Involvement of Scientists from ICAR Institutes, SAUs and KVKs in providing Technical Backstopping to the Kisan Call Centres (KCCs):

The scientists from ICAR Institutes, SAUs and KVKs may be nominated to act as Call Conferencing experts with the Kisan Call Centres

operating in respective States to answer the query of farmers which the Farm Tele Advisors (FTAs) at the KCCs are not able to answer. The Heads of Concerned Institutions may send a Roster of nominated experts at Monthly/Fortnightly intervals to the KCCs designated for the concerned States available on the link <http://mkisan.gov.in/kccstatesinvolvement.aspx>. Similarly the Scientists from SAUs and SMSs in the KVKs may also be mapped in the Call Escalation Matrix of the Kisan Call Centres to provide their comments to State/District level officers of Agriculture and allied sector on the farmers queries escalated to them through KKMS as detailed at the link <http://mkisan.gov.in/kccescalationmatrix.aspx>.

5.5 Additional requirement of TA/DA, etc. will be met by the respective Departments from their own budgetary allocations. However, funds available under ATMA Cafeteria for Research-Extension-Farmer linkages may also be appropriately utilized.

5.6 Senior officials from DA&FW and DARE/ICAR would be visiting the States from time to time to review the progress in getting better coordination and interface between the scientific community and the State agriculture machinery on the one hand and the farmers on the other.

5.7 State Governments shall give wide publicity to this arrangement and furnish report on regular basis on the convergence matrix in prescribed format given at **Annexure-II of ATMA Guidelines, 2025.**

VI. CONVERGENCE OF EXTENSION ACTIVITIES WITH OTHER SCHEMES

6. CONVERGENCE OF EXTENSION WORK WITH OTHER SCHEMES

6.1.1. Farmers' skill trainings and field extension as contained in other schemes of DA&FW may be converged with similar farmer-related activities going on through ATMA. Thus, for instance, Seed Village programmes under SMSP, capacity building of farmers through institutions identified by the State Government under SMAM and pest monitoring, Farmer Field Schools & Integrated Pest Management (IPM) trainings to farmers under SMPP will only be carried out through the district level institutions of ATMA and Block Technology Teams. Mutually synergetic linkages will be established among various activities instead of unilaterally mandating that all such farmer-centric activities shall be carried out through ATMA. For instance, half day's training given under Seed Village Programme shall also be made part of Farm Schools as, in any case, training on seed technologies form a part of 6 critical stages during which farmers are trained under Farm Schools conducted under ATMA. This convergence should be institutionalized by ensuring that State Extension Work Plan [which emanates from Strategic Research and Extension Plan (SREP)] covers field level training & extension components. SREP is an ideal platform to provide convergence from the conceptual level and prioritization point of view. IDWG will further underline such a convergent approach at the State level.

6.1.2 A single ATMA Governing Board headed by the District Magistrate will provide commonality in approach & implementation and avoid duplication. ATMA Governing Board shall act as an over-arching umbrella at District level to oversee all extension related activities in other schemes of Pradhan Mantri -Rashtriya Krishi Vikas Yojana(PM-RKVY) and Krishonnati Yojana(KY). Such a holistic approach will avoid duplication of efforts and promote more extensive & inclusive coverage of beneficiaries. The Integrated ICT platforms (such as Farmers' Portal, State Agriculture Portals, Central Agriculture Portal) will also provide requisite impetus to implementation in the field level.

6.1.3. Convergence with other Farmer Centric Schemes of DA&FW: With the given man-power support, ATMAs will also look after the work related to other schemes of Pradhan Mantri -Rashtriya Krishi Vikas Yojana(PM-RKVY) and Krishonnati Yojana(KY). There should be full convergence of extension related work being carried out under different programmes/schemes. The field level extension workers under these different programmes/schemes should work in conjunction with the dedicated manpower being provided under this Scheme under the umbrella of BTT or ATMA, as the case may be.

While these extension related workers & consultants under other schemes/programmes can continue to act as experts in their respective fields, they should also double up as multifunctional extension workers in the jurisdiction to be assigned to them by the BTT/ATMA. Budget for extension related components in different schemes and programmes of DA&FW shall be dovetailed at district level through ATMA. Once all the extension related workers start working in unison, they shall be fully responsible for achieving convergence & synergy in extension related work under PM-RKVY and KY Schemes to achieve complementarities and check duplication of efforts and resources.

6.1.4. Convergence with Research System: ATMA scheme provides for active involvement of Research System/ Research Agencies at different levels of implementation. State Agricultural Universities (SAUs) and Krishi Vigyan Kendras (KVKs) have to be fully involved not only in preparation of SREP and Extension Work Plans but also in implementation of various programmes in the field. They will be represented in all bodies, namely, ATMA GB and ATMA MC in districts, SLSC/ IDWGs at State level, BTT - BFAC Meetings at Block level. In addition, each KVK scientist may be made in charge of one or more Blocks within the district. The KVK Scientist will technically advise the BTT and will also be actively involved in preparation of BAPs, especially with regard to research related issues/gaps and strategies. He will also take feedback from his colleagues in the KVK in respect of their respective areas of expertise.

A joint circular on convergence between Agricultural Research and Extension signed by the Secretary (DARE) & DG, ICAR and the Secretary (A&C) was issued to all concerned on 17th June, 2015.

6.1.5 Joint Visits by Scientists and Extension Functionaries:

Quite often it has been seen that scientists of the Universities and ICAR Institutions refrain from making field visits due to inadequate provision of mobility in their budget. In order to ensure proper mobility of the scientists accompanied by extension workers, funds have been provisioned for meeting the expenditure towards hiring of vehicles or POL expenses for field visits of scientists along with extension functionaries. It is expected that at least 5 pre- identified villages would be covered in a month under the visit.

6.1.6 Convergence with Development Departments: Necessary convergence with all line departments is to be ensured through their involvement in the process of preparation of SREP and Work Plans at Block, District & State levels. Work Plans to be submitted to

SLSC for approval should specify the activities which are to be supported out of resources from other schemes and activities which are to be funded under ATMA Scheme. Necessary convergence is to be ensured through integration of Comprehensive District Action Plans (CDAPs) and District Agriculture Action Plans (DAAPs) – all of which will form an integral part of Annual Action Plan(AAP) to be approved by State Level Sanctioning Committee (SLSC) under Pradhan Mantri -Rashtriya Krishi Vikas Yojana(PM-RKVY) and Krishonnati Yojana(KY).). Further, within approved allocations of Scheme, the State Level Sanctioning Committee (SLSC) may also approve inter component changes as per need during the course of implementation of the Work Plan, within ambit of Guidelines, which should be reported to DA&FW immediately. Active involvement of Panchayati Raj Institutions (PRIs) in the selection of beneficiaries for various farmer oriented activities, including selection of Farmer Friend should be ensured.

6.1.7 Convergence with & Involvement of Non-Governmental Sector:

- (a) In order to ensure promotion of multi-agency extension strategies, and to implement scheme activities in Service Provider mode, at least 10% of scheme allocation on recurring activities at district level is to be incurred through Non-Governmental Sector viz. NGOs, FOs, PRIs, Cooperatives, Para-Extension Workers, Agri-preneurs, Input Suppliers, etc. Non-governmental implementing agencies viz. NGOs, FOs, PRIs, Para-Extension Workers (except Agri-preneurs trained under ACABC) and Cooperatives will be eligible for service charge with a ceiling of 10% of the cost of extension activities (but no staff cost) implemented through them in addition to the cost of activity. Outsourcing will nevertheless be confined to such activities where the organization concerned has expertise and requisite skills and the manpower deployed under ATMA is unable to perform such tasks due to multifarious tasks. Agri-preneurs under ACABC can also be covered for this 10% service charge and 100% cost of activity after they clear their loan liability though they can be called as experts on honorarium anytime for any training organized otherwise. These organizations are free to voluntarily contribute to the cost of training or fully/partially bear the service charges.

Exclusion of any Agri-preneurs or Para-extension workers from this category which are considered big enough can be done at the discretion of the State Governments concerned. These agencies will be identified at the district level on the basis of merit

and approval of ATMA (GB) will be obtained. Competitive and transparent bidding process for this as per extent rules and regulations and financial norms. Expenditure incurred by the State Government for extension work (viz. service provider mode) shall count towards the threshold figure of 10% as stipulated in sub-para (a) above.

6.2. NETWORKING:

State level bodies/ officers viz. State Nodal Officer/ State Coordinator/ Gender Coordinator will ensure networking of all ATMAs so as to foster information sharing (success stories, best practices, research/ extension issues, application of innovative technologies & strategies, etc.). All States/Districts shall share information regarding their activities/ innovations/ successes to the outside world on the national ATMA portal (www.extensionreforms.dacnet.nic.in). Also progress of the scheme activities shall be reported on the national ATMA portal. This Portal shall also have links to related websites both at State and National level.

VII. MONITORING AND EVALUATION

7. MONITORING & EVALUATION (M&E)/Monitoring Framework:

7.1 In order to ensure quality of extension activities, following monitoring framework is provided in the revised guidelines at different levels:

- i. At Block Level:** Block Farmers Advisory Committee (BFAC) and Block Technology Team (BTT) constituted under the Scheme will monitor Block level ATMA activities on **quarterly basis** by conducting a meeting of farmers along-with elected representatives of panchayat. **Farmer Friend / ATM will coordinate and facilitate these meetings.** Feedback of the meeting will be shared with the district-level agency for suitably incorporating in the future planning for improving effectiveness of the Scheme. **Block Action Plan (BAP)** will be prepared at block level in consultation with BFAC & BTT.
- ii. At District Level:** ATMA Governing Board headed by DM or CDO or CEO as decided by DM will review and monitor District level ATMA activities **in every quarter** and decide integration and re-designing of on-going developmental schemes in accordance with the Strategic Research and Extension Plans (SREP) of the District. The Governing Board will provide policy directions that support effective functioning of ATMA in the district and amend the rules and bye-laws for the agency. ATMA management committee and District Farmers Advisory Committee (DFAC) will provide input for developing **District Annual Agriculture Plan (DAAP)** incorporating BAPs of all the blocks in the district. **PD, ATMA of the district will coordinate and facilitate convening of the meetings of ATMA, GB / ATMA, MC / DFAC at prescribed intervals.**
- iii. At State Level:** State Nodal Cell (ATMA) compile District Annual Agriculture Plan (DAAP) of all the districts at the state level in the form of 'State Extension Work Plan' (SEWP) and place it before the Inter-Departmental Working Group (IDWG) in the meeting for consideration and approval before sending AAP to the SLSC constituted under the Chairperson-ship of the Chief Secretary of the State for approval of AAP of both PM-RKVY and KY Schemes. The IDWG

under the chairperson-ship of APC/Pr. Secretary (Agriculture), may continue with the day to day **(in its quarterly meetings)** monitoring to ensure that the extension reforms are executed in line with the provisions contained in ATMA Guidelines. There is an in built provision in the Cafeteria of ATMA Activities to carry out concurrent evaluation for regular improvement in the quality of the schematic activities. It deals with things such as when the programme activities occur, where they occur, and who delivers them. Thus, it involves the evaluation of all the activities under taken to achieve programme objectives. The feedback generated through this evaluation can be used for improving implementation of the programme by focusing on mid-season / term correction. The concurrent evaluation is to be undertaken every year during the course of implementation of the schematic activities. The purpose is to conduct a broad based SWOT (Strength, Weaknesses, Opportunities and Threats) analysis so that mid-course correction is initiated at the appropriate point of time. **State Nodal Officer (ATMA) will coordinate and facilitate to convene the meetings of IDWG and SLSC at the prescribed periodic intervals.**

- iv. At National Level:** Progress of extension work done by ATMAs through different extension activities shall also be monitored at national level on quarterly basis under the Chairmanship of Joint Secretary (Extension). **Joint Director (Extension Reforms) will initiate proposal** to convene the National Level Review Meetings of ATMA activities on quarterly basis. A web-based interface (<https://extensionreforms.da.gov.in>) has been provided for regular monitoring of the progress of extension activities. Individual data of farmers under training, exposure visits and demonstrations needs to be entered in the web-based interface using the ICT infrastructure already available in the states.

Nodal Officers (State-Wise) will be identified at national level for field monitoring of ATMA activities. Extensive touring of the officers of the DA&FW / Directorate of Extension / MANAGE Faculty will be carried out for **‘on the spot monitoring’** of the field activities being undertaken under the scheme.

7.2 Cumulative Monthly Progress Reports (MPRs) for each district are to be uploaded by the Project Director, ATMA in a web-based interface available at <https://extensionreforms.dacnet.nic.in> by day 5 of the following month. After ensuring that all the districts have entered their data, the SNO will validate this data for the entire State by day 10 of the following month. Submission of manual/ physical reports may be gradually phased out. The progress shall be given online on ERMS portal as digitized data is essentially required for monitoring progress on DBT portal.

Effective M&E will be ensured through regular field visits of Inter Disciplinary Teams in project areas, reports, interfaces, conferences etc. The scheme also provides for Concurrent Monitoring & Evaluation (M&E) which will be carried out by Government of India. DA&FW will also organize concurrent M&E including impact evaluation as needed as part of its scheme “Extension Support to Central Institutes/DOE”. Besides, all activities of the scheme would continue to be reviewed on quarterly basis in meetings held at National Level.

7.3 For effective and efficient management of ATMA Scheme, the MoAFW will reply on the data sharing mechanism of Agri Stack, Agri Stack is a Digital public infrastructure which captures and maintains farmer registry, crops sown registry, and geo-referenced village maps. The relevant data pertinent to implementation of schemes will be consumed electronically (using open APIs) for the purposes of beneficiary identification, verification, benefit delivery and monitoring -pertaining to the states, Districts, villages where the data is available. The information as and when collected and collated in the Farmers registry, digital crop surveys, and geo- referenced village maps will be used for implementation of this scheme.

Field on which data will be available in AgriStack is given at Annexure.

7.4 Progress of extension work done by ATMs at Block Level, Farm Schools, Demonstration Plots, Trainings, Exposure Visits and Farmer Friends will be closely monitored using ICT infrastructure and by regular monitoring & meetings by BTT at block level, ATMA at district level and SLSC at State level. A web-based interface (<https://extensionreforms.dacnet.nic.in>) has been provided for the purpose. Individual-wise data of farmers under trainings and exposure visits needs to be entered in the web based interface above using the ICT infrastructure already available there in the states. Till the time hand-held devices are made available as a part of ITD Interventions, BTMs and ATMs should be encouraged to use their Smart Phones using software to be provided to upload pictures of trainings. Suitable incentive not exceeding Rs.50/- per training may be provided for uploading the pictures of such trainings.

- 7.5** Impact Assessment Studies of extension work done by Farm Schools, CIGs & FFs under ATMA shall be got conducted by expert agencies and corrective action shall be taken timely to attain objectives of revitalization of Agriculture Extension System.
- 7.6** Extensive touring of officers of the Department of Agriculture, Cooperation & Farmers' Welfare/Directorate of Extension, MANAGE faculty, State/District level officials will be carried out for the on-spot monitoring of field activities being undertaken.
- 7.7 Concurrent Evaluation :** It is concerned with how the program is delivered. It deals with things such as when the program activities occur, where they occur, and who delivers them. Thus, it involves the evaluation of all the activities undertaken to achieve programme objectives. The information generated through this evaluation can be used for improving implementation of the programme by focusing on mid-season/term correction. It is also referred as 'formative' or 'process' evaluation. Yearly concurrent/process evaluation of all activities to be undertaken to achieve programme objectives. The concurrent evaluation is to be taken up every year during the course of implementation of the programme. The purpose is to conduct a broad based SWOT (Strength, Weaknesses, Opportunities and Threats) analysis so that mid-course correction is initiated at the appropriate point of time. The funds may be utilized for engaging personnel for data collection, compilation, analysis, data processing, evaluation, etc. on task basis.

VIII. BUDGET ALLOCATION, RELEASE & UTILISATION

8. ALLOCATIONS AND SCHEME COST

8.1 Centre-State Share : The funding support for the Scheme shall be in the ratio of 60:40 (Centre : State) between Central and State Governments and on 90:10 basis (Centre : State) between central and North-Eastern and Himalayan States for all components **including Farmer Friend**. 100% GOI funding support to be provided to UTs for all components.

8.2 State-wise Allocation Criteria : Some States have very small districts whereas some other States have very large districts but the size of the Block does not vary much from State to State. Therefore, funds available under the scheme shall be initially allocated to States after giving weightage to the number of Blocks, number of farm families in the State and number of dedicated deployed manpower. Actual release of resources to States shall, however, be on the basis of approved work plans, pace of utilization of funds and physical progress.

8.3 Incentive to States for Better Performance : The States may prepare a large shelf of projects/activities and submit them to the Department at beginning of financial year. Better performing States will be encouraged to seek higher revised allocations against approved activities in respect of Work Plans submitted by them. Such allocations over and above tentative allocation already communicated to States will depend upon relative progress in implementation and pace of expenditure amongst various States and over all availability of funds. However, it is clarified that the expenditure during the year will be restricted by States to funds actually placed at their disposal by the DA&FW and States should not incur expenditure in excess of funds already available with the States. Any proposal to the DA&FW in the following financial year for reimbursement of excess expenditure will not be entertained. Thus, State may not create any liability.

8.4. RELEASE OF FUNDS :

8.4.1 Funds will be released for implementing the Scheme, in four equal installments. State Governments to comply all the instructions of Department of Expenditure O.M dated 23.03.2021 and 23.03.2022. 75% of annual allocation(3 equal installments) will be released upon approved SEWP by SLSC/in-principle approval of SEWP by the Chairman of SLSC and Provisional Utilization Certificate (PUC) & Annual Progress Report (APR) of previous financial year. Additional 25% of allocation(4th installment) will be released upon approved SEWP by SLSC, AUC & APR of the previous year and latest MPR showing at least 75% utilization of earlier release (central + state share). The State will be

required to submit a written request for release of funds. Revised procedure for release of CSS funds to States i.e. SNA-Sparsh will be applicable as per instructions of Department of Expenditure, Ministry of Finance. Release of fourth instalment will depend upon furnishing of the following documents:

- (i) Approved/ratified SEWP by SLSC.
- (ii) Audited Utilization Certificate (AUC) & Audited Statement of Expenditure (ASoE) for the previous year.
- (iii) Monthly Progress Report for previous month
- (iv) Annual progress report for the previous year
- (v) Transfer of the stipulated State's share to the Single Nodal Account (SNA) against funds provided by Central Government upto the previous year.
- (vi) Consolidated proposal for release of funds to be submitted to KY Cell through Nodal Officer designated by the State Government.

8.5 Manual reports may be phased out gradually

8.5.1 The State Government will transfer the Central share received in its account to the SNA's account concerned within a period of 21 days of its receipts. The Central share shall not be diverted to the personal deposit account or any other account by the State Government. Corresponding State share should be released as early as possible and not later than 30 days of release of the Central share.

8.5.2 State Governments will follow the revised procedure for release of CSS funds /Just -in- time release using SNA-SPARSH Platform as per the instructions issued by the Ministry of Finance time to time.

8.5.3 The States need to follow a definite time frame for fund releases from State level to District level (within a fortnight of receipt of funds from DA&FW) and from Districts to line departments/other agencies (within 10 days of receipt of money at district level) to ensure expeditious implementation of the Scheme.

IX. OTHER OPERATIONAL MATTERS

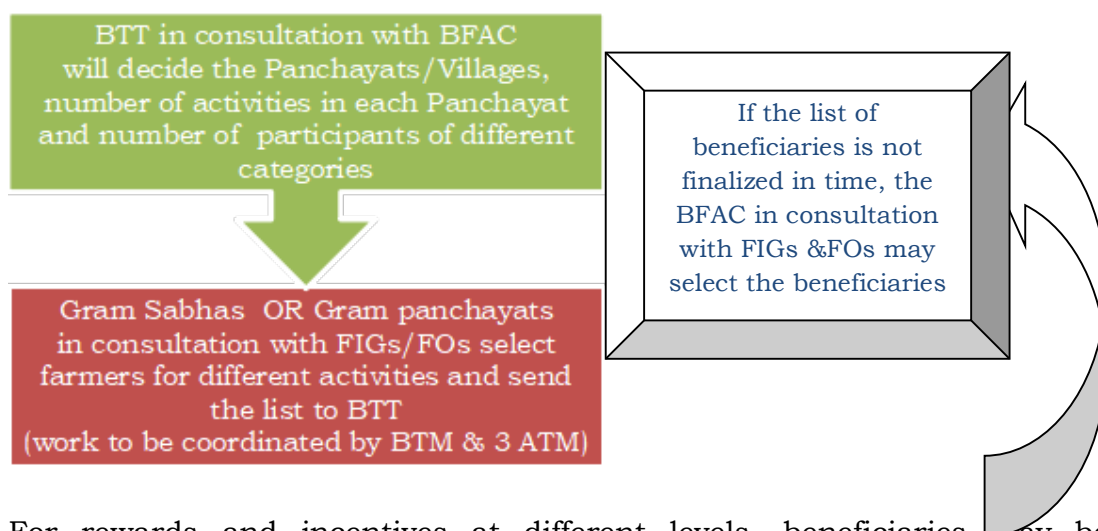
OTHER OPERATIONAL MATTERS

9.1 Extent of Coverage: The Scheme shall be implemented in all districts across the country.

9.2 Incentives for difficult areas : In order to carry out extension activities in difficult areas, an additional 10% allocation may be made by the states in the difficult areas viz: Left Wing Affected Districts, North Eastern & Hilly States, Aspirational Districts and **Double Stressed Districts**.

9.3 Individual beneficiary oriented activities:

- i. The Cafeteria of Activities contains some individual beneficiary oriented components as well. Some of such activities include farmers training, demonstrations, farm schools, farmer-scientist interactions & exposure visits which have been culled out from the cafeteria and summarized in **Annexure XI**.
- ii. Transparent and objective selection of beneficiaries is of paramount importance not only to generate confidence of the farmers in the Scheme but also to ensure that benefits of extension services get disseminated to all sections of the Society. Therefore, selection of beneficiaries should be done in the following manner:
 - a) All Panchayats in a Block should be covered on a rotation basis under various components. The Panchayats to be covered in a year should be decided by the BTT in consultation with the BFAC.
 - b) Activity mapping of Panchayati Raj Institution (PRI) is at **ANNEXURE-X**.
 - c) Number of beneficiaries of different categories including SC/ST in shortlisted Panchayats will be decided by the BTT in proportion to their population in consultation with BFAC so as to have a balanced coverage.
 - d) At least 50% beneficiaries must be Small and Marginal Farmers and 30% beneficiaries should be women farmers/farm women.
 - e) Individual beneficiaries of demonstration plots, inter-district & inter-state trainings within a Panchayat area and all farmer group beneficiaries should be selected by the respective Gram Sabha or Gram Panchayats in consultation with FIGs and FOs working in the area, as the State Government may decide. However, if for some reasons, the list of beneficiaries is not finalized in the above manner within the stipulated time frame, the FAC in consultation with FIGs and FOs may select the beneficiaries for various activities under the scheme.



- f) For rewards and incentives at different levels, beneficiaries may be identified by the States in a transparent manner. It should be ensured that no farmer gets double benefits of the same kind from different schemes.
- g) ATMA should capture Unique Identification (UID) details of the farmer beneficiaries under the components of availing training, exposure visits, demonstration plots, farm schools, revolving fund for the CIGs etc. and upload the details in the Extension Reforms Monitoring System (ERMS) Portal developed by the Department.

9.4 Common Issues related to ATMA Cafeteria:

- i. Minimum 30% of resources meant for programmes and activities are required to be allocated to women farmers and women extension functionaries. Specific documentation of expenditure and performance for women may be kept.
- ii. No expenditure shall be incurred from extension work plan allocation on ineligible items. In the event of any such expenditure, the ineligible expenses shall be deducted from the State's allocation, next year.
- iii. Operational Expenses under State Level, District & Block level Activities and Innovative Activities may also include library, internet, telephone and other contingencies.
- iv. Any sub-detailing not specified under ATMA Cafeteria such as for Demonstrations, Trainings and Exposure Visits, would be as approved under an appropriate scheme of the Central/State Govt. Otherwise, prior approval would have to be obtained from IDWG.
- v. Unless otherwise specified under some compelling circumstances, or in case of States which are not eligible for PM-RKVY funding, the SLSC set up in the State for considering proposals for PM-RKVY funding will also consider and approve SEWP and carry out periodic monitoring. In exceptional cases, the

- existing procedure for approval of SEWP through IDWG at the State level and Executive Committee of SMAE will continue to be followed. The IDWG under the chairmanship of APC/PS (Agriculture) may continue to perform monitoring of the Scheme to ensure that the Extension Reforms are executed as per these Guidelines. The IDWG shall meet at least once in every quarter.
- vi. Programmatic funds should be spent on rain-fed areas at least in proportion to the extent of rain-fed areas in the district.

9.5 Promotion of Multi-Agency Extension Strategy :

- (i) In order to ensure promotion of multi-agency extension strategies, and to implement scheme activities in Service Provider mode, at least 10% of scheme allocation on recurring activities at district level is to be incurred through Non-Governmental Sector viz. NGOs, FOs, PRIs, Cooperatives, Para-Extension Workers, Agri-preneurs, Input Suppliers, etc. Since a lot of manpower and infrastructure has been given under the Scheme for providing extension services, the State Government should fix an upper limit on extension services in Service Provider mode. This percentage limit should be clearly spelt out in the SEWP.
- (ii) Non-governmental implementing agencies viz. NGOs, FOs, PRIs, Para-Extension Workers (except Agri-preneurs trained under ACABC) and Cooperatives will be eligible for service charge with a ceiling of 10% of the cost of extension activities (but no staff cost) implemented through them in addition to the cost of activity. Outsourcing will nevertheless be confined to such activities where the organisation concerned has expertise and requisite skills and the manpower deployed under ATMA is unable to perform such tasks due to multifarious tasks. Agri-preneurs under ACABC can also be covered for this 10% service charge and 100% cost of activity after they clear their loan liability though they can be called as experts on honorarium anytime for any training organized otherwise. These organizations are free to voluntarily contribute to the cost of training or fully/partially bear the service charges.

ANNEXURE-I

STATEMENT SHOWING NATIONAL PRIORITY AREAS FOR EXTENSION ACTIVITIES IDENTIFIED FROM THE INPUTS GIVEN BY VARIOUS DIVISIONS OF DA&FW

The identified thematic areas of farmer training include:

National Priority Areas/Themes:-

- i. **Natural Farming**
- ii. **Climate Resilient Agriculture,**
- iii. **Crop Diversification,**
- iv. **National Pest Surveillance System,**
- v. **Soil Health Card advisories**
- vi. **Digital Agriculture Mission**
- vii. Post-harvest management
- viii. Market led extension
- ix. Seed production and seed technology aspects
- x. Promotion of good agricultural practices.
- xi. Integrated pest management practices in major crops
- xii. Holistic growth of Horticulture sector covering fruits, vegetables, root and tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cocoa and bamboo.
- xiii. Judicious use of chemical fertilizers based on the recommendations of Soil Health Card
- xiv. Promotion of National Mission on Oilseeds.
- xv. Promotion of less water consuming Millets/Nutri-cereal crops
- xvi. Registration of farmers on custom hiring Centre app
- xvii. Coarse cereals and coarse cereal based cropping systems for maize and barley
- xviii. Federating FIGs/CIGs/FSGs as FPOs
- xix. Agricultural Mechanization
- xx. Integrated Farming System in Rain-fed Areas
- xxi. Honey bee

xxii. Kitchen Gardening

xxiii. Extension trainings for Export clusters of APEDA

State Priority Areas - Based on the technological gaps arisen out of SREPs, States may also decide areas of training, exposure visits, demonstrations and farm schools as per their priority.

ANNEXURE-II

CONVERGENCE MATRIX ON JOINT CIRCULAR OF ICAR & DA&FW

(i) No. of Districts :-

(ii) No. of Blocks :-

(iii) Name 2-3 Good Agricultural Practices being promoted and their impact in terms of production and increasing farmers' income.

S. No.	Matrix	Unit	Norm	Target	Achievement
1.	Monthly Interface Meeting	Nos.	12/Annum		
2.	Pre-seasonal Technical Updation & Farmer-Scientist Interaction at District level	Nos.	3 per annum (1 each before crop season – Rabi/Kharif/Zaid)		
3.	Expert Designated at District level	Nos.	1/District		
4.	Joint Visits by PD, ATMA and PC, KVK	Nos.	12 Joint Visits		
5.	Districts where Direct Routing of ATMA fund to KVKs	Nos.	Nos. of District		

ANNEXURE-III(a)

INTER DEPARTMENTAL WORKING GROUP (IDWG)

In pursuance of the number of mechanisms built into the project design and to ensure effective coordination among Departments like Agriculture, Animal Husbandry, Fisheries, Horticulture, Soil Conservation etc., a State level Inter Departmental Working Group under the Chairmanship of the Agriculture Production Commissioner/ Principal Secretary (Agriculture) with the following composition would continue to monitor the scheme activities. The IDWG will meet once in every Quarter

Composition:

1.	Agriculture Production Commissioner/ Principal Secretary (Agriculture)	Chairman
2.	Secretary (Finance)	Member
3.	Secretary (Agriculture)	Member
4.	Secretary (Horticulture)	Member
5.	Secretary (Animal Husbandry)	Member
6.	Secretary (Rural Development)	Member
7.	Secretary (Fisheries)	Member
8.	Secretary (Soil Conservation)	Member
9.	Secretary (Women & Child Development)	Member
10.	Secretaries of related Departments	Member
11.	Vice Chancellor(s) of SAU(s)	Member
12.	Director(s) of ICAR Institutes in the State	Member
13.	NABARD Representative at the State level	Member
14.	Director, Doordarshan	Member
15.	Director, All India Radio	Member
16.	Director (SAMETI)	Member
17.	Two Progressive Farmer (preferably 1 male and 1 female)	Member
18.	Commissioner/Director(Agri.)/ State Nodal Officer	Member Secretary

Note: In departments like Horticulture, Soil Conservation etc., where separate Secretaries do not exist, Directors of the Departments concerned may act as Members on the IDWG.

Key functions of IDWG

- To consider and recommend State Extension Work Plan for its approval by State Level Sanctioning Committee headed by Chief Secretary/ Addl. Chief Secretary or Technical Committee in DA&FW.
- Support and monitor the functioning of State Nodal Cell including timely preparation for necessary approvals and its subsequent execution.
- Provide a mechanism for interactions with the Department of Agriculture & Cooperation and amongst various Departments within the State including Agricultural Research system.

- Promote an enabling environment with necessary policy directions for achieving necessary convergence for execution of SMAE activities at State, District and Block levels.
- To internalize Innovative concepts and institutional arrangements successfully demonstrated by the ATMAs for the purpose of up-scaling and replication.
- To provide guidance on HRD/Capacity building matters through State level Committee/Executive Committee of SAMETI.
- To provide guidance to Chairmen, ATMA Governing Board for day to day execution of ATMA activities.
- To provide guidance for convergence mechanism for all Farmer centric schemes.
- To deal with any other policy issue related to implementation of the project, which emerges from time to time.
- To review activities of SAMETIs on regular basis.

ANNEXURE-III(b)

STATE AGRICULTURAL MANAGEMENT AND EXTENSION TRAINING INSTITUTE (SAMETI)

The State Agricultural Extension Management and Training Institute (SAMETI) would be strengthened in terms of infrastructure and manpower. The State Level Committee (SLC) suggested as part of the guidelines for development of complementarity in State/District Training Plan communicated to States vide D.O. letter No. 26(4)/2008-AE dated 4.12.2008 will function as Executive Committee of SAMETI with the same composition and mandate. In addition to the membership of the SLC stipulated in the guidelines dated 04.12.2008, three farmers shall be nominated by the State Farmers Advisory Committee to participate in the deliberations of Executive Committee of SAMETI. The SLC will guide the SAMETI to achieve the aims and objectives specified in the Guidelines with the involvement of all suggested Stakeholders.

Key functions of SAMETI

- ◆ Provide capacity building support in Extension Management related areas to the extension functionaries from public, private and non-governmental sectors.
- ◆ Provide consultancy in the areas like project planning, appraisal, implementation, monitoring & evaluation, etc.
- ◆ Develop and promote application of management tools for improving the effectiveness of Agricultural Extension services.
- ◆ Organize need based training programmes for middle level extension functionaries.
- ◆ Develop modules on Management, Communication, Participatory Methodologies etc., as a sequel to the feedback from training programmes.
- ◆ Organize Annual Workshop involving all the agricultural related training Institutes in the State to achieve complementarity in training and capacity building for functionaries of agriculture and allied departments.
- ◆ Will coordinate with MANAGE in organizing DAESI programme.

ANNEXURE-III(c)**ATMA GOVERNING BOARD (GB)**

The ATMA Governing Board (GB) is a policy making body which provides guidance, reviews & steers the progress and functioning of the ATMA.

COMPOSITION

1.	District Magistrate or Chief Development Officer (CDO)/Chief Executive Officer (CEO) as decided by DM	Chairman
2.	District Head of Agriculture Department	Member
3.	Representative of Zila Panchayat/Zila Parishad	Member
4.	District Head of Fisheries	Member
5.	District Head of Horticulture	Member
6.	District Head of (Animal Husbandry/Sericulture)	Members
7.	One representative from Zonal Research Station (ZRS)	Member
8.	Programme Coordinator, Krishi Vigyan Kendra	Member
9.	Lead Bank Officer of the District	Member
10.	Representative from District Industrial Centre	Member
11.	Representative from Agriculture Marketing Board	Member
12.	Representative from DRDA	Member
13.	One Farmer representative	Member
14.	One Livestock Producer	Member
15.	One Horticulture Farmer	Member
16.	One Representative of Women Food Security Group	Member
17.	One Representative of FIG/CIG	Member
18.	One SC/ST farmer representative	Member
19.	A representative of NGO working in Agriculture/Allied Sector	Member
20.	Representative of input supplying Association	Member
21.	A representative of trained input dealers who is also providing extension services	Member
22.	Representative from companies availing tax benefit u/s 35CCC (if available)	Member
23.	One farmer representative from Fisheries/Sericulture sector	Member
24.	Project Director ATMA	Member-Secretary-cum-Treasurer (Ex-officio)

Note:

1. All non-official member of GB are to be nominated by the District Farmers Advisory Committee by consensus or by majority.

2. Out of the non-official members so nominated one-third would be women farmers and one-third would be farmers from small & marginal category.
3. The non-official members will be appointed as the member of GB for a period of 2 years.

Key functions of ATMA Governing Board

The key functions of ATMA Governing Board would be to:

1. Review and approve Strategic Research and Extension Plan (SREP) and annual action plans that are prepared and submitted by the participating units.
2. Receive and review annual reports presented by the participating units, providing feedback and direction to them as needed, for various research and extension activities being carried out within the district.
3. Receive and allocate project funds to carry out priority research, extension and related activities within the district.
4. Foster the organization and development of Farmers' Interest Groups (FIGs) and Farmers Organizations (FOs) within the district.
5. Facilitate greater involvement of private sector and firms and organizations in providing inputs, technical support, agro-processing and marketing services to farmers.
6. Encourage agriculture lending institutions to increase the availability of capital to resource poor and marginal farmers, especially SC, ST and women farmers.
7. Encourage each line department, plus the KVK and ZRS, to establish farmer advisory committees to provide feedback and input for their respective Research - Extension Programmes.
8. Enter into contracts and agreements as appropriate to promote and support agricultural development activities within the district.
9. Identify other sources of financial support that would help in ensuring the financial sustainability of the ATMA and its participating units.
10. Converge human and financial resources available for extension under different schemes and programmes of DA&FW.
11. Establish revolving funds/accounts for each participating unit, and encourage each unit to make available technical services, such as artificial insemination or soil testing, on a cost recovery basis moving towards full cost recovery in a phased manner.
12. Arrange for the periodic audit of ATMA's financial accounts.
13. Adopt and amend the rules and by-laws for the ATMA.
14. Meetings of ATMA GB must be convened in every quarter.
15. Any other functions that support effective functioning of ATMA in the district.
16. To decide integration and re-designing of on-going developmental schemes in accordance with District SREP.

ANNEXURE-III(d)**ATMA MANAGEMENT COMMITTEE (MC)**

The Management Committee would be responsible for planning and execution of day-to-day activities of ATMA.

Composition:

1.	District Head of Dept., Agriculture	Chairman
2.	Project Director of Agriculture Technology Management Agency	Co-Chairman
3.	District Head of Dept., Horticulture	Member
4.	District Head of Dept., Animal Husbandry	Member
5.	District Head of Dept. Fisheries	Member
6.	District Head of Dept. Sericulture	Member
7.	Head, Krishi Vigyan Kendra	Member
8.	Head, Zonal Research Station	Member
9.	Project Officer, District Rural Development Agency	Member
10.	One representative of Farmers' Organization promoted by an NGO	Member
12.	Representative of NGO, if any, involved in agricultural extension	Member
13.	District level NABARD Officer	Member
14.	Lead Bank Officer	Member
15.	A representative of trained input dealers who is also providing extension services	Member
16.	Two progressive farmers (one of whom should be a woman) (nominated from DFAC)	Member
17.	Two Deputy Project Directors (of which one will be nominated as Member Secretary)	Member Secretary

- Note:**
- (i) States may also consider co-opting additional members, if required.
 - (ii) All farmer representatives are to be nominated by the District Farmers Advisory Committee by consensus or by majority.

Key functions of Management Committee (MC)

1. Carryout periodic Participatory Rural Appraisal (PRA) to identify the problems and constraints faced by different socio-economic groups and farmers within the district.
2. Prepare an integrated, Strategic Research and Extension Plan (SREP) for the district that would specify short and medium term adaptive research as well as technology validation and refinement and extension priorities for the district.
3. Prepare annual District Agriculture Action Plans in consultation with DFAC which would be submitted to the ATMA Governing Board for review, possible modification and approval.
4. Maintain appropriate project accounts for audit purposes.
5. Coordinate the execution of these annual action plans through participant line departments, ZRSs, KVKs, NGOs, FIGs/FOs and allied institutions, including private sector firms.
6. Establish coordinating mechanisms at the Block level, such as Farm Information & Advisory Centres (FIACs) that would integrate extension and technology transfer activities at the block and village levels.
7. Provide periodic performance reports as required by DA&FW to the Governing Board outlining the various targets and achievements.
8. Provide secretariat to Governing Board and initiate action on policy direction, investment decisions and other guidance received from the Governing Board.
9. ATMA Management Committee shall meet once in a month to review the progress in various blocks and submit the report to State Nodal Cell/DA&FW.

BLOCK TECHNOLOGY TEAM (BTT)

It is an Inter Departmental Team of Agriculture and Line Departments operating at block level. An indicative composition of BTT is given below. However, the composition would change from place to place depending on the critical areas pertaining to different blocks in a State.

Composition:

BTT shall consist of Chairman Block Panchayat SAMETI, Block level officers of Agriculture, Horticulture, Animal Husbandry, Fisheries, Plant Protection, Veterinary Science, Soil Conservation, Extension, Sericulture, Cooperative, Marketing etc. Block Technology Manager would be the Member Secretary. A designated scientist from the KVK will also attend meetings of BTT, provide requisite technical guidance and take feedback for his colleagues in the KVK in respect of their respective areas of expertise.

The senior most official at the Block level shall head the Block Technology Team as BTT Convener.

Key functions of Block Technology Team (BTT)

- Operationalize the SREP in each block and move towards single window extension system.
- Help district core team in up gradation of SREP.
- Prepare Block Action Plan detailing extension activities to be undertaken.
- Coordinate the implementation of extension programmes detailed in the Block Action Plan.
- Facilitate formation of FIGs/ Women Food Security Groups/ FOs at the block level and below.
- Support ATMA Management Committee in discharging its function by providing inputs related to the Block.
- Facilitate planning and implementation of Farm Schools in all major sectors in the Block.
- The Block Technology Team (BTT) shall meet every month to review the progress and report the same to ATMA Management Committee.

ANNEXURE-III(f)

FARMERS ADVISORY COMMITTEES AT BLOCK, DISTRICT, AND STATE LEVEL

The Block Farmers Advisory Committee (BFAC) shall comprise not more than 30 members as per details given below:

1. Pramukh/Head of Panchayat SAMETI/Chairman Taluk Panchayat Mandal Parishad President (MPP) of the concerned Block will be ex-officio member of BFAC.
2. All members of Zila Parishad/Zila Panchayat of the concerned Block will be ex-officio members of BFAC.
3. 25 progressive farmers of the Block who are either awardee farmers or trained farmers from agriculture and allied sector would be nominated as members of BFAC.
4. The States shall evolve and notify their own transparent and democratic mechanism for nomination of progressive farmers. Out of the progressive farmers so nominated one-third would be women farmers and one-third would be farmers from small & marginal category. Adequate representation shall be given to SC/ST farmers.
5. Duration of a BFAC shall be two years after which new set of farmers shall constitute the BFAC.
6. Chairman shall be elected out of the above members on rotation basis.
7. BTM would be Member Secretary of the BFAC.

❖ Once in every quarter the Farmer Member of BFAC will conduct a meeting of farmers at the Panchayat level along with the elected representatives of Panchayat on matters related to Agriculture & allied sector and give his feedback in BFAC meetings. Kisan Mitra/Kisan Salahakar/Subject Matter specialist (as the case may be) at Panchayat level will coordinate and facilitate such a meeting.

The District Farmers Advisory Committee (DFAC) shall comprise not more than 40 members.

- i) Chairman of BFAC from not more than 35 Blocks of the District would be member of DFAC or on rotation basis if numbers of Blocks are more.
- ii) Five State level awardee farmers of the concerned District from Agriculture & Allied Sector will be nominated by District Head of Agriculture giving due representation to farmers from small/marginal category, Women farmers and SC/ST Farmers.
- iii) The States shall evolve and notify their own transparent and democratic mechanism for nomination of awardee farmers by District Head of Agriculture.
- iv) Duration of a DFAC shall be two years after which new set of farmers shall constitute the DFAC.
- v) PD (ATMA) shall act as Chairman of DFAC.
- vi) District Coordinator KVK will be member of DFAC.

The State Farmers' Advisory Committee shall comprise not more than 30 farmers (numbers will be restricted depending on number of Districts in the State):

- i) One progressive farmer who is either an Awardee farmer or trained farmer from agriculture and allied sector may be nominated from each DFAC. If the number of District is more than 25, rotation mode may be followed.

- ii) The States shall evolve and notify their own transparent and democratic mechanism for nomination of progressive farmer from each DFAC. Out of the progressive farmers so nominated one-third would be women farmers and one-third would be farmers from small & marginal category. Adequate representation should be given to SC/ST farmers.
- iii) Five National level Awardee farmers in Agriculture and allied sector would be nominated by Director/Commissioner of Agriculture giving due representation to farmers from small /marginal category and Women farmers.
- iv) Duration of a SFAC shall be two years after which new set of farmers shall constitute the SFAC.
- v) Director (Agri.) shall act as Chairman of SFAC
- vi) SNO, ATMA shall act as Member Secretary of SFAC

Key functions of BFAC/DFAC/SFAC

- ◆ Act as an agency for providing farmers' feedback and inputs for preparation/compilation of Action Plans and for prioritization of activities as follows:
 - (i) BFAC to BTT
 - (ii) DFAC to ATMA GB and MC (through nominated representatives)
 - (iii) SFAC to SAMETI for training related needs and SNC for finalization of SEWP (through nominated representatives)

NOTE: These administrative bodies will necessarily consider suggestions given by these Advisory Committees based on technical feasibility and financial viability (including availability of funds). If inputs are not received from these Advisory Committees before the meetings of BTT, ATMA (GB and MC), SAMETI or by SNC in time, the respective administrative bodies need not delay their deliberations and decision making solely on this account.

- ◆ FACs shall meet as per the following periodicities:

- (i) BFAC: Once in a month during the season and quarterly in lean season.
- (ii) DFAC: Quarterly and preferably before ATMA MC.
- (iii) SFAC: Quarterly

- ◆ Help in formation and nurturing of Farmer Interest Groups at Block level and below:
The National Farmer's Advisory Committee (NFAC): The composition of the committee will be as under:

1. Minister of Agriculture & Farmers Welfare – Chairman
2. MoS (A) – Vice-Chairman
3. One Farmer representative from SFAC of each States - Member
4. Seven Members having knowledge of the Agriculture Sector to be nominated by the Central Govt. – Member
5. One representative each from National Cooperatives Organizations- Member
6. One representative each from Ministry of Water Resources, Department of Fertilizer, Department of Food, Department of RD etc. (not below the rank of Joint Secretary).

7. Duration of a NFAC shall be two years after which new set of farmers shall constitute the NFAC.
8. JS (Extn.), DA&FW- Member Secretary

Key Functions of NFAC

The functions of the Committee will be to advise the policy makers on the following matters:-

- i. To liaise between the Policy makers and farmers regarding formulation of policy, Scheme and Guidelines.
- ii. To influence policy makers and other stake-holders for encouraging entrepreneurial spirit amongst the farmers; and
- iii. To create an enabling environment for agri-business.
- iv. To evolve Risk Management/Disaster Management strategy in agriculture;
- v. To advise the policy makers on pesticide, irrigation, seeds & other input related issues;
- vi. Interaction with the policy makers regarding price fixation and marketing of agricultural commodities;
- vii. To act as a forum capable of lobbying for farmers' issues for the country as a whole.

ANNEXURE – IV (a)

SPECIALIST AND FUNCTIONARY SUPPORT ELIGIBLE UNDER THE SCHEME

Specialist and Functionary Support	Revised monthly ‘initial ceiling’*	Revised Annual ‘initial ceiling’*	Remarks
STATE LEVEL			
State Nodal Cell 1. State Coordinator (one)	Rs.60,000/-month each	Rs.7,20,000/- year for each	One State Coordinator
2. Gender Coordinator (one)	Rs.50,000/-month each	Rs.6,00,000/- year for each	One Gender Coordinator
SAMETI 1. Director (one) 2. Faculty in the thrust areas (4 or 8 or 12)(HRD, Agriculture Extension Management, IT & Post Harvest Management) 3. Accountant-cum-Establishment Clerk (one)	Pay Scales/remuneration as per Annexure-IV (c)		Faculty positions linked to No. of Blocks in the State (<100 Blocks – 4, 100-400 Blocks – 8 and > 400 Blocks – 12) Director’s post should not be filled on contractual / outsource basis.
4. Computer Programmer (one)/Computer Operator	Rs.25,000/- per month	Rs.3,00,000/-year	
DISTRICT AND BLOCK LEVEL			
AT DISTRICT LEVEL 1. Project Director, ATMA (1) 2. Dy. Project Director ATMA(2) 3. Accountant-cum Establishment Clerk (1)	Pay Scales/Remuneration as per Annexure-IV(c)		
4. Computer Programmer / computer Operator (1)	Rs.25,000/- per month	Rs.3,00,000/- per year	See note given below.
AT BLOCK LEVEL 1. Block Technology Manager (BTM) (1)	Rs.30,000/-	Rs.3,60,000/- year	
2. Assistant Technology Manager (Average 3 per block)	Rs.25,000/-	Rs.3,00,000/- year	

- * **Revised monthly ‘initial ceiling’ or Revised annual activity ‘initial ceiling’ will be applicable only for ‘initial fixation’ of emolument’/ for fresh deployment of manpower. However, in case of existing manpower who is continue their service beyond one year, para 3.4.8 (iv) of guidelines may be followed.**

ANNEXURE-IV (b)**DUTIES/RESPONSIBILITIES OF THE SPECIALISTS AND FUNCTIONARIES**

S. No.	Name of Unit /Agency	Designation of Post	Duties/ Responsibilities
1	Village	1.Farmer Friend (FF)	- Mobilization of farmers / constitution of Farmer Interest Groups. - Conducting field demonstrations, Kisan Goshthies and facilitating preparation of Village Research Extension Action Plan - Liaison with ATM at Block level for exchange of information related to agri. and allied activities at field level - Attending meetings of Gram Sabha, maintaining a daily diary of activities - Ensuring dissemination of information through multi media - Any other work assigned by BTT
2	Block	1.Assistant Technology Manager (ATM)	- Handholding of FPOs at Block level. - Participation in the FPO meetings. - Imparting farmers training. - To provide requisite technical & knowledge support to farm school, FF, FIGs /CIGs /FSGs /FPOs and farmers in general. - Out of three ATMs, one ATM should be trained in marketing. - In consultation with Block level officers of agri. and allied departments & BTMs, ATMs will provide necessary inputs to Common Service Centres & Kisan Call Centres. - Any other work assigned by BTM.
		2. Block Technology Manager (BTM)	- Handholding of FPOs at Block level. - Participation in the FPO meetings. - Imparting farmers training. - Coordination with line departments - Organizing meetings of BTTs & FACs, Feedback to BTT and ATMA - Assist the BTT in the preparation of BAPs - Operationalisation of Farm Schools - Compilation of progress of implementation - Advise to the farmers/ FIGs/ CIGS/FPOs in consultation with line departments.

			- Maintain an inventory of FIGs/FOs/CIGs/FPOs within the Block. - BTM will also assist the BTT in carrying out functions listed at Annexure-III(e)
3	District ATMA	1. Project Director	- Liaison with SNO and SAMETI at State level and coordination between line departments including KVK, PRI, Private Sector and Planning Units at district level. - Finalization of District Annual Action Plans - Review of the progress of implementation of Extension Reform, RKVY and NFSM. - Convening meetings of GB, ATMA - Hold ATMA Management Committee Meetings - Serve as Member Secretary of ATMA, Governing Board (GB)
		2. Deputy Project Director – I(General)	- Overall responsible for research related issues and activities - Review & prioritization of local research needs based on SREP. - Coordination and follow-up with KVK and other R&D institution for assessment, refinement, validation and adoption of new technologies. - Organizing district level R-E-F interface, Krishi Melas/Exhibition etc. - Capacity building of extension functionaries of all line departments in collaboration with KVKs and other institutions.
		3. Deputy Project Director – II(With Marketing Expertise)	- Out of two existing DPDs, 1 DPD may be trained in marketing - Serve as Member Secretary of ATMA MC - Coordination with Line Departments including Private Sector. - Compilation of Block Action Plans into DAAPs. - Implementation, monitoring of DAAP, RKVY & NFSM and feedback to PD, ATMA. - Capacity building of farmers and FIGs in collaboration with KVKs and other institutions - Promote Post-Harvest Management and Market Led Extension
		4. Computer Programmer/Computer Operator	- To maintain the Extension Reforms portal up to date and maintain the complete data related to the scheme. - Maintain and update data of the District of all other web-based portal. - Ensure digital payment.

			- Ensure DBT in both cash and kind.
		5.Accountant-cum-Establishment-Clerk	- To maintain up to date account of the scheme - Activity-wise and month-wise expenditure - Payment of salaries to staff - Annual Budget Estimates - Annual Accounts of ATMA
4.	State Level Training Institute (SAMETI)	1. Director	- Capacity building of extension functionaries. - Development of Human Resources as per emerging needs. - Networking with the concerned institutions of both Public & Private Sector - Organizing studies. - Convening meetings of Executive council and General Counsel of SAMETI. - Accounts & Administrative matters of SAMETI.
		2. Deputy Director/ Faculty	- Organizing training courses of their respective areas. - Networking with the resource persons. - Evaluation of training courses. - Training needs assessment. - Preparation of Annual Training Calendar. - Regular field visits to different parts of the districts to interact with farmers and grass root level functionaries
		3.Computer Programmer/Computer Operator	1. Computer Programmer: - Basic programming skills in developing testing/debugging of application software (including static & dynamic websites) and database management. - To maintain the Extension Reforms portal up to date and maintain the complete data related to the scheme 2. Computer Operator: Quick and accurate data entry operations in English & language of the State; full command over office automation packages such as MS Office/Open Office; - Should be able to handle basic hardware issues (including Operating System, Anti-virus, PDF etc.) relating to PCs, printers and switches. - To maintain the Extension Reforms portal up to date and maintain the complete data related to

			the scheme
		4.Accountant-cum-Establishment-Clerk	- To maintain up to date account of the scheme - Activity-wise and month-wise expenditure - Payment of salaries to staff - Annual Budget Estimates - Annual Accounts of ATMA
5.	State HQs Nodal Cell	1.State Coordinator	- Liaison with the ATMAs at district level and line Departments including SAU/SAMETI at state level and Ministry of Agriculture & Farmers' Welfare at National Level. - Compilation of DAAP, etc. into State Plan. - Compilation of progress and timely feedback to State and Central Government - Assessment for capacity building of the line departments.
		2.Gender Coordinator	- Ensure flow of benefits under all schemes to women farmers. - Collection of gender dis-aggregated data, and conducting studies and action research in critical thrust areas - Promote Farm women's Food Security Groups and prepare training module so as to ensure household food security. - Document the best practices/ Success Stories/ Participatory Material Production related to women in Agriculture - Block-wise documentation, prioritization and addressing farm women's needs and requirements in agriculture and all allied sectors - Will report to State Coordinator in r/o gender related information

ANNEXURE – IV(c)

ABSTRACT OF NUMBER OF POSTS, REMUNERATION AND ELIGIBILITY

Level	Designation	No. of Posts	Suggested Mode of Recruitment	Pay Scale/ Remuneration	Qualification	
					Educational Qualification	Suggested Experience
State	State Coordinator/	1	contractual / outsource basis	Vide Para 3.4.3 of Guidelines	Doctorate or Post Graduate degree in Agriculture, Agriculture Extension, Agronomy, Horticulture, Fisheries, Soil Sciences, Agriculture Economics, and other allied sector	Minimum 10 years of experience in coordination and planning for PhDs and 20 years for Masters,
	Gender Coordinator	1	Contractual/ outsource basis	Vide Para 3.4.3 of Guidelines	Post graduate degree in Agriculture, and allied sector including Home Science Extension, or Sociology.	Minimum 10 years of experience in agriculture extension or gender related work for PhDs and 20 years for Masters.
	Accountant cum clerk	1	Deputation/ Secondment/ Appointment	Pay level 6 (35,400-1,12,400) or old scale as per 6 th CPC (9300-34,800 +4200GP)	Graduate, preferably B.Com Note: Same experience and qualification applies to Computer programmers at all levels including State, SAMETI and District levels	Minimum 3 years' experience in the Grade Pay of Rs.2,400 (as per 6 th CPC) In case of contractual /outsource basis manpower as an interim measure 3 years'

						experience of accountancy in a reputed organization to the satisfaction of the State Government.
	Computer programmer or Computer Operator	1	Contractual/ outsource basis	Vide Para 3.4.3 of Guidelines	B. Tech in Computers/MCA for CP and BCA or Graduate with computer skill.	1 year experience for B. Tech and 2 years for MCA
SAMETI	Director	1	Deputation/ Secondment/ Appointment	Pay level 13 (1,23,100-2,15,900) or old scale as per 6 th CPC (37,400-67,000+ 8700 GP)	Post graduate in Agriculture/allied sector with 3 experience in Agri. Extension Management	Minimum 3 years' experience in the scale of Rs.15,600-39,100 + 6600 GP (as per 6 th CPC)
	Deputy Director **	<100 Blocks	Deputation/ Secondment/ Appointment	Pay level 11 (67,700-2,08,700) or old scale as per 6 th CPC(15,600-39,100+ 6600GP)	Post-Graduation in their respective areas.	Minimum 3 years' experience in the scale of Rs.15,600 -39,100+5400 (As per 6 th CPC). In case of contractual/ outsourced Deputy Directors, an experience of 6 years as a faculty member in the respective field from a reputed organization / institution (to the satisfaction of the
		100 - 400 Blocks				
		401 & more Blocks				

						State Government).
	Accountant-cum-Establishment-Clerk	1	Deputation/ Secondment/ Appointment	Pay level 6 (35,400- 1,12,400) or old scale as per 6 th CPC (9300- 34,800 +4200GP)	Graduate, preferably B.Com	Same as Accountant at State level
	Computer programmer or Computer Operator	1	Contractual/ outsource basis	Vide Para 3.4.3 of Guidelines	B. Tech in Computers/MCA for CP and BCA or Graduate with computer skill.	1 year experience for B. Tech and 2 years for MCA
District	Project Director	1	Deputation/ Secondment/ Appointment	Pay level 11 (67,700- 2,08,700) or old scale as per 6 th CPC (15,600- 39,100+ 6600GP)	Post Graduate in Agriculture/Allied Sectors	Minimum 3 years' experience in the scale of Rs.15600-39100+5400 (as per 6 th CPC)
	Deputy Project Director	2	Deputation/ Secondment/ Appointment	Pay level 10 (56,100-177500) or old scale as per 6 th CPC (15,600-39,100+ 5400GP)	Post Graduate in Agriculture/Allied Sectors and for second post of DPD with expertise in marketing	Minimum 3 years' experience in the scale of Rs.9300-34,800+4200 (as per 6 th CPC) In case of contractual or outsource basis as an interim measure Deputy

						PD, 5 years' experience in managerial or supervisory capacity in agriculture & allied sectors. BTM having 5 years working experience is also eligible for DPD on contractual/ outsource basis.
	Accountant-cum-Clerk	1	Deputation/ Secondment/ Appointment	Pay level 6 (35400-112400)or old scale as per 6 th CPC (9300-34800 +4200GP)	Graduate, preferably 'B.Com'	Same as Accountant at State level
	Computer programmer or Computer Operator	1	Contractual/ outsource basis	Vide Para 3.4.3 of Guidelines	B. Tech./MCA for Computer Programmer and BCA/Graduate with computer skills for computer operator	1 year experience for B. Tech and 2 years for MCA
Block	Block Technology Manager	1	Contractual/ outsource basis	Vide Para 3.4.3 of Guidelines	Post Graduate** in Agri. / Allied Sector with computer skills or Agri-Graduates with atleast 5 years working experience as ATM.	Minimum 2 years field experience in Agri. Related activities.

	Assistant Technology Manager	Avg. 3 per block	Contractual/ outsource basis	Vide Para 3.4.3 of Guidelines	Graduate (Agri. & Allied Sectors)/Post Graduate (Agri. & Allied Sectors)	Minimum one year experience in Agri. Related activities
Village	Farmer Friend	1 over every 2 villages	Identification/ selection	Vide Para 3.4.9 of Guidelines	Senior Secondary / High School	Practicing progressive farmer with good communication skills and ability to adopt new technologies in agri./ allied sectors.

Note: Educational qualification and experience criteria may be relaxed for the already deployed contractual /outsourced manpower

ATMA CAFETERIA

LIST OF ACTIVITIES ELIGIBLE UNDER THE SCHEME 'SUPPORT TO STATE EXTENSION PROGRAMMES FOR EXTENSION REFORMS' AND ASSOCIATED COST CEILINGS/ NORMS

A. State Level Activities

(Amount in Lakh)

S. No.	Indicative Activities to be Undertaken	Revised Cost norms			Remarks
		Unit	Unit Cost Ceiling	Total Tentative Ceiling on Activity	
1	2	3	4	5	6
A.1	Monitoring & evaluation				
	(a) Quarterly review workshops and R-E Interfaces (pre-seasonal).	Per workshop/ Interface	1.00* * Cost Norms for NER and Himalayan States will be @ 2.00	3.00 for General States & 6.00 for NER & Himalayan States/UTs	Up to a maximum of 3 Workshops per annum. Cost norms increased in view of price escalation since 2014-15
	(b) Concurrent Monitoring & Evaluation.	Annually	Up to 20.00	10.00 Lakh for States below 100 blocks 12.00 Lakh for States with 100 to 200 blocks 15.00 Lakh 201 to 400 blocks 20.00 Lakh for States with above 400	Cost norms increased in view of price escalation since 2014-15

				blocks	
	(c) Expenses for Inter Departmental Working Group on extension reforms and other contingencies including Operational support TA/DA, hiring of vehicle/POL, and contingencies for SNO	Per year	Up to 15.00	Up to 15.00 • 7.00 Lakh for States below 100 blocks • 9.00 Lakh for States with 100 to 200 blocks • 12.00 Lakh for States with 201 to 400 blocks • 15.00 Lakh for States with above 400 blocks	This includes other operational expenses for State Farmers Advisory Committee Meetings (SFAC)
A.2	(a) Training courses – National/ Inter State / within the State (SAMETI) level - Both Govt. & Non-Govt. extension functionaries (including NGOs, Para Extension Workers, Input Suppliers, Farmer Friends, BTM, ATM(at KVKs) Project Director, Dy. Project Director, Director SAMETI & Faculty of SAMETI etc.)	Per participant Per day	0.02 in case ‘out of district’ venue of the training ; and 0.015 in case ‘with in district’ venue of the training	2.00 per block	100 mandays per Block (for trainings preferably between 3 to 30 days).

	(b) Induction Training of ATMA functionaries	Per Participant per day	0.015 in case ' out of district ' venue of the training ; and 0.01 in case ' with in district ' venue of the training	Actual	For newly recruited BTMs & ATMs
	(c) Refresher Training of all ATMA functionaries	Per Participant per day	0.015 in case ' out of district ' venue of the training ; and 0.01 in case ' with in district ' venue of the training	Actual	ATM & BTM other than those provided induction training
A.3	Exposure Visit of extension functionaries & members of Advisory Committees to progressive States (A group of minimum 5 participants).	Per participant per day	0.015 in case ' out of district ' venue of the Exposure Visit ; and 0.01 in case ' with in district ' venue of the Exposure Visit	Avg. 0.75 per block	25 mandays per Block per Batch (2 batches) (excluding journey time)
A.4	Organization of State level exhibitions/Kisan Melas/Fruit/Vegetable Shows, etc.	Per Year	8.00	8.00	One Exhibition per year
A.5	Participation in Krishi Expo & Regional Fair organized /supported by DAC.	Per State	3.00	3.00	Actual limited to the activity ceiling
A.6	Award for best performing ATMA	Per Year	1.50	1.50	Trophies and certificates can be given for overall performance and for selected activities.

A.7	(a) Farmer Awards – Best farmers representing different areas of agriculture • State level	per year per farmer	0.50	5.00	• 10 farmers per state @2 farmers per activity
A.8	(a) Operational expenses	Per year	Avg. 0.15 per block with a minimum of 10.00 per SAMETI		Rs.0.15 lakh per Block with a minimum of Rs.10.00 per SAMETI
	(b) Documentation of success stories etc. (preparation and dissemination).	Per year	6.00		
	(c) Vehicle hiring and POL	Per year	6.00	6.00	
	Non – Recurring (d) Equipment	One time	• Maximum Rs.9.00 per SAMETI	• Rs.4.00 for less than 100 blocks • Rs.5.00 with 100-200 blocks • Rs.7.0 with 201-400 blocks • Rs.9.00 with more than 400 blocks	One time Grant shall only be used when the hardware/equipment becomes obsolete.
A.9	Extension through interaction	Per Interaction/District	0.025	0.10	Rs.100 per farmer for a group of 25 farmers at a district. Expenses on contingency /refreshment/ lunch/ tea etc. 4 no of interactions in a year

DISTRICT LEVEL ACTIVITIES

S. No.	Indicative activities to be Undertaken	Revised Cost norms			Remarks
		Unit	Cost Norms	Revised activity ceiling	
1	2	3	4	6	7
	I. Farmer oriented activities				
B.1	Developing Strategic Research & Extension Plan (SREP)	Per district	2.50	2.50	SREP to be revisited after every 5 years.
B.2	Training of farmers for not more than 7, 5 and 2 day's duration respectively (excluding journey time).				
	(a) Inter-State (7 days)	Per farmer per day	0.0150	0.60 per Block	Cost norms are inclusive expenses on Travel of the farmer, Refreshments / Meals and Stay during training, venue charges, training material, Training kit and agricultural inputs, if any, cost of honorarium (limited to norms as per Model Training Courses
	(b) Within State (5 days)	Per farmer per day	0.0125	1.00 per Block	

					Guidelines for outside experts and not for departmental officials)
	(c) Within District level (2 days) RPL based training of farmers	Per farmer per day	0.005	4.00 per Block	2 days RPL based training in the respective areas and certificate of progressive farmers to be given.
	(d) Skill Training of Rural Youth (25 days)	Per Rural Youth Per Day	0.005	1.25 per Block	10 Rural youth per Block per year.
B.3	Organizing demonstrations				
	(a) Demonstration (Agri.)	Per demonstration	Upto 0.06 per demo of 0.4 hac. plot/area	4.80 per Block	80 demonstrations
	(b) Demonstration (allied Sector)	Per demonstration	0.06 per demo for allied sectors	2.40per Block	40 demonstrations Soil Testing /Soil Health Card is mandatory for conducting Demonstration
B.4	Exposure visit of farmers –				
	• Inter State	Per participants per day	0.015* * Cost Norms for NER and Himalayan States will be @ 0.02	0.375 per Block	25 mandays per Block. Maximum period of an Exposure Visit not to exceed 7 days (excluding journey time)

					(the cost should be limited to actual travelling expenditure and boarding/lodging cost). Likely expenditure or State/location specific cost norms needs to be got approved in advance from the ATMA Governing Board.
	• Within the State		0.01* * Cost Norms for NER and Himalayan States will be @ 0.0125	0.80 per Block	80 mandays for a maximum period not to exceed 5 days (excluding journey time).
	• Within District		0.005	0.30 per Block	60 mandays for a maximum period not to exceed 01day (excluding journey time)
B.5	Mobilization of farmer groups of different types including Farmer Interest Groups, Women Groups, Farmer Organizations, Commodity Organizations, and Farmer Cooperatives etc.				
	(a) Their capacity building, skill development and support services	Per group/ per year	0.1	2.00 per Block	20 groups per block
	(b) Seed money /revolving fund	Per group	0.25	2.00 per Block	Only to viable groups on competitive basis
	(c) Food Security Groups	Per group	0.25	0.50 per Block	2 FSGs/Block is mandatory. These will

					be all women farmers' groups and Seed Money will be given for Household food security garden.
B.6	Farmer Awards - District level - Block level	Per year per farmer	0.25 0.10	2.50 lakh per Block 0.50 lakh per Block	10 farmers per District @2 farmers per activity - Best farmers representing different enterprises at Block Level.
II. Farm Information dissemination					
B.7	District level exhibitions, Kisan Melas, fruits/ vegetable shows.	Per district	6.00	6.00 per District	Wider publicity of all the central as well as state government initiatives / schemes for the benefit of famers.
B.8	a) Information dissemination through Mass Media, printed leaflets etc. and local advertisements.	Per district	6.00	6.00 per District	
	b) low cost publication	Per Publication	0.0002	1.20 per District	Desirable component 10 copies of 6 publications @ Rs.20/- publication (max.) to be distributed in all the villages of the block (100 villages)
	c) Kala Jatha	Per Kala Jatha	0.20	5.00 per District	

B.9	Development of technology packages in digital form to be shared through IT network.	Per package	0.50	5.00 per District	For production of max. 10 packages
III. Agricultural Technology Refinement, Validation and Adoption					
B.10	(a) Farmer Scientist Interactions at district level 25 farmers for 2 days.	Per interaction	0.30	0.90 per District	3 interactions per district (@1/season)
	(b) Designate expert support from KVK/SAU at District Level	Per Month/per District	0.03	0.36 per District	KVKs/SAUs/ Agriculture Research Institutes have to designate expert in charge of one district. He would provide instant guidance to district functionaries/ BTMs/ATMs within his respective district. The support is to be provided as an incentive for sharing their expertise in their respective fields in addition to their official duties.
	(c) Joint visits by Scientists & Extension Workers	per visit per district	0.02	0.52 per District	Desirable Component 26 visits during each year
B.11	Organization of Kisan Gosthies to	Per programme	0.25	0.50 per Block	One Kisan Gosthies per

	strengthen research – extension – farmer linkages (1 per block in each of the 2 seasons).				Block in each of the two seasons.
B.12	Assessment, Refinement, Validation and adoption of Frontline technologies and other short term researchable issues through KVK sand other local Research Centres.	Per District	7.00	7.00 per District	As per assessment of KVK/ local Research Centres/ and/or issues emerging from SREP
IV. Administrative / Capital expenses at District and Block level					
B.13	<u>RECURRING</u>				* Cost Norms for item c, d, e for NER and Himalayan States will be @ 1.25 times of Normal States Four meetings @Rs.400/- per Farmer for 25 Farmers. Six BFAC meetings @Rs.200/- per farmers for 25 farmers.
	(a) TA/DA and Operational expenses for district level *	Per district/year	10.00	10.00 per District	
	(b) Hiring of vehicles and POL	Per district/year	2.0	2.0 per District	
	(c) Operational Expenses exclusively for block level (including Hiring of Vehicles and POL)	Per Block/per year	1.00*	1.00*	
	(d) Operational Expenses for DFAC Meetings	Per Meeting	0.10*	0.40*	
	(e) Operational Expenses for BFAC Meetings	Per Meeting	0.05*	0.30*	
	<u>Non – Recurring</u>				
	(i) Equipment (Computer etc.)	(i) Per District	5.00	5.00 per District	One time Grant. Shall only be used when the hardware becomes obsolete.

B.14	Farm School: (i) Model-I: At Progressive Farmer (PF) Field; and	Per Farm School (i) Model-I	0.32,400	Actuals	5 farm schools per block per year. Soil Testing /Soil Health Card is mandatory for setting -up of Farm School.
	(ii) Model-II: At Awardee Farmer Field	(ii) Model -II	0.20,200		
B.15	Farmer Friend-One FF/2 Village	Per annum per FF	0.18	0.18 per FF per annum	Uniform fund sharing pattern will be adopted i.e. on 60:40 basis for General States, 90:10 basis for NER & Himalayan States and 100% Central Share for UTs.
C.	Innovative Activities – State Level				
C.1	PG Diploma in Agricultural Extension Management or Agricultural Marketing Management	per beneficiary	0.20	1.00 per District	Government of India share would be released to MANAGE/NIAM directly on behalf of the State Governments based on the number of participants. Ceiling of 5 officials per ATMA per year.
C.2	Innovative activities – State component	Per State/per Year	25.00	25.00	Approval/ratification in IDWG meeting.
C.3	Innovative activities – District	Per block/per Year	0.50	0.50	Approval/ratification in

	component				IDWG meeting.
C.4	Setting up CRS (capital cost)	Per CRS	14.50	14.50	Total amount of not more than Rs.65.00 lakh (including capital and recurring cost) is proposed to be provided as assistance per CRS spread over operation period.
(i)	Content Creation 1 st year for two hrs. of daily programme i.e. 730 hrs./year.	Per Hour	0.035/hour	25.50	
(ii)	2 nd year for one and half-hour of daily prog. i.e. 540hrs./year	Per Hour	0.035/hour	18.00	
(iii)	3 rd year for one and half-hour of daily prog. i.e. 200 hrs./year	Per Hour	0.035/hour	7.00	
D.	Manpower Support				
D1	State Coordinator -1 per State	Per month	0.60	7.20 per annum	contractual /outsource basis
D2	Gender Coordinator -1 per State	Per month	0.50	6.00 per annum	contractual /outsource basis
D3	Director SAMETI -1 per SAMETI	Per month	Rs.18500-214100 Scale of pay	Rs.18500-214100 Scale of pay	On Deputation. Scale of pay is indicative
D4	Deputy Director SAMETI • 4 DDs in States <100 Blocks • 8 DDs in States: 100-400 Blocks • 12 DDs in States >400 Blocks	Per month	0.55	6.60 per DD per annum	Proposed to be filled by Government officials on deputation / secondment/ appointment.
D5	Accountant-cum-Clerk at SAMETI & SNC - 1 each at SAMETI and SNC	Per month	0.30	3.60 per Accountant per annum	Proposed to be filled by Government officials on deputation / secondment/ appointment.
D6	Computer Programmer (CP) at	Per month	0.25	3.00 per CP per annum	contractual or outsource

	SAMETI & SNC 1 CP each at SAMETI and SNC level				
D7	Project Director -1 Per District	Per month	Rs.67,700-2,08,700	Rs.67,700-2,08,700	Proposed to be filled by Government officials on deputation / secondment/ appointment.
D8	Deputy Project Director-2 DPDs per District	Per month	0.52	6.24 per contractual /outsource basis DPD per annum	Proposed to be filled by Government officials on deputation / secondment/ appointment.
D9	Accountant-cum-Clerk at District level - One Per District	Per month	0.30	3.60 per Accountant per annum	Proposed to be filled by Government officials on deputation / secondment/ appointment.
D10	Computer Programmer (CP) at District level - One CP Per District	Per month	0.25	3.00 per CP per annum	contractual / outsource
D11	Block Technology Manager (BTM) - One BTM Per Block	Per month	0.30	3.60 per BTM per annum	contractual /outsource
D12	Assistant Technology Manager (ATM) - 2-4 per Block as per details given in para 3.3.3(ii).	Per month	0.25	3.00 per ATM per annum	contractual /outsource

CONCEPT AND COST NORMS OF FARM SCHOOL

- (i) Key features of the Farm Schools to be promoted under the ATMA programme are given below:
- (ii) Farm Schools would be operationalized at Block/Gram Panchayat level.
- (iii) These would be set up in the field of outstanding or achiever farmers. The list of such farmers having potential for organizing farm schools in the Block for different sectors will be identified jointly by FAC and BTT and sent to ATMA GB through the Panchayat Samiti (block level elected body of Panchayati Raj Institutions). “Farm Schools” and “Farm School Trainers” for each season will finally be approved by the ATMA GB.
- (iv) “Teachers” in the Farm Schools could be progressive farmers, extension functionaries or experts belonging to Government or Non-Government Sector.
- (v) One of the main activities of Farm Schools would be to operationalize Front Line Demonstrations in one or more crops and/or allied sector activities. These demonstrations would focus on Integrated Crop Management including field preparation, seed treatment, IPM, INM, etc.
- (vi) Farm Schools would provide season long technical backstopping/training to target farmers by having an interactive session once at least during each of the 6 critical stages in a cropping season.
- (vii) While selecting the trainee farmers, about 50% representation should be given to small and marginal farmers. Preference may be given to members of CIGs/FIGs.
- (viii) “Students” will visit Farm Schools as per specified schedule or as may be necessary. “Teachers” may also visit students as may be necessary.
- (ix) Knowledge and skills of “teachers” would be upgraded on a continuous basis through training at district/ state/ national level institutions and/or exposure visits, etc.
- (x) In addition to technical support through Farm Schools, knowledge and skill of “students” may also be upgraded through training at District/State level and exposure visits, etc. “Students” would have the responsibility of providing extension support to other farmers in the respective village or neighbouring villages.
- (xi) Maximum Service Charge to achiever farmer may be 10% of the total cost incurred on item No.1-5 of Farm School cost norm given at (Appendix-II).

- (xii) Achiever Farmer, while conducting the Farm School, can take the technical support from KVK scientists and extension personnel to explain the scientific rationale behind a particular practice.
- (xiii) Either Training or Exposure Visit of about 5 to 6 days of the Progressive/ Achiever Farmer is supported under the Farm School as per norms approved in the Cafeteria.
- (xiv) Trainees would bear their own travel expenses. BTM should act as coordinator for Farm Schools with periodic monitoring of the activities done at his level (at least 1 visit at every critical crop stages) to oversee and monitor the functioning & maintain record of visits. He may arrange an Interface between the achiever farmers (taking up Farm School) and the BTT & KVK scientists at least on quarterly basis to exchange ideas at district level.
- (xv) Performance of all farm schools in each block should be reviewed at BTT-FAC meetings on a half-yearly basis and by ATMA GBs on an annual basis.
- (xvi) For the reasons to be recorded in writing, highly successful Farm Schools may be continued for another season or two, with provision of only recurring expenses during subsequent years/seasons. When continued in subsequent seasons, the participants should be selected from villages/panchayats not covered in the earlier Farm Schools.
- (xvii) States may consider suitably awarding the best Farm school in the district/state.
- (xviii) Trainings in Farm School should be flexible and non-lecture based with emphasis on hands-on-experience, observation, analysis and discussions.
- (xix) Farm School concept (nature, periodicity & training) needs to be revisited and improved by taking various innovative steps such as involving non-academic experts also from farming and business community and also including Indigenous Technical Knowledge. New training aids like Pico Projectors can be used.

**OPERATIONALIZING FARM SCHOOL AT BLOCK / GRAM PANCHAYAT LEVEL COST
NORMS/ CEILINGS**

S.No.	Farm School (Block / GP Level)	Present cost - norms of FS (in Rs.)	Proposed cost - norms of FS (in Rs.)	
			Model- 1 in the field of Progressive Farmer(PF)	Model- 2- in the field of Awardee Farmer(AF)
1	Frontline demonstration at Farm School on a maximum area of 2.5 acre	7,500	5,000 (as per NFSM Cost-Norms)	NIL (FOR AF Model)
2	Grant towards logistics support to Farm School	1,000	1,500	1,500
3	Contingency	2,000	1,500	1,500
4	IPM Kit to 25 Farm School trainees @ Rs. 200/- per kit.	5,000	5,000	5,000
5	Details of interactions / training at Farm School	6 stages	4 stages	4 stages
(a)	Honorarium for maximum two external trainer(ICAR/ SAUs/ KVKs) for maximum 4 visit in Critical Stages((Crown Root Initiation, Tillering, Flowering and Milk & dough stage)@ maximum of Rs.250 per visit per trainer(Proposed to be increased to @ Rs.500/visit/trainer.)	3,000	4,000	NIL
(b)	Travel expenses for maximum two external trainer for maximum 4 visits @ maximum of Rs.150 per trainer per visit (Proposed to be increased to @ Rs.300/visit/trainer.)	1,800	2,400	NIL
(c)	Food expenses for 28 participants @ Rs.30 per participant per day for 4 events. Proposed to be increased to @ Rs.60/farmer/day.	5,040	7,200	7,200
(d)	Printed literature @ Rs.50 per participant for 28 participants and trainers (Proposed to be increased to @ Rs.100/participants &trainer.)	1,400	2,800	NIL
Total:		26,740	24,400	15,200
6	Maximum service charge to achiever farmer/ Implementing agency running the Farm School as per decision of GB, ATMA	2,674	3,000	5,000

Grand Total:	29,414	32,400	20,200
<i>Note : Stage wise photographs of every visit should be uploaded on Krishi Mapper mobile app of DA&FW</i>			

ANNEXURE-V(c)**Illustrative List of Optimum & Realistic Targets and Likely Shortfall which may be met from PM-RKVY****(Rs. in crore)**

S. No	Scheme/ Component	Norms	Ideal Units	funded under SMAE	States may like to access RKVY funding	Total Amount reqd. from RKVY
	ATMA SCHEME					
1.	Low Cost Publication	3 publications, 10 sets @ Rs.20/publication	6 publications, 10 sets @ Rs.20/publication to 6.41 lakh villages	3 publications to 4 lakh villages	3 publications to 5.92 lakh villages	30
2.	SAMETI Infrastructure	Rs.1 crore/ SAMETI	30 SAMETIs to be funded	Nil	Infrastructure support to 30 @ 1 crore each	30

Government of India
Ministry of Agriculture & Farmers Welfare
(Extension Division)

Training Module on 'Market Led Extension for Field Functionaries'
(5 days Orientation Programme in MANAGE, NIAM, SAMETIs and EEIs)

Objectives:

- To create awareness on new dimensions of agricultural marketing management among master trainers and officials from agriculture and other line departments
- To mainstream Agricultural Marketing Management in extension programs of different departments
- To orient on different policy initiatives of the government in the field of Agricultural Marketing Management
- To sensitize different field functionaries on Agricultural Marketing systems and processes involved in it
- To explore available market linkage opportunities for effective integration of FPOs and its members with market
- To orient functionaries of line departments on different technologies and programmes benefiting the farmers, FPOs and other stakeholders in tune with the available marketing opportunities

Orientation Programme on Agricultural Marketing Management for Extension Functionaries

Duration	:	5 days
Number of Participants	:	25
Beneficiaries	:	Officers from agriculture and allied departments, Extension Officers, Subject Matter Specialist, Scientists, Assistant Professors and other equivalent officials serving in Government organizations and involved actively in extension, research and development activities
Duration of each session	:	90 Minutes including 15 – 20 Minutes discussion

Session 1: Inauguration

- Registration
- Address by Important Stakeholders

Session 2: APLM Act, 2017- An Introduction

- Provisions
- Operationalization
- Challenges

Session 3: Direct Marketing

- Models
- Success Stories
- Challenges

Session 4: Contract Farming: PPP in Agricultural Marketing

- Success Stories
- Model Contract Farming Act 2018

Day-2**Session 5: Farmers Producers Companies: Group Led Development**

- Success Stories
- Social Mobilization
- Challenges

Session 6: Linking Farmers to Market: Harvesting Benefits for Farmers

- Success Stories
- Expectation of Retail Sector from FPOs
- Challenges

Session 7: ICT enabled Agricultural Marketing

- Agmarknet
- Future Market
- Online Marketing
- e-Procurement
- Agriculture Trade
- Challenges with ITC based marketing models

Session 8: Grading & Standardization

- Legal Provisions
- Technology & Mechanization
- Challenges

Day - 3 – Field Visits

Session 9: Exposure visit to e-NAM Mandi

Session 10: Exposure visit to Director Market/Rythu Bazar

Session 11: Exposure visit to Farmer Producer Companies

Session 12: Exposure visit to Processing Units/WDRA Accredited warehouse

Day - 4

Session 13:Branding & Packaging

- Strategies & Technologies
- Innovation & Success Stories
- Export Management
- Challenges

Session 14:Warehousing: Taking advantages for better prices

- WDRA (Act – 2007)
- Negotiable Warehouse Receipt
- Application of technology in warehousing mainly data management like concept of electronic repository
- Pledge finance programme
- Post-Harvest Management and risk management
- Schemes to promote warehousing sector and creation of infrastructure
- The concept of warehouses operating as Sub-Market Yard
- Challenges in linking farmers with such new models

Session 15:Agri Processing

- Technologies & Institutions
- Programme & incentives
- Adoption of Rural Marketing by FPOs

Session 16:Developmental Programmes of Agricultural Marketing

- Agricultural Marketing Infrastructure Scheme
- Prime Minister Fasal Bima Yojana
- Minimum Support Price & Market Intervention Scheme

Day – 5

Session 17:Market Led Extension

- Marketing Systems & Institutions
- Marketing Process
- Developmental Programmes
- Extension Challenges & Remedies

Session 18 & 19: Panel Discussion on Pro-Farmer Marketing Strategies

- Farmers
- FPOs/FPCs
- Traders
- Marketing Departments
- Academicians
- Agribusiness Companies

Session 20:Valedictory

- Feedback from Participants

**Govt. of India
Ministry of Agriculture & Farmers Welfare
(Extension Division)**

**Training Module on Market Led Extension for Farmers/FPOs
(2 days Orientation Programme at SAMETIs and KVKs)**

Objectives:

- To create awareness on new dimensions of Agricultural Marketing Management among farmers
- To orient on policy different policy initiatives of the government in Agricultural Marketing Management
- To sensitize farmers/FPOs on Agricultural Marketing systems and processes involved in it
- To explore available market linkage opportunities for effective integration of individual farmers and members of FPOs with market
- To orient farmers/FPOs on technologies and programmes benefiting the farmers and FPOs directly in tune with the available market opportunities.

Orientation Programme on Agricultural Marketing Management for Farmers

Duration	: 2 days
Number of Participants	: 25
Beneficiaries	: Farmers, FPOs and members of farmers organizations
Duration of each session	: 90 Minutes including 15 – 20 Minutes discussion

Day-1

Session 1: Inauguration

- Registration
- Address by Important Stakeholders

Session 2: APLM Act, 2017- An Introduction

- Provisions
- Operationalization

- Challenges

Session 3: Linking Farmers/FPOs to Market: Harvesting Benefits for Farmers

- Success Stories
- Social Mobilization
- Expectation of Retail Sector from FPOs
- Challenges

Session 4: ICT enables Agricultural Marketing

- e-NAM
- Agmarknet
- Future Market
- Online Marketing
- e-Procurement
- Agriculture Trade

Day - 2

Session 5: Grading & Standardization

- Legal Provisions
- Technology & Mechanization
- Strategies & Technologies
- Post-Harvest Management and risk management

Session 6: Developmental Programmes of Agricultural Marketing

- Agricultural Marketing Infrastructure Scheme
- Minimum Support Price & Market Intervention Scheme
- WDRA
- Pradhan Mantri Kisan Sampada Yojana

Session 7: Market Led Extension

- Marketing Systems & Institutions
- Marketing Process
- Developmental Programmes
- Export Management
- Extension Challenges & Remedies

Session 8: Valedictory

- Feedback from Participants
- Address by Important Stakeholders
- Distribution of certificates

FORM GFR 12-C

[[See Rule 239]]

FORM OF UTILIZATION CERTIFICATE (FOR STATE GOVERNMENTS)**(Where expenditure incurred by Govt. bodies only)**

S. No	Letter No. & Date	Amount
1.		
2.		
Total: -		

Certified that out of Rs._____ lakh of grants sanctioned during the year _____ in favour of the State Government of _____ under E.R. Scheme this Ministry/ Department letter No. & date given in the margin, Rs._____lakh on account of Bank interest accrued and Rs._____ lakh on account of unspent balance of the previous year, a sum of Rs._____ lakh has been utilized for the purpose for which it was sanctioned and balance of Rs._____ lakh remaining un-utilized at the end of the year will be adjusted towards grant-in-aid payable in next year.

2. Certified that I have satisfied myself that the conditions on which the grants-in-aid was sanctioned have been duly fulfilled/being fulfilled and that I have exercised the following checks to see that the money was actually utilized for the

purpose for which it was sanctioned.

3. Kinds of checks exercised:-

- i) Sanction orders of GOI – during the year _____
- ii) UC is issued based on Audited Accounts – during the year _____
- iii) Annual Progress Report – during the year _____

(Signature with Stamp)
Director of Agriculture
Department of Agriculture

ANNEXURE-IX**AUDITED STATEMENT OF EXPENDITURE FOR THE YEAR**

S. No.	Implementing Agency/State	Unspent Balance as on 1st April_____	Release during the year _____	Expenditure Incurred during the year _____	Closing Balance as on 31st March _____
1.	SNO, H. Qrs.				
2	SAMETI				
3	ATMA.....				
4	ATMA.....				
5	ATMA.....				
6	ATMA.....				
7	ATMA.....				
8	ATMA.....				
9	ATMA.....				
10	-----				
	TOTAL				

This statement is signed based on audited accounts for the year

**SNO (ATMA)
Directorate of Agriculture,
Government of**

ACTIVITY MAPPING FOR PANCHAYATI RAJ INSTITUTIONS

The State Governments may have in place a sound mechanism for involvement of PRIs in the formulation, prioritization of activities & identification of beneficiaries at grass root level and ensure involvement of Panchayati Raj Institutions. An illustrative Activity Mapping for involvement of PRI is given below:

Activity Category	Union Govt. (MOA&FW, DA&FW)	State Government	District Level	Panchayati Raj System
				District/ Intermediate/ Village Panchayat
Framing Sectoral Action Plan	Policy Formulation. Comments of Ministry of PRI suitably incorporated in the policy.	Implement policies formulated by GOI.	Aggregating Sectoral Action Plan into District Action Plan.	PRI institution from village level is involved in preparing the Sectoral Extension Work Plan along with other Stakeholders and farmers. Preparation of Block Action Plan in consultation with BTT and BFAC. Selection of Cafeteria activities.
Identification of Beneficiaries	-	Monitoring of beneficiary identification	Identify beneficiaries with active involvement of PRIs for training, demonstration and other farmer-oriented activities.	Identify beneficiaries with active involvement of Farmer Friends for all beneficiary oriented activities under the Scheme.
Conduct of Farm Information Dissemination Activities	-	-	Organization of Exhibitions, Kisan Melas, use of Print & Electronic media, Field Days, Kisan Goshthies etc.	Actively involved in selection of area of specialization, venue, and actual organization.
Monitoring & Evaluation	Review of Performance, follow up & feedback.	Review by IDWG in which PRI rep. is a member.	ATMA GB in which CEO, Zila Parishad is a Vice Chairman.	By Farmer Friend, BTM, ATM in association with PRI.

Annexure XI

Summary of Important Farmer Oriented Activities benefiting individual farmers

Activity	Details	Ceiling of Cost Norms (Max.)	Proposed ceiling for activity	Remarks
Training of farmers for maximum period of 7 days.	a) Inter-State	Rs.1500/farmer/day	Avg. Rs.60000 per block	Avg. 40 farmers days per block
	b) Within State	Rs.1250/farmer/day	Avg. Rs.100000 per block	Avg. 80 farmers days per block
	c) Within district	Rs.500 RPL based training /farmer/day	Avg. Rs.4 lakh per block	Avg.800 farmers days per block
Demonstrations	a) Demonstration (Agri.)	Rs. 6000/ demonstration of 1 acre	Avg. Rs.4.80 lakh per block	Avg. 80 demonstrations per block
	b) Demonstration (allied sector)	Rs. 6000/ demonstration	Avg. Rs.2.40 lakh per block	Avg. 40 demonstrations per block
Exposure visit of farmers- maximum duration of 5 days excluding travel time	Inter State	Rs. <u>1500</u> /farmer/day	Avg. Rs.37500 per block	Avg. 5 farmer per block for 5 days.
	Within the State	Rs.100 <u>0</u> /farmer/day	Avg. Rs.80000 per block	Avg. 16 farmer per block for 5 days.
	Within District	Rs.500/farmer/day	Avg. Rs.30000 per block	Avg. 60 farmers per block for one day.
Farmer Scientist Interactions	District level	Rs.30000/ Interaction	Rs.90000/ district	3 Interactions per year
Farm School	Model-I: At Progressive Farmer (PF) Field @Rs. 32,400/- ; and Model-II: At Awardee Farmer Field @Rs.20,200/-			Minimum 5 F.S./block -with 25 trainee farmers/ farm school

Concept Note on Recognition of Prior Learning (RPL) based Training of Farmers**1. Background:**

Agriculture represent significant and skilled sector in which majority of the cultivation task need higher skills that include land preparation, seed treatment, sowing, fertilizer application, pest management, farm mechanization, irrigation, harvesting, storage, marketing etc. Several cultivation tasks involve intellectual understanding of the package of practices, tools & techniques and process to execute farming practices.

As a matter of fact, farmers are performing field operations from production to marketing of farm produce and skilfully undertaken such activities by virtue of their traditional & scientific knowledge and farming experience. It has often been felt that most of the Indian farmers have only access to traditional knowledge and in most cases there is huge gap in existing knowledge and new skill sets required in modernizing agriculture.

Besides, farmers need to be empowered with latest farming technologies like irrigation systems, mechanization, high yielding varieties, INM and IPM. However application of technology requires up-gradation of knowledge through training and advisory services. This shall be achieved through short-term bridge courses in the priority areas of agriculture and allied sector, which will act as enabler for up-skilling and empowering the farmers.

2. **Vision:** To recognize the prior learning and up-skilling of 1.25 crore farmers in next five years for the period from 2021-22 to 2025-26.

3. Objective:

- To assess the competence of farmers in the structured framework through RPL and up-skilling them to adopt improved farm practices.

4. Implementation Strategy for RPL:

- ATMA being the Project Implementing Agency at District level to coordinate with KVKs, SAUs, agriculture & allied Departments, District Training Centres and other local bodies to implementing Guidelines for the same will be issued to States to conduct 2 days RPL based bridge training for capacity building of farmers in agriculture and allied areas.
- All farmers including women farmers imparted training under Extension Reforms(ATMA) to undergo five step RPL process (i) Mobilization, (ii) Counselling & pre-screening, (iii) Orientation, (iv) Assessment & (v) Certification.

- Each enrolled candidate to undergo following RPL process:

Activity	Duration
➤ Domain Training (clarifying any doubts/ gaps a candidate may have with respect to existing farming practices and identifying gaps in adoption of good agricultural practices.	3-4 hours
➤ Soft Skills in domain areas.	
➤ Familiarization with Assessment Process	

- The RPL based bridge trainings are to be conducted by ATMA block level functionaries in coordination with KVKs/SAUs & others stakeholders.
- The provision under RPL would be included in the guidelines of Extension Reforms (ATMA) scheme and the cost norms of ATMA cafeteria for training of farmers shall be applicable for RPL based bridge training.
- Assessment of candidates for RPL and certification may be done through designated agency (NGOs/Pvt. organization etc) identified by ATMA.
- These training are to be coordinated at village level to facilitate their training within the location of village itself.
- Bridge course option in specific areas of maximum 12 hours duration for certification as per list of priority areas. Bridge course may be for any duration but not beyond 12 hours (total maximum period of RPL based bridge training can be 4 + 12 hours = 16 hours).
- Assessment has to be conducted in local language. Special arrangements may be made for assessment and training of candidates who cannot read and write.
- Training Need Assessment/ Training Schedule High quality pictures & videos, training attendance record/ sheets & other documents required for RPL/Skill certification may be captured.
- Any non-compliance to RPL process during mobilization, screening, training, assessment & certification would be placed before the Coordination Committee/Assessment Committee for appropriate action.

5. Course Curriculum for RPL and Bridge Training of Farmers:

Day-1:

- Capture information of beneficiary farmer for RPL and identify the skill gaps through structured questionnaire.
- Orientation on user friendly mobile software.
- Focused training of farmers on identified gaps with reference to location specific farming technologies.
- Training of farmers in specialized areas in agriculture and allied sectors.

Day-2:

- Training of farmers in specialized areas in agriculture and allied sectors.
- Feedback and assessment of candidates for certification.

6. Priority Areas for Training of Farmers in Agriculture & Allied areas are given in **Appendix-I** and Questionnaire for RPL assessment of farmers is given in **Appendix-II**.

Priority Areas for Training of Farmers in Agriculture & Allied areas

S. No.	Areas of Training
1.	Quality Seed Grower
2.	Integrated Farming System
3.	Integrated Pest Management
4.	Integrated Nutrient Management
5.	Custom Hiring Service Provider
6.	Tractor Operator/Maintenance and Repair
7.	Organic Farming
8.	Climate Change & Risk Mitigation Manager
9.	Mushroom Grower
10.	Makhana Grower
11.	Sericulturist
12.	Nursery Worker /Seedling Raiser
13.	Post-Harvest Management
14.	Agri. Marketing /Market Led Extension
15.	Spice Crop Cultivator
16.	Horticulture/Floriculture Farmer
17.	Protected cultivation
18.	Medicinal and Aromatic Farming
19.	Dairy Farmer/ Milk Processing
20.	Goat Farmer/Meat Processing
21.	Poultry Farmer
22.	Fisheries/Shrimp Farmer /Crab Farmer/ Aquaculture Farmer
23.	Beekeeper
24.	Agro-processing & Value Addition
25.	Pro-women farmer friendly technologies
26.	Any other area specific trainings as per requirement

Questionnaire for Assessment of Farmers for RPL

1. Which are major crops grown (Kharif/Rabi/Summer) in your area?
2. Which crop varieties do you grow in your field?
3. Do you grow horticulture crops in your field? If yes, name the crops.
4. Do you know about Integrated Nutrient Management?
5. Whether you have soil testing report of your land?
6. Do you apply fertilizers in your field as per the doses recommended in soil health card?
7. From where you purchase seeds & fertilizers?
8. Do you know about seed treatment? If yes, how do you do it?
9. How many farm animals (draught/milch animals) do you have?
10. Which are the sources of irrigation in your village and how do you irrigate the crops?
11. Which are the major pest & disease on the crop in your area?
12. Do you know about Integrated Pest Management?
13. Which fungicides/pesticides do you use for pest/disease control?
14. How do you harvest your crop? (Mechanical/manually)
15. Which is the nearest market place for selling of farm produce and knowledge of marketing channels?
16. Do you know about crop insurance/animal insurance and whether you are availing the insurance facilities?
17. Is there any storage facilities (godown/warehouse/ cold storage) in your area?
18. Do you have Kisan Credit Card?
19. Which are the sources of the information (Kisan Call Center/CSC/KVK etc.)?
20. Are you a member of any FPO/FIG?
21. In which topic/training to upgrade your knowledge?
22. Do you know about MSP of Crops?

Questionnaire for Cereals / Pulses / Oilseed /Cash crop

1. How do you perform land preparations for sowing?
2. Whether you have the soil testing report of your land?
3. When the sowing is done?
4. Which crops and varieties are grown in your field?
5. Do you maintain the spacing and seed rate during sowing of crop?
6. Which are the major pest & diseases on the crop in your areas?
8. Do you know about Integrated Pest Management? How do you control the pest/diseases?
9. How do you control the weeds?
10. What are sources of Irrigation and how and when it is given?
11. How do you harvest the crop (mechanical/manual)?
12. Is there any storage facility in the village?
13. Which is nearest market place to sell the agriculture produce?
14. Do you know about crop insurance and its importance during crop failure due to natural calamities?
15. Are you providing advisory services to other farmers on crops production techniques?

Questionnaire for vegetable Growers:

1. Which vegetable crops are cultivated in your farm?
2. How land preparation is done?
3. Whether soil-testing reports of land are available, how you decide fertilizer dose?
4. Which varieties of vegetables are grown?
5. Do you maintain the spacing and seed rate during sowing of crop?
6. Do you know about Integrated Pest Management? How do you control the pest/diseases?
7. How do you control the weeds?
8. What are sources of irrigation and method of irrigation?
9. When and how harvesting/grading of crop done?
10. Any storage facility available in village/area?
11. Nearest Vegetable market?
12. Any vegetable processing plant nearby village?
13. Do you know about crop insurance and its importance?
14. Are you providing advisory services to other farmers on vegetable production techniques?

Questionnaire for Fruit Growers:

1. Which major fruit crops grown in your farm ?
2. Whether soil-testing reports of land are available, how you decide fertilizer dose?
3. How land preparations are done before plantation?
4. Which varieties of fruits are grown in your farm?
5. Do you maintain spacing, and plant population in the farm?
6. Do you know about Integrated Pest Management? How do you control the pest/diseases?
8. Source of irrigation and method of irrigation?
9. How do you control the weeds?
10. How and when harvesting of fruits is done?
11. Is there any cold storage facilities available in area?
12. Which is the nearest market to sell the produce?
13. Are you a member of any fruit grower's association?
13. Do you know crop insurance and its importance in fruit cultivation?
14. Are you providing advisory services to other farmers on fruit production techniques?

Questionnaire for Dairy Farmers:

1. Which major milch breeds are found in your area?
2. How many dairy animals are available in your farm?
3. What is average milk yield/ day/animal in village?
4. Is there any milk cooperative society in your village?
5. Do you grow fodder crop to feed the dairy animals?
6. What are sources of irrigation?
7. How milking is done and what precautions do you take for clean milk production?
8. How rationing of milch animal done?
9. How do you maintain the health of milch animals?
10. Where milk is marketed?
11. Is there any milk-processing unit nearby?
12. Which is the nearest place for sale of milk and milk products?
13. Do you know about animal insurance?
14. Are you providing advisory services to other farmers on dairy farming techniques?

Questionnaire for Beekeeper:

1. Which are the major crops grown in your area?
2. Is any existing Beekeeper in your village?
3. Do you know about Bee keeping?
4. Which crops are beneficial in beekeeping?
5. How bee colonies are maintained?
7. What precautions are required in bee rearing and honey production?
8. Do you know about the facilities required for honey production?
11. Whether processing and marketing of honey is available nearby your village?
12. Have you undergone any training on bee keeping?
13. Are you providing advisory services to other farmers on bee keeping techniques?

Questionnaire for Sericulture Farmer

1. Which major crops are cultivated in your area?
2. Whether soil-testing report of your land is available? How do you decide fertilizer doses for application?
3. How many farmers in your village is doing Sericulture?
4. Which varieties of crops they are growing?
6. Do you know about the techniques for rearing of silk worms?
8. What precautions are required for silkworm rearing?
9. How feeding of silkworm is managed?
10. How Cocoons are harvested, cared and processed?
11. Which is nearest market for marketing of cocoons?
12. Is there any registered farmers group of Sericulture?
13. Are you a member of any Sericulture Producer Organization?
14. Are you providing advisory services to other farmers on Sericulture farming techniques ?

Questionnaire for Mushroom Grower

1. Do you know about mushroom production technology?
2. What types of mushroom are grown in your farm?
4. From where you get the raw material for mushroom production?
5. Have you attended any trainings on mushroom production? If yes, when and where?
6. What precautions are required to be taken for mushroom cultivation?
7. Do you know about nutritional importance of mushroom?
8. How harvesting, processing and packaging of mushroom is done ?
9. Which is the nearest place for marketing of mushroom?
10. Do you produce the bi-products from mushroom?
11. Do you want to undergo advance training on mushroom cultivation?
12. Are you providing advisory services to other farmers on mushroom production techniques?

Questionnaire for Poultry Farmer

1. Do you have all the facilities for Poultry farm?
2. Do you know about feed management of poultry feeds?
3. How do you take the precautions and sanitation required for maintaining the Poultry farm?
4. Is there any registered poultry farmers group in your village?
5. How do you manage the packaging material required for marketing?
6. How do you manage the marketing of poultry birds?
7. Have you insured the poultry farm business?
8. Have you undergone any training on poultry farm management?
9. Are you providing advisory services to other farmers on poultry farming techniques?

Questionnaire for Goat Farmer

1. Do you know about Goat farming?
2. Have you undergone training on Goat farming?
3. Which Goat breeds are available in your Goat Farming?
4. Do you know about stall feeding/open grazing methods?
5. Which fodder required for Goat farming?
6. Do you adopt the health care measures in Goat farming?
7. Is there any registered farmers group for Goat farming?
8. Are you aware of Animal health insurance?
9. Which is nearest place for marketing of Goat?
10. Which by products you will get in Goat farming?
11. Are you providing advisory services to other farmers on Goat farming techniques?

Questionnaire for Fishery Farmer:

1. Do you know about fish farming?
2. Have you undergone any training on Fish farming
3. Is there any pond/source of water in your village?
4. Do you know about farm pond scheme for fish farming?
5. How many farmers in your village are practicing fish farming?
6. Which species of fish have you for fish farming?
7. Do you know about feed management practices in fish farming?
8. Which are the precautionary measures required for fish farming?
9. Is there any registered farmers group in your village for fish farming?
10. What is Importance of fishpond insurance?
11. Which is nearest place for marketing of fisheries?
12. Are you providing advisory services to other farmers on fish production techniques?

S. No.	Registry	Fields
1.	Farmer Registry	Farmer ID
		Farmer Name (English)
		Aadhaar number
		DoB
		Gender
		State LGD Code
		Farmer's Mobile Number
		Residence Address
		Survey Number(s)
		Extent(s)
		Farm ID(s)
		Farmer ID Farmer ID
		Flag (calculated S/M/L Farmer)
		Any other fields that the state maintains at their discretion
2.	Geo-Referenced Village Maps	Farm ID
		LGD codes of village/ward
		Geo coordinates (of vertices of boundary of the plot)
		ULPIN
		Farmland plot area
		Land use classification
		Survey No. / Khasra no. Of parcels
		Any other fields that the State maintains at their discretion
3.	Crop Sown Registry	Farmer ID
		Farm ID
		Village LGD Code
		Year
		Season
		Sown area (at farm plot level)
		Crop IDs (at Farm plot level)
		Crop photos
		Geotags (of photo taken)
		Geotags of farm boundary where the crop is sown
		Sowing /Planting date (at farm plot level)
		Irrigation type(at farm plot level)
		Any other fields that the state maintains at their discretion)



OPERATIONAL GUIDELINES

FOR

PRADHAN MANTRI RASHTRIYA KRISHI VIKAS YOJANA

(PM-RKVY)

Department of Agriculture & Farmers welfare

Ministry of Agriculture & Farmers Welfare

Government of India

Krishi Bhawan, New Delhi-110001

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Abbreviations	
AAP	Annual action Plan
AIBP	Accelerated Irrigation Benefit Programme
ATMA	Agriculture Technology Management Agency
BIS	Bureau of Indian Standards
BOQCL	Bio-fertilizer and Organic Fertilizer (organic manures) Quality Control Laboratory
CAFRI	ICAR-Central Agroforestry Research Institute
CDP	Crop Diversification Programme
CHC	<i>Custom Hiring Centre</i>
CIPET	Central Institute of Plastics Engineering and Technology
CRM	Crop Residue Management
CSIR	Council of Scientific and Industrial Research
CST	Central Sales Tax
DA&FW	Department of Agriculture & Farmers Welfare
DAPST	Development Action Plan for Scheduled Tribes
DBT	Direct Benefit Transfer
DIP	District Irrigation Plan
DLIC	District Level Implementation Committee
DoLR	Department of Land Resources
DONER	Development of North Eastern Region
DPR	Detailed Project Report
DRDA	District Rural Development Agency
EC	Executive Committee
EMD	<i>Earnest Money Deposit</i>
FMBs	Farm Machinery Banks
FMTTI	<i>Farm Machinery Training and Testing Institutes</i>
FPOs	Farmer Producer Organizations
FQCLs	Fertilizer Quality Control Laboratories
FRA	Forest Right Act
GoI	Government of India
HDPE	High Density Polyethylene
HP	Horse Power
HRD	Human Resource Development
ICAR	Indian Council of Agricultural Research
ICAR.	Indian Council of Agricultural Research
ICFRE	Indian Council of Forest Research & Education
ICRAF	International Centre for Research in Agroforestry
ICT	Information Communication Technology
IDWG	Inter Departmental Working Group
IEC	Information Education and Communication
IFS	Integrated Farming System

IMD	Indian Meteorological Department
INM	Integrated Nutrient Management
IPPE	Intensive Participatory Planning Exercise
ISRO	Indian Space Research Organisation
IT	Information Technology
IWMP	Integrated Watershed Management Programme
KCC	Kisan Credit Card
KVK	Krishi Vigyan Kendra
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
Mha	Million Hectare
MI	Micro Irrigation
MIDH	Mission for Integrated Development of Horticulture
MIS	Micro Irrigation System/Management Information System
MLALAD	Member of Legislative Assembly Local Area Development
MoA	Ministry of Agriculture
MoJS	Ministry of Jal Shakti
MoRD	Ministry of Rural Development
MPLAD	Member of Parliament Local Area Development
NABARD	National Bank for Agriculture & Rural Development
NABCONS	NABARD Consultancy Services
NAC	National Advisory Committee
NCONF	National Centre of Organic and Natural Farming
NCPAH	National Committee on Precision Agriculture and Horticulture
NEC	National Executive Committee
NEH	North Eastern & Himalayan States
NER	North Eastern Region
NFNSM	National Food and Nutrition Security Mission etc
NGO	Non-Governmental Organisation
NICRA	National Initiative for Climate Resilient Agriculture
NMEO-OS	National Mission on Edible Oil-Oilseeds
NMSA	National Mission on Sustainable Agriculture
NRAA	National Rain-fed Area Authority
NRM	Natural Resource Management
NSC	National Stewardship Council
PAC	Project Approval Committee
PDMC	Per Drop More Crop
PFMS	Public Financial Management System
PGS	Participatory Guarantee System
PKVY	Paramparagat Krishi Vikas Yojana
PMJUGA	Pradhan Mantri Janjatiya Unnat Gram Abhiyan
PM-RKVY	Pradhan Mantri Rashtriya Krishi Vikas Yojana
PMU	Project Management Unit

PPPAVCD	Public- Private Partnership for Agriculture Value Chain Development
PRIs	Panchayati Raj Institutions
PSU	Public Sector Undertaking
QPM	Quality Planting Materials
R&D	Research & Development
RAD	Rainfed Area Development
RKVY-MIS	RKVY-Management Information System
SAIDP	State Agriculture Infrastructure Development Programme
SAP	State Agriculture Plan
SAU	State Agricultural Universities
SH&F	Soil Health and Fertility
SHC	Soil Health Card
SHGs	Self Help Groups
SHM	Soil Health management
SLEC	State Level Executive Committee
SLSC	State Level Sanctioning Committee
SMAE	Sub Mission on Agricultural Extension
SMAM	Sub- Mission on Agriculture Mechanization
STLs	Soil Testing Laboratories
UTs	Union Territories
VLSTLs	Village Level Soil Testing Labs

1. Introduction

Rashtriya Krishi Vikas Yojana (RKVY) was initiated in FY 2007-08 as an umbrella scheme for ensuring holistic development of agriculture and allied sectors by allowing States to choose their own agriculture and allied sector development activities as per the State Agriculture Plan. Till 2013-14, the scheme was implemented as an Additional Central Assistance(ACA) to State Plan Scheme with 100% central assistance. It was converted into a centrally sponsored scheme in 2014-15 with 100% central assistance. Later on, the funding pattern of the scheme was changed in 2015-16 and the ratio of central share and state share was fixed to 60:40 (except for NER States and Himalayan States where it has been kept as 90:10). For Union Territories the funding pattern is 100% central grant.

Based on the recommendations of Expenditure Finance Committee and feedbacks received from States and NITI Aayog, RKVY has been restructured as a cafeteria scheme by merging the seven Central sponsored schemes and renamed as **Prime Minister-Rashtriya Krishi Vikas Yojna (PM-RKVY)** with the vision to enhance efficiency, efficacy and to avoid duplications, ensure convergence and provide flexibility in planning to the State Governments.

The components of the PMRKVY are as follows: -

- i) Detailed Project Report (DPR)
- ii) Per Drop More Crop (PDMC)
- iii) Sub- Mission on Agriculture Mechanization (SMAM) including Management of Crop Residue (CRM)
- iv) Soil Health and Fertility (SH&F)
- v) Paramparagat Krishi Vikas Yojna (PKVY)
- vi) Rain Fed Area Development (RAD)
- vii) Agro- Forestry
- viii) Crop Diversification Programme (CDP)
- ix) Accelerated Fund for Agri Start-Up

The restructured PM-RKVY will continue to be implemented as Centrally Sponsored Scheme.

2. Objectives:

The main objective of PM-RKVY scheme is to provide flexibility & autonomy to States for implementing projects as per the local and farmers' needs and priorities in agriculture sector to enhance production and productivity for making farming as a remunerative economic activity.

The scheme also aims to support and scale up the startups under innovation and entrepreneurship in various fields of agriculture and allied sectors to enhance income of farmers and to create employment opportunities for the youth.

Specific objectives of the components under PM-RKVY are as follows:

I. DPR:

- To strengthen the farmers' efforts through creation of required pre & post-harvest in agriculture and allied sectors that help in supply of quality inputs, storage, market facilities, etc. to farmers.
- To provide flexibility and autonomy to States to plan & implement projects as per the local and farmers needs and priorities from a bouquet of activities in agriculture and allied sectors.
- To fill the resources, gap of agriculture and allied sectors by providing financial support to States for undertaking various activities to increase overall growth of agriculture and allied sectors and farmers' income.
- To promote agriculture and allied sectors activities of national priorities through specific initiatives as per the needs from time to time to mitigate specific problems to enhance production and productivity.

II. PDMC:

- To increase the area under Micro Irrigation technologies in agriculture to enhance water use efficiency.
- To increase productivity of crops and income of farmers through precision water management.
- Promote micro irrigation technologies in water intensive/consuming crops like sugarcane, banana, cotton, paddy etc. and give adequate focus to extend coverage of field crops under micro irrigation technologies.

- To make potential use of micro irrigation systems for promoting fertigation.
- To promote micro irrigation technologies in water scarce, water stressed and critical ground water blocks/districts & water intensive/consuming crops like sugarcane, banana, cotton, paddy etc.
- To link tube-well/river-lift irrigation projects with micro irrigation technologies for best use of energy both for lifting and pressurized irrigation as far as possible.
- To establish convergence and synergy with activities of on-going programmes and schemes, particularly with created water source for its potential use, integration of solar energy for pressurised irrigation etc.
- To promote, develop and disseminate micro irrigation technology for agriculture and horticulture development with modern scientific knowledge
- To support the initiatives of reuse of waste water in Agriculture/peri-urban Horticulture through micro irrigation systems.
- To create employment opportunities for skilled and unskilled persons, especially unemployed youth for installation and maintenance of micro irrigation systems.

III. SMAM:

- To increase the reach of farm mechanization to small and marginal farmers and to the regions where availability of farm power is low;
- To Promote Custom Hiring Services of agricultural machines to offset the adverse economies of scale arising due to small landholding and high cost of individual ownership;
- To create awareness among stakeholders through demonstration, capacity building activities and differentiated Information, Education and Communication strategies;
- To ensure performance testing and certification at designated testing centers located all over the country;

(a) CRM:

- To protect environment from air pollution and preventing loss of nutrients and soil micro-organisms caused by burning of crop residue;

- To promote management of crop residue by retention/incorporation into the soil and establishing appropriate supply chain for further utilization through the deployment of appropriate mechanization inputs;
- To create awareness among stakeholders through demonstration, capacity building activities and differentiated Information, Education and Communication strategies for effective utilization and management of crop residue.

IV. SH&F:

- To issue need based Soil Health Cards to the farmers in the country, so as to provide a basis to address nutrient deficiencies in fertilization practices.
- To strengthen functioning of Soil Testing Laboratories (STLs) through capacity building, involvement of agriculture students and effective linkage with Indian Council of Agricultural Research (ICAR)/State Agricultural Universities (SAUs).
- To diagnose soil fertility related constraints with standardized procedures for sampling uniformly across states and analysis and design taluka/block level fertilizer recommendations in targeted districts.
- To develop and promote soil test based nutrient management in the districts for enhancing nutrient use efficiency and build capacities of progressive farmer for promotion of nutrient management practices.
- To ensure quality control requirements of fertilizers, bio-fertilizers and organic fertilizers under the Fertilizer (Control) Order (FCO), 1985, including revision of standards and testing protocols keeping in view the advances in research and technology and covering organic inputs under quality control regime.
- To promote Integrated Nutrient Management (INM) through judicious use of chemical fertilizers, including secondary and micronutrients, in conjunction with organic manures and bio-fertilizers, for improving soil health and its productivity.
- To support augmentation and strengthening of soil and fertilizer testing facilities
- To provide support to School Soil Health Programme
- To provide support to RAWE Programme for Agriculture Graduates

V. PKVY:

- To promote natural resource based integrated and climate resilient sustainable farming systems that ensure maintenance and increase of soil fertility, natural resource conservation, on-farm nutrient recycling and minimize dependence of farmers on external inputs;

- To reduce cost of agriculture to farmers through sustainable integrated organic farming systems thereby enhancing farmer's net income per unit of land
- To sustainably produce chemical free and nutritious food for human consumption.
- To protect environment from hazardous inorganic chemicals by adoption of ecofriendly low cost traditional techniques and farmer friendly technologies
- To empower farmers through their own institutional development in the form of clusters and groups with capacity to manage production, processing, value addition and certification management;
- To make farmers entrepreneurs through direct market linkages with local and national markets

VI. RAD:

- To undertake location specific and landscape-based approach to dry-land areas to ensure natural resources conservation and sustainable use, strengthening of agriculture production systems and livelihood development through integration/convergence of schemes in an area based approach.
- To make agriculture more productive, sustainable, remunerative and climate resilient by promoting location specific Integrated/Composite Farming Systems;
- To conserve natural resources through appropriate soil and moisture conservation measures;
- To develop capacity of farmers and stakeholders in conjunction with other ongoing Missions such as National Food and Nutrition Security Mission, National Initiative for Climate Resilient Agriculture (NICRA) etc., in the domain of climate change adaptation measures;
- To improve the productivity of rainfed farming by mainstreaming rainfed technologies refined under All India Coordinated Research Project on Dry land Agriculture (AICRPDA-NICRA) and by leveraging resources/provisions made under other Govt Schemes.

VII. Agro Forestry:

- To encourage and expand tree plantation in a complementary and integrated manner with crops to improve productivity, additional income generation and improved livelihoods of rural households, especially the small farmers.
- To ensure the availability of Quality Planting Materials (QPM) like seeds, seedlings, clones, hybrids, improved varieties, etc. Quality Planting Material (QPM) of healthy, resilient and adaptable nursery stock raised through seed or vegetative propagation with an overall goal to improve the quality of the plants available to farmers and growers.
- To popularize various agroforestry practices/models suitable to different agro-ecological regions and land use conditions through demonstration plots.
- To create a database, information and knowledge support in the area of agroforestry & to provide Research & Development (R&D), extension and capacity-building support to the agroforestry sector.
- To identify and catalyze linkages with traditional and emerging markets for the timber and non-timber products generated from agroforestry plantation on farmland including Bio-fuels, matchwood, plywood, silk, fiber, lac, beauty and wellness sector, handicrafts, construction, etc.
- To promote value addition and processing of agroforestry produce by creating 2 3-1/2021-NRM-SMAF I/25439/2023 collection and post-harvest facilities for additional income generation by farmers.
- To provide use of modern technology for monitoring and evaluation (M&E) on the impact of agroforestry in agro-ecology.

VIII. CDP:

- To demonstrate and promote the improved production technologies of alternate crops for diversion of paddy cultivation;
- To restore the soil fertility through cultivation of leguminous crops that generates, heavy biomass and consume lesser nutrient intake crops.

3. Eligibility Criteria:

PM-RKVY being a Centrally Sponsored Scheme, all States & UTs will be eligible for funding under PM-RKVY.

4. Inter-state allocation:

Criteria for interstate allocation is given under the programme components at **Annexure IV**

5. Cost Norm & Pattern of Assistance:

The cost norms and pattern of assistance applicable for DPR and each of the AAP components of PM-RKVY is elaborated in details in para 13 of this guideline. The funding pattern of the schemes will be in the ratio of 60:40 between centre and state except of 90:10 for NER states and Himalayan states. For UTs the funding pattern will be 100% central grant.

6. Nodal Department for PM-RKVY:

Agriculture Department of the States/UTs shall be the nodal department and Principal Secretary Agriculture/ACS Agriculture / Agriculture Production Commissioner will be the nodal officer for implementation of the PM-RKVY scheme. For administrative convenience and ease of implementation, State Governments may identify or create an exclusive agency for implementing the scheme on a fast-track basis. Even where such an Agency is created/designated, the entire responsibility of ensuring proper implementation of each components of PM-RKVY scheme rests with the Agriculture Department of the State. In a situation where the States notify a Nodal Agency, the costs of running the agency, will have to be met by them from within the 2.5% limit of allocation available under PM-RKVY for administrative expenditure. States may supplement any administrative expenditure in excess of the 2.5% limit, from their own resources.

The Agriculture Department / nodal agency will be also responsible for the following:

- Effective coordination, preparation and appraisal of projects, implementing, monitoring and evaluation with various Departments and implementing Agencies.
- Management of funds received from the Central Government and State Government and its disbursement to the implementing agencies.
- Furnishing of utilization certificates (including uploading UCs in PFMS) and reporting

monthly/ quarterly physical & financial progress to the Department of Agriculture & Farmers Welfare.

- To update the web enabled IT based Management Information System of various components of PM-RKVY regularly

7. State Level Sanctioning Committee (SLSC):

A State Level Sanctioning Committee (SLSC) headed by the Chief Secretary of the concerned State/UT will recommend and submit the consolidated Annual Action Plan (AAP) under each component (both DPR and AAP) of PM-RKVY to Government of India (GoI). The composition of SLSC is at **Annexure V**

SLSC should meet twice a year or as and when required to review the implementation of the scheme.

Roles and Responsibilities of SLSC

- To prepare and submit proposals to GoI as per approved guidelines and cost norms of the respective schemes up to a maximum of 125% of the amount allocated to the State under PM-RKVY in the prescribed format given at **Annexure I**.
- In case of projects having implementation period spanning more than one financial year, year-wise phasing of expenditure along with targets/milestones shall be specifically mentioned in the minutes of the SLSC meetings.
- To implement the sanctioned projects under PMRKVY as per the guidelines.
- To ensure that all extant procedures and instructions of the GoI are followed so that the expenditure incurred on implementation of the projects is the barest minimum with due concern for economy in expenditure and also in conformity with the canons of financial propriety, transparency and probity.
- To ensure that adequate coverage of small and marginal farmers, Scheduled Castes, Scheduled Tribes, Patta holders under FRA act, women and other weaker segments of society is to be given while selecting beneficiaries under any components of RKVY so that the benefits of implementation of a particular component of the scheme is received by the intended beneficiaries in accordance with guidelines and policies of the Government.

8. Project Approval Committee (PAC):

There will be a PAC under the Chairmanship of Secretary, DA&FW, Government of India consisting of Divisional Heads of the Department and other senior Officers to examine, deliberate and approve the AAP submitted by the States under PM-RKVY.

The composition of the PAC is as follows:

S. No.	Designation	
1	Secretary, Department of Agriculture & Farmers Welfare	Chairman
2	Additional Secretary & Financial Advisor	Member
3	Additional Secretary, DA&FW	Member
4	Joint Secretary (RKVY)	Member
5	Joint Secretary (PDMC)	Member
6	Joint Secretary (RAD/Agro Forestry)	Member
7	Joint Secretary (M&T)	Member
8	Joint Secretary (INM)	Member
9	Joint Secretary (Crops)	Member
10	Joint Secretary (MIDH)	Member
11	Joint Secretary (Seeds)	Member
12	Agriculture Commissioner	Member
13	Horticulture Commissioner	Member
14	Joint Secretary (PC)	Member Secretary

9. Planning & Sanctioning of Schemes:

The extant process of formulation and approval of DPR and AAP components of PM-RKVY will be as follows:

- A tentative interstate allocation of funds will be communicated to the State Governments for DPR & AAP component of PM-RKVY.
- A consolidated component-wise project proposal i.e. AAP/DPR shall be prepared

in the prescribed format incorporating all essential details like feasibility studies, competencies of the implementing agencies, outputs/outcomes framework, time-lines for implementation etc.

- iii) Agriculture Department / Nodal department at state level will propose projects up to a maximum of 125% of the amount allocated to the state.
- iv) Consolidated AAP should clearly indicate the year- wise physical & financial targets proposed under each project.
- v) A meeting of SLSC will be convened to scrutinize /examine the projects proposed by Nodal Department and submit the consolidated AAP for approval by GoI.
- vi) There will be flexibility to States for re-apportion of up to 50% of allocation for the component from one AAP component to another AAP component of RKVY. However, re-apportion of the allocation from AAP component to DPR component or vice versa is not permissible.
- vii) In case one or more AAP components is not feasible to be implemented in a State due to low demand or some specific reasons, they may be allowed to transfer funds allocated for that component to another component of their choice after taking due approval of SLSC.
- viii) RKVY Division, at the end of financial year, will reconcile the component wise expenditure with the approved outlay and necessary adjustments will be done while making interstate allocation in subsequent years.
- ix) The nodal department of the States shall ensure that PM-RKVY projects/activities should not create duplication or overlapping of assistance/area coverage vis-à-vis other scheme/programmes of State/Central Government.
- x) A presentation of all AAP & DPR components of PM- RKVY will be made by the State Agriculture Secretary to Project Approval Committee under the Chairmanship of Secretary, DA&FW. GoI will convey the approval of the consolidated AAP along with specific comments for each of the projects to the state.
- xi) SLSC/State will ensure that no project shall be undertaken for implementation if GOI has not supported the project during AAP meeting.
- xii) Further, if any new project(s) is deemed important for implementation under PM-RKVY by the State during the FY, the Nodal Department may send the DPR of the project(s) to GoI with the consent of SLSC. After detailed examination and deliberations of the projects by the respective divisions, GoI will convey the

approval of the AAP to the states. The projects have to be undertaken within the approved allocation of the state.

- xiii) States will be allowed to utilize fund available in PM- RKVY scheme for any component as an interim measure to ensure that activities of the particular component of the scheme is not affected for want of funds. However, the activity for which the fund released under various components should be completed without any exception by the States subsequently by replenishing the appropriate amount in respective components.

10. Release of Funds:

PM-RKVY scheme funds will be released to the States/UTs subject to compliance of conditions prescribed by Department of Expenditure, Govt. of India & fulfillment of the following conditions:

- Submission of 100% Utilization Certificates (UCs) of the funds released up to the previous financial year;
- Submission of physical and financial progress report in the specified format.

The format for submitting Utilization Certificate is given at **Annexure III**

If a State fails to avail their full allocation, the balance funds may be re-allocated to better performing States.

The Nodal Agency/Nodal Department of the State/UT shall ensure that component-wise as well as project-wise accounts are maintained by the Implementing Agencies and are subjected to the normal process of statutory audit.

An inventory of the assets created under PM-RKVY projects should be carefully maintained and assets that are no longer required should be transferred to the Nodal Department, for its use and re-deployment wherever possible. Nodal Agency/Department of the States/UTs should ensure that the Central Assistance released under the scheme is utilized in accordance with the approved AAP.

All implementing agencies are required to maintain subsidiary accounts of the grants-in-aid and get the same audited from a Chartered Accountant.

Grants in aid will be released as per provisions regarding release of funds contained in GFR 2017 and instruction issued in this regard by Government of India from time to time

11. Pradhan Mantri Janjatiya Unnat Gram Abhiyan :

Ministry of Tribal Affairs has launched Pradhan Mantri Janjatiya Unnat Gram Abhiyan (PMJUGA) with an aim to improve the socio-economic condition of the tribal communities by adopting saturation coverage for tribal families in tribal-majority villages and Aspirational Districts. The Mission will cover approximately 63000 villages viz. (i) Villages with population of 500 or more and with at least 50% Scheduled Tribe population and (ii) Villages in Aspirational Districts with 50 or more Scheduled Tribes. Dovetailing schemes and beneficiary identification (FRA Patta Holders) is to be undertaken effectively while implementing schemes so as to achieve the Mission objectives.

Department of Agriculture & Farmers Welfare, has been included as one of the priority sector for the Mission. The financial assistance to these FRA patta holders would be provided from Development Action Plan for Scheduled Tribes (DAPST) Funds. While implementing PM-RKVY scheme, priority should be given to such villages identified for PMJUGA and inclusion of FRA patta holders should be ensured while selecting beneficiaries. **However, the beneficiary share in respect of patta holders under FRA act will be 10% only in each of the components of PM-RKVY**

12. Aspirational Districts and Vibrant Villages:

While implementing the PM-RKVY scheme, priority should be given to Aspirational Districts and Vibrant Villages identified by the Government. States should ensure that these Aspirational Districts and Vibrant Villages, if falling in their States, should necessarily be included in the State Annual Action Plan so that more beneficiaries falling in the Aspirational Districts and Vibrant villages are covered under the Scheme

13. Timelines:

As far as possible, the following timeline will be adhered to by the Centre and States.

Communication of allocation to States by GoI	By 30 th November
AAP submission by the States with the approval of SLSC	By 31 st December
Presentation of AAP/DPR by States to PAC, DA&FW	January- February
Communication of GoI approval to States	By 30 th March
Issuance of Mother Sanction/ Release of funds	First week of April

14. Implementation of Programme Components under PMRKVY

The restructured PM-RKVY scheme has following components:

- A. DPR based component.
- B. Annual Action Plan (AAP) component.
- C. Start-up & Accelerated Fund component.

A. DPR Based Component:

This component will be implemented in a project-based mode. States/UTs will have the flexibility with the option of proposing projects related to agriculture and allied sectors (**excluding** Animal Husbandry and Fisheries) for creation of infrastructure, production growth, innovative projects etc. States may also take up projects under the scheme in Public- Private Partnership for Agriculture Value Chain Development (PPPAVCD) mode that provide additional income to farmers. A revised framework for implementing projects under PPPVCD framework has been issued separately by DA & FW.

A maximum of 30% of total outlay will be earmarked for Detailed Project Report (DPR) component including Administrative charges and Startup component. **In case of NER & Himalayan states i.e. Uttarakhand, Himachal Pradesh & UTs, the ceiling will be maximum 50 % of the total outlay.**

Inter State Allocation of Funds:

The quantum of assistance (or fund allocation) to the States will be in accordance with the parameters and respective weights as explained in **Annexure-IV**

Cost Norms:

DPR is a gap filling scheme wherein projects related to agriculture and other sectors for creation of infrastructure and innovative projects that do not fit into the template of existing schemes of DA&FW are to be proposed by the States.

Activities proposed under RKVY-DPR like creation of infrastructure and value addition linked production are generally covered under various ongoing schemes/programmes of Central Government viz. Deptt. of Agriculture and Farmers Welfare, Deptt. of Land Resources, Ministry of Water Resources, Ministry of Food Processing Industries, Ministry of New & Renewable Energy, Ministry of Rural Development etc.

- Technical requirements/standards and financial norms (cost norms and pattern of assistance) etc. specified for these schemes will also be applicable for RKVY-DPR.
- In the absence of such criterion in respect of any component in Central Plan Scheme, norms and conditions prescribed by respective State Governments for their schemes may be applied.
- In cases where no Central / State Govt. norms are available, a certificate of reasonableness of the proposed project will in variably be given by SLSC.

For infrastructure and assets projects, 100% assistance will be provided if these are to be executed by public sector through PPPAVCD mode. In case of projects taken by Private sector under PPPAVCD, the assistance will be 50% & 25% for infrastructure projects and production oriented projects respectively. States may refrain from undertaking activities/components as illustrated in **Annexure-VI** under RKVY–DPR component.

Preparation of DPR:

DPR component of PM-RKVY will be implemented as a project-based scheme. Thus, DPRs shall have to be prepared and submitted by the states in the format given at **Annexure VII** incorporating all essential details i.e. feasibility studies, competencies of the implementing agencies, anticipated benefits (outputs/outcomes) that will flow to the farmers/ State, definite time-lines for implementation etc.

In case of large projects costing more than Rs. 25 crore, DPRs should be subjected to third party ‘techno-financial evaluation’ and circulated well in advance to concerned Central Ministries for obtaining comments/observations.

DPRs for all projects should certify that there would be no duplication of funding and/or taking up similar activities as in other Plan schemes of Central/State Government. The projects under DPR should be prepared for the following:

- i **Creation of Infrastructure and Assets:** States can establish pre and post-harvest infrastructure in agriculture and allied sectors under DPR component of RKVY. Projects will preferably emanate from State Agriculture Plan (SAP) or State Agriculture Infrastructure Development Programme (SAIDP) that States prepare for the Finance

Commission.

The Asset Building activity consists of creation of various assets like tissue culture labs, cold storage facilities, infrastructure for sorting, grading, vermin compost units, labs for production of bio control agents, soil testing labs, etc. The illustrative List of Projects that can be funded under DPR component of RKVY (Infrastructure & Assets) is given at **Annexure VIII**

While a number of infrastructure items are covered under Rural Infrastructure Development Fund (RIDF) and Viability Gap Funding (VGF) of the Ministry of Finance, DPR funds should supplement those sources and not replace them. In any case, quantum of assistance under RKVY should not exceed assistance under VGF. Recurring expenditure to the extent of human resources requirement on contractual basis and chemical components to run the testing labs will be allowed under the ceiling of 2.5% administrative expenditure

- ii **Production growth:** Under this, states can take up innovative projects that take care from production to marketing of any agriculture sector activities. An illustrative list of activities which may be taken up under DPR component for production growth is given at **Annexure IX**

B. Annual Action Plan (AAP) component:

AAP component will comprise of seven schemes i.e SH&F, PKVY, RAD, PDMC, SMAM including CRM, Agro-forestry and CDP. A minimum of 70% will be allocated for Annual Action Plan (AAP) component including Administration, Monitoring and Evaluation purposes. In case of NER & Himalayan states i.e Uttarakhand, Himachal Pradesh & UTs, the ceiling will be minimum of 50 % of the total outlay.

Detailed guidelines for implementation of these sub components are as follows.

B.1 Per Drop More Crop:

Per Drop More Crop (PDMC) focuses on enhancing water use efficiency at farm level through Micro Irrigation viz. Drip and Sprinkler irrigation systems.

B.1.1 Salient Features:

- i. Per Drop More Crop (PDMC) is a Centrally Sponsored Scheme implemented by the Department of Agriculture and Farmers Welfare (DA&FW) from the year 2015-16 to promote micro irrigation in the Country to benefit the farmer community. As a part of the restructuring/rationalization of the schemes of DA&FW, PDMC Scheme is being implemented under Rashtriya Krishi Vikas Yojana (RKVY) from the year 2022-23.
- ii. District Irrigation Plans (DIP) is the cornerstone for planning and implementation of PDMC which identifies gaps in irrigation chain after taking into consideration currently available resources and resources that would be added from ongoing schemes, both State and Central.
- iii. The Annual Action plans is to be drawn from District Irrigation Plans.
- iv. State irrigation plan focuses on cluster based approach and integrated development of different components in the irrigation chain.
- v. The scheme is to be implemented through the mechanism of Direct Benefit Transfer (DBT). Aadhaar details of the beneficiary are required to avail the benefit of the programme. Aadhaar details need to be linked through a web based registration process. States/UTs should ensure disbursement of subsidy in a time bound manner.
- vi. The scheme will be monitored through web-portal of PDMC. Physical and Financial progress achieved during the preceding month is required to be up- loaded by states

on the web-portal of PDMC.

- vii. More focus be given on promotion of micro irrigation in rainfed areas and also for water intensive/guzzling crops to minimize water requirement.
- viii. The pattern of assistance payable to the beneficiary under the micro irrigation scheme will be 55% for small and marginal farmers and 45% for other farmers.
- ix. The subsidy payable to the beneficiary will be limited to an overall ceiling of 5 hectare per beneficiary. Those beneficiaries, who have already availed subsidy benefits for his /her farm, would be eligible for subsidy again for the same land only after the end of projected life of the micro irrigation system which is 7 years.
- x. The subsidy payment will be limited to the unit costs specified in the Operational Guidelines of the scheme. 25% higher amounts will be taken into calculation of subsidy for the North Eastern, Himalayan States and UTs of JK & Ladakh and 15% higher for States with low penetration of Micro Irrigation.
- xi. Only BIS marked systems/components can be supplied under the scheme.
- xii. The registration of manufacturers/companies under the scheme will be for a period of 5 years. The registration will be open round the year. The registration will, however, be subject to satisfactory performance by the company. In case of violations, penalty provisions have been specified in the guidelines. Repeated failures will lead to de-registration of the company with the approval of SLSC.
- xiii. The company will provide free service after sales to the beneficiary for a period of at least three years from the date of installation of the system. If it fails to provide free after sales service, action as appropriate similar to other consumer products may be initiated.
- xiv. In case the company intends to supply imported components, it shall be eligible for subsidy under the scheme subject to indigenization of manufacturing of the component within the country in a period of two years.
- xv. Human resource development is an important component of the scheme and suitable provisions have been made in the guidelines for creating awareness, organizing training programs, Skill development and exposure visits etc.

B.1.2 Institutional Architecture

Per Drop More Crop will have the following institutional structure.

National Stewardship Council (NSC): National Stewardship Council(NSC)under the Chairmanship of Secretary (DA&FW) with the following members will be constituted to provide strategic direction for guidance and planning for effective implementation of the scheme;

S. No.	Designation	
1	Secretary, Department of Agriculture & Farmers Welfare	Chairman
2	Additional Secretary & Financial Advisor	Member
3	Additional Secretary, DA&FW	Member
4	Representative from Ministry of Water Resources	Member
5	Representative from Ministry of Rural Development	Member
6	Representative from Department of Agricultural Research & Education	Member
7	Representative from Department of Land Resources	Member
8	Joint Secretary (INM)	Member
9	Joint Secretary (Crops)	Member
10	Joint Secretary (RKVY)	Member
11	Technical Expert of National Rainfed Area Authority (NRAA)	Member
12	Director, Water Technology Center (WTC), ICAR	Member
13	Horticulture Commissioner	Member
14	Joint Secretary (NRM & RFS)	Member Secretary

Representative from three State Implementing Departments/Agencies; One representative from Precision Farming Development Centres (PFDC); One Micro Irrigation System Manufacturer/Industry; President/Representative of the Irrigation Association of India(IAI) and representative from two FPOs/farmers' cooperatives may be invited as special invitees.

Inter Departmental Working Group (IDWG): At the State level, under the Chairmanship

of Agriculture Production Commissioner/ Development Commissioner with Secretaries of line departments as members will be constituted to coordinate the planning and implementation of the scheme. States may take the advice/input of MI manufacturers by inviting representative from manufacturers/Micro Irrigation Industries /Irrigation Association of India (IAI) as special invitee in such Committees.

District Level Implementation Committee (DLIC): Under the Chairmanship of Collector/District Magistrate/CEO of Zila Parishad/ PD DRDA, Joint Director/Deputy Director of line departments in the district and progressive farmers, representative of MI industry, and leading NGO as members to oversee implementation of the scheme and inter-departmental coordination

B.1.3 District and State Irrigation Plans (DIPs & SIPs):

District Irrigation Plans (DIPs) are the cornerstone for planning and implementation of different schemes related to irrigation which will identify gaps in irrigation infrastructure after taking into consideration the District Agriculture Plans (DAPs) vis-à-vis irrigation infrastructure currently available and resources that would be added from ongoing schemes, both State and Central.

DIPs present holistic irrigation development perspective of the district outlining medium to long term development plans integrating three components viz. water sources, distribution network and water use applications.

The annual action plans for Per Drop More Crop will be drawn from DIPs and implemented in conjunction with the water sources created under convergence with other State/Central schemes.

Strategies:-

- i. Priority should be given for promoting micro irrigation technologies in rainfed areas. More focus should be given to water scarce, water stressed and critical ground water blocks/districts to conserve water and get extended coverage in terms of area and time period for life saving irrigation.
- ii. It is desirable to make potential use of the available water for sustained growth in agriculture sector. Preference should be given to adopt Micro Irrigation technology in water guzzling crops like sugarcane, cotton, banana etc. and the state implementing agencies should take suitable steps like publicity campaigns, policy provisions &

sharing responsibilities with the Micro Irrigation industry so that adoption of technology is initiated in such crops. Industry related to the specific crops like sugar factories should be actively involved in promotion of micro irrigation to their farmers through incentivisation and technical supervision. Apart from horticulture and water guzzling crops, cereals and pulses may also be brought under the ambit of Micro irrigation.

- iii. In all the new irrigation commands where hydraulic heads are available, drip irrigation systems need to be encouraged as it can be operated without additional energy support.
- iv. Facilities of micro irrigation is under utilized if it is not used for fertigation. States should encourage the use of liquid fertilizers using micro irrigation systems. Availability of liquid fertilisers, awareness among farmers on the benefits of fertigation need to be given desired attention for promoting fertigation.
- v. Efforts may be made for integration of micro irrigation with solar pumping units. A solar water pump has a mini power house at its heart and consists of a calibrated and matching solar array of modules – tuned with the equivalent power of pump for that particular application. The solar water pumping system is capable of running all types of electrical water pumps with applications varying from irrigation to household demands. Irrigation pumps such as submersible, surface or deep well can also be coupled with drip irrigation systems to enhance the returns from this configuration. A 2000 Watt Peak (WP) solar water pump is capable of drawing and pumping approximately 80,000 litres of water per day from a source that is up to 10 meters deep. This is sufficient to irrigate about 1 ha of land with regular crops.
- vi. The available water sources or the new sources those are being created need to be used in best possible manner to fulfil the vision of “Har Khet Ko Pani” through efficient water conservation (Jal Sanchaya) and water management (Jal Sinchan) practices. It is, in this context, more vital to link most of the water sources with micro irrigation to get extended coverage for a longer duration.
- vii. PDMC focuses on micro irrigation for enhancing water use efficiency. States may take up sources creation activities as Other Interventions (OI) under the scheme and must be linked with Micro Irrigation to make potential use of the available funds for higher water use efficiency. These activities should be based on actual requirement and as per the needs of the farmer who adopts the Micro irrigation system.
- viii. The amount for OI activities must be restricted to 20% of the total allocation for States/UTs and 40% for North East States, Himalayan States & UTs of Jammu Kashmir

and Ladakh.

- ix. Assistance for installation of micro irrigation system is limited to five hectares per beneficiary. The land holding of a beneficiary to be covered under drip/sprinkler system could be located in one contiguous area or at different locations, but the financial assistance will be limited to the overall ceiling of five ha.
- x. Those beneficiaries, who have already availed subsidy benefits for his /her farm, can not avail the assistance for the next seven years. A beneficiary if availed the benefit of subsidy for micro irrigation for a particular farm would be eligible for subsidy again for the same land only after the end of projected life of the micro irrigation system which is seven years. However, the beneficiary may be allowed to avail effective differential subsidy in case he intends to install Drip Irrigation System on the same plot/field from the existing Sprinkler Irrigation System at least after three years to promote crop diversification irrespective of seven years subsidy cycle.
- xi. The unit cost/BoQs of the MI systems given in the Guidelines are indicative. The beneficiary will be allowed to opt to make his choice for items/components etc. In case any deviation from the BoQ, the differential cost shall be borne by the beneficiary subject to ceiling of unit cost.
- xii. Sometimes beneficiaries may not be able to contribute the requisite amount to adopt micro irrigation technologies. States/UTs may involve financial institutions like NBFC/Bank/NABARD to fill the upfront credit gap faced by the farmers for micro-irrigation adoption. States may facilitate credit facility to farmers (such as enabling subsidy component as State guarantee).
- xiii. In view of the continuous modernization of agriculture resulting into evolving ways to improve productivity and sustainability, crops spacings keeps on changing. Financial assistance for installation of Micro irrigation systems will be based the indicative cost of MI systems for different spacings and plot sizes provided in the guidelines. In case of crops with plant spacing other than those mentioned in the Guidelines, the amount of assistance could be calculated on pro rata/average basis of the nearest plant area.
- xiv. Beneficiaries/Institutions that have opted for contract farming or taken land on lease are also eligible for obtaining financial assistance under the scheme. However, to become eligible, the beneficiary/institution shall have to produce lease agreement for a minimum period of 7 years from the date of approval of application by the MI implementing agency.
- xv. ICAR, PFDCs, CIPET, ATMA etc. may be involved in planning, implementation,

demonstration, training and evaluation under the scheme. The implementing agency at the district level will ensure convergence of activities under the programme with the activities of various departments on water management to get the desired output.

- xvi. Raw material price of polymers & other costs varies a lot because of fluctuation in national/international prices. Accordingly, periodic review of pricing may be carried out by the DA&FW, GoI.
- xvii. States must include all Aspirational Districts identified by NITI Aayog in their Annual Action Plan (AAP) for coverage of Micro Irrigation under the Scheme in these Districts. Further, priority may be given to Namami Gange Districts/Gram Panchayats (GPs) along the stretch of river Ganga basin to be included in AAP for Micro Irrigation coverage.
- xviii. Climate Change is known to have adverse impact on agriculture. Irrigation has been an effective tool in addressing climatic aberrations like drought, heat wave causing that is responsible for enormous loss to agriculture. States/UTs must ensure coverage of MI in dark zones and climatically vulnerable areas. The MI coverage should also be given priority to the areas under NICRA program of ICAR- CRIDA to promote climate resilient technologies.
- xix. Micro Irrigation is an important component of various Centrally Sponsored Schemes, such as, National Mission of Edible Oils – Oilseeds (NMEO-OS), MIDH, NFSM, NMEO-OP. States/UTs should ensure that installation of Micro Irrigations systems under these schemes be dovetailed with PDMC. The Annual Action Plan must be prepared accordingly and progress of Micro Irrigation activity to be reported under the PDMC scheme.
- xx. States may encourage Automation in the Micro Irrigation Systems for ease of operation with minimal or no manual intervention thereby achieving greater efficient use of Micro Irrigation Systems by the beneficiaries. The Automation unit may be linked with solar energy wherever possible at the farm. It is desirable that States should target 5% of Micro Irrigation coverage under the scheme with Automation. The cost of automation may vary with the type of Automation adopted by the beneficiary. For adoption of Automation in the Micro Irrigation system under the scheme, the financial assistance to the beneficiary will be restricted on the existing rate of subsidy to the indicative cost of Rs. 40000/ha.
- xxi. Preference for installation of micro irrigation will be given to farmers adopting crop diversification to enhance the production and their income substantially.

- xxii. The Guidelines for implementation of Pradhan Mantri Kisan Urja Suraksha evam Utthan Mahabhiyan (PM KUSUM) Scheme, Ministry of New and Renewable Energy gives preference to farmers using Micro irrigation systems. Accordingly, PDMC should be converged with PM-KUSUM for promoting use of solar energy with MI systems. States/UTs to ensure that all solar pump beneficiaries under PM-KUSUM adopt micro irrigation system.
- xxiii. The Atal Bhujal Yojana (ABY) focuses on sustainable management of ground water through participatory approach. The PDMC Scheme may be converged with ABY to achieve the objectives of the schemes.
- xxiv. The Guidelines for New Generation Watershed Development Projects (WDC-PMKSY 2.0) envisage convergence of watershed projects with PDMC. Accordingly, priority may be given to areas under WDC-PMKSY 2.0 to integrate activities, particularly, creation of water sources with that of micro irrigation. Similarly, water sources created under MGNREGS may be integrated with micro irrigation for their potential use.
- xxv. Department of Water Resources, River Development & GR is implementing Command Area Development & Water Management (CADWM) program. CADWM envisages the modernization of Irrigation Command Area i.e. providing Pressurized Piped Irrigation Command (PPIC) for use of Surface Water combined with other sources of water which provides network of established water source to farm gate for farmer to adopt micro irrigation in the farm to improve the Water use Efficiency at farm level. The States/UTs must ensure that the source/infrastructure created under the scheme shall be utilized for Micro Irrigation in coordination with WRD/CAD agencies. CADWM program shall be dovetailed with PDMC and it shall be ensured that Water user Societies covered under modernized CADWM program should be necessarily part of PDMC for adoption of MI systems. Such convergence shall make it possible to aggregate large areas under micro irrigation which enable better implementation, cost effective, maintenance & services and better market linkage of produce.
- xxvi. States/UTs should facilitate the beneficiary of PDMC scheme to avail Soil Health Card and Kisan Credit Card under the respective programs.

B.1.4 Cluster Approach:

- i. States/UTs should prioritize implementation of MI through Cluster approach to have effective integration of sources, connectivity, distribution and application. The size of cluster may be 50 ha. & above in mainland states and 20 ha. in NE & hilly states. Water

User Associations/Groups, Farmer Producer Organizations, Cooperative societies, Self-Help Groups, Growers' Associations etc. shall be encouraged to adopt Micro Irrigation in a cluster. In such cases the beneficiary will be entitled to avail financial assistance through their respective organizations / bodies. The total financial assistance available to the individual beneficiary in the group would be 55% under the scheme. The land holding of the beneficiary should be located in one contiguous area. Such farmers groups/organizations may be allowed to avail an administrative/institutional charges @ 3% of the cost of the Cluster.

- ii. The States/UTs may encourage FPOs to take up micro irrigation at community level. States/UTs may ensure at least 5% micro irrigation target is implemented through FPOs.
- iii. States/UTs may enable such farmers' groups to access capital from NBFC/Bank/NABARD so that such cluster implementation could be taken up through banks with Joint Liability Group (JLG).

B.1.5 Public Private Partnership (PPP-MI) approach:

States/UTs may take up projects with PPP mode of implementation. Public Private Partnership (PPP) approach in Project mode may be an important step for increasing MI coverage for the benefit of farming community. State Governments/UTs may take up projects in PPP approach involving farmer groups, private partners and concerned Departments in the State. Such projects should focus on improving water use efficiency, productivity, income of farmers, access to market and positive environment outcomes.

Rationale:

Judicious use of water is important to expand the agricultural area under irrigation. Micro irrigation promotes adopting optimum cropping pattern and efficient water application, that utilizes available water resources in an efficient manner. Saving of water will not only help in extending irrigation coverage but also in enhancing productivity and improving farmland ecosystem. The water use efficiency in irrigated areas as well as non-irrigated areas is presently at low level. In future there could be huge stress on water availability for agriculture as a result of negative impact of climate change. Very few farmers in irrigated commands are adopting micro irrigation system. Micro-irrigation system is cost intensive and technical with maintenance requirements. Capital investment in agriculture is still largely insufficient. Micro

irrigation penetration to small and marginal farmers especially in most rural areas is still lagging. There is also a need to ensure equitable access of water availability to tail end farmers. Better market linkage opportunities of farm produce would help in enhancing farmers income. In this regard, collaborative efforts between the Government and Private partners in promotion of micro irrigation shall open new opportunities for the benefit of the farming community.

Strategy of PPP- Micro Irrigation:

- i. Public Private Partnership for integrated Project on Micro Irrigation can be executed through an agreement between State Government and private partners. The arrangement would involve a whole-lifecycle with a predetermined period where the private partners can extend support for both implementation (installation, construction etc.) and operation of the MI systems.
- ii. State /UT Governments may prepare projects involving Corporate/Private Partners/Other Entities, farmers groups and concerned Institutions/ Departments in the State. Under the project, allowed activities of PDMC scheme may be taken up through the scheme following the operational Guidelines. The other activities of the project would be converged from other schemes/investments from entities of the project. The proposals shall clearly indicate the interventions being made by the entities, the scale of the project, approx. number of farmers involved and the expected outcomes in terms of farmers benefits.
- iii. Various Agri retail business companies may be involved for facilitating market linkages of farm produce in the project area.
- iv. The aim is to set up PPP based projects wherein entities (eg. FPO/ Farmers Groups, Private Companies, Concerned Departments of the State etc.) may invest in creation of Common Infrastructure i.e. Water sources, pressurized pipe networks till farm end gate from canal /reservoir along with sumps/storages, lifting/pumping facility and the on-farm Micro irrigation system. Convergence with various related Government schemes may be made for effective utilization of available resources in the project area. Corporate/Industries shall be encouraged to participate in the project through their Corporate Social Responsibilities (CSR) outreach.
- v. The PDMC scheme would be dovetailed with such PPP projects.
- vi. Project document will have clearly marked out convergence of other Centrally Sponsored

Schemes of Ministries as well as State Schemes.

- vii. Transparency of complementary investments of non-Government entities and visibility of public-domain infrastructure created shall be ensured.
- viii. IT based solutions, use of advanced technologies of Micro Irrigation such as solar energy, Automation, use of AI, IoT etc. should be given priority for effective implementation & monitoring. Technologies that are complimentary to micro irrigation in reducing water losses or evaporation, improve soil water holding capacity etc. should be promoted along with MI.
- ix. PPP projects should explore carbon market potential which will deliver additional income to farmers.

Procedure for Implementation:

- i. The project on PPP should include information on geography & climate, potential of agriculture development, available irrigation infrastructure, potential for micro irrigation, strategy for development and plan of action proposed to be taken. The document should focus on adoption of aggregation/cluster approach for coverage of micro irrigation and linking with available infrastructure, or to be created. Willingness of the farmers to be a part of the proposed project should also be included.
- ii. The project should reflect the whole-lifecycle with a predetermined period. The project shall clearly indicate the interventions/responsibilities/role of the entities, the scale of the project, approx. number of farmers involved and the expected outcomes in terms of farmers benefits and the way forward.
- iii. Growers/farmers/farmers group under the project would be entitled for assistance under other schemes of DA&FW/other Departments. The project implementing agency or the private partner should collect the data and required documentations of all farmers in the project and facilitate to access the assistance available under the PDMC scheme.
- iv. The State Nodal Department/Agency of PDMC of the State may call for proposals from entities interested in carrying out the project and short list them based on applicant's experience. State can set up a committee to select and finalize the projects.
- v. Proposals shall be submitted to State Governments. The State Government will examine the project proposal from the viewpoint of suitability to need of the area. If found suitable, the proposal should be included in the Annual Action Plan of the State to be submit by

the SLSC to DA&FW for approval.

Operational Aspects:

- i. The Implementing Agency need to widely publicize the importance of the scheme at block and village levels through its existing networks to create awareness among the farmers. Organize District Level Seminars/Workshops involving MI Manufactures/Companies. Further, the State Agriculture Extension Units should organize camps and Trainings in collaboration with MI Manufactures/Companies to explain system components and their functions, type of micro irrigation for crop, post installation services and frequency of maintenance etc. Trainings/camps to target the family, not individual beneficiary. The MI manufacturer / company may provide irrigation schedule to farmers, make efforts for linkage to agronomic practices.
- ii. Dedicated Implementing Agency/Special Purpose Vehicle (SPV): States/UTs with good micro irrigation coverage have shown that dedicated Implementing Agency/Special Purpose Vehicle (SPV) can accelerate the scheme success with overall efficiency. Therefore, States/UTs should setup a dedicated Implementing Agency/Special Purpose Vehicle (SPV) at the state level with dedicated manpower to ensure that the needed attention is given in the implementation of the scheme.
- iii. Dedicated portal for implementation: States having dedicated portal for implementation have performed better with high level of transparency. Hence, all States/UTs should develop their own portal dedicated for the implementation of the scheme. Government of India will also develop a reference portal for use of States. States using its own portals should make data available to the Government of India portal through APIs.
- iv. All level of implementation including receipt of applications, work order, work completion, verification, payment release, monitoring, feedback etc. shall be captured by the State portal developed for the purpose. Also, the Portal should have online workflow, mapping all levels of implementation to ensure effective monitoring.
- v. The States/UTs shall adopt bio-metric/facial authentication enabled Aadhar based registration of applicant developed by DA&FW. The details of the applicant, such as, Name, Gender, Date of Birth, Identifier Name (Father/Spouse Name), etc should be captured as per the Aadhare KYC. The assistance should be transferred to the Aadhar seeded and DBT enabled active bank account of the beneficiary through DBT. In case it is given in kind through Companies, the intimation should be conveyed as SMS to the beneficiary on his mobile phone with details of assistance. The States/UTs should ensure

that disbursement of subsidy is made a time bound activity.

- vi. All land based interventions should be Geo Tagged/Geo Fenced. Krishi Mapper/Mobile App developed by DA&FW shall be used for Geo Tagging/Geo Fencing of farmers' field. The data captured by the App will automatically link with the State MIS portal through API.
- vii. The State Implementing Agency will engage Third Party Inspection Agencies (TPIAs) for conducting inspection/physical verification of the installed Micro Irrigation Systems at every farmer field. The installed site will be verified by these agencies for material supplied and also conduct Trial Run at the site. TPIAs should capture and upload photographs/videos/report of the MI installation at site which should be made available in the State portal. States/UTs should ensure timely installation and third party verification of MI installation. The Implementing Agencies must complete the timely inspection/physical inspection of the MI systems to avoid delay. Ideally, the physical inspection should be completed within 60 days of installation. Due penalty should be imposed on supplier if any delay in installation is observed. States/UTs must also ensure timely release of subsidy/top-up to the beneficiaries.
- viii. All scheme related information including progress and achievements should be captured by State portal which may be integrated with the National portal through API to ensure seamless flow of information.
- ix. The beneficiary shall be free to choose MI equipment from any MI manufacturer out of the approved list of registered manufacturers and also to choose the type of MI system to be installed as per the system design compatible with his/her cropping pattern.
- x. The State Implementing Agency/ SPV should conduct inspections at the factory site of the Supplier(s) through Third Party technical agencies such as Central Institute of Plastics Engineering and Technology (CIPET), ICAR Institutes, State Agriculture Universities etc. However, if any State/UT has already conducted such inspection of a supplier, the inspection report (of the supplier) may be considered by other States/UTs also.
- xi. All the Micro Irrigation Systems will be QR Coded. The QR code of the system will be linked to Unique application no./Sanction ID of the farmer on installation of the system.
- xii. The MI manufacturer/supplier should necessarily generate e-invoice for micro irrigation system supplied with details of all its components and the e-invoice shall be captured by the State Portal.
- xiii. A module/hand book may be devised by the Implementing Agency/SPV for the benefit of the farmers with basket of services which includes Farmer Education & Training

(Agronomy services), maintenance & operating Micro Irrigation Systems etc.

- xiv. The MI supplier Agency should provide necessary services to farmers after installation trial run of the system for at least three years free of cost. The List of service centers/offices/offices of authorized distributors with full address/telephone numbers/e-mail should be widely published (Inspection/repair/replacement).
- xv. A toll free customer care number will be provided by the State implementing agency for providing information related to Micro Irrigation Systems. Also grievance redressal and feedback system of the beneficiaries should be provided.
- xvi. To ensure strict adherence to quality standards in the use of MIS Components, the Implementing Agency of the State will ensure the BIS standards of supplied equipment.
- xvii. States to develop modules on several aspects; fertigation schedule, acid treatment, issue of salts/salinity in water, linkage to agronomic practices, selection of the right system etc. Further, States to conduct trainings and best practices demonstrations for the beneficiaries as well as officials/staff for better learning.

B.1.6 Drip Irrigation System for states where it has been well accepted by farmers and good infrastructure is available

- i. The scheme is well accepted by the farmers and substantial coverage has been made under micro irrigation system compared to other parts of the country with required infrastructure and service facilities in the States namely Andhra Pradesh, Delhi, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu and Telangana. These states are considered to be category “A” States with comparatively better penetration of micro irrigation technologies.
- ii. Drip Irrigation technology involves irrigating root zone through emitters fitted on a lateral tube as well as inserted within the tubing as emitting pipe. The use of different emitters will depend upon specific requirements, which may vary from crop to crop.
- iii. Fertigation is important for getting maximum benefits out of the micro irrigation technology. Therefore, it is mandatory to use a fertigation device by the farmers such as venturi injector or fertilizer tank on which the subsidy is available.
- iv. Water requirement, age of plant, plant to plant spacing, soil type, water quality and availability etc are some of the factors which decide the choice of emitting system. The indicative cost of drip irrigation systems (assuming peak water requirement with source of water at the corner of plot), for different lateral spacing and plot sizes has been

provided in the guidelines. An indicative list of system components required for installing a drip irrigation system in the areas ranging from 0.2 ha to 5 ha is at **Annexure-XIII(a to g)**, on the basis of which subsidy will be calculated as per Table 1:

Table 1: Indicative cost of Drip Irrigation System for calculation of subsidy

(Cost in Rs.)

Spacing (mxm)	0.2 ha	0.4 ha	1 ha	2 ha	3 ha	4 ha	5 ha
12x12	10526	18009	24586	39098	60704	75521	96166
10x10	10854	18652	26181	42226	65487	82025	104292
9x9	11091	19114	27304	44469	68853	86606	110024
8x8	11330	19711	28777	47314	73272	92615	117529
6x6	12400	21693	34687	57987	93688	113618	142566
5x5	13144	23486	39378	67199	97110	123409	165815
4x4	14602	24326	41534	72799	113560	148684	176964
3x3	15792	26190	47751	82654	127306	160103	200455
2.5x2.5	19516	35393	68234	124216	189724	266274	325233
2x2	23932	41303	83085	161263	234280	325469	399494
1.5x1.5	28106	46995	97245	185324	276767	382246	470306
2.5x0.6	20201	35000	71733	131824	201464	279770	343433
1.8x0.6	24569	42992	91560	173298	260868	355323	442484
1.5x0.6	28003	50116	109531	207860	313909	425189	530905
1.2x0.6 (or lower spacing)	31436	57241	127501	242422	366950	495055	619326

v. In case of crops with plant spacing other than those mentioned in above table, the amount of assistance could be calculated on pro rata/average basis of the nearest plant area (Row to row x plant to plant spacing in metre). The example is given below.

a. If a subsidy has to be calculated for 1.5 x 1.5m spacing i.e. between 1.0 ha (₹97245) and 2.0 ha (₹185324), the cost would be: ₹97245 + [(₹185324-₹97245) / (2.0 ha-1.0ha) x (1.5ha-1.0ha)].

b. If a subsidy has to be calculated for 1.0 ha and 3.5 x 3.5m spacing i.e. between 4.0x4.0m (₹41534) and 3.0x3.0m (₹47751) the cost would be: ₹41534+[(₹47751-₹41534)/(4.0x4.0-3.0x3.0)X(4.0x4.0-3.5x3.5)].

vi. The unit cost of Drip Irrigation system varies with respect to plant spacing and location of the water source. The farmer can avail other interventions as per **Annexure XIII (a-n)** as per specific requirement of the field in which micro- irrigation system is to be

installed.

- vii. Assistance under the scheme is available for all types of drip irrigation systems such as on-line & in-line drip irrigation systems.
- viii. As small farm holdings may not have individual source of water, it would be preferable to encourage a group of farmers to avail the benefits of drip irrigation through a common water source.
- ix. A beneficiary having farms located at different places and having different water source may avail the subsidy as per the guidelines. However, a beneficiary cannot split area at one location into small pockets of the same crop for claiming assistance under the scheme. If a beneficiary has more than one crop with different crop spacing being grown separately in his/her land holding, assistance will be available for installing the drip irrigation system as per the individual crop spacing, the combined area of which will not exceed 5 ha per beneficiary.
- x. In case of inter-cropping, assistance will be available for the prescribed plant spacing/ area, subject to the condition that the assistance will be provided only for one crop as per the farmers' choice.

B.1.7 Drip Irrigation System in states with low penetration

Based on the prevailing coverage and acceptance by farmers, states namely Bihar, Chhattisgarh, Jharkhand, Odisha, Uttar Pradesh, West Bengal, Goa, Punjab and Union Territories have been identified as states with low penetration of micro irrigation technology. These states are considered as category “B” in terms of implementation of micro irrigation. The cost of drip system is likely to be higher in these states due to various factors such as lesser presence of manufacturing companies in these states leading to higher cost of transportation, the companies will have to make considerable efforts in making the farmers ready for adoption of technology, and higher cost involved in providing after sales service in these states etc. Thus, 15% higher cost has been taken in consideration while working out the unit cost of drip system in the table below for these states for the purpose of subsidy calculation as per indicative list of system components given at **Annexure XIII(a - n)**

Table 2: Indicative cost of Drip Irrigation System for calculation of subsidy in the states where penetration level is low (Cost in Rs.)

Spacing (mxm)	0.2 ha	0.4 ha	1 ha	2 ha	3 ha	4 ha	5 ha
12x12	12105	20710	28274	44962	69810	86849	110591
10x10	12482	21450	30109	48560	75310	94329	119935
9x9	12755	21981	31399	51139	79181	99597	126527
8x8	13030	22667	33094	54412	84263	106507	135159
6x6	14260	24947	39890	66685	107741	130661	163951
5x5	15115	27009	45285	77279	111676	141921	190687
4x4	16792	27975	47765	83719	130594	170987	203508
3x3	18161	30119	54913	95052	146402	184119	230523
2.5x2.5	22444	40702	78469	142848	218183	306215	374018
2x2	27522	47498	95547	185453	269421	374289	459418
1.5x1.5	32322	54044	111832	213122	318282	439583	540852
2.5x0.6	23231	40250	82493	151597	231684	321735	394948
1.8x0.6	28255	49441	105295	199293	299998	408621	508857
1.5x0.6	32203	57634	125960	239039	360995	488967	610541
1.2x0.6 (or lower spacing)	36151	65827	146626	278786	421992	569313	712224

- i. In case of crops with plant spacing other than those mentioned in above table, the amount of assistance could be calculated on pro rata/average basis of the nearest plant area (Row to row x plant to plant spacing in metres) similar to example given in 9.5.
- ii. The assistance will be available for all types of drip irrigation systems; on- line and in-line drip irrigation systems.
- iii. In case of inter-cropping, assistance will be available for the prescribed plant spacing/area, subject to the condition that the assistance will be provided only for one crop as per the farmers' choice.

B.1.8 Drip Irrigation System for North Eastern and Himalayan States

The coverage of MI system in North Eastern and hilly region is much low due to poor infrastructure and difficult terrain. The states namely Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, Sikkim, Jammu & Kashmir, Himachal Pradesh and Uttarakhand are considered under category "C". In the Hilly states, following points need to be kept in mind while designing a drip irrigation system keeping in view the sloppy and terraced land:

- i It is difficult to lay PVC main and sub-main lines below the ground surface and therefore HDPE pipes are required in place of PVC.

- ii The undulating and vertical slopes would lead to comparatively larger length of pipes.
- iii To maintain uniform pressure and to irrigate upper most terrace of land, control valve should be provided at sub-main/main lines at 4m vertical drop. Accordingly, the number of flush valves will also increase.

The cost of drip system is likely to be higher in North Eastern & Himalayan states because of the terrain, higher transport cost, lesser presence of manufacturing companies etc. Therefore, unit cost of micro irrigation systems is taken 25% higher in these states for the purpose of subsidy calculations and is given in table below (including 25%) for the indicative list of system components is at **Annexure XIII (a - n)**

Table 3: Unit cost for NE&H states

(Cost in Rs.)

Spacing (mxm)	0.2 ha	0.4 ha	1 ha	2 ha	3 ha	4 ha	5 ha
12x12	13157	22511	30733	48872	75881	94402	120207
10x10	13567	23315	32727	52783	81859	102531	130365
9x9	13864	23893	34130	55586	86066	108258	137530
8x8	14163	24638	35971	59143	91590	115768	146912
6x6	15500	27116	43358	72484	117110	142023	178207
5x5	16430	29357	49223	83999	121387	154262	207269
4x4	18252	30408	51918	90999	141950	185855	221205
3x3	19740	32738	59688	103318	159132	200129	250569
2.5x2.5	24395	44242	85292	155270	237156	332842	406542
2x2	29915	51628	103856	201579	292849	406836	499367
1.5x1.5	35132	58744	121556	231655	345959	477807	587883
2.5x0.6	25251	43750	89666	164780	251830	349712	429292
1.8x0.6	30712	53740	114451	216622	326085	444153	553106
1.5x0.6	35003	62645	136914	259825	392386	531486	663631
1.2x0.6 (or lower spacing)	39295	71551	159377	303028	458687	618819	774157

In case of crops with plant spacing other than those mentioned in above table, the amount of assistance could be calculated on pro rata/average basis of the nearest plant area (Row to row x plant to plant spacing in metres) similar to example given in 9.5.

B.1.9 Sprinkler Irrigation

- i. In sprinkler irrigation, water is discharged under pressure in the air through a set of nozzles attached to a network of High Density Poly Ethylene (HDPE) pipes,

simulating the rainfall. Sprinkler irrigation systems are suitable for irrigating crops where the plant density is very high. It is widely used for cereals; pulses; seeds; spices; and field crops.

- ii. Financial assistance would be restricted as per the cost of High Density Poly Ethylene (HDPE) pipes used in sprinkler irrigation systems, even though, the beneficiaries may use aluminum pipes as well. The sprinkler irrigation systems may be portable, mini sprinklers, micro sprinklers, semi-permanent sprinklers and large volume sprinkler systems (Rain-guns). Additional 25% and 15% on the indicated unit cost may be considered for calculation of subsidy for Hilly states including NE region and low penetrating State respectively.

B.1.10 Portable Sprinkler Irrigation System

- i. In portable sprinkler irrigation systems the HDPE pipes are used for mains and sub-mains which can be shifted from one place to another as per the irrigation schedule with respect to design layout. These can be used in both, plains as well as in undulating terrains.
- ii. The indicative number of components required for various area range of sprinkler irrigation system is annexed. Financial assistance will be provided based on the number of pipes procured by the beneficiary for the area under reference. An indicative list of system components required for installing portable sprinkler irrigation system is at **Annexure-XIV** on the basis of which subsidy will be calculated. The indicative cost for various area ranges and pipe sizes is given below in Table 4 below:

Table 4: Indicative Cost of Portable Sprinkler Irrigation System

(Cost in Rs.)

Area	Pipe Dia.(mm)		
	63	75	90
Upto0.4ha	13211	NA	NA
1ha	21588	24194	0
2ha	31167	34657	0
3ha	NA	NA	46779
4ha	NA	NA	58995
5ha	NA	NA	66789

Note: i) In case of area other than those mentioned in above table, the amount of assistance could be calculated on pro rata/average basis of the nearest area.

ii) In case of low penetrating states and hilly states including NE region, 15% and 25% higher indicative cost respectively may be taken for calculation of subsidy.

B.1.11 Micro Sprinklers

- i. Micro Sprinklers are mostly used for irrigating leafy vegetables, nurseries, hardening of seedlings and a few vegetables. Apart from providing irrigation, the micro sprinkler also helps in changing the micro climatic conditions near the plant. Micro sprinklers are low radius sprinklers. The selection of micro sprinklers depends on the type of crop, soil, types etc.
- ii. An indicative list of system components required for installing a micro sprinkler system is at **Annexure-XV**. The indicative cost of Micro Sprinkler irrigation system at different lateral spacing & area is given in **Table5**:

Table 5: Indicative Cost of Micro Sprinkler Irrigation System

(Cost in Rs.)

Area(ha)	Spacing(mxm)	
	5x5	3x3
0.4	32713	38263
1	65102	74259
2	114426	133821
3	164937	191078
4	222721	263852
5	281557	321462

Note: i) In case of area other than those mentioned in above table, the amount of assistance could be calculated on pro rata/average basis of the nearest area.

ii) In case of low penetrating states and hilly states including NE region, 15% and 25% higher indicative cost respectively may be taken for calculation of subsidy.

B.1.12 Mini Sprinklers

They are commonly used for close growing crops like groundnut, potato, onion, ginger, short statured fodder crops, etc. Mini sprinklers are also suitable for frost protection. An indicative list of system components required for installing a mini sprinkler irrigation system is enclosed at **Annexure XVI**. The indicative cost of Mini Sprinkler irrigation system at different lateral spacing and area is given below in **Table 6** below:

Table 6: Indicative Cost of Mini Sprinkler Irrigation System**(Cost in Rs.)**

Area(ha)	Spacing (mxm)	
	5x5	3x3
0.4	45694	47528
1	94134	103873
2	176766	187929
3	268422	290935
4	345497	380031
5	423236	469890

Note: i) In case of area other than those mentioned in above table, the amount of assistance could be calculated on pro rata/average basis of the nearest area.

ii) In case of low penetrating states and hilly states including NE region, 15% and 25% higher indicative cost respectively may be taken for calculation of subsidy.

B.1.13 Semi-Permanent Sprinkler Irrigation System

- In Semi-Permanent Sprinkler System, the piping network for main line and lateral lines are permanently buried with risers fitted on the lateral lines. The sprinkler nozzles are fitted on each riser pipe and can be easily shifted from one place to another to irrigate the required area in shifts as per the irrigation schedule or the crop water requirement.
- The indicative number of components required for various area ranges of semi-permanent sprinkler irrigation systems is enclosed at **Annexure XVII**
- The estimated unit cost for various area ranges is given below in Table 7 below:

Table 7: Indicative Cost of Semi-Permanent Sprinkler System

Area(Ha)	Cost(in Rs)
0.4	24919
1	40440
2	77113
3	104083
4	132997
5	161345

Note: i) In case of area other than those mentioned in above table, the amount of assistance could be calculated on pro rata/average basis of the nearest area.

ii) In case of low penetrating states and hilly states including NE region, 15% and 25% higher indicative cost respectively may be taken for calculation of subsidy.

B.1.14 Large Volume Sprinkler Irrigation System (Raingun)

- 1) Large volume sprinkler irrigation systems (Rain guns) are used where larger areas are to be covered with one or two sprinklers. These sprinklers have a discharge ranging from 10,000 lph to 32,000 lph and radius of throw from 24 m to 36 m. These systems require high pressure and high discharge pipes & pumps to operate them. These are preferred for irrigating crops spread over large areas in short time. The indicative list of components is enclosed at **Annexure XVIII**.
- 2) Pivot Irrigation system is used for a much larger area & are not suitable for the beneficiaries targeted under PDMC. However, if some beneficiary is interested, may avail financial assistance as per unit cost norms of rain-gun system. The estimated unit cost for various area is given in Table 9:

Table 9: Indicative Cost of Large Volume Sprinkler (Rain-gun)

(Cost in Rs.)

Area (Ha)	Pipe Dia.(mm)		
	63	75	90
1	31684	38127	NA
2	NA	48370	NA
3	NA	NA	62767
4	NA	NA	72751
5	NA	NA	79894

Note: i) In case of area other than those mentioned in above table, the amount of assistance could be calculated on pro rata/average basis of the nearest area.

ii) In case of low penetrating states and hilly states including NE region, 15% and 25% higher indicative cost respectively may be taken for calculation of subsidy.

B.1.15 Optional Components

- 1) The use of optional components depends upon the agro climatic conditions of the place & requirement of the beneficiary. The provision is kept to provide the said component on the then existing rate of subsidy to the beneficiary; if required & provided. These components are:
 - i. Fertilizer tank - to increase fertilizer use efficiency, fertilizer tanks have been included in the list of equipment eligible for financial assistance. The beneficiary can opt for either fertilizer tank or venturi system or automated dosing system equipment and financial assistance will be provided for either of those components.

- ii. Sand filters/media filters- to remove organic matter and inorganic contaminants from water sources like rivers, tanks and open wells. Sand/media filters have been included the financial assistance.
 - iii. Hydro Cyclone Filters/Sand Separators - to remove particles of the size of 75 microns (200 mesh) which have a higher density than water, hydro cyclone filters/sand separators have been introduced as an optional item for which financial assistance will be provided. These equipments require minimum maintenance and are useful for cleaning river water, canal water and tube well water which may contain sand.
 - iv. Drip Line Winder- for wrapping the drip laterals has been included for financial assistance.
- 2) The detailed guideline for water quality & filters selection is provided at **Annexure XX** respectively. The indicative cost of optional components such as sand filters, hydro cyclone filters and fertilizer tanks is annexed at **Annexure XXI**
- 3) States may take up sources creation -Other Interventions (OI) activities under the scheme and must be linked with Micro Irrigation to make potential use of the available funds for higher water use efficiency. These activities should be based on actual requirement and as per the needs of the farmer who adopts the Micro irrigation system. The details of eligible OI activities for financial assistance and cost Norms is provided at **Annexure XXII**
- 4) Optional items if any other than above may be allowed. However, cost of these items will be borne by the beneficiary.

B.1.16 Key Administrative requirements

- (i) The unit cost norms indicated in the guidelines for various technologies/ specifications are for the purpose of calculating subsidy ceiling amount only i.e. it can be less but not more than the indicated amount if the cost is more. The actual cost of the system, however, would vary as per design of the field and other agro climatic conditions. It is to be ensured that all compulsory system components are provided to the farmer. The BOQ given in the table is indicative & may vary case to case.
- (ii) An individual eligible to receive the benefits under the scheme is required to furnish proof of possession of Aadhaar Number or undergo Aadhaar registration. If one individual is eligible but do not possess the Aadhaar number she/he can get enrolled

visiting the Aadhaar enrolment centre. State Government/Union Territories Administration is required to offer Aadhaar registration facilities to the beneficiaries who are not enrolled and in case no Aadhaar enrolment centre is available in certain blocks/ taluka/ tehshil, the nodal department through its implementing agency is required to provide enrolment facilities at convenient locations in coordination with the Registrars of UIDAI. Till the time Aadhaar is assigned to individual, she/he can avail the benefit of the scheme on production of the following documents Aadhaar enrolment ID slip/ Copy of request for Aadhaar enrolment and Voter Identity Card/ PAN/ Passport/ Ration Card /Employee Govt. ID/Passbook of bank or post office/MGNREGS card/ Kissan photo passbook/ Driving License/ any other document as specified by State/UT.

- (iii) Aadhaar details need to be linked through a web based registration process. The assistance if given in cash, need to be transferred to the bank account of the beneficiary and in case it is given in terms of kind through Companies, the intimation be conveyed as SMS to the beneficiary mobile phone with details of assistance. It should be ensured that no eligible beneficiary suffers for want of Aadhaar and it would be the responsibility of implementing agency to ensure that Aadhaar enrolment of such beneficiaries is carried out on priority. The notification issued in this respect is given at

Annexure-XXIII

- (iv) It must be ensured that at least 50% of the allocation is utilised for small, marginal farmers of which, at-least 30% should be women beneficiaries/farmers. Further, 16.5% and 8.5% of the total allocation or in proportion of SC/ST population in the district should be utilised for Special Component Plan (SCP) & Tribal Sub Plan (TSP) respectively.
- (v) Transparency in beneficiary selection – It should be ensured that the Implementing Agency follows uniform procedures and full transparency in selection of beneficiaries and release of assistance to the beneficiaries in an efficient manner. Enlisting of the beneficiaries should be open round the year facilitating submission of applications by beneficiaries any time for availing the benefit of financial assistance under the scheme. The state implementing agency need to adopt a web based IT model for implementation of the scheme. Implementing Agency should ensure that selection of beneficiaries is done as per details included in the Annual Action Plan for the component for the year which has been derived from the DIP.

(vi) All level of implementation shall be in the State portal platform developed for the purpose. The Portal should have online workflow, mapping all levels of implementation to ensure effective monitoring.

a) Pre-installation activities

- The Implementing Agency need to widely publicize the scheme at the block and village levels through its existing networks.
- Appoint a nodal officer who is responsible for coordination of the scheme implementation with the Districts.
- Disseminate the list of suppliers and rate list approved by SLSC to the farmers.
- Organize at least one District Level Seminar/Workshop with the participation of Industry.
- Compile the application submitted by the farmers and scrutinize, codify and forward the same to the company's/Manufacturer's local office indicated by the farmer.
- The beneficiary share may be deposited with manufacturer/their representative or the state nodal agency as per the practices to be adopted by the state with the approval of SLSC.
- The beneficiary shall be free to purchase MI equipment from any MI manufacture out of the approved list of registered manufacturers.

b) The manufacturer/company will do/provide the following:

- Assess the crop water requirement as per the crop for which the system is to be provided.
- Design the system as per the crop water requirement.
- Prepare an estimate of cost and submit it to Implementing agency duly indicating the time frame in which the system will be installed in the farmer's field once work order is issued.
- The Implementing agency will approve the estimate, issue work order and ensure installation.
- Efforts will be made by the MIS Supplier to ensure coverage of MI in the water

scarce, stressed area, critical ground water districts/blocks and in potential & untapped area of the State.

c) The Company will install the system and commission it to the satisfaction of the beneficiary duly ensuring that:

- Quality components having BIS marking are installed in the farmer's field, and while making payment the implementing agency will ensure the BIS standard of supplied equipment, whichever the BIS standard exists.
- The date of manufacturing should be printed on the components as per prevailing statutory norms.
- Implementing agency will ensure that MI system installed in each field bears separate QR code.
- The installed system should match the water requirement of the crop.
- Necessary orientation and training is given to the beneficiary on the system maintenance & irrigating the crop with drip/sprinkler irrigation.
- Proper warranty and a user's manual for running & maintenance of the system - whether drip or sprinkler or both- as the case may be is provided to the beneficiary.
- A certificate towards successful installation/commissioning of the system is obtained from the beneficiary.

d) Disbursement of assistance post installation.

- Financial assistance to the beneficiary will be limited to the prescribed subsidy as per unit cost as prescribed under the guidelines or the actual Bill of Quantities (BoQ) whichever is less. On physical verification of satisfactory installation of the system & a certificate to that effect from the beneficiary, Implementing Agency will release payment to the beneficiary electronically in his/ her bank account.
- The Implementing Agency shall ensure proper invoice with statutory commercial details i.e. Serial number, GSTIN number etc. printed on it and countersigned by the authorized representative of the MI System manufacturer is issued to the beneficiary & subsidy released on the same.

- The manufacturer will install the system as per the agreement with the state nodal agency and the procedure for payment as decided by the SLSC may be adopted. Electronic mode of payment is required to be followed for most of the transactions for implementation of the programme. In case the amount is placed with manufacturers/ companies/financial institutions on behalf of beneficiary, the consent of beneficiary is required and the transaction details need to be conveyed to him over SMS immediately and subsequently in writing too.

Micro irrigation system may be insured for the period of its expected life and the premium may be borne by beneficiary/state government based on the decisions to be taken by States.

B.1.17 Registration of manufacturing companies

- i Registration of micro irrigation system manufacturers shall be done with the approval of SLSC for a period of five years. The registration will be open round the year and a company can apply at any time. Only those manufacturing companies, which have all the facilities to ensure supply of quality product as per BIS standards and can provide prompt after sales services will be registered. The registration will be subject to the satisfactory performance of the company as assessed by the state implementing agency and repeated failures will lead to the de-registration by SLSC.
- ii The companies willing to participate in the scheme should be manufacturing below mentioned components and own BIS in their name:
- iii In the case of drip irrigation, company must manufacture at least laterals and emitting devices as specified conforming to BIS standards. For online drip irrigation systems the company should be manufacturing lateral tubing as well as drippers as per BIS and for inline drip irrigation systems, the company should be a manufacturer of inline emitting pipe.
- iv In the case of portable sprinkler irrigation system the company should manufacture coupled HDPE pipes or sprinklers and should possess respective BIS.
- v In the case of other sprinkler irrigation systems viz. Mini, Micro, Semi- permanent sprinkler irrigation systems the company should manufacture either of HDPE/PVC/PE pipes/nozzles and should possess respective BIS.
- vi In the case of large volume sprinkler irrigation system (rain gun sprinklers) the

- company should manufacture HDPE pipes or nozzle and should possess respective BIS.
- vii The company must provide guarantee of quality assurance of other components which are not manufactured by them in various technologies covered under the scheme.
 - viii The company must provide free after sales service to the farmers for three years from the date of installation of system. Moreover, they should set up service centres for providing technological support at the grass root level.
 - ix The registration under the scheme should be open throughout the year to enable maximum flexibility and open participation.
 - x The company will supply only BIS marked material. The list of relevant BIS components is given at **Annexure XXIV**.
 - xi In case the company intends to supply imported components, it shall be eligible for subsidy under the scheme subjected to indigenization of manufacturing of the component within a period of two years. In case of imported equipment, the techno-economic analysis report will be provided by NCPAH after proper examination and verification and submit report to DA&FW.
 - xii The material should be supplied directly by the manufacturer or their authorized distributors/dealers. In all cases, the manufacturer should authenticate the invoices. Such manufacturers shall furnish a Bank Guarantee of quantum of which will be prescribed by SLSC valid for the period of registration.
 - xiii Each company may have its own pricing system. However, the company would be required to submit the same to the Registering Authority/SLSC at the beginning of the year and as and when the prices are revised by the company.

B.1.18 After sales services & campaigns

- i Operation and Maintenance of the system requires adequate training of beneficiaries for system operation etc. The manufacturers should have required network for providing training and after sales service in their areas of operation. The manufacturers should provide detailed operational and maintenance manual in the local vernacular language at the time of installation of the system. The beneficiaries should be advised to follow the instructions provided by the manufacturers for the operation and maintenance of drip/sprinkler irrigation systems.

- ii Service centres and / or offices of drip / sprinkler system manufacturers / authorised distributors should have facilities to provide technical guidance on system maintenance schedules, supply spare parts and ensure satisfactory performance of the system during the warranty period. The manufacturer must also operate a toll free customer care number where beneficiaries can register their complaints. List of service centres/offices/offices of authorised distributors with full address/telephone numbers/e-mail should be widely published.
- iii After sales service should be provided by the manufacturer/authorized distributor, free of cost for at least a period of three years. The company shall repair or replace any components/instruments of the MI system free of cost within warranty period, if they are found to have manufacturing defects or workmanship defects.
- iv Due to normal wear and tear, if any parts/components require repairing/replacement, the company shall supply the same and recover the cost from the beneficiary after the free period is over. The company or its authorised representatives shall provide acid/chlorine treatment to drip system once during the first year of operation of the system. However, the company should provide training to the beneficiary on this aspect to enable him to do further treatment by himself.
- v If any system manufacturer fails to provide such service, the same should be brought to the notice of district level committee and SLSC. The manufacturer would be responsible for any dispute arising from the supply of their product/component directly or through their authorised distributors/dealers. The Implementing Agency/ SLSC of each State shall evolve a process and modus operandi to redress the disputes, if any. In cases where product quality related complaints from beneficiaries are received due sampling process mentioned in the guidelines shall be followed.
- vi The SLSC may take measures against erring companies or their authorized dealers, as well as their own staff after due hearing in order to safeguard the interests of farmers/beneficiaries and to ensure effective utilization of public funds. However, before initiating any action, principle of natural justice should be followed.
- vii There could be extension campaigns by the MI companies at a centralized location having area nodal officials, farmers & other related officials. Various aspects of system maintenance, acid treatment, fertigation etc. could be covered. The technical support group NCPAH would maintain a data appropriately to monitor these activities.

viii The State agencies ensure the campaigns by companies should cover all beneficiaries under warranty period & could be as under:

More than 5000 ha area coverage in the state 6 campaigns 1000-5000 ha area coverage in the state 4 campaigns Less than 1000 ha area coverage in the state 2 campaigns

ix The States should develop a grievance redresser system for farmers with a unique toll free number to assist the farmers for their queries and after sale service. If required, Micro Irrigation installing Company may also be asked to provide a Toll Free number.

B.1.19 Violations & Penalties

- i The Central & State Governments, micro irrigation suppliers/manufacturers and other stake holders are putting in a lot of efforts for effective operations of micro irrigation systems. Any wrong operations could lead to system failure & financial loss to the beneficiary apart from loss of faith in the technology. It is, therefore, important to have well defined measures / terms for violation of norms by the stake-holders. Any violation to the quality, maintenance and other parameters need be viewed seriously. The list of violations mentioned below is not exhaustive and any other deviations, which affect the implementation of the scheme adversely may be considered by the DMIC/SLC as deemed fit for smooth functioning of the same.
- ii A due process, where show cause is issued and adequate time is allowed for response, shall be followed and the MI companies as well as the beneficiary shall be adequately heard and natural justice provided.
- iii In case of violations in respect of failure in quality control & quality assurance and to provide maintenance & after sales service, following penalties shall be imposed:
 - a) First time in a year, a warning letter may be issued to the manufacturer instructing to rectify the short coming immediately.
 - b) Second time in same year, a warning letter may be issued to the manufacturer instructing to rectify the shortcoming immediately with a penalty of 10% of invoice value.
 - c) Third time in same year, a penalty of 25% of invoice value may be charged.
 - d) Fourth time in same year, a show cause notice may be issued to the company and the case may be refer to SLSC for de-listing the company for a period of one year

or more as decided by SLSC.

- iv The violations with regard to submission of bills without installation/partial installation, wrong invoicing, variations in component specifications, submission of wrong documents with reference to pump/system discharge, improper installation, quoting higher price than approved, deviations from prescribed material specifications etc. may be dealt with by the SLSC suitably apart from initiating suitable action under the relevant sections of Indian penal code and other relevant/ appropriate statutory enactments.
- v In case of sale of the MI system to other farmers before expiry of average life of the system, for which subsidy has been claimed by the beneficiary, legal proceedings against the beneficiary as per applicable law may be initiated and the beneficiary may be blacklisted from availing any government assistance in future.

B.1.20 Quality Control

- i Crucial aspect of supply of micro irrigation systems is the quality of hardware which is delivered to the farmer. It needs to be ensured that quality components having BIS marking (wherever applicable) are installed in the beneficiary field. Poor quality has an adverse impact on performance of the system which may affect yield of the crop, quantity of water applied, quantity of fertilizer delivered to the plant etc. It may also increase energy consumption. In fact, sub-standard system will not only adversely impact performance, but could also reduce the durability and the life of the components and/or system.
- ii The SLSC shall form joint inspection teams for field inspection and frequent surveillance by inspection teams will be a regular feature under the Scheme. They will draw random samples periodically from the field, within a period of three years from the date of installation of the system. At the time of inspection, the system should be fully functional. The report should be submitted to the competent authority under SLSC for further action.
- iii While one surveillance visit per operative year shall be kept as the general norm, more or less inspections may be planned depending on the performance or specific guidelines issued by SLSC.
- iv Samples for testing should be collected jointly by the joint inspection team, state nodal official and the company representatives in triplicate and properly labelled, sealed and signed. The samples are collected for all major system components, especially pipes &

tubing. One set of samples should be sent to CIPET/BIS or any other approved product testing laboratory for testing as the SLSC may deem fit, another set is to be preserved in the custody of nodal officer and the third one is to be with the manufacturer. After collection of samples at random, they should be coded as per BIS guidelines for the purpose of security and further reference.

- v Collection of samples with batch number is mandatory. The samples may be collected from the beneficiaries' fields as well as the supply chain of the manufacturer after the product has been dispatched from the manufacturing unit.

- vi The quantity of material required for conducting the test is as detailed below:

Sl. No.	Test	Test samples required
Laterals as per IS : 12786 & Emitting Pipes as per IS : 13488		
1	Identification & composition analysis	15 meters for laterals. 50 meters emitting pipe.
2	Thickness	
3	Pressure Test	
4	Dimensions	
HDPE Pipes IS: 17425:2020		
1	Identification & composition analysis	1 mts
2	Thickness	
3	Pressure Test	
4	Dimensions	
UPVC Pipes IS: 4985		
1	Identification & composition analysis	1 mts
2	Thickness	
3	Pressure Test	
4	Dimensions	
Emitters / drippers as per IS : 13487		
1	Identification & composition analysis	50 Nos
2	Flow Rate	

- vii The expenditure towards the testing charges shall be met from the administrative charges under the scheme.

- viii The state nodal officer will do proper scrutiny of the test report provided by the testing laboratory and draw conclusion from the findings regarding conformity or otherwise of the samples under the test. After scrutiny, the details of test report and results of conformity/non-conformity shall be placed before SLSC for consideration. In case of non-conformity, SLSC may take action against the company/its authorised dealers as per penalty clause mentioned in the scheme guidelines. The SLSC shall follow principle of natural justice and the company as well as the beneficiary shall be heard before taking a

final action in the matter.

B.1.21 Human Resource Development and Media

- i Human resource development is an important component of the scheme. Under the programme training of farmers, entrepreneurs, field level workers, officers, micro irrigation technician and farm pond lining technician and trainers' training may be taken up.
- ii The financial provisions for the same would be as under:

a) Training of stake holders		
i) Within the State	Rs. 1000/day per farmer including transport	100% of the cost.
ii) Outside the State	Project based as per actual	100% of the cost.
b) Exposure visit of stake holders		
i) Outside the State	Project based as per actual	100% of the cost.
ii) Outside India	Rs. 4.00 lakh/participants	Project Based 100% of air/rail travel. Course fee cost to be funded under Mission Management
c) Study tour of technical staff/ field functionaries		
i) Within the State	Rs. 300/day per participant plus TA/DA as admissible	100% of the cost.
ii) Study tour to progressive States/units (group of minimum 5 participants)	Rs. 800/day per participant plus TA/DA as admissible	100% of the cost.
iii) Outside India	Rs. 4.00 lakh/participants	100% of air/rail travel and course fee cost to be funded under Mission Management

- iii For organization of a workshop/conference or participation in an international event the financial provision is given below. However, prior approval of DA & FW will be required for participation in international events.

International level event	Rs. 7.50 lakh per event.	100% of the cost per event of 4 days, on pro rata basis.
National level event	Rs. 5.00 lakh per event.	100% of the cost per event of two days.
State level event	Rs. 3.00 lakh per event.	100% of the cost per event of two days.
District level event	Rs. 2.00 lakh per event.	100% of the cost per event of two days.

- iv Area wise/District wise Awareness/Publicity creation - awareness creation and publicity of the micro irrigation technology will be undertaken through print and electronic media and other methods. The publicity campaigns at block/ district/state level need be undertaken by the state nodal agencies.
- v The expenses for above Human Resource Development activities and awareness programmes etc. will be met from the administrative expenses earmarked under the

scheme.

B.1.22 Pattern of Assistance: The total financial assistance available to the beneficiary under the micro irrigation scheme from both Central and State Governments would be 55% for small & marginal farmers & 45% for other farmers. The unit cost would be limited to the Indicative costs mentioned in the guidelines for various technologies and areas as given at **Annexure Nos. XIII (a - n)**. For the purpose of calculating subsidy the unit cost shall include the applicable GST.

B.2 SMAM

Agricultural machines take an important role to increase productivity with timely and precise fieldwork. To promote the usage of farm mechanization and increase the ratio of farm power to cultivable unit area the scheme will be implemented with the following strategies.

B.2.1 Strategy:

To achieve the objectives of SMAM, the following strategies will be adopted:

- Provide financial assistance to farmers for procurement of farm machinery and implements on individual ownership basis
- Establish Custom Hiring Centres of location and crop specific farm machinery and equipments.
- Promote appropriate mechanization technologies for crop production, processing, value addition and crops bi-product management by way of establishing Village Level Farm Machinery Banks in identified villages
- Promoting Agricultural Mechanization in North Eastern Region by providing appropriate agricultural mechanization technologies
- Promoting awareness on farm mechanization among stakeholders through demonstration, capacity building activities and differentiated Information, Education and Communication strategies;
- Conducting performance testing for various farm machines and equipments at the four Farm Machinery Training and Testing Institutes (FMTTIs) and authorized testing Centres.

B.2.2 Annual Action Plan Components:

The States will submit the Annual Action Plans towards the following components of SMAM. The funds sharing pattern between Centre and States/UTs will be 60:40 for the normal States, 90:10 for North Eastern and Himalayan States and 100:0 for Union Territories.

S. No.	Component	Implementing Agencies	Financial Assistance	Eligible Beneficiaries	Broad Criteria for Implementation
1	Financial assistance to farmers for procurement of farm machinery	State Governments/ UTs	(i) Financial assistance @ 50% of the cost of machine for small and	Farmers	(i) Beneficiaries will be identified by the State/district nodal agencies in

	and equipments on individual ownership basis		marginal farmers, farmers of the Scheduled Caste and Scheduled Tribe category, women farmers and farmers of the North Eastern States and Himalayan Regions. (ii) Financial assistance @ 40% of the cost of machine for all other farmers (iii) The machine-wise maximum permissible assistance is indicated in Annexure-XXV		a transparent manner. (ii) The areas of having lower level of mechanization may be focused to increase availability of appropriate region and crop specific machines.
2	Establishment of Custom Hiring Centres (CHCs)	State Governments/ UTs	(i) Financial assistance @ 40% of the project cost for the projects costing up to Rs. 250 lakhs (ii) The maximum permissible assistance per machine under the project will be the maximum permissible assistance indicated against 40% in Annexure-XXV (iii) Financial assistance to the agriculture	Rural Entrepreneurs (Rural youth and farmer as an entrepreneur), Cooperative Societies of Farmers, DAY-NRLM Self Help Groups (SHGs), Registered Farmers Societies, Farmer Producer Organizations (FPOs) and Panchayats	(i) Custom Hiring Centres of location and crop specific farm machinery and equipments, Post-Harvest Technology and Value addition machinery and precision farming technologies including Kisan Drones will be established in the districts identified for implementation in the State AAP.

			graduate for establishment of Kisan Drone CHCs will be @ 50% of the basic cost of agricultural drone and its attachments or Rs. 5.00 lakhs, whichever is less. (iv) The CHCs will be established under the model of Credit Linked Back Ended Capital Subsidy as per the broad guidelines indicated in Annexure-XXVI		(ii) The districts in State AAP will include villages having low farm power availability and large area under small and marginal holdings. (iii) Any business model including the PPP models may be adopted for expanding the reach of mechanization through CHCs. (iv) It will be necessary to maintain, upgrade the CHCs from time to time (v) From within the allocations made by the States towards CHCs/Hi-Tech Hubs, an allocation of 10% of the funds shall be earmarked towards SHGs under DAY-NRLM through State Rural Livelihood Mission (SRLM) and through Agriculture Department of the respective States. (vi) For Kisan Drone CHCs, the beneficiary should have passed his tenth examination or its equivalent from a

					recognized Board and should have a trained drone pilot for operation of drone.
3	Establishing Village Level Farm Machinery Banks (FMBs)	State Governments	(i) Financial assistance @ 80% of the project cost for the projects costing up to Rs. 30.00 lakhs/project. (ii) The beneficiaries may take up the projects costing more than Rs. 30 lakhs. In such cases, the maximum permissible financial assistance will be restricted to Rs. 24 lakhs/project. (iii) The maximum permissible financial assistance on individual machines under the farm machinery projects may be arrived by doubling the maximum permissible subsidy of 40% as indicated in Annexure-XXV (iv) The FMBs with the project cost above Rs. 10 lakhs will be established under the	Cooperative Societies of Farmers, Registered Farmer Societies, Self Help Groups, FPOs and Panchayats	(i) The Farm Machinery Banks may be established in the Villages having low level of mechanization and preferably in the most vulnerable rainfed districts identified for priority treatment indicated in the Report, “Prioritization of Districts for Development Planning in India – A Composite Index based Approach”. The villages under Aspirational Districts should also be given preference. (ii) From within the allocations made by the States towards FMBs, an allocation of 10% of the funds may be earmarked towards SHGs through State Rural Livelihood Mission (SRLM) and through Agriculture

			model of Credit Linked Back Ended Capital Subsidy as per the broad guidelines indicated in Annexure-XXVI		Department of the respective States. (iii) Farm Machinery Banks may provide crop specific mechanization services to the farmers in the region including processing, value addition and crop by-product management. (iv) Women Groups may be encouraged to take up processing, value addition activities through the FMBs. (v) The Women Self Help Groups identified under Namo Drone Didi Scheme should be given preference for purchase of Multi-utility machines, which may also be used for drone transport. (vi) Not more than one tractor may be allowed under the projects.
4	Promotion of Agricultural Mechanization in North Eastern Region	NER State Governments.	(i) For purchase of machines by the farmers on individual ownership basis, financial	Farmers	(i) Beneficiaries will be identified by the State/district nodal agencies

			assistant @ 100% of cost of machine costing up to Rs. 1.25 lakhs will be provided.		in a transparent manner.
			(ii) For establishment of Farm Machinery Banks (FMBs), financial assistance @ 95% of the project cost for the projects costing up to Rs. 30.00 lakhs. (iii) The beneficiaries may take up the projects costing more than Rs. 30 lakhs. However, the maximum permissible financial assistance will be restricted to Rs. 28.50 lakhs/project. (iv) The maximum permissible assistance per machine under the Farm Machinery Bank project will be calculated by multiplying the maximum permissible assistance indicated against 50%	Cooperative Societies of Farmers, Registered Farmer Societies, Self Help Groups (SHGs), FPOs and Panchayats	As indicated against 4.3

			in Annexure-XXV by 2 (Two) and then again multiplying the same by 0.95. (v) The FMBs with the project cost above Rs. 10 lakhs will be established under the model of Credit Linked Back Ended Capital Subsidy as per the broad guidelines indicated in Annexure-XXVI		
5	Financial Assistance for Mechanized operations	State Governments/ UTs	(i) The financial assistance to the small and marginal farmers of low mechanized regions will be provided @ 2000/ha for hiring of Drones from the Custom Hiring Centres, Women SHGs. (ii) This assistance will be available up to 2 ha land in a year. The amount of assistance will be proportionate to the actual land owned by the farmers.	Small and Marginal Farmers	(i) The States shall sign necessary MoUs with CHCs and Women SHGs for providing services of drones to the small and marginal farmers. (ii) The area of kisan drone application should be georeferenced and monitored online and financial assistance should flow to the farmers through DBT

2.0 Central Components (100% funded by Central Government):

S. No.	Component	Implementing Agencies	Financial Assistance	Broad Criteria for Implementation
1	Demonstration of newly developed agricultural/horticultural/crop residue management machines post-harvest technologies and Kisan Drones at farmers' fields.	FMTTIs, State identified institutions, ICAR institutions, ATMA institutions, KVKs under ICAR/SAUs, National Innovation Foundation (NIF), PSUs of GOI, FPOs.	(i) Depending on the requirements, the implementing agencies (except the FPOs) will be provided grants @ 100% of the cost for purchase of machinery and equipments including Kisan Drones for conducting their demonstrations on the farmers' fields. (ii) The FPOs will be provided grants @ 75% of the cost of machines including the kisan Drones. (iii) The Implementing agencies which do not want to purchase the machines for demonstration, will hire the machines to be demonstrated from the Custom Hiring Centres. In such proposals, financial assistance @ Rs. 6000 per hectare to meet contingency expenditure will be provided. (iv) The rate of grant to meet the contingent expenditure will be Rs. 3000/- per hectare in the case of the implementing agencies that will be provided grants for purchase of equipments and machines for demonstration.	(i) All these demonstrations should be georeferenced and properly monitored. (ii) All the demonstrations will be uploaded on the Krishi Mapper (iii) The machines procured for demonstration may also be used for Custom Hiring to the farmers at reasonable rent. (iv) The funds provided as contingent expenditure may be used towards hiring of machines along with implements/ self-propelled machines/Kisan Drones, expenditure towards hands on training and miscellaneous expenditure such as expenditure towards transport, labour, publicity and printing of technical literature etc. However, these funds should not be used for recruitment of staff, TA/DA of staff, purchase of computer, video camera, vehicle etc. or for any construction. (v) The implementing agencies will engage Krishi Sakhis for collecting and uploading of data/pictures of demonstration and geo-plotting/polygon

			(v) Expenditure over and above specified limits will be borne by respective institutions.	mapping of demonstrations on Krishi Mapper. A resource fee of Rs. 100 per hectare will be paid to the Krishi Sakhis from within the contingent funds of demonstration. The Krishi Sakhis will be digitally skilled to use the Krishi Mapper App. (vi) The Institutions under ICAR, SAUs and other Central institutions may submit their proposals directly. However, the institutions under State Governments will have to route their proposals through State Department of Agriculture/ Agricultural Engineering.
2	Skilling in field of farm mechanization, post-harvest management and Kisan Drones	FMTTIs, State identified institutions, ICAR institutions, ATMA institutions, KVKs under ICAR/SAUs	(i) Assistance will be available as per the Common Norms for Skill Development Schemes of the Government of India as notified by the Ministry of Skill Development & Entrepreneurship (as may be amended from time to time). (ii) Depending on the requirements the implementing agencies will be provided financial assistance (100 % grant-in-aid) for purchase of machinery and equipments for conducting training.	(i) The Farm Machinery Training & Testing Institutes (FMTTIs) will organize skill development programmes as indicated in Annexure XXVII(A) and XXVII(B). (ii) The States may also identify the institutions for organizing the skill development programmes as indicated in Annexure- XXVII (B). (iii) The skilling on Kisan Drones may be taken through Remote Pilot Training

				Organizations (RPTOs). (iv) All implementing agencies will monitor the outcome of training in terms of employment generation, self-employment, improvement in productivity/ skills etc. (v) The Institutions under ICAR, SAUs and other Central institutions may submit their proposals directly. However, the institutions under State Governments will have to route their proposals through State Department of Agriculture/ Agricultural Engineering.
3	Testing of agricultural machines and equipments for performance evaluation	FMTTIs and Authorized Centres under ICAR/SAUs/State/ Central Governments	(i) The implementing institutions will be provided one time grant of Rs. 1.5 crores each as per their proposals for augmenting the facilities and infrastructure for testing. (ii) Additional grants up to Rs. 1.00 Crore over and above the one time grant may be provided for creating additional testing facilities for testing of new machines as may be approved by DA&FW.	(i) The grants provided will not be utilized to meet the recurring expenditure on testing activities and purchase of vehicles etc. (ii) The FMTTIs will test the machines and equipments as per their authorization. (iii) The identified institutions as per Annexure –XXIX or the institutions as may be recognized in future shall test all non-self-propelled agricultural machines/ equipment. Other equipments may be tested as per the separate

				authorization issued to individual centers by DA&FW. (iv) The testing charges for the machines and equipments may be as fixed by the Department of Agriculture & Farmers Welfare. (v) All the institutions shall scrupulously follow the Test Regulations and all other guidelines issued by the Department of Agriculture & Farmers Welfare from time to time (vi) The Institutions under ICAR, SAUs and other Central institutions may submit their proposals for financial assistance directly to DA&FW. However, the institutions under State Governments will have to route their proposals through State Department of Agriculture/ Agricultural Engineering.

Note:

1. The States may, if they so desire, set aside 25% of budget (including the Central and State Share) as flexi funds to be spent on any sub-scheme or component or innovation that is in line with the overall aim and objective of the approved scheme. In this regard the guidelines for Flexi funds within Centrally Sponsored Schemes of Department of Expenditure vide Office Memorandum No. 55(5)/PF-II/2011 dated 6th September 2016 shall be scrupulously followed.
2. For the financial assistance for kisan drone, the drones may be supplied as a package as indicated in the Operational Guidelines of Namo Drone Didi Scheme. The Kisan Drone specification and training syllabus for drone pilot shall also be as per Operational Guidelines of Namo Drone Didi Scheme.

3. 2.5% of annual outlay of SMAM will be earmarked for incurring administrative and other contingent expenses by the States

B.2.3 General Instructions for Smooth implementation of the Scheme:

- (i) The manufacturers eligible for supply of machines based on machine quality conforming to standard specifications, relevant and valid test report of the authorized testing institution and availability of product warranty & after sales service infrastructure from the manufacturer etc. shall be empaneled by the States. The States shall ensure that the cost of machines are reasonable compared to the open market prices of the machines. The manufacturers shall observe transparency in selling prices and the product warranty including after sales services intended to be provided to the farmers/beneficiaries. The maximum selling prices should be displayed on the websites of the manufacturers and also in the dealer's shop.
- (ii) The farmers/beneficiaries will be at their liberty to choose any machine/equipment and its variants depending on their requirements and as per their choice from within the empanelled manufacturers by the States and may negotiate the final price after bargaining with the manufacturer/dealer and the beneficiary will be eligible to get the applicable subsidy through DBT.
- (iii) In the interest of promoting make in India and Atm-Nirbhar Bharat, it is desired that the States should not impose huge amount of Earnest Money Deposit (EMD) and Performance Security, as the manufacturers in small scale sector gets deprived of their participation in the process carried out by the State Governments for supply of machines under the scheme. The Performance Security, if at all necessary, may be 3-5% of the value of the contract and may be furnished in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt from a commercial Bank, Bank Guarantee (including e-Bank Guarantee) from a commercial bank or online payment in acceptable form safeguarding the purchasers interest in all respects. Insisting on adequate after sales service infrastructure and blacklisting of the firms for failing to meet their obligations may also be adopted.
- (iv) A comprehensive online system should be developed for implementing the farm mechanization programmes in the States and it should have arrangements for data sharing on Central portal i.e. <https://agrimachinery.nic.in>. The States which does not have their online portals will have to be on-boarded on the Central portal.

- (v) Manufacturers/suppliers that have tested their products either from FMTTIs or any identified institute by DA&FW will only be eligible for supply of machines. The requirement of test report for the agricultural implements and tools costing less than 50,000 (Fifty thousand) may not be necessary. For such machines, self-certification for the desired specification/ quality/ performance of agricultural implements and tools may be accepted from manufacturers. However, the test report of the FMTTIs or authorized testing institutions may be mandatory for the first time manufacturer of such agricultural implements and tools.
- (vi) The agricultural implements and tools costing less than Rs. 50,000 (Fifty thousand) as at SI. No (v) above covers only hand tools, non-powered horticultural & garden tools, animal /manual/ implements required for land preparation/sowing & planting/inter-cultivation/harvesting and threshing/ transportation operations, tractor drawn conventional/ mechanical implements such as ploughs, harrows, seed drills etc. However, a system of random pre/post-dispatch checks of above agricultural implements and tools shall be evolved by the State Governments and if the situation warrants, randomly picked up samples of such agricultural implements and tools shall be tested/ retested from any FMTTI or any authorized testing centre of DA&FW for asserting their specifications, performance and quality.
- (vii) Every machine costing Rs. 1.00 lakh and above supplied under the scheme shall mandatorily be georeferenced. The self-propelled machines costing Rs. 1.00 lakh and above such as tractors, self-propelled crop reaper/reaper cum binders etc. supplied to individual farmers and Custom Hiring Centres should be installed with app based AI-powered telematics kit which can track the live movement & location of machine and keep the daily record of work done by the machine. The dashboard of the telematics kit shall be available with the beneficiary of the machines/CHCs and the district as well as State Nodal officer of the scheme. The telematics kit shall be provided by the manufacturers as standard attachment on their machines manufactured after 1st June 2023. The establishment of CHCs should be georeferenced and it should be mandatorily uploaded on the 'FARMS' Mobile App
- (viii) It shall be mandatory that the all the Data of Custom Hiring Centres/Farm Machinery capital assets under the scheme including the demonstrations conducted shall mandatorily be uploaded on the Krishi Mapper.

- (ix) The Soil Health Card may be necessary for getting the subsidy under the Scheme. If the beneficiary do not possess any Soil Health Card, the soil sample may be collected from the beneficiary and it may be tested for Soil Health Card generation. The expenditure may be adjusted with the subsidy amount of the beneficiary.
- (x) The machines supplied under the subsidy programmes should have a standardized unique identification code provided on the body of the machine by laser cut through methods in such a way that it is clearly identifiable, visible and is tamperproof. The guidelines for providing the serial number are as under:

“GJ/6545/444/2023/0001”				
Manufacturing State Code	Manufacturers	Centralized Implement Code	Year of Manufacturing	Serial Number of Machines Manufactured
Auto generated through https://agrimachinery.nic.in/ portal			To be provided by the manufacturer	

- (a) The type of letter should be ‘Arial Bold, size of letter should be 25 mm. However, depending on the machine design and space constraints for various machines, the manufacturers are allowed the font size lesser than the indicated one which can be conveniently put on the body of the machine provided that the code is clearly identifiable and visible on the machines.
- (b) All the manufacturers have to register themselves on ‘agrimachinery.nic.in’ portal and needs to obtain the registration number.
- (c) The agricultural implement/ machinery costing Rs. 1.00 lakh and more should have laser cut serial number on the main frame which can be viewed from front side of the implement/machinery and the implements/machines on which laser cut serial number is not possible, should place of laser cut serial number plate by welding it on the main frame which can be viewed from front side of the implement/machinery.
- (d) The agricultural implements/machines costing less than Rs. 1.00 lakh should have engraved serial number on the location of main frame which can be viewed from front side of the implement/machinery.

- (e) The implements/machines having fiber or plastic body on which laser cutting serial number is not possible, such implement/machine should have engraved serial number
- (f) The manufacturers those who may exhaust the 4 digit serial number due to their higher production capacities for any particular machine, the States may allow the manufacturers to use up to 6 digits serial number.
- (g) This unique serial number coding system shall be accepted by all the States and there shall not be any State specific coding system.
- (h) Apart from unique identification code, every machine shall also be provided with labeling plate firmly attached by riveting, hammer drive screws or welding in a conspicuous and readily accessible position on a part which is normally not likely to be replaced during use. It shall show clearly and indelibly the information (1) Complete name and address of the manufacturer (ii) Make & Model of the machine (iii) Type and size of machine (iv) Unique identification code of the machine (v) Month and year of manufacture (vi) Required size of prime mover.
- (i) The type of letter should be 'Arial Bold', size of letter should be 25 mm. However, depending on the machine design and space constraints for various machines, the manufacturers are allowed the font size lesser than the indicated one which can be conveniently put on the body of the machine provided that the code is clearly identifiable and visible on the machines.
- (j) All the manufacturers have to register themselves on 'agrimachinery.nic.in' portal and needs to obtain the registration number.
- (k) The agricultural implement/ machinery costing Rs. 1.00 lakh and more should have laser cut serial number on the main frame which can be viewed from front side of the implement/machinery and the implements/machines on which laser cut serial number is not possible, should place of laser cut serial number plate by welding it on the main frame which can be viewed from front side of the implement/machinery.
- (l) The agricultural implements/machines costing less than Rs. 1.00 lakh should have engraved serial number on the location of main frame which can be viewed from front side of the implement/machinery.

- (m) The implements/machines having fiber or plastic body on which laser cutting serial number is not possible, such implement/machine should have engraved serial number
- (n) The manufacturers those who may exhaust the 4 digit serial number due to their higher production capacities for any particular machine, the States may allow the manufacturers to use up to 6 digits serial number.
- (o) This unique serial number coding system shall be accepted by all the States and there shall not be any State specific coding system.
- (p) Apart from unique identification code, every machine shall also be provided with labeling plate firmly attached by riveting, hammer drive screws or welding in a conspicuous and readily accessible position on a part which is normally not likely to be replaced during use. It shall show clearly and indelibly the information (1) Complete name and address of the manufacturer (ii) Make & Model of the machine (iii) Type and size of machine (iv) Unique identification code of the machine (v) Month and year of manufacture (vi) Required size of prime mover.
- (xi) The manufacturers eligible for supply of machines based on machine quality conforming to standard specifications, relevant and valid test report of the authorized testing institution and availability of product warranty & after sales service infrastructure from the manufacturer etc. shall be empaneled by the States. The States shall ensure that the cost of machines are reasonable compared to the open market prices of the machines. The manufacturers shall observe transparency in selling prices and the product warranty including after sales services intended to be provided to the farmers/beneficiaries. The maximum selling prices should be displayed on the websites of the manufacturers and also in the dealer's shop.
- (xii) The farmers/beneficiaries will be at their liberty to choose any machine/equipment and its variants depending on their requirements and as per their choice from within the empanelled manufacturers by the States and may negotiate the final price after bargaining with the manufacturer/dealer and the beneficiary will be eligible to get the applicable subsidy through DBT.
- (xiii) In the interest of promoting make in India and Atm-Nirbhar Bharat, it is desired that the States should not impose huge amount of Earnest Money Deposit (EMD) and Performance Security, as the manufacturers in small scale sector gets deprived of

their participation in the process carried out by the State Governments for supply of machines under the scheme. The Performance Security, if at all necessary, may be 3-5% of the value of the contract and may be furnished in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt from a commercial Bank, Bank Guarantee (including e-Bank Guarantee) from a commercial bank or online payment in acceptable form safeguarding the purchasers interest in all respects. Insisting on adequate after sales service infrastructure and blacklisting of the firms for failing to meet their obligations may also be adopted.

- (xiv) A comprehensive online system should be developed for implementing the farm mechanization programmes in the States and it should have arrangements for data sharing on Central portal i.e. <https://agrimachinery.nic.in>. The States which does not have their online portals will have to be on-boarded on the Central portal.
- (xv) Manufacturers/suppliers that have tested their products either from FMTTIs or any identified institute by DA&FW will only be eligible for supply of machines. The requirement of test report for the agricultural implements and tools costing less than 50,000 (Fifty thousand) may not be necessary. For such machines, self-certification for the desired specification/ quality/ performance of agricultural implements and tools may be accepted from manufacturers. However, the test report of the FMTTIs or authorized testing institutions may be mandatory for the first time manufacturer of such agricultural implements and tools.
- (xvi) The agricultural implements and tools costing less than Rs. 50,000 (Fifty thousand) as at SI. No (v) above covers only hand tools, non-powered horticultural & garden tools, animal /manual/ implements required for land preparation/sowing & planting/inter-cultivation/harvesting and threshing/ transportation operations, tractor drawn conventional/ mechanical implements such as ploughs, harrows, seed drills etc. However, a system of random pre/post-dispatch checks of above agricultural implements and tools shall be evolved by the State Governments and if the situation warrants, randomly picked up samples of such agricultural implements and tools shall be tested/ retested from any FMTTI or any authorized testing centre of DA&FW for asserting their specifications, performance and quality.
- (xvii) Every machine costing Rs. 1.00 lakh and above supplied under the scheme shall mandatorily be georeferenced. The self-propelled machines costing Rs. 1.00 lakh

and above such as tractors, self-propelled crop reaper/reaper cum binders etc. supplied to individual farmers and Custom Hiring Centres should be installed with app based AI-powered telematics kit which can track the live movement & location of machine and keep the daily record of work done by the machine. The dashboard of the telematics kit shall be available with the beneficiary of the machines/CHCs and the district as well as State Nodal officer of the scheme. The telematics kit shall be provided by the manufacturers as standard attachment on their machines manufactured after 1st June 2023. The establishment of CHCs should be georeferenced and it should be mandatorily uploaded on the 'FARMS' Mobile App

- (xviii) It shall be mandatory that the all the Data of Custom Hiring Centres/Farm Machinery capital assets under the scheme including the demonstrations conducted shall mandatorily be uploaded on the Krishi Mapper/Mobile app developed by DA&FW.
- (xix) The Soil Health Card may be necessary for getting the subsidy under the Scheme. If the beneficiary do not possess any Soil Health Card, the soil sample may be collected from the beneficiary and it may be tested for Soil Health Card generation. The expenditure may be adjusted with the subsidy amount of the beneficiary.
- (xx) The machines supplied under the subsidy programmes should have a standardized unique identification code provided on the body of the machine by laser cut through methods in such a way that it is clearly identifiable, visible and is tamperproof. The guidelines for providing the serial number are as under:

B.2.4 Scheme Monitoring

Mechanization & Technology (M&T) Division of Department of Agriculture & farmers Welfare will be responsible for implementing and monitoring of the Scheme as under:

- Visit the states regularly and frequently to provide guidance in organizational and technical matters.
- Help in the implementation, monitoring and evaluation of various interventions in the scheme and provide feedback reports

- Compile materials for capacity building, conduct and participate in the promotional events such as, workshops/ seminars/exhibitions on different subjects in different regions of the country.
- Undertake publicity/information campaign to create awareness on farm mechanization, document and disseminate the success stories.
- Assist the State Agencies in concurrent evaluation based on performance indicators
- Assess state-wise farm power status, availability and existing gap and identify the future requirements
- In order to enrich the knowledge base of the technical personnel/progressive farmers involved in the scheme, exposure visit/training of technical staff /officers at International organizations like IRRI, ICRISAT, CSAM China, NIAE Korea, JICA Japan, NTTL USA etc. or any other research organization in farm mechanization within the country and abroad would be organized.
- 2.5% of annual outlay of the Sub-Mission will be earmarked for incurring administrative and other contingent expenses towards the above

The component wise details of activities to be undertaken under the scheme are given at **Annexure-(XXV – XXVIII)**

B.3 CRM:

A large portion of the paddy straw / crop residues are burnt in the field primarily to clear the field after the harvest of the preceding crop for the sowing of next crop. Burning these crop residue causes phenomenal pollution problems in the atmosphere and huge nutritional loss and physical health deterioration to the soil. It has been estimated that The burning of one tonne of paddy straw releases 3 kg particulate matter, 60 kg CO, 1460 kg CO₂, 199 kg ash and 2 kg SO₂. These gases affect human health due to general degradation in air quality resulting in aggravation of eye and skin diseases. Fine particles can also aggravate chronic heart and lung diseases. One ton of paddy straw contains approximately 5.5 kg N, 2.3 kg P₂O₅, 25 kg K₂O, 1.2 kg S, 50-70% of micro-nutrients absorbed by rice and 400 kg of carbon, which are lost due to burning of paddy straw. Apart from loss of nutrients, some of the soil properties like soil temperature, pH, moisture, available phosphorus and soil organic matter are greatly affected due to burning.

Crop Residue Management Options can be classified as in-situ and ex-situ management options. Retaining, incorporating or mulching the crop residues in the field and decomposing using consortia of microbes are the two possible in-situ crop residue management options. Baling and transporting straw from the field is other feasible ex-situ option when alternate, effective and economically viable usage methods are identified and facilities and infrastructure are created.

It is envisaged that appropriate mix of in-situ and ex-situ crop residue management options through a holistic approach of providing appropriate solutions, optimally utilizing the existing resources and establishing appropriate supply chain through a cluster based approach in the vicinity of various industries utilizing the crop residue will help containing the burning of crop residues in the open field.

In view of above, the efforts of the States of Punjab, Haryana, Uttar Pradesh, Madhya Pradesh and NCT of Delhi in addressing the problems of crop residue burning through the interventions described hereunder:

B.3.1 Strategy:

To achieve the above objectives, a focused approach of providing appropriate and already accepted machines for in-situ management will be adopted. Optimal utilization of already

available machines and machines that will be made available to fulfil the gaps will be ensured. A supply chain will be established through a cluster based approach in the vicinity of various industries utilizing the paddy straw. The supply chain beneficiaries will collect, densify, store the paddy straw at desired locations and will make available the same to various users or industries as per requirement. Strategic Information, Education and Communication (IEC) will also be undertaken with the involvement of all stakeholders for mass awareness of farmers.

I. Financial assistance to farmers for procurement of crop residue management machines on individual ownership basis:

- (a) Implementing Agencies:** State Governments/UTs
- (b) Identification of Beneficiary:** Beneficiaries will be identified by the State/district nodal agencies in a transparent manner. The areas of having larger problems of crop residue burning may be focused to increase availability of appropriate machines.
- (c) Financial Assistance:** The rate of financial assistance will @ 50% of the cost of machinery. The list of machines identified for crop residue management together with ceiling limit for subsidy is indicated in **Annexure-XXIX**

In case of tractor drawn machines, preference may be given to those beneficiaries owning the compatible tractor for operation of the machine.

II. Establishment of Custom Hiring Centres of Crop Residue Management Machines:

- (a) Implementing Agencies:** State Governments
- (b) Composition of Custom Hiring Centres:**
 - (i) The machines/equipments for establishing Custom Hiring Centres (CHCs) appropriate for the crop residue management will be selected from within the list at **Annexure-XXIX**.
 - (ii) Purchase of One tractor of 60 HP & above will be allowed under the project.
 - (iii) Each CHC should be provided the machines and equipments for the entire operations of crop residue management.
 - (iv) The capacity of the machines may be selected on the basis of area to be covered in a cropping season.

(c) Financial Assistance:

Credit Linked Back Ended Subsidy@ 80% of the project cost for the projects of Custom Hiring Centres (CHCs) costing up to Rs. 30lakhs will be available to Rural Entrepreneurs (Rural youth and farmer as an entrepreneur), Cooperative Societies of Farmers, Registered Farmers Societies, Farmer Producer Organizations (FPOs) and Panchayats. The maximum permissible assistance per machine under the CHC project is indicated in **Annexure-XXX**. The maximum permissible subsidy for each project should not exceed Rs. 24.00 lakhs per project.

The broad Guidelines for Credit Linked Back Ended Subsidy are given in Annexure-XXXI

III. Establishment of crop residue/paddy straw supply chain:

The broader objectives of the crop residue/paddy straw supply chain will be as under:

- Enable better environmental practices for ex-situ management crop residue.
- Establishing collection infrastructure, bailing, transportation and handling of large amount of crop residue and creation of storage facilities.
- Utilizing the paddy straw in different industries utilizing it such as biomass power generation units, Biomass co-firing in Thermal Power Plants, Bio-CNG, Bio-Ethanol, etc.
- Assured procurement of paddy straw from farmers through the by the paddy straw aggregators.
- Ensure increase in income (both from the produce and later from the sale of paddy residue) for farmers and enhance rural employment and financial inclusion.

(a) Implementing Agencies: State Governments

(b) Financial Assistance:

- (i)** Based on the project proposals, a Credit Linked Back Ended Subsidy will be provided only on the capital cost of machinery and equipment like Higher HP Tractor, Cutters, Tedder, Medium to Large Balers, Rakers, Loaders, Grabbers and Telehandlers. The broad Guidelines for Credit Linked Back Ended Subsidy are given in **Annexure-XXXI**

- (ii) The projects may be implemented under the bilateral agreement of the end user industry and the beneficiary. The capital subsidy will be released into the Subsidy Reserve Fund Account of the concerned borrowers through Direct Benefit Transfer (DBT).
- (iii) For the project under bilateral arrangement, the financial contribution of each stakeholder may be as follows:
 - a) Government (jointly by Central and State Governments) will provide financial support of 65% up to a maximum limit as indicated in the Annexure-IV. The Government shall implement the intervention through a bilateral agreement between the Beneficiary and Industries and monitor the effectiveness with respective State Agriculture Departments to monitor and manage the project. *The expenditure will be met from the flexi funds of the Crop Residue Management Scheme.*
 - b) Farmer or group of Farmers or Rural Entrepreneurs or Cooperative Societies of Farmers or Farmers Producer Organizations (FPOs) & Panchayats will contribute the balance at least 10% and will be the primary aggregator of feedstock and direct beneficiary of this PPP model. They will perform the feedstock collection targets in line with the volume and quality guidelines of the end-use industry/project requirements throughout the life of the machinery.
 - c) Industry as primary promoter of the project will contribute the balance project cost and will act as the Primary consumer of the feedstock collected via machinery. Industry will be responsible for overall effective machinery deployment via most suitable machinery manufacturers, training of beneficiaries, aggregation planning along with volume and quality guidelines, on-ground execution of aggregation during post-harvest collection period, pricing of feedstock and offtake guidelines. Industry will be primary consumer of the feedstock throughout the life of the machinery.
- (iv) For projects which are not under the bilateral arrangement of any end user industry and beneficiary and the beneficiaries are willing to contribute balance project cost, the financial contribution in such cases may be as follows:
 - a) Government (jointly by Central and State Governments) will provide financial support of 65% upto a maximum limit as indicated in the

Annexure-IV. The expenditure will be met from the flexi funds of the Crop Residue Management Scheme.

- b) Farmer or group of Farmers or Rural Entrepreneurs or Cooperative Societies of Farmers or Farmers Producer Organizations (FPOs) & Panchayats will contribute the balance 35% and will be the primary aggregator of feedstock.
- (v) Financial assistance from the Government will be provided only on the capital cost of machinery and equipment and the rest of the capital expenditure and required working capital may be arranged by the beneficiary through Bank financing.
- (vi) The Indicative Capital Expenditure for Setting up Paddy Straw Supply Chain (For 3000 MT Paddy Straw per Season and 4500 MT Paddy Straw per Season) is given in **Annexure-XXXII**. However, the maximum allowable cost for each machine covered under the project shall be decided by the State Governments. For the purpose of financial assistance on 4500 MT paddy straw per season projects, the capital cost of project will be limited to Rs. 1.50 Crores/project.
- (vii) The machines and equipments and their costs are indicative and beneficiaries may have the choice of selection of equipments from within the list as per their requirement. The total project cost can only be arrived based on the proforma invoices of the sale of machines. The States also have the flexibility to include any machine under the projects as per their requirement.
- (viii) Purchase of only tractors under the project shall not be allowed. The large capacity balers may be replaced with a number of small balers for same capacity projects.

B.3.2 Management:

The implementation of the intervention is proposed on pilot project basis to support the investment planned for ex-situ machinery deployment. The programme will be monitored by Department of Agriculture & Farmers Welfare with the help of Agriculture Departments of the State Government. However, the management of supply chain is the responsibility of scheme beneficiaries' e.g. Farmers or a group of farmers, entrepreneurs, Cooperative Societies of Farmers, Farmers Producer Organizations (FPOs) and Panchayats in association with the participating industry.

- (i) For the projects to be implemented under the bi-lateral agreement between the Beneficiary and Industries utilizing the paddy straw, an agreement shall be executed between the stakeholders to ensure smooth implementation of the interventions keeping the interests of the industrial project and beneficiaries interests by addressing measures for Risk Mitigation, Default clauses etc., to protect the investment made by all respective stakeholders.
- (ii) The State Governments shall constitute a project sanctioning committee which shall devise a template for submission of project proposal by the beneficiaries. The Committee shall also evaluate the project proposals and recommend the proposals for approval or otherwise.
- (iii) The sample format for the bilateral agreement is enclosed as **Annexure-XXXIII** and the provisions indicated in the sample agreement may be amended as per the requirements and mutual consent of the parties. There may not be requirement of such an agreement where the beneficiaries without the involvement of end user industry are ready to contribute remaining project cost (Project cost – applicable subsidy) at their own.

B.3.3 Information, Education and Communication (IEC) for awareness on crop residue management

- (a) **Implementing Agencies:** The State Governments shall identify State Institutions, SAUs, KVKs, PSUs, ICAR & Central Government institutions for conducting the IEC activities and the funds will be provided by the States to these identified institutions based on their proposals.
- (b) **Objectives:** (i) Launching Massive information and publicity campaign amongst the farmers through coordinated efforts of all stakeholders to mobilize farmers for not burning the crop residue. (ii) Conducting capacity building programmes and large scale demonstrations of the technologies on the farmer's fields for speedy adoption of technologies by the farmers.
- (c) **Provisions and Financial Assistance:**
 - (I) **Demonstration of crop residue management machines on the farmers' fields:**

- i. Depending on the requirements, State Government institutions, KVKs, ICAR institutions, Central Government institutions, PSUs, may be allowed purchase of machinery and equipments for demonstration.
- ii. All demonstrations will be carried out under close supervision of Implementing Agency and the demonstrations sites shall be georeferenced and uploaded on the State portals.
- iii. The machines to be demonstrated shall be identified by the implementing agencies. The implementing agencies will be provided full cost of machines to be procured and a contingency expenditure @ Rs. 6000/- per hectare will also be provided for taking up demonstrations on the farmers' fields.
- iv. All implementing agencies will monitor the outcome of training and demonstration in terms of improvement in skills, and adoption of technologies etc.

(II) Demonstration of Bio-decomposer Technology on farmers' fields:

As the application of decomposer in the fields involves preparing and multiplying the formulation to a water soluble sprayable form in large quantities and then its application in the harvested fields through suitable sprayers, the implementing agencies (State Governments, KVKs and ICAR institutions) may engage service providers/custom hiring centres having adequate resources after following due procedure for engagement of such service providers, for the following broader tasks to be carried out:

- (a) Conduct large scale demonstrations on the farmers' fields
- (b) Identify the farmers and area for large scale application of bio-decomposer technology
- (c) Geo-referencing of the identified area
- (d) Procuring and making available bio-decomposer in required quantity
- (e) Provide spraying services of the decomposer at scale through suitable sprayers
- (f) Advising the farmers to follow irrigation and primary tillage operations for completing the protocol of decomposition.

- (g) create awareness and ensure follow through on protocol for pre and post spraying operations
- (h) Monitoring the fields through satellite and ground observations for decomposition of the crop residue and that the fields are not burnt by the farmers
- (i) Reporting and documenting the entire demonstration programme and its outcome.

The financial requirements on actual basis towards these demonstrations may be met by the States from the overall funds made available for crop residue management.

The States may also procure this technology (bio-decomposer) from validated suppliers and provide the same to the farmers at free of cost.

(III) Capacity Building Programmes on crop residue management:

- a) Depending on the requirements, State Government institutions, KVKs, ICAR institutions, Central Government institutions, PSUs, may be funded for purchase of machinery and equipments for providing training to farmers/users/stakeholders.
- b) An amount of Rs. 6000/- per trainee per week (05 days) will be provided to the institutes identified for training to meet the expenses towards manpower, boarding/lodging and transport. This financial assistance will be proportionate to the training duration
- c) All implementing agencies will monitor the outcome of training in terms of improvement in skills, and adoption of technologies etc.

(IV) Information and publicity campaigns

(i) The activities but not limited to the following may be implemented for mass awareness of farmers with the involvement of all stakeholders, social organizations and industry associations, NGOs etc.:

- (a) Advertisements in the electronic and print media and social media platforms.

- (b) Formation of social media groups for creating awareness, sharing benefits of crop residue management and relevant information & advisories among the farmers and other stakeholders
 - (c) Radio jingles, State specific Audio-visual clips in local language, Star campaigning etc.
 - (d) Mobilization of schools and colleges students through essay completion, painting, debate etc.
 - (e) Award for village / Gram Panchayat, role model farmers for achieving zero stubble burning
 - (f) Distribution of attractive publicity materials such as leaflets, pamphlets, placards, posters etc. Communication through banners, hoardings, wall paintings etc. at prominent locations.
 - (g) Organizing Gram Sabhas, meetings, functions, Kisan Melas etc.
 - (h) Special and innovative programs for sensitization and mass awareness through panel discussions of farmers, short and long films on Doordarshan/ DD-Kisan and other private channels.
- (ii) The financial requirements on actual basis towards these activities may be met by the States from the overall funds made available for crop residue management.

The suggestive schedule of IEC activities are indicated below:

Period	Activities	Level of activity	Frequency
April-May	Preparation of short and long films / documentaries/ publicity materials including material for radio and TV programs	-	-
April-May	Preparation of publicity materials such as leaflets, pamphlets, placards, posters, banners, hoardings etc.	-	-
April to July	Formulating strategies action plans towards mobilizing the farmers through various IEC activities	-	-
August-November	Organizing Farmer Awareness /demonstration Camps by	At village/ cluster level	02 times

	organizing Gram Sabhas, meetings, functions, Kisan Melas etc.	Block/district level	01 time
		State level	01 time
July-November	Organization of capacity building programs by KVKs in association with Farmers' Clubs and Cooperative Societies	KVKs in Punjab Haryana, Uttar Pradesh and NCT of Delhi	Regularly
Start by 15 th April intensify during September to November	Advertisements in the Print Media.	-	Weekly
Start by 15 th April Intensify during September to November	Special programs for sensitization and mass awareness and panel discussions of farmers who have switched over to crop residue management at Doordarshan/ DD-Kisan and other private channels live telecast.	-	Weekly in normal month, twice a week during intensification
August to November	Radio jingles, State specific Audio-visual clips in local language, Star campaigning (30-60 seconds duration)	-	Four times daily
July to December	Formation of social media groups for creating awareness, benefits of crop residue management, sharing of relevant information and advisories among the farmers and other stakeholders	-	Continuously
	Mobilization of schools and colleges students through essay completion, painting, debate etc.	School level	Monthly
		District level	once in two months
		State level	Quarterly
December-January	Award for village / Gram Panchayat for achieving zero straw burning	Block/district level	Yearly

B.3.4 Other instructions for Smooth implementation of the Interventions:

- (i) The manufacturers eligible for supply of machines based on machine quality conforming to standard specifications, relevant and valid test report of the authorized testing institution and availability of product warranty & after sales service infrastructure from the manufacturer etc. shall be enlisted and updated on

regular basis by the States. The cost of machines and their variants shall be left to be decided by the manufacturers depending on the competitive market forces. The manufacturers shall observe transparency in selling prices and the product warranty including after sales services intended to be provided to the farmers/beneficiaries.

- (ii) Manufacturers/suppliers that have tested their products either from FMTTIs or any identified institute by DA&FW will only be eligible for supply of machines.
- (iii) The farmers/beneficiaries will be at their liberty to choose any machine/equipment and its variants depending on their requirements and as per their choice from within the list of empanelled manufacturers by the States and may negotiate the final price after bargaining with the manufacturer/dealer and the beneficiary will be eligible to get the subsidy amount as may be fixed by the States through DBT.
- (iv) In the interest of promoting make in India and Atm-Nirbhar Bharat, it is desired that the States should not impose huge amount of Earnest Money Deposit (EMD) and Performance Bank Guarantees, as the manufacturers in small scale sector gets deprived of their participation in the empanelment process carried out by the State Governments for supply of machines under the scheme. The EMD and Performance Bank Guarantee, if at all necessary, may be kept at minimum level and proportionate the sale volume of the manufacturer or may be done away with and rather other measures such as surety bonds, insisting on adequate after sales service infrastructure and blacklisting of the firms for failing to meet obligations may be adopted.
- (v) A comprehensive online system should be developed for implementing the interventions in the States having arrangements for data sharing on Central portal i.e. <https://agrimachinery.nic.in>.
- (vi) Every machine costing Rs. 1.00 lakh and above supplied under the scheme shall mandatorily be georeferenced. The self-propelled machines costing Rs. 1.00 lakh and above such as tractors, self-propelled crop reaper/reaper cum binders etc. supplied to individual farmers and Custom Hiring Centres should be installed with app based AI-powered telematics kit which can track the live movement & location of machine and keep the daily record of work done by the machine. The dashboard of the telematics kit shall be available with the beneficiary of the machines/CHCs and the district as well as State Nodal officer of the scheme. The telematics kit shall

be provided by the manufacturers as standard attachment on their machines manufactured after 1st June 2023. The establishment of CHCs should be georeferenced and it should be mandatorily uploaded on the 'FARMS' Mobile App

- (vii) The guidelines of SMAM will be applicable as mentioned at para X of B.2.3 above with regard to the machines supplied under the subsidy programmes

B.4 SH&F

The Soil Health Cards (SHCs) introduced in the year 2014-15 with objective to assist states in promoting Integrated Nutrient Management (INM) through judicious use of chemical fertilizers including secondary and micro nutrients in conjunction with organic manures & bio-fertilizers for improving soil health and its productivity. This scheme has sub-components like, setting up/ strengthening of Soil Testing, Fertilizers/ Bio-fertilizers & Organic fertilizers Quality Control Labs, promoting Micro-nutrients, and testing soil samples to issue Soil Health Cards.

B.4.1 Institutional Structure

SH&F will adopt the following institutional structure

a) National Advisory Committee

The National Advisory Committee (NAC) under Chairmanship of Secretary (A&FW) to will be the policy formulating body giving overall direction and guidance to monitor and review its progress and performance. It is empowered to lay down and amend/new changes in operational guidelines of Scheme other than those affecting financial pattern and Cost Norms. The NAC will comprise the following members:

b) State Level Steering Committee (SLSC)

The State Level Steering Committee (SLSC) headed by Chief Secretary constituted under PMRKVY will oversee the implementation of Soil Health & Fertility component in respective States. The Committee shall submit the Annual Action Plan prepared by the State Nodal Department/ Agency to GoI for approval. The committed liabilities & new activities of components are to be brought out clearly and distinctly in the AAP approved by the SLSC. Proposed allocation should not exceed 125% of tentative allocation under the scheme.

c) Role of Panchayati Raj Institutions (PRIs)

Panchayati Raj institutions are main instruments of village local government which play vital role in enhancement of agricultural developments and women participation in local government etc. The State Government and other designated implementing agencies to the extent possible to ensure active participation of the Panchayati Raj Institutions (PRIs) in the implementation of this scheme. PRIs may also be involved in publicizing the demonstrations and training of farmers and in ensuring participation of farmers from nearby areas for widespread

dissemination of technology.

B.4.2 Expected Outcome and Interventions:

The Scheme envisages the need based Soil Samples Collection, Testing & Soil Health Cards generation of SHC Portal to promote Soil Health Management. It will promote balanced and judicious use of plant nutrients. Promotion of integrated nutrient system is expected to reduce the consumption of chemical fertilizers. The demand for organic sources of plant nutrient like bio-fertilizers, organic manure, vermi-compost, slow release nitrogenous fertilizer like Neem/Sulphur coated urea will increase, which in turn improve the soil fertility as well as nutrient use efficiency.

Interventions proposed for the Scheme includes development of modalities for soil sample collection along with standard sampling norms, quality control in the soil analysis, intensive use of ICT for data base management for faster delivery of Soil Health Cards in PPP mode and popularizing soil test based INM through field demonstrations, training & knowledge sharing on farmer's field.

B.4.3 Component-wise details

I. Soil Samples Collection, Testing and online generation of Soil Health Card on SHC Portal:

Soil Health Card is field specific detailed report of soil fertility status and other important soil parameters that affect crop productivity. Besides, soil health, it also provides an advisory on soil test based use of fertilizers and amendments. Soil Health Card has the information like, status of soil fertility, dosage of fertilizer application in crops, soil amendments of saline or alkaline soil, recommendation on integrated nutrient management. Diagnostic need based soil health assessment of farmer fields may be taken up periodically to issue Soil Health Cards. The State Governments may prepare yearly action plan indicating number of land holdings to be covered in the selected districts & number of soil samples to be drawn and finally total number of samples to be drawn and tested. The quality of soil testing results and fertilizer recommendation depends upon proper soil sampling. For this, the following scientific norms are prescribed:

- The ideal time for collection of soil samples is between harvests of one crop and sowing/ planting of other crop, when fields are vacant.

- The sampling depth for field crops should be kept 0 to 15 cm.
- Sample has to be collected preferably with the help of stainless steel tube augur, or alternatively with a khurpi /spade or kassi.
- A brief training to the soil sampling staff/students/ farmers'/field extension machinery would be necessary to ensure collection of representative soil sample, their labeling and transport to the STLs.
- GPS co-ordinates with Mobile Apps have to be essentially recorded at the time of soil sampling which will be downloaded in the STL computer.
- The need based villages/ farmers will use stratified sampling techniques. Samples will be collected from marginal, small and large farms to address variations that arise due to different management practices. Within each farm size class, samples will be chosen to represent all possible soil fertility variations.

In the new system, samples will be collected with the provision of proper sealing of samples with QR Code, geo tagging and mobile selfie.

The need based soil sample collection, analysis and generation of Soil Health Card on SHC Portal for farmers will be done by states/UTs with the help of mobile App. The mobile application after capturing the above data will scan a blank QR code or bar code which will capture the data of farmers and land details and this will be linked to the sample collected. Simultaneously, the farmer would receive an SMS with information about the sample collection. The information regarding the farmer will be stored on the cloud. The sample is then sent to the nearest ICAR validated soil test lab/unit. **The detailed guidelines for mobile application to collect the sample are at Annexure-XXXIV.**

The mobile application has been linked with Agri Stack. Wherever the Agri Stack is implemented, the farmer's demographic details and land details will be captured through farmers ID. It will automatically capture the survey number and will validate the farmer's identity and land details. All the respective States, Districts, Villages where Agri Stack is existing, States are requested to provide the data of the farmers through API to the technical team of Soil Health Card.

Soil sample collection, analysis and generation of Soil Health Card on SHC Portal farmers will

be done for which the financial assistance @ Rs.300 per sample will be given to the states/UTs. The breakup of Rs.300 per sample will be as under-

S. No.	Activities/ Items	Revised Cost (in Rs.)
1.	Soil sample collection, including Sample Kit (Sample bag 6"x4" size, sealing Wax, Thread, QR code, Candle & Match etc).	50.00
2.	Engaging Contractual services & training per STL	40.00
3.	For analyzing soil samples:- cost of chemicals, glass ware miscellaneous includes gas, filter papers, distilled water etc.	188.00
4.	Printing and Distribution of SHC.	05.00 (Based on State requirements)
5.	Demonstration & Awareness on SHC requirement for Health & Fertility.	15.00
6.	Maintenance/House Keeping of Lab.	02.00
	Total Cost	300.00

States/UTs are permitted for inter-component flexibility in cost upto 10% in each component as mentioned above.

Demonstration & Awareness component amounting to Rs. 15 will be given by State to Krishi Sakhi (SRLM) and ATMA for each soil health card.

The entire activity will be undertaken as per Citizen Charter issued by this Ministry (Annexure-XXXV)

II. Allotment & monitoring of targets through SHC portal

Scheme will be monitored through revamped portal <https://soilhealth.dac.gov.in> . State – wise targets will set in the portal by Central Admin for soil sample collection as per Annual Action Plan of State Government in April month. These targets will be further bifurcated by States to their STLs. Sample collection; testing and generation of SHC will be updated on portal on real time basis. State wise target for other components will be set in Portal and state will update the achievement against the target on daily basis. State and STLs will be provided separate login credential to operate the portal. The manuals for the portal is at **Annexure- XXXVI**

III. Setting up of Village Level Soil Testing Labs (VLSTLs) and Incentive to Entrepreneurs :

Setting of village level soil testing labs will generate employment for rural youth and facilitate

quick analysis of soil samples at farm gate level and enhance soil-testing capacity. The Financial assistance @ Rs.1.50 lakh-total project cost will be provided to beneficiaries, which will be shared on 60:40 bases between GOI and states (90:10 in case of NE and Hilly States). There is no required of beneficiary contribution for purchase of machinery & equipment, glassware and miscellaneous laboratory articles to create facilities for analysis of NPK, secondary and micronutrients. **The guidelines for setting up of Village Level Soil Testing Lab is at Annexure-XXXVII.**

Financial assistance for setting up of Village Level Soil Testing Labs can be availed by Individuals, Farmer Producer Organizations (FPOs), PACS, Agri-Clinics & Agri-Business Centers (AC&ABC), Agri-preneurs, Ex-servicemen, Self Help Groups (SHGs), Farmer Producer Companies (FPCs), Farmer Joint Liability Groups, Farmer Co-operative Societies, Input Retailers and Schools/Colleges. The State Governments will also allot area/ villages to them for sample collection.

Incentives serve as a catalyst to start a dynamic process of entrepreneur's development. The financial and promotional assistance provided to the entrepreneurs for boosting up private sector development. In order to encourage the entrepreneurs in the scheme for soil testing, the incentive @ Rs.20/- per Soil Health Card will be provided to entrepreneurs who have set up village level STLs and perform Soil sample collection and testing beyond 300 Samples.

IV. Demonstrations, Training & Knowledge Sharing on Farmer's Field:

The utility of Soil Health Card lies in the adoption of recommendations entailed therein by the farmers. In the selected villages, financial assistance for soil test based nutrient balancing will be provided to states for demonstration on farmer's field. Under demonstration, all the required fertilizer inputs i.e. fertilizers, bio-fertilizers, micro-nutrients, organic manure and soil amendments (Gypsum or Liming material) are to be provided for demonstration of soil test based balanced use of fertilizers i.e. Integrated Nutrients Management (INM) with financial assistance @ Rs.5000/- per demonstration of one hectare.

V. Setting up New Soil Testing Laboratories (Static/ Mobile):

In order to promote soil test base balanced and judicious use of chemical fertilizers, assistance will be provided to set up new static/mobile labs. The financial assistance @ Rs.75 lakhs per lab will be provided for purchase of machinery & equipment, chemicals & glass wares,

miscellaneous laboratory articles & contingencies for Static/Mobile labs as per indicative list at **Annexure XXXVIII & XXXIX** respectively. The suggested list of equipment's can be changed in special circumstances only with the specific approval of INM Division.

Involvement of Private Sector- Whereas, normally Soil Testing labs will be setup by State Government through state agencies, it is expected that State Government will encourage involvement of other agencies such as Private Companies associated with Agriculture Extension in some way such as Fertilizer Companies, Agri-clinics, NGOs, Cooperative Societies and private entrepreneurs (Agri-entrepreneurs). The State Governments will need to announce clear guidelines for involving the private sector agencies in the operation and management of the Soil Testing Labs. State Governments are encouraged to announce innovative PPP Guidelines for involvement of Private sector for running of these Labs. The guidelines should, inter alia, clearly define all the terms and conditions including the soil testing charges to be charged from farmers and the MOU/ Agreement to be signed with these private agencies, clear cut monitorable targets. State Governments will monitor and review performance of these private sector labs periodically. In proposed system of mobile applications Static Labs for soil testing will also be mapped in the portal with their unique ID and Geo-coordinates.

VI. Strengthening of Soil Testing Labs:

Many of the existing STLs do not have facilities for micronutrient analysis and the existing capacities of analyzing NPK also is not being fully utilized. A onetime grant shall be provided to create facilities for analysis of micronutrients such as Zinc, Iron, Copper, Manganese, Boron, etc. Normally Existing Static STLs/ MSTLs working under the control of the State Governments/UTs will be eligible for strengthening. For strengthening of STLs having no micronutrient analysis facility, performance assessment should be made keeping in view the existing staff before any assistance is given. Only working STLs should be supported. The State Government should carefully study the existing performance level of the STL and whether it requires any process change to achieve higher efficiencies. Moreover, a system of benchmarking should clearly be put in place. State Governments are encouraged to announce clearly defined and transparent guidelines for taking help of private sector as defined for operation and management of existing STL and MSTL, along with strengthening under the scheme.

The one-time financial assistance will be provided for inclusion of modern & faster equipment

viz. Intensively Coupled Plasma Spectrophotometer (ICP) @ Rs.65.00 lakh per lab and @ Rs.40.00 lakhs per lab for Atomic Absorption Spectrophotometer (AAS) under the component of strengthening of existing soil testing labs. Inductively Coupled Plasma Spectrophotometer (ICP)/Atomic Absorption Spectrophotometer (AAS) and its accessories with required chemicals and glassware of standard quality are given in indicative list at **Annexure-XL**.

Soil labs can also be strengthened to test Fertilizers and Bio-fertilizers. The rate will be application as per the existing provision in this regard.

VII. Setting up of new Fertilizer Quality Control Laboratories (FQCLs) by State Governments:

The capacity of existing testing facilities is quite inadequate, it is therefore, proposed to setup new FQCLs by the State Governments for quality testing with annual analyzing capacity of 4000 samples each. The one-time financial assistance @ Rs.75.00 lakhs per laboratory shall be provided for purchase of machinery & equipment, chemicals, glass wares and miscellaneous laboratory articles to create facilities for analysis of NPK, secondary and micronutrients as per **Annexure XLI**.

VIII. Strengthening of the existing State Fertilizer Quality Control Laboratories:

In order to check the quality of the fertilizers sold in the country, FQCLs are working under the control of deferent State Governments. Since quality testing is a statutory requirement under the Fertilizer Control Order (FCO), it is imperative to maintain all the instruments and equipment and to ensure supply of quality chemicals and glassware for the analysis. This requires time-to-time up gradation and replacement of the equipment. Many of the State Laboratories are also facing acute financial problem to maintain these facilities. Therefore, in order to maintain the high standard of analysis potential, it is proposed to upgrade and strengthen the existing FQCLs.

The one-time assistance will be provided to only those State laboratories, which are functional and working well. Financial assistance @Rs.40.00 lakhs per laboratory is to be provided for purchase of machinery & equipment, chemicals, glassware and miscellaneous laboratory articles as indicated at **Annexure XLII**.

IX. Setting up of Bio-fertilizer & Organic-fertilizer Quality Control Laboratories:

For setting up of Bio-fertilizers & Organic-fertilizer Quality Control Laboratories assistance as Grant-in-Aid shall be provided up to maximum limit of Rs.85.00 lakhs for new laboratory to State Governments/UTs. Details of equipment machinery are given at **Annexure XLIII**.

X. Strengthening of existing BOQCL Laboratories:

For existing Bio-fertilizers and Organic-fertilizer Quality Control Laboratories established by State Government assistance shall be provided as Grant-in-Aid up to a maximum limit @ Rs.45.00 lakhs per lab for their strengthening in terms of equipment's/instruments etc. Any of the equipment's shall be the admissible items for strengthening given at **Annexure XLIV**.

XI. Promotion of Micronutrients:

Intensive agriculture is experiencing widespread deficiency of micronutrients particularly of zinc, iron, manganese, boron, etc. Therefore, promotion of use of micronutrients as per Soil Health Card recommendation in the deficiency areas @ Rs.500 per ha would be given.

XII. Reclamation of Problem Soils:

Based on recommendation of NITI Ayog, the sub-scheme 'Reclamation of Problem soils' which was earlier in RKVY-RAFTAAR has been transferred and kept as sub component with Soil Health Management (SHM) scheme. Further, the Soil Health Management (SHM) has been merged as Soil Health & Fertility component with RKVY-cafeteria scheme.

The financial assistance will be provided as per details given below:

S. No.	Activity	Financial Assistance per
I	For Gypsum/ Lime application, Green manuring and Bunding in	
	a. Acidic soils	Rs.0.10 lakh
	b. Alkali soils	Rs.0.20 lakh
II	For Saline Soils by sub surface drainage in	
	a. Alluvial soils	Rs.0.65 lakh
	b. Heavy textured soils	Rs.1.25 lakh

XIII. New Initiatives (Research & Development):

Under this component, R& D Initiatives can be under taken either through States or through ICAR or other research institutes. Setting up of command centres for Soil Health and Fertility scheme is also allowed under this component.

XIV. NABL Accreditation / Recognition of Lab-

In order to ensure quality of labs, the NABL accreditation / recognition of Soil and Fertiliser labs are mandatory. State to go for NABL Recognition of soil testing labs in first phase and after that NABL Accreditation will be undertaken. State has to go for NABL accreditation of all Fertiliser Labs. For NABL accreditation, Rs. 1 lakh under the scheme will be provided. For NABL recognition of labs, amount will be provided as per actual or Rs. 1 Lakh whichever is less.

B.4.4 Support to School Soil Health Programme-

Under the scheme labs will be set up in identified schools by the Government of India in consultation with Department of School Education and Literacy and Tribal Affairs. Funding will be arranged as per the labs cost either from the scheme or from the fund arranged from the outside agency like NABARD etc. States will coordinate the programme with identified schools, ATMA, KVKs and SRLM Krishi Sakhi for training, soil sample collection, testing, generation of Soil health card and organizing Gram Sabha wherein Students will give awareness to farmers about the recommendation of Soil Health Card. Recurring cost for labs setup in schools for reagents will be met from the scheme or from the fund arranged from schools or any outside agency like NABARD.

B.4.5 Support to RAWE Programme-

Under RAWE programme of ICAR, support will be given under the scheme to SAUs graduates to collect soil samples from farmer's field, testing in labs of SAUs, KVKs or State Government Labs. Graduates will also educate farmers about recommendation of Fertilisers as per soil health card, once the SHCs are generated.

B.4.6 Awareness to farmers through Krishi Sakhi and ATMA Network-

As a part of the Convergence Initiative, between the Ministry of Agriculture & Farmer Welfare and Ministry of Rural Development a joint initiative i.e Krishi Sakhis Training Programme to certify 70,000 Krishi Sakhis as "Para-Extension Workers" Krishi Sakhis has been initiated to play a pivotal role in implementing schemes like NMNF, Bio Resource Centres, PMFBY, etc.

Krishi Sakhis, women from villages identified by SRLMs, will be trained to bridge the gap in rural agricultural services with their innate potential and firm rooting to farming & villages. These will become para-extension workers, community resource persons for creating awareness and building capacity of farmers and also acts as a link between farmers, KVKs, Agriculture and Allied Departments. They will act as key resources, guiding farmers to access the benefits of these initiatives. They would carry out awareness generation meetings on Natural Farming, Soil health Management and Testing as part of Janbhagidari.

Under the scheme, the fund for awareness generation will be used through Krishi sakhi and ATMA network. The fund of Rs. 15 out of the Rs. 300 earmarked for each soil health card will be provided to Krishi Sakhi and ATMA network. The awareness will be spread to farmers individually or through farmers mela wherein three activities will be undertaken i.e. (i) generation awareness about importance of soil health card. (ii) Advisory before sample collection. (iii) Advisory after generation of soil health card.

B.4.7 IMPACT ASSESSMENT, MONITORING, PERIODIC EVALUATION AND REPORTING:

The Scheme envisages coordinated approach for monitoring with active involvement of implementing agencies, beneficiaries and other stakeholders. A combination of periodic desk review, field visits, and web-based mechanism will be adopted for releasing of funds, physical and financial progress and monitoring the progress of Scheme interventions at National level by INM Division of the DA & FW. INM Division may evaluate efficacy of this Scheme through a "third party". The agency will assess the efficacy, performance, outcome and shortcomings of the Scheme and recommend suitable corrective measures. Information and communication technology will be deployed extensively for ensuring transparency in the implementation process and effective monitoring of the Scheme.

B.5 PKVY

“Paramparagat Krishi Vikas Yojana (PKVY)” aims at development of sustainable models of organic farming through a mix of traditional wisdom and modern science to ensure long term soil fertility build-up, resource conservation and helps in climate change adaptation and mitigation. It primarily aims to increase soil fertility and thereby helps in production of healthy food through organic practices without the use of agro-chemicals. It also aims at empowering farmers through institutional development using clusters approach not only in farm practices management, input production, quality assurance but also in value addition and direct marketing through innovative means.

Participatory Guarantee System under PGS-India programme was taken up as the key approach for quality assurance. Under the scheme farmers will have option to adopt any form of organic farming in compliance of PGS-India standards.

B.5.1 INSTITUTIONAL FRAMEWORK AT NATIONAL, STATE AND DISTRICT LEVEL

I. National Level

I.(a) National Advisory Committee (NAC)

The National Advisory Committee (NAC) under Chairmanship of Secretary (DA&FW) will be the policy-formulating body giving overall direction and guidance to the Mission and monitor and review its progress and performance. The composition of the NAC is given below:

Secretary, Agriculture, Cooperation & Farmers Welfare (A&FW)	Chairman
Secretary, MOFPI	Member
Secretary, MSME	Member
Additional Secretary & Financial Advisor, DA&FW	Member
Additional Secretary (INM), DA&FW	Member
Additional Secretary (Panchayati Raj)	Member

Additional Secretary (Rural Development)	Member
Representative from Department of Agriculture Research & Education	Member
Joint Secretary (NHM)	Member
Joint Secretary (Crops)	Member
Joint Secretary (NRM & RFS)	Member
Joint Secretary (DOF)	Member
Joint Secretary (INM)	Member Secretary
Representative of State Governments	Associate members on rotation basis

NAC may invite 3-4 states as associated members in each meeting on rotation basis. NAC will meet at least once in six months.

I.(b) Executive Committee (EC):

Executive committee will be headed by Additional Secretary (INM). It will comprise of the following Members:

Additional Secretary (INM), DA&FW	Chairman
Joint Secretary (Department of Fertilizers)	Member
Joint Secretary (INM)	Member Secretary
Joint Secretary (MOFPI)	Member
Joint Secretary (MSME)	Member
Joint Secretary (Panchayati Raj)	Member
Joint Secretary (Rural Development)	Member

DDG (NRM), ICAR, Agriculture Commissioner, Horticulture Commissioner, ADC (INM), Director, NCOF and Director, CFQC&TI	Expert Members

During the Annual Action plan approval meetings, the State Secretary of Agriculture/ nodal department shall be co-opted as member of the E.C.

- EC will oversee activities of the Scheme and approve Action Plans of various states in accordance with the prescribed norms.
- EC is empowered to reallocate resources across States and components
- EC will meet at least once every quarter.

INM Division in DA&FW will Oversee dissemination, implementation, monitoring and evaluation of various interventions in the mission and provide feedback reports to the NAC and EC.

I.(c) National Centre of Organic and Natural Farming (NCONF)

NCONF being the secretariat for PGS-India programme shall be the monitoring body for PGS certification programme including authorization of RCs, selection of NABL accredited labs and random surveillance through the RCONFs. It will provide technical trainings to state Government officers on organic crop and livestock management as per PGS standards. it will have following functions:

- Monitoring of functioning of Support agencies& implementation of the scheme in states as directed by INM Division from time to time.
- Management and maintenance of data, MIS development, report generation and digital surveillance on group activities on PGS certification through PGS portal

I.(d) Project Management Cell (PMC) in INM Division will function under JS (INM). Consultants in organic farming management, PGS certification and agri-marketing as programme Manager, Senior Programmers, Technical Assistants, and supporting staff will form part of the PMC.

I.(e) Project Management Unit (PMU) to hand hold states in capacity building, facilitate convergence with different schemes, handhold developing clusters for market linkages,

branding and linking clusters and FPOs with organic agri-value chain professional Project Management Units (PMU) shall be hired on contract/outsourcing basis. The functions of the PMC and PMU are given at **Annexure-XLVII**.

II. State Level

II.(a) The State Level Executive Committee (SLEC):

Agriculture Production Commissioner/Principal Secretary Government	Chairman
Commissioner (Agriculture)/ Director (Agriculture)	Member Secretary
Commissioner (Horticulture)/ Director (Horticulture)	Member
Commissioner (Panchayati Raj)	Member
Commissioner (Rural Development)	Member
Representatives of SAUs/ICAR//NCOF/other line Departments	Expert Members
Lead Farmers	Expert Members

The above SLEC is only indicative. States can choose to set up their own SLEC/already existing structures as per the need and availability under information to GoI.

The SLEC will oversee the implementation of scheme's components of the respective States through regular meetings with the nodal and other line Departments. It will also provide inputs to the Executive Committee for appropriate policy formulation and post facto approval, if required. ^[1]_{SEP}

II.(b) State Project Management Team (PMT): States can engage consultants, technical assistants at state and district level having technical and administrative expertise for providing technical guidance and effective monitoring of the scheme implementation. States can decide the number based on their requirements at State and District level. Financial support for the same will be obtained from 2.5% administrative costs provided to the States.

II.(c) Support Agencies: States can implement the programme through their own staff or can engage /outsource programme implementation through professional support agencies empaneled by the DA&FW through NCONF. Essential qualifications for Support Agency may be seen at **Annexure-XLVIII**. Support agencies shall be required for the following two-fold

functions:

- Implementation of Cluster formation, capacity building including exposure visits, trainings, deployment of manpower, management of entire programme implementation including data management, handholding to groups and clusters, facilitating value addition and marketing of PGS certified produce.
- PGS Certification endorsement, physical verification and issue of certificates including sample collection and analysis for residue analysis.
- While any support agency fulfilling the prescribed criteria/qualifications and empaneled by the NCONF can take up the functions as listed at (A), States shall engage already registered Regional Councils (RCs) for functions as listed at (B).
- States need to ensure that PGSI RCs authorized by NCONF are hired only for PGS certification activity and support agencies empaneled by NCONF for cluster development, capacity building and handholding including PGS surveillance, peer appraisal support and documentation on PGSI portal.
- Roles and responsibilities of Support Agency in detail is at **Annexure-XLIX**
- Eligible Criteria for Regional Councils is given at **Annexure-XLX**
- Roles and responsibility of Regional Councils is given at **Annexure-XLXI**

III. District Level

III.(a) The indicative structure for District Level Executive Committee (DLEC) is as follows; states can choose their own setup under intimation to GoI

Collector	Chairman
Joint Director/Deputy Director (Agriculture)	Member Secretary
District Agriculture/Horticulture/Soil Conservation officer	Member
Representative of (PR, RD, Health, Education of others)	Member
Representatives of SAUs/ KVKs/ other line Departments	Expert Members

III.(b) DISTRICT LEVEL PROJECT MANAGEMENT TEAM: DPMT will be set up for implementation and monitoring of programme at District level.

B.5.2 CRITERIA FOR SELECTION OF AREA AND FARMERS

For selection of areas/ Farmers' groups the following will be taken in to consideration:

- Organic farming under PKVY will be promoted preferably in hilly, tribal and rain-fed areas.
- Cluster approach will be adopted in large patches of up to 500 ha area in plain areas and 200 ha in hilly areas.
- Cluster chosen shall be in contiguous patch, as far as possible, may be extending over few adjacent villages (but not over large areas in sparsely distributed villages).
- Formation of Gram Panchayat based Farmer Producer Organizations will be encouraged or already existing FPOs will be promoted under the scheme.
- In a cluster, there should be maximum number of small and marginal farmers. Women farmers/ SHGs should be given preference.
- Success in marketing shall be one of the key component taken up for outcome evaluation along with other indicators such as soil health improvement, reduction in cost of cultivation etc.

B.5.3 Formation of FPOs

Efforts should be made to ensure that all PKVY clusters are federated into Farmer Producer Organization (FPOs). For this, funds can be leveraged from 10,000 FPO scheme of DA&FW.

States while preparing Annual Action Plans can indicate their demand for FPOs. DA&FW in turn will allot necessary quota of FPOs for PKVY clusters through any of the designated **Implementing Agency**. States can collaborate these Implementing Agency and identify CBBOs to take up FPO formation activity.

B.5.4 Pattern of Assistance

- The project is to be executed over a period of 3 years, every year audited report (GFR 19-A) duly signed by Chattered Accountant along with physical report is to be submitted to DAC&FW, Ministry of Agriculture and Farmers Welfare, Govt. of India. State that requires additional time to implement the project, beyond 3 years

may seek prior permission before the end of the project period during first 2 years subject to the condition that they should not exceed the overall per hectare and per farmer cost ceilings.

- Funds for certification reimbursement under individual farmers and small farmer groups away from PKVY clusters will be provided as reimbursement directly to the certification agencies within the ceiling prescribed at S. No. 15-B (3&4) of these guidelines.

B.5.5 MONITORING AND EVALUATION

- At the national level regular monitoring of the scheme will be done by NCONF, RCONFs and National Project Management Units (PMUs). Monitoring formats will be developed for the same.
- At State and district levels also the Project Management Units engaged for the purpose will do regular monitoring of the implementation of the scheme.
- Information and communication technology will be deployed extensively for ensuring transparency in the implementation process and effective monitoring of the programme.
- A dedicated MIS have been developed to capture the information from planning of project, approval, execution to progress report. Timely data uploading into the MIS portal is mandatory and shall form the basis for progress evaluation while considering the requests for fund releases
- States will send quarterly progress reports to MIS and in hard copy also.
- Geo-tagging: The clusters taken up under PKVY will be geo tagged for monitoring purpose as well as for facilitating marketing mechanism based on the crops grown.
- DA&FW will evaluate efficacy of this Scheme through a "third party". The agency will assess the efficacy, performance, outcome and shortcomings of the Scheme and recommend suitable corrective measures. Concurrent, midterm and final evaluations will be conducted by DAC to incorporate midterm corrections and final evaluation of the scheme implementation.
- States shall also take up third party based concurrent, midterm and final evaluations from time to time.

B.5.6 JAIVIK KHETI PORTAL

A dedicated portal for organic farming acting as both a knowledge platform as well as marketing platform has been developed. Details of farmers involved in Organic farming, input supplier, certification agency (PGS), and marketing agencies will be available for smooth implementation from production to marketing. PKVY/PGS groups can take the advantage of this portal for capacity building, technical know-how, communicating with marketing channels/ other groups and direct marketing of their produce to prospective buyers and consumers.

B.5.7 FORMATION OF GROUP AND CLUSTERS

Formation of Groups: A group of farmers having a total area of 20 ha, in as far as possible, in contiguous patch within a village or closely located villages shall be considered a PKVY/PGS Group. A group shall comprise minimum 20 farmers (may be more if individual holdings are less). All PGS group requirements for PGS certification shall be taken up by this group (called local group in PGS manual). 25 such groups covering 500 ha area shall constitute one “Cluster”.

Formation of Clusters: State Government shall identify the target PKVY/PGS Groups covering 500 ha area for formation of clusters. The group of clusters should be identified preferably in the existing FPO areas. Creation of new FPOs shall be taken up funds for FPO formation shall be leveraged through convergence from 10,000 FPO scheme of Govt of India

- a. PKVY farmer organizations in respective clusters shall initiate necessary activities for formation of FPO for all postharvest activities such as collection and aggregation of produce, primary processing including washing, cleaning, grading, packing and branding & marketing of the organic produce within six months of cluster formation.
- b. Farmers in a group can avail benefit to a maximum of two ha as per provision of PKVY, however the entire land of farmer could be allowed in the cluster without extending any additional support to the rest of the area and the same can be facilitated by the service provider for certification by the group and endorsed by the Regional Council without any extra cost involvement for data management and certification.
- c. For mobilization of farmers in groups and clusters, their capacity building, day-to-day handholding in standards implementation, assisting farmers in peer appraisal, documentation, data management and data uploading, services of support agencies/facilitation agencies empaneled by NCONF may be used.
- d. In cases where individual willing farmers or small farmer groups are interested to join the scheme and are located at distance from new/ existing PKVY clusters or large

farmers that have not been included in the groups, then such farmers will also be considered as an extension of the group/ clusters and will be supported only for certification under component 14-B (3 & 4) PGS Certification through Regional Councils. Farmers will also be free to adopt third party certification under NPOP. States need to ensure that such farmers are taken into consideration for capacity building activities and market linkages. Methodology for providing certification assistance to such farmers is given at **Annexure XLXIII**.

- e. In cases where states are willing to bring traditionally organic/ default organic area (such as in hills, islands or in tribal or desert belt) without any crop/ commodity focus and want to declare the entire identified traditional organic areas as organic with certification, then all the farmers in the contiguous area in a village shall be considered as cluster. Such clusters will be supported only for certification under the component, 14-B (3 & 4) PGS Certification through Regional Councils. States need to ensure that such farmers are taken into consideration for capacity building activities and market linkages. Methodology for providing certification assistance to such large contiguous clusters is given at **Annexure XLXIII**.

B.5.8 CAPACITY BUILDING

After formation of a cluster, state Government in consultation with Support agency shall draw up a strategy for capacity building of farmers on organic farm management, organic input production and use, organic approaches for pest management, adoption of PGS standards in field practices, PGS certification procedures at group level documentation requirements for PGS and peer appraisal procedures through trainings, exposure visits and on-hand data management systems for data uploading.

Every year a minimum of 3 trainings shall be done at a cluster level, covering all the groups. In cases, where cluster is spread over large area (as in hills), trainings may be done at group level comprising members from 3 groups. In first year farmers shall also be exposed to PGS certification systems through exposure visits to existing PGS groups.

For mobilization of farmers in groups and clusters, their capacity building, day-to-day handholding in standards implementation, assisting farmers in peer appraisal and documentation and data management and data uploading necessary manpower shall be deployed by the support agency

Training of Officers /Executives of PKVY Team: Officers/Executives of PKVY Team, members of PMUs at different levels, and Regional Councils, to be trained on Sustainable Agriculture System and Governance Management of FPOs/PCs.

B.5.9 INCENTIVES TO FARMERS

For organic conversion and on-farm and off-farm inputs

Financial assistance to farmers shall be provided as incentive for eco-system service and for procurement/ management of organic inputs. Necessary funds under the head shall be released directly to the farmer beneficiaries as Direct Benefit Transfer (DBT) in their bank accounts.

On-farm inputs can be like composting, green manuring etc. and Off-farm inputs like organic seeds, manures, vermi composts, bio fertilizers, bio pesticides, neem formulations, PROM, botanical and physical and biological plant protection agents etc. can be considered.

States can issue necessary guidelines and suggest inputs as recommendatory measures. Farmers can choose inputs out of the recommendations as per their choice. In any case farmers should not be forced to buy the recommended inputs by the implementation Department and professional support agencies. Farmers will also be free to utilize the assistance fully for creation of on-farm input production infrastructure.

B.5.10 MARKETING AND PUBLICITY

States will prepare plans and programme for such activity. Efforts should focus in local nearby areas for marketing through weekly bazaars/ haats or by supporting the FPO in opening an outlet. Efforts should be made to develop at least one marketing outlet in each of the cluster/FPO.

Components and Financial break up of components for 500 ha organic farming clusters under PGS Certification (Target 6 lakh ha)

Sl No.	Component	Year 1	Year 2	Year 3	Total cost ha for 3 ye	Total cost of 20 ha for 3 years (Rs in lakh)	Total cost of 500 ha for 3 years (Rs in lakh)
1.	Value Chain Institutional Development						
1.1	Cluster formation	1500	1500	1500	4500	0.90	22.50

	and Capacity building including exposure visits, and trainings of field functionaries						
1.2	Deployment of manpower and management cost for implementation of programme including data management and uploading	1500	1500	1500	4500	0.90	22.50
2	Value Chain Production						0
2.1	Certification (PGS or NPOP)	1000	1000	1000	3000	0.60	15.00
2.2	Incentive to farmers as DBT	5000	5000	5000	15000	3.00	75.00
3.	Value addition, marketing and publicity						
3.1	Support for marketing, common packaging, branding, space rent, transport etc	1000	1500	2000	4500	0.90	22.50
3.2	Value addition infrastructure creation through FPC/ FPO case to case basis*						
3.3	Brand building, trade fairs, exhibitions, local publicity, organic fairs/ melas, local marketing initiatives, participation in national trade fairs						
	Total for Cluster development	10000	10500	11000	@ Rs 31500/ha	6.30	157.50

B.6 RAINFED AREA DEVELOPMENT (RAD)

To main stream development of rainfed are as in a sustainable manner, Rainfed Area Development (RAD) Scheme was made operational from 2014-15 in the country as a component of National Mission for Sustainable Agriculture (NMSA). Rainfed Area Development (RAD) aims at promoting sustainable agriculture production through adaptation of agricultural climatic zone wise Integrated Farming System (IFS) models developed by Indian Council of Agriculture research (ICAR). RAD aims at promoting location specific improved agronomic practices through soil health management, enhanced rain water use efficiency, judicious use of chemicals, crop diversification and progressive adoption of crop-livestock-tree farming systems in an integrated approach.

The scheme will adopt an area based approach for development and conservation of natural resources along with farming systems. This component has been formulated in a ‘watershed plus framework’ to explore potential utilization of natural resources base/assets available/created through watershed development and soil conservation activities/interventions under MGNREGS, PMKSY-WDC, etc. A cluster based approach of 20 ha. (contiguous or non-contiguous in difficult terrain with a close proximity in a village/adjoining villages) would be developed to derive noticeable impact of convergence encouraging local participation and for future replication of the model in larger areas. It will introduce appropriate farming systems by integrating multiple components of agriculture such as crops, horticulture, livestock and fishery with agro based income generating secondary agriculture activities and value addition.

Farming Systems recommended by ICAR and successful findings of NICRA flag ship project shall also be considered in development of integrated project plan. Since millets can grow under adverse climatic conditions on marginal poor soils with little inputs and are tolerant to drought and resistant to pests and diseases, they can also be part of broader farming strategy to adopt to increasingly harsh growing conditions brought by climate change. Also, reducing over-reliance on more commonly grown crops with high input use thus fostering more diverse diets and promoting food security and nutrition. Besides millets, pulses and oilseeds are also climate resilient and to further boost the vegetable oil production in the country, farming systems that are envisaged to promote are mainly based on PMO (Pulses, Millets and Oilseeds)

B.6.1 Salient features:

- RAD promotes enhancing soil productivity through crop diversification and crop

rotation increasing soil cover (mulching) periods which is important to enhance organic matter of the soil.

- Expanding protective irrigation from rain water source through efficient water management techniques that is required to secure rainfed crops in times of short interval droughts.
- Encouraging indigenous seeds with better adaptability while ensuring its quality, diversity and timely availability for climate resilience.
- Location specific agronomic innovations while enhancing farmers' knowledge and management skills towards developing regenerative integrated farming systems.
- Appropriate small farm mechanization (small machines and implements for women) for ensuring timely operations and reducing drudgery of woman labour.
- Development and strengthening of FPOs to deal with multiple and diverse commodities in small quantities and varied quality.
- Strengthening support systems for Extensive Livestock Systems (health care, breeding, drinking water, fodder in commons, etc.)
- Promote fisheries in rainfed water bodies through institutionalized support systems.
- Integrated value chain support systems to realize growth potential in pulses, millets and oilseeds based farming production systems including infrastructure and processing facilities – focus on local markets.
- j. Risk minimization, resilience building and enhancing private investment.

B.6.2 Strategy:

To achieve the objectives, RAD will have following multi-pronged strategy:

- i. Promoting integrated farming system covering crops, livestock and tree plantation (horticulture and/or agroforestry) based composite farming for enhancing livelihood opportunities, ensuring food security and minimizing risks from crop failure through supplementary/ residual production systems;
- ii. Popularizing resource conservation technologies (both on-farm and off-farm) and introducing practices that will support mitigation efforts in times of extreme climatic events or disasters like prolonged dry spells, floods etc.
- iii. Promoting effective management of available rain water resources and enhancing water

- use efficiency through application of technologies coupled with demand and supply side management solutions;
- iv. Interventions on Agriculture Extension shall be emphasized upon for capacity building, awareness generation, information support, pooling resources together through convergence etc. Capacity building for improved agronomic practices through extension programs for higher farm productivity, improved soil treatment, increased water holding capacity, judicious use of chemicals/energy, enhanced soil carbon storage etc. are key to the success of the program.
 - v. Selection of rain-fed/dry-land areas: State Government shall identify the priority blocks for undertaking the rainfed area development in an integrated approach. Priority shall be given to the following areas under the scheme;
 - Gram Panchayat/Blocks having more than 60% of the area under uplands/rain-fed.
 - Natural Farming Clusters.
 - Watershed areas taken up under WDC project in last 20 years shall be given preference.
 - Gram Panchayat/Blocks which are the focus are as of NRLM.
 - Aspirational blocks selected by NITI Aayog.
 - Villages included under Pradhan Mantri Janjatiya Unnat Gram Abhiyan (PMJUGA).
 - Districts and Blocks selected under NFSM Pulse/Oilseeds/Millets.
 - vi. Millets perform exceptionally well in rainfed areas due to its hardiness and capacity to withstand climatic aberration. Cultivation of millets shall be preferred in RAD thus contributing to Government's strategy to promote millets. Cluster approach in a village or an area of not less than 20 ha. to be adopted to utilize the potential of available/created common resources. At least 25% area of the cluster shall be taken up for Millets cultivation.
 - vii. States/UTs should facilitate the beneficiary of RAD scheme to avail Soil Health Card and Kisan Credit Card while implementing RAD.
 - viii. RAD system increases carbon storage potential due to multiple plant species and enhances green coverage in agricultural lands. Carbon sequestration potential in RAD

system is generally greater than that of single crop based system. RAD thus contributes to increasing the scope for emerging carbon market.

- ix. Involving knowledge institutions and professionals in developing climate change adaptation and mitigation strategies for specific agro climatic situations and promoting them through appropriate farming systems. Recommendations of ICAR's Contingency Plans and technologies developed under NICRA project on climate resilient farming shall also be integrated in the project plan.
- x. Programmatic interventions as per land capability and conducive to climatic parameters for ensuring integrated development through dissemination and adoption of rainfed technologies with greater reach in disadvantaged areas & location specific planning by way of coordination, convergence and leveraging investments from other Schemes/Missions. A consortium approach would be evolved with various stakeholders including knowledge partners like State Agricultural Universities (SAUs), Krishi Vigyan Kendras (KVKs), Indian Council of Agricultural Research (ICAR) institutes, other professional/academic organizations like DST, DBT etc. to provide single window service/knowledge provider system for the benefit of farming community.
- xi. State Government may involve additional field level Community Resource Persons (CRPs) as per the requirement in implementing the programme. Efforts should be made to make optimum utilization of field cadre of SRLM, NF programme, BTM/ATM under ATMA. State Govt. may select field level NGOs/Young Professionals to supports programmes implemented through Women SHGs/ FPOs.
- xii. All land based interventions should be Geo Tagged/Geo Fenced. Krishi Mapper/Mobile App developed by DA&FW shall be used for Geo Tagging/Geo Fencing of farmers' field. The data captured by the App will automatically link with the program MIS portal of the State/Central through API.
- xiii. Strong technical monitoring and feedback systems on climate change mitigation and adaptation issues for regular updates on technical feasibility of various components and their effectiveness in bringing about the climate resilience should be ensured. The experts of central institutes and state agricultural universities would be part of such technical monitoring/feedback. The capacity building of the implementing agencies would be steered by MANAGE.

B.6.3 Interventions:

RAD aims at promoting Integrated Farming System (IFS) with emphasis on multi-cropping, rotational cropping, inter-cropping, mixed-cropping practices with allied activities like horticulture, livestock, fishery, plantation, apiculture, etc. to enable farmers not only in maximizing the farm returns for sustaining livelihood, but also to mitigate the impacts of drought, flood or other extreme weather events which are occurring frequently due to climate change;

Depending on the type and extent of natural resources/assets/commodities already developed or supported, location-specific crops, fruits, feed & fodder, livestock, fisheries, apiculture, mushroom, medicinal & aromatic plantation and related income generating activities would be supported. Activities like construction of ponds, land treatment, wells, supply of pumps, micro irrigation/other water saving devices, seed and sapling support etc. would be converged/supplemented to promote value addition through a sustainable farming system;

- i. Adoption of a cluster approach in a village or an area of not less than 20. Ha. (contiguous or non- contiguous in difficult terrain with close proximity, in a village/adjoining villages and at least 25% area to be covered for Millets cultivation) may be preferred for injecting investments to utilize the potential of available/created common resources;
- ii. Support will be given to those who wish to add other compatible farming component(s) to their existing crops/ system. It should have the potential to introduce/merge at least one or more major components/activities apart from cropping system of the integrated farming systems to qualify for the support. Support for only cropping system will not be allowed under this component unless it is diversified from the regular practice to a farming system suitable to that particular ecological conditions through effective on farm rain water management and soil health care. Farmers would have the option to choose one or the other combination of farming systems suitable to the specific eco-system supported through local KVKs, SAUs, ICAR institutes, ICRISAT, ATMA etc., for maximizing agricultural productivity from the existing natural resource assets;
- iii. Support to each farming family under RAD component will be restricted to financial assistance of Rs.30,000/-.The amount of assistance shall be uniform for all farmers irrespective of the size of their land holding. The details of interventions' supported under RAD and Format for preparation of AAP are given at **Appendix –I and Appendix –II** respectively.

- iv. State Government shall involve additional field level Community Resource Persons in the implementation of the program. Monitoring and capacity building of the beneficiaries through Community Resource Persons (CRPs) under SRLM, Self Help Groups, Champion Farmers under NF program etc. shall be taken up. Provision of Rs.10,000/- per cluster has been made for such field level support.
- v. Farmland development would be taken up through location specific interventions like resource conservation, rainwater harvesting, land development in watershed areas, last mile connectivity etc. Farmers' Producer Companies/Organizations, Registered Farmers' Societies, Farmers' Cooperatives would also be eligible for developing a cluster.
- vi. Converging the upgraded utilities developed through watershed development programs (WDC- PMKSY)/ NREGA in terms of water harvesting and micro water storages through effective application and distribution systems like improved conveyance, field channels, pressurized irrigation, water lifting devices etc. to enhance the potential of farming systems.
- vii. Suitable linkage for agro-processing and Marketing may be established for the cluster. Possibilities of building post-harvest and market linkage under PPP model may be explored.

B.6.4 Convergence:

Convergence of relevant developmental programs in project areas is important for optimal utilization of resources by establishing an integrated and coordinated system involving different sectors and institutions. The upgraded utilities developed through watershed development programs (WDC- PMKSY)/MGNREGA/ other schemes of Ministry of Rural Development in terms of soil and water conservation and micro water storages can be made use to enhance the potential of farming systems. Areas/Commodities being developed under National Food and Nutrition Security Mission (NFNSM), National Mission on Edible Oil-Oilseeds (NMEO-OS), Mission for Integrated Development of Horticulture (MIDH), National Mission on Natural Farming, Sub Mission on Agricultural Extension (SMAE) etc. can be supplemented with other interventions under RKVY to make it an Integrated Farming System facilitating additional livelihood opportunities to farmers. Interventions on Agriculture Extension shall be appropriately made use for capacity building, awareness generation, information support, farm mechanization, availability of seeds/planting materials etc.

I. Support to RAD through MNREGA:

Under MNREGA, mandatory expenditure of at least 60% on the works to be taken up is for agriculture and allied activities. The scheme provides for various plantation models such as block plantation, canal side plantation, sericulture, horticulture plantation, boundary plantation, farm forestry, wasteland plantation, shelter belt trees plantation, coastline plantation, development of silvipasture grassland etc. There are many line Departments such as the Forest Department, Agriculture Department, Horticulture Department, Soil Conservation Department, Tribal Development, Watershed Department etc. that are working as implementing agency under MNREGS in the States. Every asset/land based intervention is geo-tagged in three stages, stage 1- before, Stage 2- during and Stage 3 -after completion of work under MNREGA and these assets would be utilized under RAD for promoting sustainable farming systems.

Since MNREGA provides sufficient opportunities for agriculture and allied activities, States/UTs must be ensured convergence of RAD with MNREGA to augment the impact of the scheme. Further, as MNREGA has robust monitoring system, monitoring of works at the micro level shall be carried out by Panchayat institutions through existing mechanism of MNREGA.

II. Support to RAD through PMKSY-WDC:

- i. The objectives of Watershed Development Program includes; a) Securing production and farmers' income against climate variability and its risks of drought spells through diversification of crop systems & animal husbandry, and varied livelihood portfolios; efficient water harvesting and retention of rainwater in soil profile; and entitling all project members to ground and surface water resources for life saving irrigation on equitable basis. b) Improving intensity and productivity of various crops, livestock, fisheries and biomass production systems through optimal, integrated, sustainable and efficient use of natural resources in project areas. c) Recognizing the stake of non- land holding project members, and promoting alternate livelihood opportunities. d) Building an ecosystem of enterprises for facilitating efficient scales of operations, access to credit, and market linkages; knowledge sharing; and resource convergence led by vibrant member managed farmers' institutions.
- ii. Convergence of RAD with PMKSY-WDC (Department of Land Resource) shall compliment the much needed resources for promoting Integrated Farming System.

Watershed Development Projects of MoRD are to improve productive potential of rainfed / degraded land through integrated watershed management. It strengthens community based local institutions for promotion of livelihoods. At macro - level, the vision of WDC-PMKSY projects is to accelerate the economic growth rate of agriculture in the less endowed rainfed areas of the country. Moreover, this is to be achieved by adopting harmony with ecological principles of development for ensuring sustained transformation of economy and ecology. The guiding principles are better Economy, Ecology and Equity in the rainfed regions of the country. At watershed level, the development plan is guided by the need to achieve higher incomes for farmers, expanded livelihood options for landless, equity in distribution of benefits, community ownership and management, and ecologically sustainable action plan.

- iii. Similarly, RAD aims at promoting location specific improved agronomic practices through soil health management, enhanced water use efficiency, crop diversification, progressive adoption of crop- livestock farming systems and integrated approaches like crop-sericulture, agro-forestry, fish farming, etc. Therefore, States/UTs must ensure close convergence of Watershed Developments Programs with RAD. Priority should be given to the areas covered under Watershed projects for RAD implementation.

III. Support to RAD through National Food and Nutrition Security Mission (NFNSM):

NFNSM supports increase in production of food crops including PMO through production and productivity enhancement in a sustainable manner in the identified Districts of the country, restoring soil fertility and productivity at the individual farm level and enhancing farm level economy (i.e. farm profits) and post-harvest value addition at farm gate for better price realization to farmers through efficient market linkage. NFNSM promotes intensive package of practices (crop production & protection technologies) on compact blocks in cluster approach. This ensures inclusion of all the farmers in the block irrespective of their size of holding or the social status of the farmers. Accordingly, latest crop production & protection technologies including quality seeds, nutrients, plant protection measures, resource conservation technologies, exposure visit of farmers are promoted in compact blocks in cluster approach. New extension models involving non-governmental organizations are also adopted for reaching out to the farmers in remote and inaccessible areas. RAD should be closely supported under NFNSM through various interventions including extension activities for promotion of PMO based farming systems.

IV. Support to RAD through National Mission on Natural Farming:

- i. Natural Farming if done effectively enhances restoration of soil fertility and environmental health, and mitigating and/or reducing greenhouse gas emissions thus aiding to move towards chemical free agriculture. Natural Farming builds on natural or ecological processes that exist in or around farms. Under this, soil is always supposed to be covered with organic mulch, which creates humus and encourages the growth of friendly microorganisms. Farm made bio-cultures named 'Jeevamrit, Beejamrit etc.' are added to the soil instead of any fertilizers to improve microflora of soil.
- ii. Extension program is an important component of National Mission on Natural Farming. Under the Mission, natural farming practitioners shall be identified in consultation with local Gram Panchayat who are successful natural farmer with their entire land holding under natural farming since last 2-3 years. Such practicing natural farmers are identified as "Champion Farmers". Selected champion farmer shall have adequately and for demonstration of natural farming practices, have necessary facility for monthly trainings on field (like preparation of Bijamrit, Jivamrit etc) and have organizational capacity and good communication skills. In addition, one rural youth belonging to a family of natural farmer (other than Champion farmer) is identified as "Community Resource Person (CRP) in consultation with Grampanchayat. Champion Farmer (CF) and Community Resource Persons(CRPs) lead the natural farming cluster right from Farmer Field School to registration of farmers, regular meetings, motivating the farmers to join natural farming movement and support participating farmers in implementation of best natural farming practices, problem solutions, farm management, certification, collective marketing of their produce etc.
- iii. RAD also emphasizes on the principles of natural farming. This requires adequate awareness and capacity building efforts for farmers. RAD shall be supported by Natural Farming programs especially on the capacity building of the farming community through Champion Farmers. Priority should be given to areas taken under Natural Farming while identifying clusters for RAD program in order to achieve close convergence.

V. Support to RAD through Sub-Mission on Agriculture Extension (SMAE):

The Scheme ATMA (Agriculture Technology Management Agency) supports State Extension Programmes for bringing Extension Reforms across the country and it has now been included as a Centrally Sponsored component of the Sub-Mission on Agriculture Extension (SMAE). It

is now under implementation in 696 districts of 28 States & 5 UTs of the country. Innovative and restructured institutional arrangements have been made for technology dissemination amongst the farmers on a pilot tested Agricultural Technology Management Agency (ATMA) model at district level. Under the Scheme, fund is provided to States with an objective to support State Governments efforts of revitalization of their extension system and making available the latest agricultural technologies and good agricultural practices to farmers in different thematic areas to increase agricultural production through various extension activities. As extension initiatives are the key to success of RAD program, states must ensure that all beneficiaries under RAD shall be covered under SMAE programs.

B.6.5 Rainfed Area Development – NRAA as Knowledge Partner

National Rainfed Area Authority (NRAA), Department of Agriculture and Farmers Welfare serves as a knowledge and technology platform for promoting the growth of agriculture and welfare of farmers in rainfed regions of the country. In this capacity, NRAA is actively engaged with various Ministries and Departments at the union level, and with the State Governments as well. The focus of such engagements is always promotion of rainfed agriculture by enabling knowledge-based interventions and efficient coordination with various agencies, and convergence of different services. The Department of Agriculture and Farmers Welfare (DA&FW) amongst a bouquet of its several programmes targeting growth of the country's agricultural sector including the rainfed area, has specifically designed 'Rainfed Area Development' (RAD) to enhance greater resilience to the production systems, and promote egalitarian agricultural growth. NRAA with its specific mandate dedicated to the accelerated growth of the country's rainfed agriculture can be a useful partner in this regard.

In this context, National Rainfed Area Authority (NRAA) is notified as a '**Knowledge and Partner**' to the DA&FW in carrying out its flagship programme. Some of the specific mandates of NRAA vis-a-vis this partnership are as follows:

- (i) Provide technology and knowledge support including identification of project clusters and priority areas.
- (ii) Formulate guidelines and operational manuals for promoting integrated farming and livelihood systems (IFLS)
- (iii) Serve as a supervising agency and towards this, undertake field visits and coordinate with state and field implementation agencies
- (iv) Design and help in adopting a system of 'Monitoring and Information System (MIS)

- (v) Undertake capacity building, training and skill development activities for the states and its implementing agencies
- (vi) Anchor the process of convergence with IWMP and such other initiatives (projects, programmes, schemes etc.) that will enhance inter-initiative convergence and yield synergistic outcome
- (vii) Provide any other support as is felt necessary from time to time on issues, that emerge as a result of consultation between concerned Division(s) of the DA&FW and NRAA

B.6.6 Monitoring and Evaluation

Geo- Tagging of land based interventions: A robust Monitoring and Evaluation mechanism using modern technology shall be emphasized upon. Monitoring and Evaluation (M&E) mechanism to keep a tab on project areas/ physical assets created, name of beneficiaries, assistance provided etc. under RAD would be developed. Monitoring of works shall be carried out through existing mechanism of MNREGA/schemes of Ministry of Rural Developmental so. All and based interventions shall be Geo- tagged through Apps based monitoring system. Krishi Mapper/Mobile App developed by DA&FW shall be used for Geo Tagging/Geo Fencing of farmers' field. The data captured by the App will automatically link with the State/Central MIS portal through API. Geo-tagged photograph of area covered under RAD scheme shall be made available in the MIS Portal.

Project based studies and assessment for Soil carbon sequestration, soil organic matter, improvement in livelihood, productivity enhancement of crop and cropping systems etc. shall also be undertaken. MIS and periodical assessment using GIS technologies would be adopted for ensuring effective monitoring of the programme. States will upload approved AAP, Physical and financial progress under the Scheme should also be updated every month and uploaded in the portal as per Performa given at **Annexure-XLVI**. The information on physical and financial achievements under TSP & SCSP and Women components has to be furnished periodically as Performa given at **Annexure-XLVI-A**.

B.6.7 Expected Outcome

RAD program shall increase the area covered under Integrated Farming System resulting in augmenting farmers income. It is expected to transform rain-fed agriculture areas which are

more sensitive areas to climatic aberrations into more climate resilient production system through suitable adaptation and mitigation measures. Integrating farming systems with horticulture, livestock, bee rearing and fisheries shall provide income security to farmers in time of abnormal climatic condition. Millets being climate friendly crops, promoting their cultivation through RAD program shall result in increase in cultivation area and production of millets.

B.7 AGROFORESTRY

- i. Agroforestry is known to have the potential to mitigate the climate change effects through microclimate moderation, conservation of natural resources and creation of an additional source of livelihood and income opportunities. In order to make agriculture less vulnerable to climatic aberrations, the Government of India formulated the National Agroforestry Policy in 2014. The policy recommends setting up a Mission or Board with an initial corpus of Rs4000-5000 crore annually to address the development of agroforestry sector in an organized manner. As a follow-up to the policy, the Sub-Mission on agroforestry (SMAF) under National Mission for Sustainable Agriculture (NMSA) was launched in 2016-17 to encourage and expand tree plantation on farmland, with the motto of “*Har Med Par Ped*”, along with crops/cropping system.
- ii. There have been many initiatives to upscale agro forestry in farm lands, degraded, barren and wastelands. The adoption of agroforestry by farming community is on an upward trend after the coming of the National Agroforestry Policy in 2014. There is ample evidence to show that agroforestry enhances productivity, soil fertility improvement, soil conservation, nutrient cycling, micro climate improvement etc. Over 70% of nurseries in the country are privately owned. Approximately only 10% of seedlings supplied for agroforestry are of Quality Planting Material. Quality Planting Material (QPM) like seeds, seedlings, clones, hybrids, improved varieties, etc. of healthy, resilient and adaptable nursery stock must be made available to farmers. QPM can be considered as part of a value chain that begins with the source of tree seed and ends at the market for the tree product or environmental service, or even at the consumer level. The quality of the initial input, which is the tree seed source determines the productivity and quality of the product or service at the end of the chain.
- iii. Agroforestry has varieties of produce from timber to non-timber products. Strengthening farmer access to markets for tree products is important hence, providing support price and buy-back guarantee for farm-grown trees and other agroforestry products can be an important step to promote agro forestry for the farmers. Marketing infrastructure similar to what is available for agricultural commodities including market information can be taken up in agroforestry with more private sector participation.
- iv. Agroforestry has the potential to contribute to the government's strategy to promote millets. Traditionally millets are grown along with trees in tropical as well as sub-tropical regions of the country. In agroforestry systems, millets perform exceptionally

well due to their hardiness and capacity to with stand prolonged periods of drought, and high temperatures and also having higher efficiency in absorbing and utilizing carbon dioxide.

- v. Agroforestry can support the action plan for Mission LiFE (Lifestyle for Environment) which makes environmental protection and conservation as a participative process. Agroforestry promotes agro ecology and is one of the potential areas for Carbon Credits as well as Green Credit Program (GCP). Agro forestry system is known to have high carbon sequestration potential thereby increasing the soil organic carbon(SOC)in farmer's field.
Reduction of diversity in agricultural landscapes across India severely reduces the resilience to climate and pest shocks, while also missing out on potential economic and ecological opportunities. Increase in the green cover through agroforestry will mitigate pollution, and climate change impacts and contribute to biodiversity conservation in the agricultural ecosystem.
- vi. Agroforestry has importance as a carbon sequestration strategy because of the carbon storage potential in its multiple plant species considering its applicability in agricultural lands and reforestation. Evidence is now emerging that agroforestry systems are promising land use systems to increase and conserve above ground and soil carbon stock. The carbon sequestration potential of an agroforestry system is generally greater than that of an annual cropped-based system. Agroforestry thus contributes to the resilience of agriculture by adaptation and mitigation of climate change effects and provides scope for emerging carbon market.
- vii. Agroforestry supports agro-ecology and reduces vulnerability to climate and environmental change. Activities under the NMSA strategy and technologies associated with Climate Resilient Agriculture may be promoted through the scheme.
- viii. Institutional support from the Indian Council of Forest Research & Education (ICFRE), ICAR-Central Agroforestry Research Institute (CAFRI), Council of Scientific and Industrial Research (CSIR),ICRAF, etc. which have the technical knowledge and experience on agroforestry will form an integral part of the intervention.

B.7.2 Strategy: Quality Planting Material (QPM) and Certification:

- i. The scheme shall promote the setting up of new small, medium and hi-tech nurseries for producing Quality Planting Materials (QPM) like seeds, seedlings, clones, and improved

varieties to meet the requirement of farmers. Various agroforestry practices/models suitable to different agro ecological regions and land use conditions shall be promoted that will support adaptation and mitigation efforts in accordance with NMS A guidelines.

ii. ICAR-CAFRI as Nodal Agency for QPM:

- a) ICAR-Central Agroforestry Research Institute(CAFRI) shall be the nodal agency for providing technical support, capacity building, setting up of nurseries, production, and certification of QPM etc. CAFRI shall extend support through its All India Coordinated Research Project (AICRP) centers on agroforestry situated at various locations around the country. ICAR-CAFRI shall coordinate activities with other agencies/ institutes like ICFRE, CIFOR-ICRAF, FAO-India, SAUs, CAUs, Private Partners, etc. while facilitating the implementation of the scheme.
- b) All nurseries setup under the scheme shall comply with the registration and accreditation requirements as laid down by CAFRI. The States shall also make efforts for accreditation of other existing Forest Department/Private/Cooperative nurseries in the State that produce planting material for Agro forestry.
- c) Certification of QPM from accredited nurseries shall be done as per guidelines laid down by CAFRI in association with empaneled agencies/experts.
- d) CAFRI shall provide the standard sand modalities for Registration, Certification and Accreditation of Nurseries as well as Certification of QPM from such Registered/Accredited nurseries.
- e) Capacity building in agroforestry shall be through ICAR-CAFRI and it may be notified as the Central HRD Institution that shall train Master Trainers for different states.

iii. The State Nodal Department/Agency: For the implementation of the scheme State Nodal Department/Agency shall be identified for each State/UTs.

iv. The Nodal Department/Agency shall ensure the availability of QPM by producing on its own or through the collaborative arrangement with individuals/institutions such as SAUs, KVKs, FPOs, SHGs, NGOs, Entrepreneurs/Startups, Forest/Agriculture institutes, farmers/cooperative societies etc.

v. Capacity building/training for officials/workers, scientists and farmers, extension activities including demonstration of Nursery Techniques for the raising of QPM, seminars/workshops/conferences/fairs& exhibitions and exposure visits of stake holders shall be emphasized upon.

vi. Physical verification of the Nurseries and seed lings raised under the scheme shall be

done by the State Nodal Department/Agency based on the technical guidelines from CAFRI. Third party verification may also be carried out to ensure quality of nurseries/seedlings. Verification certificate shall be obtained by the individual/institution that raised the nursery.

- vii. Nursery Accreditation will ensure the availability of high quality planting material for trees and other woody perennials for agroforestry purposes. Accordingly, each State Nodal Departments should ensure that publicity of these certified seedlings should be done to all other Govt Departments/Municipalities to go for sourcing of certified seedlings produced from these Accredited Nurseries.
- viii. PMUs constituted at the State levels will have the responsibility to ensure collaboration among various line departments in the Centre/State/District to achieve the targets. A national level PMU shall be operational at DAC&FW for overall implementation and monitoring of the scheme.
- ix. Technical Support Groups (TSG) with experts from ICAR-Central Agro forestry Research Institute (CAFRI), Indian Council of Forest Research & Education (ICFRE), ICRAF and other organizations/individuals shall be constituted at National level.
- x. ICAR-CAFRI will act as Nodal Agency for repository of agroforestry related works with a preamble note to states for providing all related information to CAFRI. CAFRI may undertake project-based activities including transfer of agroforestry technology in various agro climatic zones, business incubation and training to stake holders.

B.7.3 Seed source:

- ii. Supply of Quality Planting Material (QPM) which essentially is healthy, resilient and adaptable nursery stock raised through seed or vegetative propagation is the key for promoting agroforestry. The scheme envisages a sustainable supply of Quality Planting Material (QPM) of healthy, resilient nursery stock raised in hi-tech centralized nurseries as well as small-scale decentralized model nurseries. QPM may be of multipurpose tree species, species having timber value, medicinal plants etc. Also, various agroforestry practices/models suitable to different agro-ecological regions and land use conditions shall be promoted.
- iii. The Nodal Department/Agency shall coordinate with the Forest Department/CAFRI/ICFRE/SAUs/private growers for germplasm/seed source required for the production of QPM. In many States, the State Forest Department through their

research programs are taking up various tree improvement initiatives which also include Agro forestry species. The scheme should leverage coordination with the State Forest Department for sourcing quality seeds/germplasm. The need to establish a national-level coordinating centre for streamlining the supply, while ensuring the quality of the seeds shall be explored.

B.7.4 Distribution of Quality Planting Material (QPM):

QMP raised under the scheme shall be made available for farmers/SHGs free of cost or as decided by the respective States/UTs. The plantation and maintenance in subsequent years shall be done by beneficiaries. However, nodal departments/ agencies shall make efforts to meet out the plantation and maintenance cost through convergence with MNREGA/other schemes of Department of Rural Development/Forests/Agriculture/Horticulture.

B.7.5 Geo-Tagging of land-based interventions:

- a. Digital information and support system to farmers shall be promoted (ICAR-Central Agroforestry Research Institute (CAFRI) has developed a *bilingual* mobile app 'Farm Tree' for effective out reach to its stake holders and farmers. With the help of this farm tree app, farmers can know about the suitable tree species, spacing, cultivation practices, etc. Similarly, International Centre for Research in Agroforestry (ICRAF) with the Department of Agriculture, Odisha has developed App-Agroforestry App Odisha (India) for farmers 'support on agroforestry. Both the ICAR-CAFRI and ICRAF will also work towards establishing data base for knowledge support in agroforestry.
- b. All land based intervention should be Geo Tagged/Geo Fenced. Krishi Mapper/Mobile App developed by DA&FW shall be used for Geo Tagging/Geo Fencing of farmers' field. The data captured by the App will be automatically linked with the State/Central MIS portal through API.
- c. National Web portal shall be developed where such information on registered nurseries, plantations, availability of seedlings, price, seed source, genetic makeup etc. Shall be made available. All scheme related information including progress and achievements should be captured by State Management Information System (MIS) which the States may also develop and this may be integrated with the National portal or information should be made accessible through API to ensure seamless flow of information.
- d. M&E platforms using modern geo-spatial technology/satellite imagery in collaboration

with MNCFC/ICAR-CAFRI shall be taken up.

B.7.6 Support of Agro forestry through MNREGA

- i. Agroforestry envisages close convergence with MNREGA (Department of Rural Development). Under MNREGA mandatory expenditure of at least 60% on the works to be taken up is for agriculture and allied activities. The scheme provides for various plantation models such as block plantation, canal side plantation, sericulture, horticulture plantation, boundary plantation, farm forestry, wastel and plantation, shelterbelt trees plantation, coastline plantation, development of silvipasture grass land etc. Further, raising of nursery is a permissible activity under the scheme. Plantation works are permissible in the community as well as in individual beneficiary land. There are many line Departments such as the Forest Department, Agriculture Department, Horticulture Department, Soil Conservation Department, Tribal Development, Watershed Department etc. that are working as implementing agency under MNREGS in the States. Every asset/land-based intervention is geo-tagged in three stages, stage 1-before, Stage 2- during and Stage 3 -after completion of work under MNREGA.
- ii. During the implementation of agroforestry scheme, an incentivized system will promote the local communities/**SHGs**/farmers to adopt agroforestry/restore waste land/degradedl and by plantation (agro-ecological sustainable models). Agroforestry scheme made provision of QPM distribution to farmers. Since MNREGA provides sufficient opportunities for agroforestry related works, States/UTs must ensure convergence of the scheme with MNREGA to meet the cost of plantation including maintenance.
- iii. Works such as nurseries, plantations, survival of seedling in the field etc. shall be closely monitored. As MNREGA has robust monitoring system, monitoring of works such as plantation and maintenance at the micro level shall be carried out by State PMUs with support of Panchayat institutions through existing mechanism of MNREGA.

B.7.7 Scheme Interventions:

- i. **Establishment of nurseries for Quality Planting Material (QPM):** Expanding the scope of business opportunities as startups in agroforestry, the small nurseries, big nurseries, Hi-Tech nurseries and Tissue Culture facilities shall be supported under the scheme as given at **Annexure-I**. Such nurseries and QPM labs shall adopt standards/ protocols developed by ICAR-CAFRI/ICRAF. Also, nurseries shall be registered and accredited as per the protocol developed by ICAR-CAFRI with suitable third-party

- certification procedure.
- ii. **Skill development and awareness campaign:** Activities like training of farmers/field workers to ensure raising quality planting material, skill development to youth for business opportunities in agroforestry, awareness campaign, publications, information sharing, exposure visits, seminars/workshops at national/ international levels etc. would be supported under the scheme. States can utilize upto5% of the allocated funds for capacity building and training activities. The training activities, materials and report should be made publicly available for the benefit of all stakeholders.
 - iii. **Research and Development:** Specific projects for demonstration for extension purposes on specific innovative agro forestry models by ICAR-CAFRI/SAUs/CAUs/CSIR/ICFRE institutes/State Government/ other National & International level organizations/ Private Partners shall be supported. Also project based studies on carbon sequestration, soil health improvement, etc will be supported under the scheme. Following themes/topics shall be supported for Research & Development:
 - a. Works related to accreditation of Agroforestry nurseries and certification of seedlings.
 - b. Agroforestry as system approach.
 - c. Nexus of Biodiversity, Soil and Water conservation.
 - d. Climate Resilient Agroforestry Species and Practices.
 - e. Economic viability and market linkages.
 - f. Quantification of Community Participation and Social dynamics.
 - g. Indigenization of digital augmentation and tools.
 - iv. **Monitoring & Evaluation and Other specialized technical works:** For M&E, use of geo-spatial technology/satellite imageries, AI & ML etc. shall be taken up with ICAR-CAFRI/ICFRE/MNCFC institutes.
 - v. **Local Initiative:** States can utilize upto2% of the allocated funds for promoting innovations as per local needs/transportation of seedlings/local level monitoring mechanism through SHGs etc.

Eligible components and pattern of assistance for interventions is given in the Table below.

B.7.8 Convergence architecture with other Central Government schemes

- i. An incentivized system will promote the local communities/SHGs/farmers to adopt agroforestry/restore waste land/degraded land by plantation. Under the agroforestry scheme, cost of plantation including maintenance of QPM distributed shall be met through convergence with WDC-PMKSY/MNREGA/other schemes of Department of Rural Development.
- ii. Need based interventions and activities of tree plantation, Industry development & market linking to agriculture and allied sectors will be automatically converged/dovetail for integrated and holistic development of project area under Central & State Government programmes. Convergence with other schemes of DA & FW viz. RAD, Integrated Farming System, Per Drop More Crop (micro irrigation enhances growth and yields), Agri-infrastructure Fund, formation of 10,000 FPOs and other organizations is envisaged for enhanced returns. Convergence with programmes like National Clean Ganga Mission, National Medicinal Plant Board, M/o AYUSH, Central Silk Board, Indian Institute of Petroleum, etc. may also be explored.

B.7.9 Monitoring & Evaluation:

- i. Monitoring & Evaluation shall form an integral part of the scheme. Sustainable supply of QPM, survival of seedling in the field, enhanced agroforestry produce, increase in agroforestry area of the country etc. shall be closely monitored. Monitoring of plantation and maintenance works shall be carried out through existing mechanism of MNREGA/schemes of Ministry of Rural Development. Also, SHGs (under NRLM)/village level institutions shall be closely involved in monitoring the implementation of the scheme.
- ii. All land-based interventions shall be Geo-tagged through Apps based monitoring system. Project based studies and assessment for Soil carbon sequestration, soil organic matter, improvement in livelihood, productivity enhancement of crop and cropping systems etc. shall also be undertaken. MIS and periodical assessment using GIS technologies would be adopted for ensuring effective monitoring of the programme. M&E initiatives using geo-spatial technology shall be taken up with Mahalanobis National Crop Forecast Centre (MNCFC)/ICAR under the program.

B.7.10 Expected Outcome:

- i. Sustainable availability of Quality Planting Material for agroforestry.
- ii. Increase in tree cover on farm lands, community land, government land, leading to increased production of timber and non-timber produce out of agroforestry to meet the increasing demand of raw materials for wood-based industries.
- iii. Reduction in pressure and dependence on forests and forest produce. Reduction in import of timber and other tree products.
- iv. Additional Income to farmers even under adverse climatic conditions & livelihood improvement.
- v. Enhanced carbon sequestration in farm lands as well as ecosystem services.

B.8 CDP

Crop Diversification refers to a shift from the regional dominance of one crop to regional production of a number of crops, to meet ever increasing demand of cereals, pulses, vegetables, fruits, oilseeds, fibres, fodder, grasses etc. It aims to improve soil health and to maintain dynamic equilibrium of the agro-ecosystem. It is intended to promote technological innovations for sustainable agriculture and enable farmers to choose crop alternatives for increased productivity and income.

The concerns relating to diversification of rice-wheat cropping systems area in the country came to fore when yield levels of these two most important food crops experienced stagnancy and net profit accruals showed diminishing trend. The problem got further aggravated due to depletion of water table in North-West plains zone comprising Punjab, Haryana and West Uttar Pradesh. Thus, dwindling ground water resource in these States due to excessive withdrawal of water for irrigation led to impurities in the water-a cause of attendant crop health effects.

B.8.1 Coverage

The programme is to be implemented in 3 states namely Punjab, Haryana and Western Uttar Pradesh. The notified over-exploited and critical blocks based on recommendation of Central Ground Water Board of major paddy growing districts of each state would be identified for implementation of Crop Diversification programme. At least 5% of area under paddy in identified blocks would be diverted towards alternate crops.

Sl.	States	Rice area (‘000’ ha)	% share of respective state rice area to total all states three rice area	Targeted area of paddy for diversion (‘000’ ha)
1	Punjab	2759.2	50.25	140.00
2	Haryana	1194.0	21.75	60.00
3	West Uttar Pradesh	1537.2	28.00	80.00
	Total	5490.4	100	280.00

B.8.2 Crops and activity covered

In order to divert area to other alternate crops, it is proposed to motivate the farmers for cultivation of maize, kharif pulses (arhar, mungbean, urdbean, cluster bean), oilseeds (soybean, til), poplar based agro-forestry system (cultivation of rabi and kharif inter-crops), it is also proposed to provide the assistance to the farmers for land development, farm mechanization, establishment of agro-based food processing units for value addition and marketing support to generate additional income and restore soil fertility.

B.8.3 Allocation of funds

In order to implement the proposed programme on Crop Diversification in Original Green Revolution States to divert 5% area of Paddy to other alternate crops fitting in the prevalent wheat-paddy cropping system.

B.8.4 Institutional Architecture

I. National Level

In order to implement & monitor the programme of "**Crop Diversification in Original Green Revolution States**", a **Central Steering Committee (CSC) would be constituted under** the chairmanship of Secretary (A &C). The composition of CSC is as under:-

1	Secretary (A&C), Department of Agriculture & Cooperation, Ministry of Agriculture, Krishi Bhavan, New Delhi-110 001.	Chairman
2	Additional Secretary (Seeds & RKVY), Department of Agriculture & Cooperation, Ministry of Agriculture, Krishi Bhavan, New Delhi-110001	Member
3	Agriculture Commissioner, Department of Agriculture & Cooperation, Ministry of Agriculture, Krishi Bhavan, New Delhi-110 001.	Member
4	DDG (NRM), ICAR, Anusandhan Bhavan, New Pusa, New Delhi-110012	Member
5	Joint Secretary (Crops), Department of Agriculture & Cooperation, Ministry of Agriculture, Krishi Bhavan, New Delhi-110 001.	Member-Secretary

CSC will meet the quarterly basis and review & monitor the implementation of the scheme. CSC will also be responsible for addition, deletion & modification of the ongoing activity of the programme.

II. State Level

A state level committee (SLC) would be constituted under the chairmanship of Secretary, Agriculture of the state with the following constituents

1.	Secretary , Agriculture	Chairman
2.	Director, Agriculture	Member secretary
3.	Representative of Forest Department	Member
4.	Director Research of State Agriculture University	Member
5.	Representative from DAC	Member

The SLC of "**Crop Diversification in Original Green Revolution States**" will be fully responsible for approval of district specific programme, implementation and monitoring of programme in the state. Each state will create a cell at state level to look after day to day work for implementation and monitoring of the programme at state and district level from available manpower under ATMA/ Extension functionaries.

III. District Level

The scheme will be implemented through State Department of Agriculture in the identified districts in a cluster approach. A Programme Management Group (PMG) would be constituted under the chairmanship of Additional Collector/ Chief Development officer (CDO) of the district with the following constituents:

1.	Additional Collector	Chairman
2.	District Agriculture Officer (DAO)	Member Secretary
3.	Representative of Forest Department	Member
4.	Representative of Department of Food Processing	Member
5	State Agriculture University	Member
6.	Representative of KVK (Crop Production)	Member

PMG will be fully responsible for identification of beneficiaries for cluster demonstrations of alternate crops to paddy and collaborate with other stakeholders for implementation of programme at field level.

B.8.5 Pattern of assistance for Activities

i. Cluster Demonstrations

Cluster demonstration units (one unit=10 hectares) of identified alternate crops in each district will be organized through identified beneficiaries groups by State Department of Agriculture. One progressive farmer will be designated as group leader for organization of cluster demonstration. Honorarium of Rs.2000/ per cluster demonstration of 10 ha will be provided in one time basis for organization of cluster demonstration. Assistance @ of Rs.10000 per ha for Maize, kharif pulses (arhar, mung bean, urd bean, cluster bean), oilseeds (soybean, til) and Rs.10000/- per hectare for poplar based agro-forestry system for sole crop. The financial assistance of Rs 10000 per hectare expect poplar based agro-forestry system will be given in the form of Rs. 5000 for critical inputs including honorarium & other activities, Rs.2500 for land development and Rs.2500 for marketing support. An amount of Rs. 5000/- per hectare for inter-cropping of pulses and wheat will be provided to the farmers in the terms of critical inputs for organization of demonstrations. District Programme Management Group (PMG) will be responsible for arrangement of critical inputs for organizing cluster demonstrations. All critical inputs will be ensured by the State Department of Agriculture (SDA) well in advance before the sowing/transplanting of the crops. State will decide crop specific cluster demonstrations as per the availability of quality seeds of identified alternate crops. **Crop & component-specific pattern of assistance is given as under:**

S.N.	Components	Crops	
		Maize , kharif pulses (Arhar, mungbean, urd bean,) cluster bean, oilseeds and Bsa (directed seeded)	Eucalyptus (water logged conditions) Poplar/ based agrofor system for sole
A.	Cost of Critical inputs(seeds, micronutrients, seed treating chemical & P.P chemical etc	4500	9500
	Production technology & publicity materials	150 ____ 200	____ 1 5 0 200
	Honorarium & mobility to group leader of cluster demonstration		

	Visit of GOI/State officials for hiring of vehicle or POL	150	150
	Sun —total	5000	10000
B.	Land development Charges*	2500	-
C.	Marketing Support (store bin etc)**	2500	-
D	Inter crops with poplar (critical inputs)	-	5000
	Grand —Total	10000	15000

* & ** Land development charge and marketing support will be paid to the farmers in cash to support the losses incurred due to diversion of area from paddy to alternate crops.

ii. Farm mechanization, processing and value addition

In order to create sustainability in diversion of paddy area to alternate crops, the necessity of farm machinery, agro-processing and value addition is of immense importance. An amount of 23 % of total state allocation is earmarked for farm machinery, processing and value addition items. The crop specific farm machinery will be provided to the farming community (group of 10 farmers) on custom hiring basis. An assistance @ of 50% cost of machine limiting to Rs. 25000/- for Maize sheller, Rs.5.00 lakh for portable maize dryer, Rs. 3000 for powered sprayer, Rs.25000 multi-crop thresher, Rs. 2.0 lakh for portable cleaner cum grader for pulses and Rs. 10.00 lakh maize processing unit etc.

iii. Site Specific activities

An amount of 15 % of total state allocation is earmarked for site specific activities. The identified site specific activities to promote alternate crops should be included in the action plan to be submitted by the respective state.

iv. Incentive for implementation of programme

An amount of 10 % of total state allocation is earmarked and kept at central level for incentive to the state for implementation of the programme through diversion of paddy area to alternate crops as per target fixed. The amount will be released separately after monitoring and evaluation of the programme by designated agency i.e National Centre for Agricultural Economics and Policy Research (NCAP).

Indicators are to be developed by NCAP for assessment of implementation of the programme at state, districts & individual.

v. Awareness trainings, implementation and monitoring

a) Awareness trainings

State Departments of Agriculture would organize awareness trainings of farmers for diversification of paddy to other alternate crops for additional income generation, restoration of soil fertility, agro-processing, value addition of crop produce to make farming as a profitable enterprise. The State Department of Agriculture would develop training material with help of other line departments like Forest and SAUs. Assistance @ of Rs. 5000/- for a group of 50 beneficiary farmers of cluster demonstration would be provided for awareness training programme.

b) In order to effective implementation and monitoring of the programme at state and district level, and encouragement of effective implementation of the programme in the state & district level, funds @ 2% of the total state allocation is earmarked for awareness trainings , implementation & monitoring of the programme. Out of which an amount of Rs.2.00 lakh for state level and Rs.2.00 lakh per district is to be incurred for publicity, organization of review meetings, implementation & monitoring visits, contingencies etc.

(C) Agri. Start-up & Accelerator Fund Components:

This component will be utilized for promotion of innovation and agri entrepreneurship by providing technical and financial support and nurturing an incubation ecosystem in the country. The Agri start- ups will provide practical, technical and business insights for end-to-end solution to agri. entrepreneurs through skill development and financial support. Agri start up and Accelerator fund will be implemented as 100% central assistance &7% funds will be earmarked for startup component from the total budget of DPR based component of RKVY.

The Agri Accelerator Fund will help scale up start-ups with innovative ideas/ technologies having the potential to modernize the agriculture ecosystem of the country. This initiative is envisioned to help farmers by supporting innovations at scale that does value addition to the agricultural processes, establish a more efficient and effective supply chain and create market linkages etc. for significant improvement in the farmer's income and boost agricultural economy.

Detailed guidelines of Agri. Start-up /Agri Accelerator Fund have been issued separately.

15. Administrative Expenses & Contingencies:

The State can use up to 2.5% of its total PM-RKVY funds for incurring administrative expenditure that includes Monitoring and Evaluation, payment to consultants, recurring expenses of various kinds, staff costs, etc. DA&FW may retain 2.5% of the PM-RKVY scheme funds at the Central level for UTs, evaluation activities, publicity, conducting studies, IEC activities on various components of PM-RKVY schemes and for hiring Project Management Unit (PMU) at Central level for implementation and monitoring of the scheme. The Nodal Agency of the State may hire Consultants /Consulting agencies to prepare DPR/AAP from the admin fund.

An integrated Project Management Unit (PMU) for implementation and monitoring of DPR component & AAP based components will be set up at DA&FW. Consultants, technical staff and other resource persons as part of Project Management Unit (PMU) will be hired on contractual basis.

16. Monitoring & Evaluation:

RKVY-Management Information System

(RKVY-MIS): States will be responsible for timely submission/updating project data online in the MIS web-based Management Information System(MIS) developed by Govt of India for DPR/AAP component under PM -RKVY on monthly/quarterly basis to provide current and authenticated data on outputs/outcome of DPR as well as AAP components of PM-RKVY.

Geo-tagging of assets created under all components of RKVY shall be made by States and project status of all such assets should mandatorily be uploaded through Krishi Mapper App/Mobile app for monitoring. The detailed user manual to operate the field inspection module of Krishi Mapper may be accessed from the <https://krishimapper.dac.gov.in>.

Twenty five percent (25%) of the projects sanctioned by the State each year under all components of RKVY shall have to be compulsorily taken up for third party monitoring and evaluation by the implementing States/UTs.

The State Government will be free to choose any reputed agencies for conducting the monitoring and evaluation work in their States. Requisite fees/cost towards monitoring & evaluation will be met by the State Government from the 2.5% allocation retained by them for administrative expenses or from their own resources

At Government of India Level, Department of Agriculture and Farmers Welfare will conduct concurrent evaluation, mid-term and end-term evaluation of all the scheme components by a

suitable 3rd party. The performance of the States will be reflected in the Outcome Budget document of this Ministry.

17. Convergence: There is a need to optimise efforts through inter-sectoral approaches to facilitate sustainable development. States shall ensure convergence of PM-RKVY with various ongoing Central Schemes/ programmes of Ministry of Agriculture & Farmers Welfare, Ministry of Food Processing Industries, Ministry of New and Renewable Energy, Department of Land Resources, Ministry of Rural Development, Ministry of Water Resources etc. to deliver better outcomes and optimal and effective utilization of available resources. It will bring in synergies between different programmes / schemes of Central and State Governments in terms of planning, process and implementation.

18.Changes in the PM-RKVY: Department of Agriculture and Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India may effect changes in the PM-RKVY guidelines, other than those affecting the financing pattern as the scheme evolves, whenever such changes are considered necessary.

19. Applicability of guidelines:

These guidelines are applicable to all the States and Union Territories for all components of restructured PM-RKVY.

Format for Submitting the Minutes of SLSC

Format – I

Sl. No.	Particulars	Total Approved Amount (As approved by SLSC) (in lakhs)
1	Name of the Components (RKVY DPR/PDMC/RAD / SH&F / PKVY etc.) (Separate sheet for each component)	
2	Implementing Departments / Agencies	
3	Allocation of the each component	
4	Project Cost	
5	Resolution	
6	Convergences	
7	Final Remarks / Observations (if any)	

Details of activities/projects as approved by SLSC

Format – II

Sl. No.	Name of the Activities / Projects / Sub – Components	Physical Outlay as approved by SLSC (No/Units/etc)	Financial Outlay as recommended by SLSC (Rs. in lakh)	Final Remarks / Observation of SLSC
1				
2				
3				
	Total			

Format – III

S. No.	Name of Components	SNA balance (As on date)	SNA 09	Allocation (GoI share)	Allocation (State share)	Total (GoI + State Share)	Committed Liability (All previous years)	New Projects Cost	Total fund requirement (Committed Liability + New Projects Cost)	125% of allocation (As approved by SLSC)	Remarks
1	2	3	4	5	6	7 = (5+6)	8	9	10= (8+9)	11	12

Form of Utilization Certificate

Sl. No.	Letter No. and date	Amount
	Total	

Certified that out of Rs. _____ of grants-in-aid sanctioned during the year _____ in favour of _____ under this Ministry/Department Letter No. _____ given in the margin and Rs. _____ on account of unspent balance of the previous year, a sum of Rs. _____ has been utilized for the purpose of _____ for which it was sanctioned and that the balance of Rs. _____ remaining unutilized at the end of the year has been surrendered to Government (vide No. _____, dated _____)/will be adjusted towards the grants-in-aid payable during the next year _____.

2. The Utilization Certificate should also disclose whether the specified, quantified and qualitative targets that should have been reached against the amount utilized, were in fact reached, and if not, the reasons thereof. They should contain an output-based performance assessment instead of input-based performance assessment.

3. Certified that I have satisfied myself that the conditions on which the grants-in-aid was sanctioned have been duly fulfilled/are being fulfilled and that I have exercised the following checks to see that the money was actually utilized for the purpose for which it was sanctioned.

Kinds of checks exercised

- 1.
- 2.
- 3.
- 4.
- 5.

Signature_____

Designation_____

Date_____

Note:

- (i) Component -wise UCs may be furnished for General, SCSP, & TSP separately
- (ii) Sanction No. and date of sanction for release of State share fund should be mentioned in UC.

Inter State Allocation of the funds under RKVY - DPR

Inter-State allocation of RKVY-DPR funds will be based on the following parameters and weights:

Sl. No.	Criteria/Parameters	Weightage
1	Percentage share of net un-irrigated area in a State to the net un-irrigated area of all States.	20%
2	Percentage of small and marginal farmers in the state compared to total number of small and marginal farmers in the country.	30%
3	Average Gross State Value Added (GSVA) in agriculture and allied sectors in the last 3 years.	25%
4	Percentage of youth population in the state compared to total youth in the country.	10%
5	Inverse of Yield gap between state average yield and potential yields as indicated in the frontline demonstration data.	15%

Ministry of Agriculture & Farmers Welfare could modify above criteria/weights depending upon new parameters be coming relevant in future.

Composition of State Level Sanctioning Committee (SLSC)

Chief Secretary	-	Chairman
Agri. Prod. Commissioner/ACS/Principal Secretary(Agriculture)	-	Vice-Chairman
Secretary, Finance	-	Member
Secretary, Planning	-	Member
Secretary, Environment and Forests	-	Member
Secretary, Panchayati Raj	-	Member
Secretary, Rural Development	-	Member
Secretary, Water Resources/Irrigation/Minor Irrigation	-	Member
Director, Agriculture	-	Member
Director, Horticulture	-	Member
Representative of State Agriculture University	-	Member
Representative of NITI Aayog	-	Member
Secretary, Agriculture	-	Member-Secretary

Note:

1. SLSC may co-opt two more members from reputed NGOs working in the field of Agriculture, Deputy Commissioners of important districts, and leading farmers.

**ILLUSTRATIVE LIST OF PROJECTS/ACTIVITIES THAT SHOULD NOT BE FUNDED UNDER
RKVY- DPR component**

1. Creation/topping up of any kind of revolving fund / corpus fund;
2. Expenditure towards maintenance of assets or any such recurring expenses;
3. Expenses towards Salary, Transport, Travelling Allowances (TA), Daily Allowances (DA) of permanent /semi-permanent employees. However, expenses towards hiring of man power on outsourcing/contractual basis can be met within 2.5% allocation earmarked for administrative expenses with approval of SLSC.
4. Expenses towards POL (Petrol, Oil, Lubricants);
5. Financing State's share and/or topping up subsidy level in respect with other Central/State Schemes;
6. Foreign Visits/Tours including study tours of farmers abroad;
7. Purchase of vehicles;
8. Financing any kind of debt waiver, interest subvention, payment of insurance premium, compensation to farmers and calamity relief expenditure; additional bonus over & above Minimum Support Price (MSP);
9. Creating/Strengthening assets in Private Sector/NGO's beyond what is permissible under any schemes/programmes of Govt. of India.
10. Projects pertaining to allied sectors like Animal Husbandry, Dairying & Fisheries, Sericulture and Forests (like production and processing of lac).
11. Plantation crops like Tea, rubber and coffee etc.
12. Construction of boundary walls of Govt. agriculture farms and individual farms.
13. Projects related to soil and water conservation works like reclamation of problem soils, desalination of soil etc
14. Furnishing of offices, hostels including purchase of computers/ printers etc may be taken up from Administrative expenses available with the State Govt.
15. State universities projects pertaining to AHD&F activities.
16. Production of Feed and Fodder grasses.

Detailed Project Report**FORMAT**

- ii. **Context/Background:** This section should provide a general description of the scheme/project being posed for appraisal.
- iii. **Problems to be addressed:** This section should describe the problem to be addressed through the project/scheme at the local/regional/national level. Evidence regarding the nature and magnitude of the problems should be presented, supported by baseline data/survey/reports etc.
- iv. **Aims and Objectives:** This section should indicate the development objectives proposed to be achieved, ranked in order of importance. The outputs/deliverables expected for each development objective should be spelt out clearly.
- v. **Strategy:** This section should present an analysis of alternative strategies available to achieve the development objectives. Reasons for selecting the proposed strategy should be brought out. Basis for prioritization of locations should be indicated (wherever relevant). This section should also provide a description of the ongoing initiatives, and the manner in which duplication can be avoided and synergy created with the proposed project.
- vi. **Target Beneficiaries:** There should be a clear identification of target beneficiaries. Stakeholder analysis should be undertaken, including consultation with stakeholders at the time of scheme/project formulation. Impact of the project on weaker sections of society, positive or negative, should be assessed and remedial steps suggested in case of any adverse impact.
- vii. **Management:** Responsibilities of different agencies for project management of scheme implementation should be elaborated. The organization structure at various levels, human resource requirements, as well as monitoring arrangements should be clearly spelt out.
- viii. **Finance:** This section should focus on the cost estimates, budget for the scheme/project, means of financing and phasing of expenditure. Options for cost sharing and cost recovery (user charges) should be explored. Issues relating to project sustainability, including stakeholder commitment, operation-maintenance of assets after project completion and other related issues should also be addressed in this section.
- ix. **Time Frame:** This section should indicate the proposed zero date for commencement and also provide a PERT/CPM chart, wherever relevant.
- x. **Cost Benefit Analysis:** Financial and economic cost-benefit analysis of the project should be under taken wherever such returns are quantifiable. Such an analysis should generally be possible for infrastructure projects, but may not always be feasible for public goods and social sector projects.
- xi. **Risk Analysis:** This section should focus on identification and assessment of risks in implementation and how these are proposed to be mitigated. Risk analysis could include legal/contractual risks, environmental risks, revenue risks, project management risks, regulatory risks, etc.
- xii. **Outcomes:** Criteria to assess success and whether or not the development objectives have been achieved should be spelt out in measurable terms. Base-line data should be available against which success of the project will be assessed at the end of the project (impact assessment). Success criterion for scheme deliverables/outcomes should also be specified in measurable terms to assess achievement against proximate goals.
- xiii. **Evaluation:** Evaluation arrangements for the project, whether concurrent, mid-term or post-project should be clearly spelt out. It may be noted that continuation of schemes from one period to another will not be permissible without a third-party evaluation.
- xiv. Last but not the least, a self-contained **Executive Summary** should be placed at the beginning of the document

Illustrative List of Projects that can be funded under RKVY-DPR (Infrastructure& Assets)

1. Climate Resilient Agriculture

- Area specific projects to address local impacts of climate change
- Training programs with quantifiable outcomes
- Demonstration of climate resilient varieties

2. Horticulture

- Cluster of new crops (both exotic & indigenous) not covered under existing schemes
- Hydroponics & aeroponics for production of quality seed & planting materials
- Gaps in value chain of predominant crops
- Demonstrations of new varieties, including Tomato, Onion and Potato

3. Seeds

- Seed testing labs, including strengthening & upgradation
- Support for development and modernization of State seed farms and nurseries, for multiplication of seeds and planting materials.
- State seed processing facilities for gap filling, including dehumidified refrigerated storage.
- Seed Certification Agencies & Certification Infrastructure

4. Marketing & Post Harvest

- Projects for specific gaps in marketing infrastructure

5. Pest Management & Pesticide Quality Control

- Support for State labs for testing pesticide residues, pesticide & biopesticide testing labs
- Specific area-based projects for pest control or reduction.

6. Soil Nutrient Management

- Establishment and Upgradation of soil testing laboratories to include micro nutrient testing & micro-organism testing & infective agents.

7. Bio Fertilizers/ Organic Farming

- Quality control labs
- Bio pesticide units, liquid carrier-based units.

8. Integrated Manure Management

- State units for liquid bio-fertilizer consortia, liquid bio- pesticides & phosphate rich organic manure.

9. Agriculture Mechanization

- Projects for mechanization of State farms- for intensification of agriculture, demonstration of techniques to save cost etc

- Post-harvest technology units for specific crops.

10. Projects for gap filling for bio-ethanol & CBG projects.

11. Agriculture waste to wealth projects

- Economically viable and self-sustaining projects for use of agricultural waste, linked to crop clusters
- Projects for alternative or new uses of crop residues for specific crops

Note:

1. The above illustrative list of projects is indicative and not exhaustive.
2. Food processing units, especially those industries which get assistance under various schemes of the MoFPI, should not be eligible for assistance under RKVY.
3. Infrastructure and Assets stream emphasizes promoting group approach for subsidies. Accordingly, level of subsidies in the case of unspecified projects should be kept to the minimum for higher coverage of beneficiaries/ areas.
4. State should form of stake holders'' groups/organizations involving them in planning, execution and future maintenance of the created assets.

Activities relating to Production stream under RKVY- DPR component

The components/ activities which would be eligible for project based assistance under RKVY-DPR are elaborated below. This is an illustrative list and the States may choose other components/activities, but ensure that they are reflected adequately in the SAP.

- a) **Integrated development of major food crops such as wheat, paddy, coarse cereals, minor millets, pulses, oilseeds:** Assistance can be provided for making available certified/HYV seeds to farmers; production of breeder seed; purchase of breeder seed from institutions such as ICAR, public sector seed corporations, production of foundation seed; production and distribution of certified seed; seed treatment; Farmers Field Schools at demonstration sites; training of farmers etc. Similar support would be provided for development of other crops such as sugarcane, cotton or any other crop/variety that may be of importance to the state.
- b) **Agriculture mechanization:** Assistance can be provided to individual beneficiaries for farm mechanization efforts especially for improved and gender friendly tools, implements and machinery. However, assistance for large equipment e.g. tractor, combine harvester, sugar cane harvester, cotton picker etc. for which individual ownership may not be economically viable, assistance should only be limited for establishing custom hiring centres under RKVY (Infrastructure & Assets) stream.
- c) **Activities related to enhancement of soil health:** Assistance can be provided to the farmers for distributing soil health cards; micro nutrient demonstration; training of farmers for promotion of organic farming including printing of publicity/utility literature; amelioration of soils affected with conditions such as alkalinity and acidity.
- d) **Development of rainfed farming systems in and outside watershed areas:** Assistance for promoting integrated farming system (agriculture, horticulture etc.) generating livelihoods for farmers Below the Poverty Line (BPL).
- e) **Integrated Pest Management schemes:** This would include training of farmers through Farm Field Schools etc. on pest management practices; printing of literature/other awareness programmes.

The above list is not exhaustive. Therefore, schemes that are important for agriculture and allied sector development, but cannot be categorized under (a) to (i) can also be proposed under this stream.

Annexure-X

Recommended norms for use of treated sewage quality for specified activities at point of use

S.N	Parameter	Toilet flushing	Fire Protection	Vehicle Exterior washing	Non-contact impoundments	Landscaping, Horticulture & Agriculture Horticulture, Golf course	Crops		
							None dible Crops	Crops which are eaten	
								Raw	Cooked
1	Turbidity(NTU)	<2	<2	<2	<2	<2	AA	<2	AA
2	SS	nil	Nil	Nil	Nil	nil	30	nil	30
3	TDS	2100							
4	pH	6.5to8.3							
5	Temperature °C	Ambient							
6	Oil & Grease	10	nil	Nil	Nil	10	10	nil	nil
7	Minimum Residual Chlorine	1	1	1	0.5	0	Nil	nil	nil
8	Total Kjeldahl Nitrogen as N	10	10	10	10	10	10	10	10
9	BOD	10	10	10	10	10	20	10	20
10	COD	AA	AA	AA	AA	AA	30	AA	30
11	Dissolved Phosphorous as P	1	1	1	1	2	5	2	5
12	Nitrate Nitrogen as N	10	10	10	5	10	10	10	10
13	Faecal Coliformin 100 Ml	nil	Nil	Nil	Nil	nil	230	nil	230
14	Helminthic Eggs/litre	AA	AA	AA	AA	AA	<1	<1	<1
15	Colour	Colourless	Colourless	Colourless	Colourless	Colourless	AA	Colourless	Colourless
16	Odour	Aseptic which means motseptic and no foul odour							

All units in mg/l unless specified; AA-as arising when other parameters are satisfied; A tolerance of plus 5% is allowable when yearly average values are considered.

Format for Annual Action Plan–Per Drop More Crop (PDMC)

A) Micro Irrigation:

(i) District wise details:

Sr.No.	District(En sure to cover all Aspirational Districts, and Namami Gange Districts)	Drip irrigation						Sprinkler irrigation						Total		
		Field Crops			Horticultural Crops			Field Crops			Horticultural Crops					
		Area	Farmers to be benefitted	Cost	Area	Farmers to be benefitted	Cost	Area	Farmers to be benefitted	Cost	Area	Farmers to be benefitted	Cost	Area	Farmers to be benefitted	Cost
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15=3+6+9+12	16=4+7+10+13	17=5+8+11+14
						Note: Major Crop wise details of both field & horticultural crops may be mentioned										

(ii)State Summery (MI):

Rs.in Lakh								
S No	Activity	Area(ha)	No of Farmers to be benefitted	Subsidy			Farmers Contribution	Total Cost
				GOI Share	Matching State Share	Total		
1	Drip Irrigation system							
2	Sprinkler Irrigation system							
Total A								
Administrative cost-B								
Total A+B								
% MI cost to total AAP			 %					

B) Other Interventions (Optional)- Linked with Micro irrigation(i) District wise details:

Rs.in lakh

SN	District	Activity1				Activity2.....
		Quantity	Unit	Unit rate (Rs.)	cost	

(ii)State Summary(OI):

S N	Activity	Quantity	Unit	Unit rate	No of Farmers to be benefitted	Subsidy			Farmers contribution	Total Cost
						GOI Share	Matching State Share	Total		
1	2	3	4	5	6	7	8	9	10	11
Total A										
Administrative cost-B										
Total A+B										
%OI cost to total AAP						%				

Format for Physical Progress Monitoring Report for Per Drop More Crop (Micro Irrigation)

[illegible]

Format for Financial Progress Monitoring Report for Per Drop More Crop (Micro Irrigation)

Name of District	Name of the State:								Period of the report:								
	Rs. in Lakh																
	Financial Target								Financial Achievement								% Achievement
	Horticulture		Agriculture		Training	Seminar /Exhibiti on	Scheme Admin . Cost	Total Financia l Target	Horticulture		Agriculture		Training	Seminar /Exhibiti on	Scheme Admin . Cost	Total Financial Achievement	
	Dri p	Sprinkle r	Dri p	Sprinkle r					Dri p	Sprinkle r	Dri p	Sprinkle r					

Annexure- XIII

Drip Irrigation Technology-Indicative Bill of Quantities for 0.2 ha at farmer's field

SN	Component/Lateral to Lateral x Dripper spacing (mxm)	Unit	12x12	10x10	9x9	8x8	6x6	5x5	4x4	3x3	2.5x2.5	2x2	1.5x1.5	2.5x0.6	1.8x0.6	1.5x0.6	1.2x0.6
	Control Unit																
1	Screen filter 10m ³ /hr/Disc filter	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
2	Ventury & manifold(11/2")	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
3	Air release Valve 1"	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
4	Non Return Valve-1.5"	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
5	By-pass Assembly-1.5"x1.5"	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
	Field Unit																
6	PVC Pipe 50mm, class-III; 6kg/cm ²	m	-	-	-	-	-	-	-	-	-	48	48	48	48	48	48
7	Lateral 12mm, Class II; 2.5kg/cm ²	m	-	-	-	-	-	-	-	-	-	1010	1347	20	27	32	40
8	Emitting Pipe 12mm; Class II: (0.6mx1 to 4lph)	m	-	-	-	-	-	-	-	-	-	0	0	808	1122	1347	1683
9	Emitter/Dripper 4/ 8lph	No.	-	-	-	-	-	-	-	-	-	1020	907	0	0	0	0
10	Control Valve 50mm	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
11	Flush Valve 50mm	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
12	Throttle Valve- 1.5"	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
13	Fittings/installation & Accessories @5%	set	-	-	-	-	-	-	-	-	-	5%	5%	5%	5%	5%	5%

Note: The above items/components are indicative for calculation of subsidy. Deviation if any, from the above items/components is subject to ceiling of cost and differential amount to be borne by the beneficiary.

Annexure-XIII b

Drip Irrigation Technology-Indicative Bill of Quantities for 0.4 ha at farmer's field

SN	Component/Lateral to Lateral x Dripper spacing (mxm)	Unit	12X12	10X10	9 x9	8 X8	6 X6	5 X5	4 X4	3 X3	2.5X2.5	2 X2	1.5X1.5	2.5X0.6	1.8X0.6	1.5X0.6	1.2X0.6
	Control Unit																
1	Screen filter 10 m ³ /hr/Disc filter	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Ventury & manifold(11/2")	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Air release Valve 1"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	Non Return Valve -1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	By-pass Assembly-1.5"x1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Field Unit																
6	PVC Pipe 63mm, class-II; 4kg/cm ²	m	0	0	0	0	0	0	0	0	30	30	30	0	0	0	0
7	PVC Pipe 50mm, class-III; 6kg/cm ²	m	96	96	96	96	96	96	96	96	66	66	66	96	96	96	96
8	Lateral 12mm, Class II; 2.5 kg/cm ²	m	0	0	0	0	0	0	0	0	1616	2020	2693	38	53	64	79
9	Emitting Pipe 12 mm; Class II: (0.6 m x 1 to 4lph)	m	0	0	0	0	0	0	0	0	0	0	0	1616	2245	2693	3367
10	Lateral 12mm, Class II ; 2.5kg/cm ²	m	339	406	452	508	677	813	1016	1355	0	0	0	0	0	0	0
11	Emitter/Dripper 4/8lph	No.	113	163	201	255	453	653	510	907	1293	2010	1796	0	0	0	0
12	Control Valve 63mm	No.	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
13	Control Valve 50mm	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	Flush Valve 63mm	No.	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
15	Flush Valve 50mm	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	Throttle Valve -2"	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
17	Throttle Valve -1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
18	Fittings/Installation & Accessories @5%	set	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

Note: The above items/components are indicative for calculation of subsidy. Deviation if any, from the above items/components is subject to ceiling of cost and differential amount to be borne by the beneficiary.

Drip Irrigation Technology-Indicative Bill of Quantities for 1.0 ha at farmer's field

SN	Component/ Lateral to Lateral x Dripper spacing (mxm)	Unit	12X12	10X10	9 x9	8 X8	6 X6	5 X5	4 X 4	3 X3	2.5X2.5	2 X2	1.5X1.5	2.5X0.6	1.8X0.6	1.5X0.6	1.2X0.6
Control Unit																	
1	Screen filter 20/25m ³ /hr/Disc filter	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Ventury & manifold(2")	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	AirreleaseValve1"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	Non Return Valve -1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	By-passAssembly-1.5"x1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Field Unit																	
6	PVCPipe75mm,class-II;4kg/cm ²	m	0	0	0	0	0	0	0	54	54	54	54	54	54	54	54
7	PVCPipe63mm,class-II;4kg/cm ²	m	0	0	0	0	54	156	156	102	102	102	102	102	102	102	102
8	PVCPipe50mm,class-III;6kg/cm ²	m	156	156	156	156	102	0	0	0	0	0	0	0	0	0	0
9	Lateral 16mm,Class II;2.5kg/cm ²	m	833	1000	1111	1250	1667	2000	2500	3333	4000	5000	6667	60	83	100	125
10	Emitting Pipe 16 mm; Class II: (0.6 m x1 to 4lph)	m	0	0	0	0	0	0	0	0	0	0	0	4040	5611	6733	8417
11	Emitter/Dripper 4/8lph	No.	278	400	494	625	1111	1600	1275	2267	3232	5050	4489	0	0	0	0
12	Control Valve 75mm	No.	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0
13	Control Valve 63mm	No.	0	0	0	0	1	1	1	0	0	0	0	1	1	1	1
14	Control Valve 50mm	No.	1	1	1	1	0	0	0	0	1	1	1	1	1	2	2
15	FlushValve63mm	No.	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2
16	FlushValve50mm	No.	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
17	Throttle Valve -2"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	Fittings/Instalation&Accessories@5%	set	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

Note: The above items/components are indicative for calculation of subsidy. Deviation if any, from the above items/components is subject to ceiling of cost and differential amount to be borne by the beneficiary.

Drip Irrigation Technology-Indicative Bill of Quantities for 2.0 ha at farmer's field

SN	Component/ Lateral to Lateral x Dripper spacing (mxm)	Unit	12X12	10X10	9 x9	8 X8	6 X6	5 X5	4 X4	3 X3	2.5 X 2.5	2 X2	1.5 X 1.5	2.5X0.6	1.8X0.6	1.5X0.6	1.2X0.6
Control Unit																	
1	Screen filter 20/25m ³ /hr/Disc filter	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Ventury & manifold(2")	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	AirreleaseValve1"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	Non Return Valve -1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	By-passAssembly-1.5"x1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Field Unit																	
6	PVCPipe75mm,class-II;4kg/cm ²	m	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
7	PVCPipe63mm,class-II;4kg/cm ²	m	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
8	Lateral 16mm,Class II;2.5kg/cm ²	m	1850	2130	2350	2600	3500	4200	5200	6900	8250	11000	14000	120	150	170	200
9	Emitting Pipe 16 mm; Class II: (0.6 mx1to 4lph)	m	0	0	0	0	0	0	0	0	0	0	0	8200	11500	13600	17000
10	Emitter/Dripper 4/8lph	No.	600	800	1000	1300	2300	3300	2600	4800	6600	10400	9000	0	0	0	0
11	Control Valve 75mm	No.	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1
12	Control Valve 63mm	No.	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2
13	FlushValve63mm	No.	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
14	Throttle Valve -2"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	Fittings/Instalation&Accessories@5%	set	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

Note: The above items/components are indicative for calculation of subsidy. Deviation if any, from the above items/components is subject to ceiling of cost and differential amount to be borne by the beneficiary.

Drip Irrigation Technology-Indicative Bill of Quantities for 3.0 ha at farmer's field

SN	Component/ Lateral to Lateral x Dripper spacing (mxm)	Unit	12X12	10X10	9 x9	8 X8	6 X6	5 X5	4 X4	3 X3	2.5X2.5	2 X2	1.5 X 1.5	2.5X0.6	1.8 X0.6	1.5X0.6	1.2X0.6
Control Unit																	
1	Screen filter30m ³ /hr/ Disc filter	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
2	Screen filter20/ 25m ³ /hr/Disc filter	No.	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
3	Ventury & manifold(2")	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	AirreleaseValve1"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	NonReturnValve-2"	No.	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
6	Non Return Valve-1.5"	No.	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
7	By-passAssembly-2"x1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Field Unit																	
8	PVC Pipe 90mm,class-II; 4kg/cm ²	m	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90
9	PVC Pipe 75mm,class-II; 4kg/cm ²	m	0	0	0	0	216	216	216	216	132	132	132	132	132	132	132
10	PVC Pipe63mm,class-II;4kg/cm ²	m	216	216	216	216	336	336	336	336	174	174	174	174	174	174	174
11	PVC Pipe50mm,class-III; 6kg/cm ²	m	336	336	336	336	0	0	0	0	0	0	0	0	0	0	0
12	Lateral16mm, ClassII; 2.5kg/cm ²	m	2500	3000	3333	3750	5000	6000	7500	10000	12120	15150	20200	156	217	260	325
13	Emitting Pipe 16 mm; Class II: (0.6 mx1to 4lph)	m	0	0	0	0	0	0	0	0	0	0	0	12120	16833	20200	25250
14	Emitter/Dripper 4/8lph	No.	833	1200	1481	1875	3333	2400	3750	6667	9696	15150	13467	0	0	0	0
15	Control Valve 90mm	No.	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
16	Control Valve 75mm	No.	0	0	0	0	1	1	1	1	2	2	2	2	2	2	2
17	Control Valve 63mm	No.	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4
18	Control Valve 50mm	No.	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0
19	Flush Valve75mm	No.	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
20	Flush Valve63mm	No.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
21	Throttle Valve -2"	No.	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
22	Throttle Valve-1.5"	No.	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
23	Fittings/Installation&Accessories@5%	set	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

Note: The above items/components are indicative for calculation of subsidy. Deviation if any, from the above items/components is subject to ceiling of cost and differential amount to be borne by the beneficiary.

Drip Irrigation Technology-Indicative Bill of Quantities for 4.0 ha at farmer's field

SN	Component/ Lateral to Lateral x Dripper spacing (mxm)	Unit	12X12	10X10	9 x9	8 X8	6 X6	5 X5	4 X4	3 X 3	2.5X2.5	2 X2	1.5 X 1.5	2.5X0.6	1.8X0.6	1.5X0.6	1.2X0.6
Control Unit																	
1	Screen filter 30m ³ /hr/ Disc filter	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
2	Screen filter 20/ 25m ³ /hr/Disc filter	No	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
3	Ventury & manifold(2")	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	Air release Valve1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Non Return Valve-2"	No.	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
6	Non Return Valve-1.5"	No	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
7	By-pass Assembly-2"x1.5"	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
8	By-pass Assembly-1.5"x1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
Field Unit																	
9	PVC Pipe 90mm,class-II; 4kg/cm ²	m	0	0	0	0	0	0	0	0	138	138	138	138	138	138	138
10	PVC Pipe 75mm,class-II; 4kg/cm ²	m	222	222	222	222	222	222	222	222	276	276	276	276	276	276	276
11	PVC Pipe 63mm,class-II; 4kg/cm ²	m	402	402	402	402	402	402	402	402	402	402	402	402	402	402	402
12	Lateral 16mm, Class II; 2.5kg/cm ²	m	3400	4080	4533	5100	6800	8160	10200	13600	16160	20200	26933	180	250	300	375
13	Emitting Pipe 16 mm; Class II: (0.6 mx1to 4lph)	m	0	0	0	0	0	0	0	0	0	0	0	16000	22000	26950	33100
15	Emitter/Dripper 4/8lph	No.	1133	1632	2015	2550	4533	4896	7700	9244	12800	20000	17800	0	0	0	0
16	Control Valve 90mm	No	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2
17	Control Valve 75mm	No.	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2
18	Control Valve 63mm	No.	2	2	2	2	2	2	2	2	4	4	4	4	4	4	4
19	Flush Valve 75mm	No	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	Flush Valve 63mm	No.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
21	Throttle Valve -2"	No.	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
22	Throttle Valve-1.5"	No	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
23	Fittings/Installation & Accessories @5%	set	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

Note: The above items/components are indicative for calculation of subsidy. Deviation if any, from the above items/components is subject to ceiling of cost and differential amount to be borne by the beneficiary.

Drip Irrigation Technology- Indicative Bill of Quantities 5.0 ha at farmer's field

SN	Component/ Lateral to Lateral x Dripper spacing (mxm)	Unit	12X12	10X10	9 x9	8 X8	6 X6	5 X5	4 X 4	3X3	2.5X2.5	2 X2	1.5X1.5	2.5X0.6	1.8X0.6	1.5X0.6	1.2X0.6
Control Unit																	
1	Screen filter 30m ³ /hr/Disc filter	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
2	Screen filter 20/25m ³ /hr/Disc filter	No.	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
3	Ventury & manifold(21/2")	No.	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
4	Ventury & manifold(2")	No.	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
5	Air release Valve 1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Non Return Valve –2.5"	No.	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
7	Non Return Valve –2"	No.	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
8	By-pass Assembly– 2.5"x2"	No.	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
9	By-pass Assembly- 2"x1.5"	No.	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
Field Unit																	
10	PVC Pipe 90 mm, class-II; 4kg/cm ²	m	114	114	114	114	114	114	114	114	168	168	168	168	168	168	168
11	PVC Pipe 75 mm, class-II; 4kg/cm ²	m	168	168	168	168	168	168	168	168	342	342	342	342	342	342	342
12	PVC Pipe 63 mm, class-II; 4kg/cm ²	m	450	450	450	450	450	450	450	450	456	456	456	456	456	456	456
13	Lateral 16mm, Class II; 2.5kg/cm ²	m	4250	5100	5667	6375	8500	10200	12750	17000	20200	25250	33667	268	373	447	559
14	Emitting Pipe 16 mm; Class II: (0.6m x1 to 4lph)	m	0	0	0	0	0	0	0	0	0	0	0	20200	28056	33667	42083
15	Emitter/Dripper 4/8lph	No.	1417	2040	2519	3188	5667	8160	6500	11556	16160	25250	22444	0	0	0	0
16	Control Valve 90mm	No.	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2
17	Control Valve 75mm	No.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
18	Control Valve 63mm	No.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
19	Flush Valve 75mm	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	Flush Valve 63mm	No.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
21	Throttle Valve –2.5"	No.	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
22	Throttle Valve –2"	No.	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
23	Fittings/Installation & Accessories @5%	set	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

Note: The above items/components are indicative for calculation of subsidy. Deviation if any, from the above items/components is subject to ceiling of cost and differential amount to be borne by the beneficiary.

NEH States-Drip Irrigation Technology -Indicative Bill of Quantities for 0.2 ha at farmer's field

SN	Component/ Lateral to Lateral x Dripper spacing(mxm)	Unit	12x12	10x10	9x9	8x8	6x6	5x5	4x4	3x3	2.5x2.5	2x2	1.5x1.5	2.5x0.6	1.8x0.6	1.5x0.6	1.2x0.6
	Control Unit																
1	Screen filter 10m ³ /hr/Disc filter	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
2	Ventury & manifold(11/2")	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
3	Air release Valve1"	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
4	Non Return Valve-1.5"	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
5	By-pass Assembly-1.5"x1.5"	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
6	Field Unit																
7	HDPE Pipe 50mm; 4kg/cm ²	m	-	-	-	-	-	-	-	-	-	54	54	54	54	54	54
8	Lateral 12mm, Class II; 2.5 kg/cm ²	m	-	-	-	-	-	-	-	-	-	1010	1347	20	27	32	40
9	Emitting Pipe 12mm; Class II: (0.2-0.3mx 1 to 2-4 lph)	m	-	-	-	-	-	-	-	-	-	0	0	808	1122	1347	1683
10	Pressure regulating Emitter/Dripper 2/4/8lph	No.	-	-	-	-	-	-	-	-	-	1020	907	0	0	0	0
11	Control Valve 50mm	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
12	Control Valve 63mm	No.	-	-	-	-	-	-	-	-	-	1	1	0	0	0	0
13	Flush Valve 50mm	No.	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2
14	Throttle Valve -1.5"	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
15	Fittings/Installation & Accessories @5%	set	-	-	-	-	-	-	-	-	-	5%	5%	5%	5%	5%	5%

Note: The above items/components are indicative for calculation of subsidy. Deviation if any, from the above items/components is subject to ceiling of cost and differential amount to be borne by the beneficiary.

Annexure-XIII i

NEH States- Drip Irrigation Technology- Indicative Bill of Quantities for 0.4 ha at farmer's field

SN	Component/ Lateral to Lateral x Dripper spacing(mxm)	Unit	12 X12	10X10	9x9	8X8	6 X6	5 X5	4 X4	3X3	2.5 X2.5	2 X2	1.5X1.5	2.5X0.6	1.8X0.6	1.5X0.6	1.2X0.6
	Control Unit																
1	HDPE Pipe50mm;4kg/cm ²	m	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
2	HDPE Pipe63mm;4kg/cm ²	m	0	0	0	0	0	0	0	0	30	30	30	0	0	0	0
3	Lateral 12mm, Class II ;2.5kg/cm ²	m	339	406	452	508	677	813	1016	1355	0	0	0	0	0	0	0
4	Lateral 16mm, Class II; 2.5kg/cm ²	m	0	0	0	0	0	0	0	0	1616	2020	2693	38	53	64	79
5	Emitting Pipe 16 mm; Class II: (0.2- 0.3mx1to 2-4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	1616	2245	2693	3367
6	Pressure regulating Emitter/Dripper2/ 4/8lph	No.	113	163	201	255	453	490	765	1360	1306	2010	3627	0	0	0	0
7	Control Valve 50mm	No.	6	6	6	6	6	6	6	6	6	6	6	4	4	4	4
8	Control Valve 63mm	No.	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
9	Flush Valve 50mm	No.	1	1	1	1	1	1	1	1	1	1	1	4	4	4	4
10	Air release Valve 1"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	Non Return Valve -1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	Throttle Valve -1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	Screen filter 10m ³ /hr/Disc filter	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	By-pass Assembly- 1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	Ventury & manifold-1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	Fittings/Installation & Accessories	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

Note: The above items/components are indicative for calculation of subsidy. Deviation if any, from the above items/components is subject to ceiling of cost and differential amount to be borne by the beneficiary.

Annexure-XIII j

NEH States- Drip Irrigation Technology- Indicative Bill of Quantities for 1.0 ha at farmer's field

SN	Component/ Lateral to Lateral x Dripper spacing(mxm)	Unit	12X12	10X10	9x9	8X8	6X 6	5 X5	4X4	3 X3	2.5X2.5	2 X2	1.5X1.5	2.5X0.6	1.8X0.6	1.5X0.6	1.2X0.6
	Control Unit																
1	HDPE Pipe40mm;6kg/cm ²	m	172	172	172	172	112	0	0	0	0	0	0	0	0	0	0
2	HDPE Pipe50mm;4kg/cm ²	m	0	0	0	0	60	172	172	172	172	172	172	0	0	0	0
3	HDPE Pipe63mm;4kg/cm ²	m	0	0	0	0	0	0	0	60	60	60	60	118	118	118	118
4	HDPE Pipe75mm;4kg/cm ²	M	0	0	0	0	0	0	0	0	0	0	0	62	62	62	62
5	Lateral12mm, Class II ;2.5kg/cm ²	m	980	1150	1300	1400	1800	2000	2500	3333	0	0	0	0	0	0	0
6	Lateral16mm, Class II; 2.5kg/cm ²	m	0	0	0	0	0	0	0	0	4040	5050	6733	60	83	100	125
7	Emitting Pipe 16 mm; Class II: (0.2-0.3mx1to 2-4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	4040	5611	6733	8717
8	Pressure regulating Emitter/ Dripper2/4/ 8lph	No.	350	440	540	650	1150	1224	1913	3400	3232	5050	9067	0	0	0	0
9	Control Valve 40mm	No.	10	10	10	10	0	0	0	0	7	7	7	0	0	0	0
10	Control Valve 50mm	No.	0	0	0	0	10	10	10	0	3	3	3	4	4	4	4
11	Control Valve 63mm	No.	0	0	0	0	0	0	0	10	0	0	0	1	1	1	1
12	Control Valve 75mm	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
13	Flush Valve50mm	No.	1	1	1	1	1	0	0	0	1	1	1	4	4	4	4
14	Flush Valve63mm	No.	0	0	0	0	0	1	1	1	0	0	0	1	1	1	1
15	AirreleaseValve1"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	Non Return Valve -1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	Throttle Valve -1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	Screen filter 10m3/hr/Disc filter	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	By-pass Assembly- 1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	Ventury & manifold-2"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	Fittings/Installation & Accessories	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

Note: The above items/components are indicative for calculation of subsidy. Deviation if any, from the above items/components is subject to ceiling of cost and differential amount to be borne by the beneficiary.

Annexure-XIII k

NEH States-Drip Irrigation Technology-Indicative Bill of Quantities for 2.0 ha at farmer's field

SN	Component Lateral to Lateral x Dripper spacing(mx)	Unit	12x12	10x10	9x9	8x8	6x6	5x5	4x4	3x3	2.5x2.5	2x2	1.5x1.5	2.5x0.6	1.8x0.6	1.5 X 0.6	1.2x0.6
1	HDPE Pipe50mm; 4kg/cm ²	m	165	165	165	165	165	165	165	165	165	165	165	120	120	120	120
2	HDPE Pipe63mm;4 kg/cm ²	m	88	88	88	88	88	88	88	88	88	88	88	80	80	80	80
3	HDPE Pipe75mm;4 kg/cm ²	m	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90
4	Lateral 12mm, Class II ;2.5kg/cm ²	m	1850	2130	2350	2600	3500	4200	5200	6900	0	0	0	0	0	0	0
5	Lateral 16mm Class II, 2.5kg/cm ²	m	0	0	0	0	0	0	0	0	8400	11400	14600	120	150	170	200
6	Emitting Pipe 16 mm; Class II: (0.2-0.3m x 1to 2-4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	8200	11500	13600	17000
7	Pressure regulating Emitter/ Dripper2/4/ 8lph	No.	600	800	1000	1300	2300	2448	3825	6800	6600	10400	18133	0	0	0	0
8	Control Valve 50mm	No.	12	12	12	12	12	12	12	12	12	12	12	8	8	8	8
9	Control Valve 63mm	No.	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4
10	Control Valve 75mm	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
11	Flush Valve 50mm	No.	3	3	3	3	3	3	3	3	3	3	3	8	8	8	8
12	Flush Valve 63mm	No.	1	1	1	1	1	1	1	1	1	1	1	4	4	4	4
13	Air Release Valve1"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	Non Return Valve 1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	Throttle Valve 1.5"	No.	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1
16	Throttle Valve 2"	No.	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0
17	Screen Filter 10m ³ /hr/Disc filter	No.	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
18	Screen Filter 30m ³ /hr/Disc filter	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
19	By-pass Assembly-1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	Venturi & Manifold2"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	Fittings/Installation & Accessories	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

Note: The above items/components are indicative for calculation of subsidy. Deviation if any, from the above items/components is subject to ceiling of cost and differential amount to be borne by the beneficiary.

NEH States-Drip Irrigation Technology-Indicative Bill of Quantities 3.0 ha at farmer's field

Annexure-XIII I

SN	Component Lateral to Lateral x Dripper spacing(mxm)	Unit	12x12	10x10	9x9	8x8	6x6	5x5	4x4	3x3	2.5x2.5	2x2	1.5x1.5	2.5x0.6	1.8x0.6	1.5 X 0.6	1.2x0.6
1	HDPEPipe90mm;4 kg/cm ²	m	0	0	0	0	0	0	0	0	105	105	105	0	0	0	0
2	HDPEPipe75mm;4 kg/cm ²	m	0	0	0	0	240	240	240	240	144	144	144	105	105	105	105
3	HDPEPipe63mm;4 kg/cm ²	m	240	240	240	240	380	380	380	380	190	190	190	150	150	150	150
4	HDPEPipe50mm; 4kg/cm ²	m	380	380	380	380	0	0	0	0	0	0	0	200	200	200	200
5	Lateral 16mm Class II, 2.5kg/cm ²	m	0	0	0	0	0	0	0	0	12120	15150	20200	156	217	260	325
6	Lateral12mm, Class II ;2.5kg/cm ²	m	2500	3000	3333	3750	5000	6000	7500	10000	0	0	0	0	0	0	0
7	Emitting Pipe 16 mm; Class II: (0.2-0.3 mx1to 2-4lph)	m	0	0	0	0	0	0	0	0	0	0	0	12120	16833	20200	25250
8	Pressure regulating Emitter/ Dripper2/4/ 8lph	No.	833	1200	1481	1875	3333	3672	5738	10200	9696	15150	26933	0	0	0	0
9	Control Valve 90mm	No	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
10	Control Valve 75mm	No	3	3	3	3	3	3	3	3	5	5	5	1	1	1	1
11	Control Valve 63mm	No.	8	8	8	8	8	8	8	8	8	8	8	2	2	2	2
12	Control Valve 50mm	No.	0	0	0	0	0	0	0	0	0	0	0	8	8	8	8
13	Flush Valve75mm	No.	3	3	3	3	3	3	3	3	5	5	5	0	0	0	0
14	Flush Valve63mm	No.	8	8	8	8	8	8	8	8	8	8	8	1	1	1	1
15	Flush Valve50mm	No.	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4
16	AirReleaseValve1"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	Non Return Valve 1.5"	No.	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
18	Non Return Valve 2"	No.	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
19	Throttle Valve1.5"	No.	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
20	Throttle Valve2"	No.	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
21	Screen Filter 30m ³ /hr/Disc filter	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
22	Screen Filter 20/25m ³ /hr/Disc filter	No.	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0
23	Screen Filter 10m ³ /hr/Disc filter	No.	1	1	1	1	1	0	0	0	1	1	1	0	0	0	0
24	By-pass Assembly-2"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	Venturi & Manifold2"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26	Fittings/Installation & Accessories	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

Note: The above items/components are indicative for calculation of subsidy. Deviation if any, from the above items/components is subject to ceiling of cost and differential amount to be borne by the beneficiary.

NEH States-Drip Irrigation Technology-Indicative Bill of Quantities 4.0 ha at farmer's field

SN.	Component Lateral to Lateral x Dripper spacing(mxm)	Unit	12x12	10x10	9x9	8x8	6x6	5x5	4x4	3x3	2.5x2.5	2x2	1.5x1.5	2.5x0.6	1.8x0.6	1.5X0.6	1.2x0.6
1	HDPE Pipe 90mm; 4kg/cm ²	m	0	0	0	0	0	0	0	0	160	160	160	150	150	150	150
2	HDPE Pipe 75mm; 4kg/cm ²	m	245	245	245	245	245	245	245	245	300	300	300	300	300	300	300
3	HDPE Pipe 63mm; 4kg/cm ²	m	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275
4	HDPE Pipe 50mm; 4kg/cm ²	m	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
5	Lateral 16mm Class II, 2.5kg/cm ²	m	0	0	0	0	0	0	0	0	16160	20200	26933	180	250	300	375
6	Emitting Pipe 16mm; Class II; (0.2-0.3mx1 to 2-4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	16000	22000	26670	33100
7	Lateral 12mm, Class II; 2.5kg/cm ²	m	3400	4080	4533	5100	6800	8160	10200	13600	0	0	0	0	0	0	0
8	Pressure regulating Emitter/ Dripper 2/4/ 8lph	No.	1133	1632	2015	2550	4533	4896	7700	13600	12800	20000	35911	0	0	0	0
9	Control Valve 90mm	No.	0	2	0	0	0	0	0	0	2	2	2	2	2	2	2
10	Control Valve 75mm	No.	0	0	0	0	3	3	3	3	3	3	3	2	2	2	2
11	Control Valve 63mm	No.	5	5	5	5	3	3	3	3	8	8	8	5	5	5	5
12	Control Valve 50mm	No.	3	3	3	3	2	2	2	2	4	4	4	3	3	3	3
13	Flush Valve 75mm	No.	3	3	3	3	3	3	3	3	3	3	3	1	1	1	1
14	Flush Valve 63mm	No.	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4
15	Flush Valve 50mm	No.	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2
16	Air Release Valve 1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	Non Return Valve 1.5"	No.	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
18	Non Return Valve 2"	No.	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
19	Non Return Valve 2.5"	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
20	Throttle Valve 1.5"	No.	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
21	Throttle Valve 2"	No.	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0
22	Throttle Valve 2.5"	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
23	Screen Filter 30m ³ /hr/Disc filter	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
24	Screen Filter 20/25m ³ /hr/Disc filter	No.	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0
25	Screen Filter 10m ³ /hr/Disc filter	No.	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
26	By-pass Assembly-2"	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
27	By-pass Assembly-1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
28	Venturi & Manifold 2"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	Fittings/Installation & Accessories	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

Note:
The
above

items/components are indicative for calculation of subsidy. Deviation if any, from the above items/components is subject to ceiling of cost and differential amount to be borne by the beneficiary.

Annexure-XIII n

NEH States-Drip Irrigation Technology-Indicative Bill of Quantities 5.0 ha at farmer's field

SN	Component Lateral to Lateral x Dripper spacing(mxmxm)	Unit	12x12	10x10	9x9	8x8	6x6	5x5	4x4	3x3	2.5x2.5	2x2	1.5x1.5	2.5x0.6	1.8x0.6	1.5X0.6	1.2x0.6
1	HDPE Pipe 90mm; 4kg/cm ²	m	124	124	124	124	124	124	124	124	180	180	180	180	180	180	180
2	HDPE Pipe 75mm; 4kg/cm ²	m	180	180	180	180	180	180	180	180	372	372	372	375	375	375	375
3	HDPE Pipe 63mm; 4kg/cm ²	m	300	300	300	300	300	300	300	300	300	300	300	310	310	310	310
4	HDPE Pipe 50mm; 4kg/cm ²	m	212	212	212	212	212	212	212	212	212	212	212	200	200	200	200
5	Lateral 16mm Class II; 2.5kg/cm ²	m	0	0	0	0	0	0	0	0	20200	25250	33667	268	373	447	559
6	Emitting Pipe 16mm; Class II: (0.2-0.3mx1 to 2-4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	20200	28056	33667	42083
7	Lateral 12mm, Class II; 2.5kg/cm ²	m	4250	5100	5667	6375	8500	10200	12750	17000	0	0	0	0	0	0	0
8	Pressure regulating Emitter/ Dripper 2/4/ 8lph	No.	1417	2040	2519	3188	5667	6120	9563	17000	16610	25250	44889	0	0	0	0
9	Control Valve 90mm	No.	2	2	2	0	0	0	0	0	0	0	0	2	2	2	2
10	Control Valve 75mm	No.	4	4	4	4	4	4	4	4	4	4	4	2	2	2	2
11	Control Valve 63mm	No.	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
12	Control Valve 50mm	No.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
13	Flush Valve 75mm	No.	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1
14	Flush Valve 63mm	No.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
15	Flush Valve 50mm	No.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
16	Air Release Valve 1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	Non Return Valve 1.5"	No.	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
18	Non Return Valve 2.5"	No.	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
19	Throttle Valve 1.5"	No.	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
20	Throttle Valve 2"	No.	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0
21	Throttle Valve 2.5"	No.	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
22	Screen Filter 30m ³ /hr/Disc filter	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
23	Screen Filter 20/25m ³ /hr/Disc filter	No.	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0
24	Screen Filter 10m ³ /hr/Disc filter	No.	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
25	By-pass Assembly-2.5"	No.	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1
26	By-pass Assembly-2"	No.	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
27	Venturi & Manifold 2"	No.	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
28	Fittings/Installation & Accessories	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

Note: The above items/components are indicative for calculation of subsidy. Deviation if any, from the above items/components is subject to ceiling of cost and differential amount to be borne by the beneficiary.

Indicative Bill of Quantities (BoQ) for Portable Sprinkler Irrigation System

Using 63 mm coupler								
SN	Components/Area(Ha)	Unit	0.4	1	2	3	4	5
1	HDPE Pipes with Quick coupled (Pipe of Class II; 3.2kg/cm ² IS:17425:2020 63 mm diameter & 6m long)	No	18	30	41	NA	NA	NA
2	Quick coupled HDPE 63mm Foot batten Assembly;	No	3	5	9	NA	NA	NA
3	GI/PP/PVC Riser Pipe 3/4" diameter x 75cm long	No	3	5	9	NA	NA	NA
4	Sprinkler Nozzles (1.7 to 2.8kg/cm ²); IS12232 Part I Brass/Plastic	No	3	5	9	NA	NA	NA
5	Quick coupled HDPE Bend with Coupler 90° (63/50mm);	No	1	1	1	NA	NA	NA
6	Quick coupled HDPE Pump Connecting Nipple 63mm;	No	1	1	1	NA	NA	NA
7	Quick coupled HDPE End Plug (63mm);	No	1	2	2	NA	NA	NA
8	Quick coupled HDPE Tee with Coupler (63mm);	No	1	1	1	NA	NA	NA
Using 75mm coupler								
SN	Components/Area(Ha)	Unit	0.4	1	2	3	4	5
1	HDPE Pipes with Quick coupled (Pipe of Class I; 2.5kg/cm ² IS:17425:2020, 75mm diameter & 6m long)	No	NA	30	41	NA	NA	NA
2	Quick coupled HDPE 75mm Foot batten Assembly;	No	NA	5	9	NA	NA	NA
3	GI/PP/PVC Riser Pipe 3/4" diameter x 75cm long	No	NA	5	9	NA	NA	NA
4	Sprinkler Nozzles (1.7 to 2.8kg/cm ²); IS12232 Part I Brass/Plastic	No	NA	5	9	NA	NA	NA
5	Quick coupled HDPE Bend with Coupler 90° (75mm);	No	NA	1	1	NA	NA	NA
6	Quick coupled HDPE Pump Connecting Nipple, 75mm;	No	NA	1	1	NA	NA	NA
7	Quick coupled HDPE End Plug (75mm);	No	NA	2	2	NA	NA	NA
8	Quick coupled HDPE Tee with Coupler (75mm);	No	NA	1	1	NA	NA	NA
Using 90mm coupler								
SN	Components/Area(Ha)	Unit	0.4	1	2	3	4	5
1	HDPE Pipes with Quick coupled (Pipe of Class I; 2.5kg/cm ² IS:17425:2020, 90mm diameter & 6m long)	No	NA	NA	NA	41	52	58
2	Quick coupled HDPE 90mm Foot batten Assembly;	No	NA	NA	NA	11	14	16
3	GI/PP/PVC Riser Pipe 3/4" diameter x 75cm long	No	NA	NA	NA	11	14	16
4	Sprinkler Nozzles (1.7 to 2.8kg/cm ²); IS12232 Part I Brass/Plastic	No	NA	NA	NA	11	14	16
5	Quick coupled HDPE Bend with Coupler 90° (90mm);	No	NA	NA	NA	2	2	4
6	Quick coupled HDPE Pump Connecting Nipple, 90mm;	No	NA	NA	NA	1	1	1
7	Quick coupled HDPE End Plug (90mm);	No	NA	NA	NA	2	2	2
8	Quick coupled HDPE Tee with Coupler (90mm);	No	NA	NA	NA	1	1	2

Note: In the cases of area upto 2ha, the beneficiary may be allowed for using higher dia HDPE pipe as per his choice. However, financial assistance may be allowed as per the indicative Unit cost for 75 mm dia HDPE pipe.

Annexure-XV

Indicative Bill of Quantities (BoQ) for Micro Sprinkler Irrigation System

SN	Components/Area(Ha)	5mx5m						3mx3m						
		Unit	0.4	1.0	2.0	3.0	4.0	5.0	0.4	1.0	2.0	3.0	4.0	5.0
1	PVCPipe90mm,class-II;4kg/cm ²	m	0	0	0	0	0	160	0	0	0	0	0	150
2	PVCPipe75mm,class-II;4kg/cm ²	m	30	54	80	100	252	600	30	54	100	140	220	520
3	PVCPipe63mm,class-II;4kg/cm ²	m	66	102	150	180	402	0	66	102	150	180	380	0
4	20mmLLDPEplainlaterals,ClassII;2.5 kg/cm ²	m	0	2000	4000	6000	8000	10000	0	3350	6660	10000	13330	16600
5	Lateral16mm,ClassII;2.5kg/cm ²	m	800	0	0	0	0	0	1336	0	0	0	0	0
6	Micro sprinkler Set	No.	160	400	800	1200	1600	2000	444	1111	2222	3333	4444	5556
7	ControlValve90mm	No.	0	0	0	0	2	2	0	0	0	0	0	1
8	ControlValve75mm	No.	1	1	1	1	4	4	1	1	1	1	4	4
9	ControlValve63mm	No.	1	1	4	4	0	0	1	1	4	4	0	0
10	FlushValve75mm	No.	0	0	0	0	4	6	0	0	0	0	4	4
11	FlushValve63mm	No.	1	1	1	1	0	0	1	1	1	1	0	0
12	FlushValve50mm	No.	2	0	0	0	0	0	0	0	0	0	0	0
13	AirreleaseValve-1"	No.	1	1	1	1	1	1	1	1	1	1	1	1
14	NonReturnValve-2"	No.	1	1	0	0	0	0	1	1	1	1	1	1
15	NonReturnValve-2.5"	No.	0	0	1	1	1	1	0	0	0	0	0	0
16	ThrottleValve-2"	No.	1	1	0	0	0	0	1	1	1	1	1	1
17	ThrottleValve-2.5"	No.	0	0	1	1	1	1	0	0	0	0	0	0
18	Screenfilter30m ³ /hr	No.	0	1	1	1	1	1	0	1	1	1	1	1
19	Screenfilter20/25m ³ /hr	No.	1	0	0	0	0	0	1	0	0	0	0	0
20	By-passAssembly-2.5"x2"	No.	0	0	1	0	0	0	0	0	0	0	0	0
21	By-passAssembly-2"x1,5"	No.	1	1	0	1	1	1	1	1	1	1	1	1
22	Venturi&manifold-2"	No.	1	1	1	1	1	1	1	1	1	1	1	1
23	Fittings/Installation & Accessories		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

Note: The above items/components are indicative for calculation of subsidy. Deviation if any, from the above items/components is subject to ceiling of cost and differential amount to be borne by the beneficiary.

Indicative Bill of Quantities (BoQ) for Mini Sprinkler Irrigation System

SN	Components/Area(Ha)	Unit	10x10						8x8					
			0.4	1.0	2.0	3.0	4.0	5.0	0.4	1.0	2.0	3.0	4.0	5.0
1	PVC Pipe 90mm, class-II; 4kg/cm ²	m	0	0	80	210	235	310	0	0	80	210	235	310
2	PVC Pipe 75mm, class-II; 4kg/cm ²	m	30	60	150	320	420	480	30	60	150	320	420	480
3	PVC Pipe 63mm, class-II; 4kg/cm ²	m	66	110	0	0	0	0	66	110	0	0	0	0
4	25/32mm LLDPE plain laterals, 2.5kg/cm ² - Class II	m	400	1000	2000	3000	4000	5000	500	1250	2500	3750	5000	6250
5	Mini Sprinkler Head/Nozzle	No.	40	100	220	300	400	500	63	156	312	470	625	780
6	Riser Assembly (MS/Plastic)	No.	40	100	220	300	400	500	63	156	313	470	625	781
7	Control Valve 90mm	No.	0	0	0	0	2	2	0	0	0	0	2	2
8	Control Valve 75mm	No.	0	1	1	1	4	4	0	1	2	4	4	4
9	Control Valve 63mm	No.	1	1	2	0	0	0	1	1	2	0	0	0
10	Control Valve 32mm	No.	0	20	34	52	68	84	0	24	36	54	72	90
11	Flush Valve 75mm	No.	0	0	1	4	4	4	0	1	2	4	4	4
12	Flush Valve 63mm	No.	1	1	0	0	0	0	1	0	0	0	0	0
13	Air release Valve-1"	No.	1	1	1	1	1	1	1	1	1	1	1	1
14	Non Return Valve-2.5"	No.	0	1	1	1	1	1	0	1	1	1	1	1
15	Non Return Valve-2"	No.	1	0	0	0	0	0	1	0	0	0	0	0
16	Throttle Valve 3"	No.	0	0	0	0	1	1	0	0	0	0	1	1
17	Throttle Valve-2.5"	No.	0	1	1	1	0	0	0	1	1	1	0	0
18	Throttle Valve-2"	No.	1	0	0	0	0	0	1	0	0	0	0	0
19	Screen filter 30m ³ /hr	No.	0	0	1	1	1	1	0	0	1	1	1	1
20	Screen filter 20/25m ³ /hr	No.	1	1	0	0	0	0	1	1	0	0	0	0
21	By-pass Assembly-2"x1.5"	No.	0	0	0	0	0	1	0	0	0	0	0	1
22	By-pass Assembly-1.5"x1.5"	No.	1	1	1	1	1	0	1	1	1	1	1	0
23	Venturi & manifold-2"	No.	1	1	1	1	1	1	1	1	1	1	1	1
24	Fittings/Installation & Accessories	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

Note: Installation of PVC or HDPE pipes for main/sub mains may be the choice of beneficiary. However, financial assistance will be limited to the PVC pipe and differential amount to be borne by beneficiary.

Indicative Bill of Quantities (BoQ) for Semi Permanent Sprinkler Irrigation System

SN	Particulars/ha area	0.4	1	2	3	4	5
1	PVC Pipe90mm,class-II;4kg/cm2	0	0	0	0	0	173
2	PVC Pipe75mm,class-II;4kg/cm2	0	0	110	135	156	0
3	PVC Pipe63mm,class-II;4kg/cm2	96	154	273	340	395	440
4	PVC Pipe25mm Class-V;10Kg/cm2	350	950	1904	0	0	0
5	32mm LLDPE plain laterals,2.5 kg/cm2-ClassII	0	0	0	3006	4000	5014
6	Control Valve 63mm	1	1	2	2	2	2
7	By-pass Assembly-2.5"x2"	1	1	1	1	1	1
8	Control Valve 25mm	12	20	42	51	80	88
9	Sprinkler Nozzles (1.7to2.8kg/cm2);IS12232 Part I Brass/Plastic	12	12	12	12	12	12
10	Screenfilter20/25m3/hr	1	1	1	1	1	1
11	Fittings/Installation & Accessories	5%	5%	5%	5%	5%	5%

Note: The above items/components are indicative for calculation of subsidy. Deviation if any, from the above items/components is subject to ceiling of cost and differential amount to be borne by the beneficiary.

Indicative Bill of Quantities (BoQ) for Rain-gun Sprinkler Irrigation System

Using 63 mm coupler						
SN	Components/Area(ha)	1	2	3	4	5
1	HDPE Pipes with Quick coupled(Pipe of Class 3;4kg/cm ² IS:17425:202063 mm diameter & 6m long)	30	NA	NA	NA	NA
2	Raingun Sprinkler1.25"female threaded connection	1	N.A	N.A	N.A	N.A
3	Tripod Stand with adapter to feederline1.25"x1.5m	1	N.A	N.A	N.A	N.A
4	Quick coupled HDPE Bend with Coupler 90 ⁰ (63/50mm);	1	N.A	N.A	N.A	N.A
5	Quick coupled HDPE Pump Connecting Nipple 63mm;	1	N.A	N.A	N.A	N.A
6	Quick coupled HDPE End Plug(63mm);	1	N.A	N.A	N.A	N.A
7	Quick coupled HDPE Tee with Coupler (63mm);	1	N.A	N.A	N.A	N.A
8	Screenfilter20/25m3/hr	1	N.A	N.A	N.A	N.A
9	By-pass Assembly-2"x1,5"	1	N.A	N.A	N.A	N.A
Using75mmcoupler						
SN	Components/Area(ha)	1	2	3	4	5
1	HDPEPipeswithQuickcoupled(PipeofClass3;4kg/cm ² IS:17425:202075mmdiam eter &6mlong)	30	42	NA	NA	NA
2	RaingunSprinkler1.25"femalethreadedconnection	1	1	N.A	N.A	N.A
3	TripodStandwithadaptertoFeederline1.25"x1.5m	1	1	N.A	N.A	N.A
4	Quick coupled HDPE Bend with Coupler 90 ⁰ (75mm);	1	1	N.A	N.A	N.A
5	Quick coupled HDPE Pump Connecting Nipple,75mm;	1	1	N.A	N.A	N.A
6	Quick coupled HDPE End Plug (75mm);	1	1	N.A	N.A	N.A
7	Quick coupled HDPE Tee with Coupler(75mm);	1	1	N.A	N.A	N.A
8	Screenfilter20/25m3/hr	1	1	N.A	N.A	N.A
9	By-passAssembly-2"x1,5"	1	1	N.A	N.A	N.A
Using90mmcoupler						
SN	Components/Area(ha)	1	2	3	4	5
1	HDPE Pipes with Quick coupled (Pipe of Class3;4kg/cm ² IS:17425:202090mm diameter &6mlong)	NA	NA	45	52	60
2	Raingun Sprinkler1.5"female threaded connection	N.A	N.A	1	1	1
3	Tripod Stand with adapter to feederline1.5"x1.5m	N.A	N.A	1	1	1
4	Quick coupled HDPE Bend with Coupler 90 ⁰ (90mm);	N.A	N.A	1	1	1
5	Quick coupledHDPEPumpConnectingNipple,90mm;	N.A	N.A	1	1	1
6	Quick coupled HDPE End Plug(90mm);	N.A	N.A	1	1	1
7	Quick coupled HDPE Tee with Coupler(90mm);	N.A	N.A	1	1	1
8	Screenfilter30m3/hr	N.A	N.A	0	1	1
9	Screenfilter20/25m3/hr	N.A	N.A	1	0	0
10	By-passAssembly-2"x1,5"	N.A	N.A	1	0	0
11	By-passAssembly-2.5"x2"	N.A	N.A	0	1	1

Note: The above items/components are indicative for calculation of subsidy. Deviation if any, from the above items/components is subject to ceiling of cost and differential amount to be borne by the beneficiary.

Water Quality Criteria in Relation to Clogging

The criteria for water quality for conventional irrigation is different from the one meant for irrigating through drip. The clogging hazard with different water qualities are presented below:

Extent of Clogging on the Basis of Quality of Irrigation Water

Quality of Water	Clogging Hazard		
	Slight	Moderate	Severe
Suspended Solids(ppm)	<50	50-100	>100
pH	<7.0	7.0-8.0	>8.0
TDS(ppm)	<500	500-2000	>2000
Manganese(ppm)	<0.1	0.1-1.5	>1.5
Iron(ppm)	<0.1	0.1-1.5	>1.5
Calcium and Magnesium (ppm)	<20	20-40	>40
Hydrogen sulphide (ppm)	<0.5	0.5-2.0	>2.0
Bacterial population(No./ml)	<10000	10000-50000	>50000

Source: Dasberg and Dani,1999

Guidelines for Selection of Filter

Water Quality	Type of Filter	Remarks
Good without any physical and biological impurities.	Screen	Screen filter shall be suggested only if the physical impurity do not call for cleaning of filter element more than once a Day
Water sources with heavy physical and biological impurities.	Only screen filter will not be sufficient	Additional filter is required depending upon the type of water impurity
Water sources with sand and other heavier particles.	Hydro cyclone Separator or Hydro cyclone of matching Flow capacity.	Disc/Screen Filter shall be provided after hydro cyclone
Water sources with heavy of Biological Impurities such as Algae, trash and other debris.	Media/sand filter	Disc/screen filter should be provided after Media filter
Water sources with heavy Sand and other biological Impurities such as Algae and trash.	Combination of Hydro Cyclone followed by a Sand Filter	Screen/disc filter should be After sand filter

Indicative Price of Optional Components

SN	Optional Component	Appr. Price (Rs)
1	Sand Filter with back wash assembly IS1 4606	
a	10m ³ /hr x1.5"	9775
b	20m ³ /hr x2"	13225
c	25m ³ /hr x2"	16100
d	30m ³ /hr x2.5"	18400
2	Hydrocyclone Filter IS14743	
a	20m ³ /hr x2"	4025
b	25m ³ /hr x2"	4600
c	30m ³ /hr x2.5"	6325
3	Fertilizer Tank with Assembly IS14483-PartIII	
a	30litres	3220
b	60litres	5750
4	Winder	
	Drip Line Winder	2000

Other Interventions to be provided as optional, if and only if a farmer opted to install micro-irrigation System in his/her field

SN	Activities	Cost Norms
1	Water harvesting system for individuals	50%of cost (Construction cost-Rs. 125 for plain/ Rs. 150 per cum for hilly areas) limited to Rs. 75000 for plain areas and Rs. 90000 for hilly areas including lining. For smaller size of the ponds/dug wells, cost admissible on prorata basis. Cost for non-lined ponds/tanks will be 30% less.
2	Construction of Tube wells/ Bore wells(Shallow/ Medium) only in areas which are not categorized under over-exploited, critical & semi-critical zones by Central Ground Water Board.	50%of the total cost of installation limited to Rs.25,000/-per unit
3	Restoration/Renovation of small tank	50% of the cost of renovation limited to Rs.15,000/-per unit
4	Recharge of defunct bore well	50% of the cost of recharging limited to Rs.5000/-per unit
5	Pipe/pre-cast distribution system	50% of the cost of system limited to Rs. 10,000/-per ha
6	Water Lifting Devices (Electric, Diesel, wind/Solar)	50%of the cost of installation limited to Rs.15,000/-per electric/diesel unit and Rs. 50,000/-per solar/wind unit
7	Petrol Irrigation Pumps-upto15 hp	Rs.10000/unit or 50% of the cost of the system(including installation)whichever is less.

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कृषि एवं किसान कल्याण मंत्रालय

(कृषि, सहकारिता एवं किसान कल्याण विभाग)

अधिसूचना

नई दिल्ली, 17 मार्च, 2017

का.आ. 893(अ).— सेवाओं या फायदों या सहायिकियों के परिदान के लिए एक पहचान दस्तावेज के रूप में आधार का उपयोग सरकारी परिदान प्रक्रियाओं का सरलीकरण करता है, पारदर्शिता और दक्षता लाता है और फायदाग्राहियों को सुविधापूर्वक और निर्बाध रीति में उनकी हकदारियों को मीधे प्राप्त करने में समर्थ बनाता है और आधार किसी व्यक्ति की पहचान को साबित करने के लिए बहुत दस्तावेज प्रस्तुत करने की आवश्यकता को समाप्त करता है;

और जबकि भारत सरकार में कृषि एवं किसान कल्याण मंत्रालय (जिसे इसमें इसके पश्चात मंत्रालय कहा गया है) अनुमोदित वित्त पोषण पद्धति के अनुसार राज्य सरकार अथवा संघ राज्य क्षेत्र प्रशासन के अधीन नोडल विभागों (जिसे इसमें इसके पश्चात विभाग कहा गया है) को अनुदान सहायता प्रदान करके केन्द्रीय प्रायोजित स्कीम के रूप में प्रधानमंत्री कृषि सिंचाई स्कीम (पीएमकेएसवाई) (जिसे इसमें इसके पश्चात स्कीम कहा गया है) के "प्रति बूंद अधिक फसल घटक" का कार्यान्वयन कर रहा है।

और जबकि स्कीम के अधीन दी जा रही अनुदान सहायता राज्य नोडल अभिकरणों अथवा रजिस्ट्रीकृत अथवा पैनलीकृत कम्पनियों (जिसे इसमें इसके पश्चात कार्यान्वयन अभिकरण कहा गया है) के माध्यम से किसानों (जिसे इसमें इसके पश्चात लाभार्थी कहा गया है) को सहायता प्राप्त मूख्य सिंचाई प्रणालियां तथा अन्य फायदे अथवा अन्य सेवाएं प्रदान करने के लिए है।

और जबकि स्कीम के अधीन प्रदान किए गए फायदों में भारत की संविधान निधि से उपगत पूर्ण अथवा आंशिक आवर्ती व्यय अंतर्भूत है।

अतः अब, केन्द्रीय सरकार आधार (वित्तीय और अन्य सहायिकियों, प्रसुविधाओं और सेवाओं का लक्षित परिदान) अधिनियम, 2016 (2016 का 18) (जिसे इसमें इसके पश्चात अधिनियम कहा गया है) की धारा 7 के उपबंधों के अनुसरण में निम्नलिखित अधिसूचित करती है, अर्थात्:-

1522 GI/2017

(1)

1. (1) स्कीम के अधीन फायदा प्राप्त करने के पात्र व्यक्ति से अपेक्षा की जाती है कि वह आधार संख्या रखने का सबूत प्रस्तुत करे अथवा आधार अधिप्रमाणन करवाए।

(2) इस स्कीम के अधीन फायदे प्राप्त करने के हकदार व्यक्ति, जिसके पास आधार संख्या नहीं है अथवा जिसने आधार के लिए नामांकन नहीं करवाया है, परंतु वह इस स्कीम के अधीन फायदा प्राप्त करने का इच्छुक है, के लिए 31.12.2017 तक आधार नामांकन के लिए आवेदन करना आवश्यक है परन्तु वह उक्त अधिनियम की धारा 3 के अनुसार आधार अभिप्राप्त करने का हकदार हो और ऐसा व्यक्ति आधार के लिए नामांकन करवाने के लिए किसी भी आधार नामांकन केंद्र (भारतीय विशिष्ट पहचान प्राधिकरण की वेबसाइट www.uidai.gov.in पर उपलब्ध सूची) पर जा सकते हैं।

(3) आधार (नामांकन और अद्यतन) विनियम, 2016 के विनियम 12 के अनुसार कार्यान्वयन अभिकरणों राज्यों अथवा संघ राज्य क्षेत्रों में स्कीम के कार्यान्वयन का भारसाधक संबंधित विभाग, जो किसी व्यक्ति से आधार प्रस्तुत करने की अपेक्षा करता है, से अपेक्षा की जाती है कि वह उन फायदाग्राहियों को आधार नामांकन सुविधा प्रदान करे जिन्होंने आधार के लिए अभी तक नामांकित नहीं किया है और यदि संबंधित ब्लॉक अथवा तालुका अथवा तहसील में कोई भी आधार नामांकन केंद्र स्थित नहीं है तो राज्यों अथवा संघ राज्य क्षेत्रों में स्कीम के कार्यान्वयन से संबंधित भारसाधक विभाग कार्यान्वयन अभिकरण के माध्यम से अपेक्षित है कि वह भारतीय विशिष्ट पहचान प्राधिकरण के वर्तमान रजिस्ट्रार के सहयोग से अथवा स्वयं भारतीय विशिष्ट पहचान प्राधिकरण रजिस्ट्रार बनकर सुविधाजनक स्थान पर आधार नामांकन सुविधाएं प्रदान करे।

परन्तु यह कि उस व्यक्ति को आधार समनुदेशित किए जाने के समय तक उक्त स्कीम के अधीन फायदा निम्नलिखित पहचान दस्तावेज प्रस्तुत करने के अधीन रहते हुए ऐसे व्यक्तियों को प्रदान किया जाएगा, अर्थात:-

(क) (i) आधार नामांकन पर्ची, यदि हिताधिकारी ने आधार के लिए नामांकन दिया है;

अथवा

(ii) हिताधिकारी द्वारा पैरा-2 के उप पैरा (ख) में यथा विनिर्दिष्ट आधार नामांकन के लिए किए गए अनुरोध की प्रति; और

(ख) (i) मतदाता पहचान पत्र; अथवा (ii) स्थाई खाता संख्यांक (पैन) कार्ड; अथवा (iii) पासपोर्ट; अथवा (iv) राशन कार्ड; अथवा (v) सरकारी कर्मचारी का आईडी कार्ड; अथवा (vi) बैंक/पोस्ट ऑफिस पासबुक फोटो के साथ; (vii) मनरेगा कार्ड; अथवा (viii) किसान फोटो पासबुक; अथवा (ix) मोटर अधिनियम, 1988 (1988 का 59) के अंतर्गत अनुज्ञापन प्राधिकारी द्वारा जारी चालन अनुज्ञप्ति; अथवा (x) सरकारी लैटर हेड पर किसी राजपत्रित अधिकारी अथवा तहसीलदार द्वारा जारी ऐसे सदस्य की फोटो वाला पहचान प्रमाण पत्र; अथवा (xi) राज्य सरकार अथवा संघ राज्यक्षेत्र प्रशासन द्वारा यथाविनिर्दिष्ट अन्य कोई दस्तावेज;

परन्तु यह और कि इस उद्देश्य के लिए राज्य सरकार अथवा संघ राज्य क्षेत्र प्रशासन द्वारा विनिर्दिष्ट रूप से पदाभिहित अधिकारी द्वारा उपयुक्त दस्तावेज की जांच की जाएगी।

2. इस स्कीम के अधीन हिताधिकारियों को सुविधाजनक व बाधामुक्त फायदे प्रदान करने के लिए अभिकरणों राज्य सरकार अथवा संघ राज्य क्षेत्र प्रशासन में स्कीम के कार्यान्वयन का भारसाधक संबंधित विभाग सभी आवश्यक व्यवस्थाएं, जिनमें निम्नलिखित भी हैं, करेंगे अर्थात:

(क) इस स्कीम के अधीन आधार की आवश्यकता के बारे में हिताधिकारियों को जागरूक बनाने के लिए कार्यान्वयन अभिकरणों के माध्यम से मीडिया व्यष्टिक सूचना के माध्यम से व्यापक प्रचार किया जाए और यदि आवेदक ने नामांकन नहीं

करवाया है तो उन्हें 31.12.2017 तक अपने क्षेत्रों में उपलब्ध निकटतम नामांकन केंद्रों पर नामांकन करवाने की सलाह दी जाए और उन्हें स्थानीय रूप से उपलब्ध नामांकन केंद्रों (www.uidai.gov.in पर सूची उपलब्ध) की सूची उपलब्ध कराई जाएगी।

(ख) यदि निकट आसपड़ोस जैसे ब्लॉक अथवा तहसील अथवा तालुका में नामांकन केंद्रों की अनुपलब्धता के कारण इस स्कीम के अधीन हिताधिकारी आधार के लिए नामांकन करवा पाने में समर्थ नहीं है, कार्यान्वयन अभिकरणों के माध्यम से राज्य सरकार या संघ राज्य क्षेत्र प्रशासन में स्कीम के कार्यान्वयन के भारसाधक संबंधित विभाग से सुविधाजनक अवस्थानों पर आधार नामांकन सुविधाएं सृजित करना अपेक्षित है और इस उद्देश्य के लिए कार्यान्वयन अभिकरणों अथवा वेब-पोर्टल के माध्यम से संबंधित अधिकारियों को अपना नाम, पता व मोबाइल नंबर और पैरा 1 के उप पैरा (3) के परंतुक में यथाविनिर्दिष्ट अन्य ब्यौरा देकर आधार नामांकन के लिए रजिस्ट्रीकरण करवाने का हिताधिकारियों से अनुरोध किया जाये।

3. यह अधिसूचना असम, मेघालय और जम्मू-कश्मीर को छोड़कर सभी राज्यों और संघ राज्य क्षेत्रों में राजपत्र में इसके प्रकाशन की तारीख से प्रभावी होगी।

[फा. सं. 19-59/2016-आरएफएम-III]

आर. बी. मिन्हा, संयुक्त सचिव

MINISTRY OF AGRICULTURE AND FARMERS WELFARE
(Department of Agriculture Cooperation and Farmers Welfare)

NOTIFICATION

New Delhi, the 17th March, 2017

S.O. 893(E).—Whereas, the use of Aadhaar as identity document for delivery of services or benefits or subsidies simplifies the Government delivery processes, brings in transparency and efficiency, and enables beneficiaries to get their entitlements directly in a convenient and seamless manner and Aadhaar obviates the need for producing multiple documents to prove one's identity;

And whereas, the Ministry of Agriculture and Farmers Welfare (hereinafter referred to as Ministry) in the Government of India is implementing the "Per Drop More Crop" component of the Prime Minister Krishi Sinchayee Yojana (PMKSY) (hereinafter referred to as the Scheme) as a Centrally Sponsored Scheme by providing Grant-in-Aid to the concerned nodal Departments (hereinafter referred to as Department) under the State Government or Union territory Administration, as per the approved funding pattern;

And whereas, the Grant-in-Aid given under the Scheme is meant for providing subsidized Micro-Irrigation System and other benefits or services (hereinafter referred to as the benefits) to the farmers (hereinafter referred to as beneficiaries) through the State Nodal Agencies or Registered or Empanelled Companies (hereinafter referred to as Implementing Agencies);

And whereas, the benefits offered under the Scheme involve full or partial recurring expenditures incurred from the Consolidated Fund of India;

Now, therefore, in pursuance of the provisions of section 7 of the Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act, 2016 (18 of 2016) (hereinafter referred to as the said Act), the Central Government hereby notifies the following, namely:—

1. (1) An Individual eligible to receive the benefits under the Scheme is hereby required to furnish proof of possession of Aadhaar number or undergo Aadhaar authentication.
- (2) Any Individual entitled to receive the benefits under the Scheme, who does not possess the Aadhaar number or, has not yet enrolled for Aadhaar, but desirous of availing the benefits under the Scheme, is hereby required to make application for Aadhaar enrolment by 31.12.2017, provided she or he is entitled to obtain Aadhaar as per section 3 of the said Act and such individuals shall visit any Aadhaar enrolment centre (list available at Unique Identification Authority of India (UIDAI) website www.uidai.gov.in) to get enrolled for Aadhaar.
- (3) As per regulation 12 of Aadhaar (Enrolment and Update) Regulations, 2016, the concerned Department in charge of implementation of the Scheme in the States or Union territories through its Implementing Agencies, which requires an individual to furnish Aadhaar, is required to offer Aadhaar enrolment facilities for the beneficiaries who are not yet enrolled for Aadhaar, and in case there is no Aadhaar enrolment centre located in

the respective Block or Taluka or Tehsil, the concerned Department in charge of implementation of the Scheme in the States or Union territories through its Implementing Agencies is required to provide Aadhaar enrolment facilities at convenient locations in coordination with the existing Registrars of UIDAI or by becoming UIDAI Registrar themselves:

Provided that till the time Aadhaar is assigned to the individual, benefits under the Scheme shall be given to such individuals subject to the production of the following identification documents, namely:—

- (a) (i) if she or he has enrolled, her or his Aadhaar Enrolment ID slip; or
(ii) a copy of her or his request made for Aadhaar enrolment, as specified in sub-paragraph (b) of paragraph 2 below; and
- (b) (i) Voter Identity Card; or (ii) Permanent Account Number (PAN) Card; or (iii) Passport; or (iv) Ration Card; or (v) Employee Government ID Card; or (vi) Bank / Post office Passbook with Photo (vii) MGNREGS card; or (viii) Kisan Photo passbook; or (ix) Driving license issued by the Licensing Authority under the Motor Vehicles Act, 1988 (59 of 1988); or (x) Certificate of identity having photo of such member issued by a Gazetted Officer or a Tehsildar on an official letter head; or (xi) Any other document as specified by the State Government or Union territory Administration;

Provided further that the above documents shall be checked by an officer specifically designated by State Government or Union territory Administration for that purpose.

2. In order to provide convenient and hassle free benefits under the Scheme to the beneficiaries, the concerned Department in charge of implementation of the Scheme in the State Government or Union territory Administration, shall make all the required arrangements including the following, namely:—

(a) Wide publicity through media and individual notices through shall be given through its Implementing Agencies to the beneficiaries to make them aware of the requirement of Aadhaar under the Scheme and they may be advised to get themselves enrolled at the nearest Aadhaar enrolment centres available in their areas by 31.12.2017, in case they are not already enrolled and the list of locally available enrolment centres (list available at www.uidai.gov.in) shall be made available to them.

(b) In case, the beneficiaries under the Scheme are not able to enroll for Aadhaar due to non-availability of enrolment centres in the near vicinity such as in the Block or Taluka or Tehsil, the concerned Department in charge of implementation of the Scheme in State Government or Union territory Administration through its Implementing Agencies is required to create Aadhaar enrolment facilities at convenient locations, and the beneficiaries may be requested to register their requests for Aadhaar enrolment by giving their names, addresses, mobile numbers and other details as specified in the proviso to sub-paragraph (3) of paragraph 1, with the concerned official of the Implementing Agencies or through the web portal provided for the purpose.

3. This notification shall come into effect from the date of its publication in the Official Gazette in all States and Union territories except the States of Assam, Meghalaya and Jammu and Kashmir,

[F. No. 19-59/2016-RFS-III]

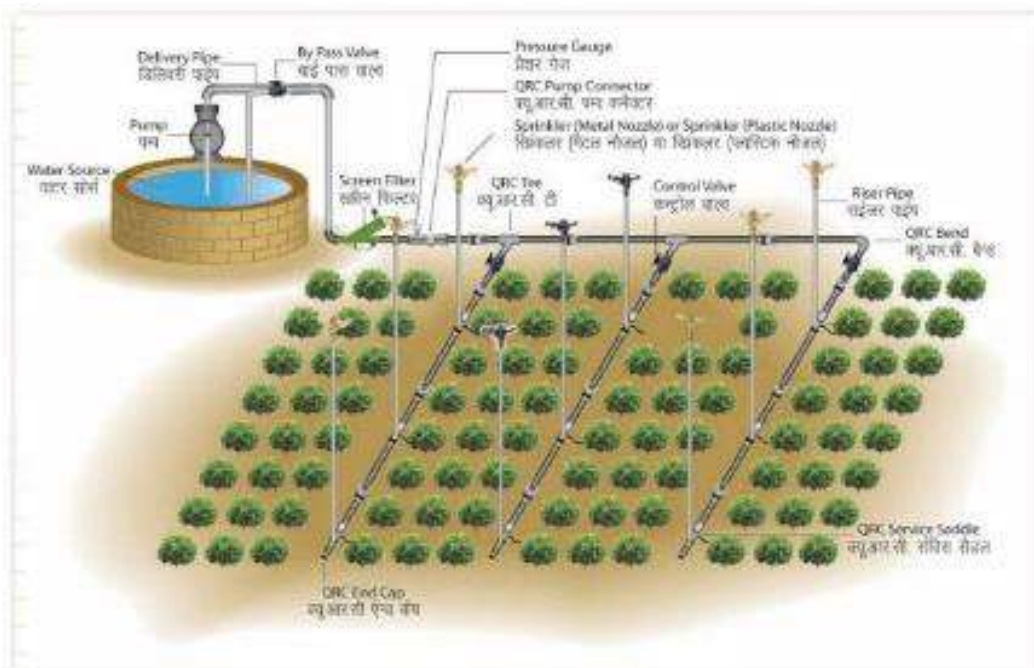
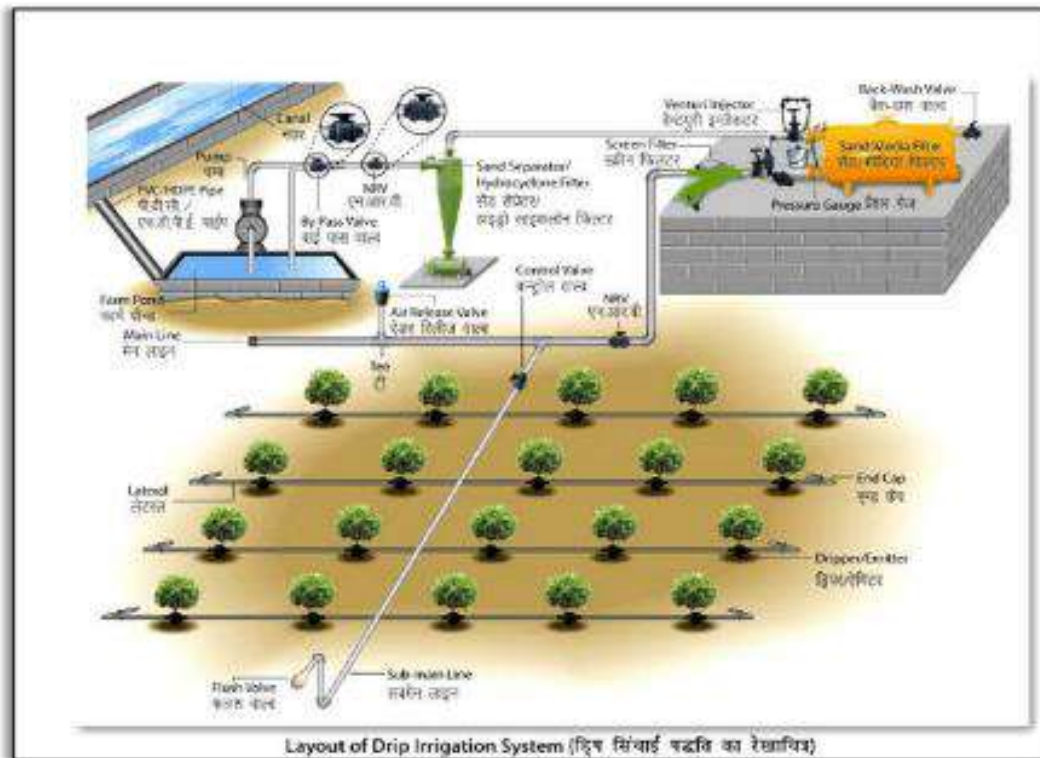
R. B. SINHA, Jt. Secy.

List of BIS Standards

SN	Component Description	BIS
1	Polyethylene pipes for Irrigation-Laterals with amendment number6	IS12786:1989(reaffirmed2009)
2	Irrigation Equipment-Emitters-Specification	IS13487:1992(reaffirmed2009)
3	Irrigation Equipment-Emitting pipes system-Specification(first revision)	IS13488:2008(reaffirmed2014)
4	Irrigation Equipment-Strainer type filters Specification (first revision)	IS12785:1994(reaffirmed2011)
5	Irrigation equipment rotating sprinkler Part I, Design and Operational requirements (1strevision)	IS12232(PartI)-1996(reaffirmed 2011)
6	Irrigation equipment rotating sprinkler Part2, Test method for uniformity of distribution (1strevision)	IS12232(Part2)-1995(reaffirmed 2011)
7	Fertilizer and Chemicals Injection system Part IV enturi Injector	IS14483(Part1)1997(reaffirmed 2009)
8	Irrigation Equipment-Media Filters-Specification	IS14606:2022
9	Irrigation Equipment-Hydro cyclone filter-Specification	IS14743:1999(reaffirmed2009)
10	Un plasticized PVC pipes for agriculture-Specifications	IS4985–2021TYPEB
11	Irrigation Equipment–Quick Coupled Polyethylene Pipes and Fittings for Sprinkler Irrigation Systems.	IS17425:2020
12	High Density Polyethylene Pipes for water supply-Specification (fourth revision)	IS4984:2016
13	Fertilizer & Chemical Injector System-Part 2 Water Driven Chemical Injector Pump	IS:14483Part2–2002
14	Fertilizer & Chemical Injector System-Part 3 Fertilizer Tank	IS:14483Part3–2018
15	Irrigation equipments-Micro sprayers-Specifications	IS:14605:1998
16	Agricultural Irrigation equipment-Manually operated serviceable plastic valves-Specifications	IS:18286:2023
17	Injection Moulded PVC Socket Fittings with solvent Cement Joints	IS:7834:1987(Part1toPart7)
18	Fabricated PVC-U fittings	IS:10124:2009(Part1toPart13)
19	Injection moulded/machined polyethylene fittings	IS:8008:2022
20	Fabricated Polyethylene fittings	IS:8360:2022

Source: Online catalogue of Bureau of Indian Standards

LAYOUT DESIGN OF DRIP & SPRINKLER IRRIGATION SYSTEMS



Pattern of Assistance and Maximum Permissible Subsidy

Type of Agricultural Machinery	For SC, ST, Small & Marginal farmers, Women and NE States beneficiary		For other beneficiary	
	Maximum Permissible subsidy per Machine/ Equipment per beneficiary (Rs in Lakhs)	Pattern of Assistance	Maximum Permissible subsidy per Machine/ Equipment per beneficiary (Rs. in Lakhs)	Pattern of Assistance
Tractors				
(i) Tractor 2WD (up to 20 PTO HP)	2.00	50%	1.60	40%
(ii) Tractor 4WD (up to 20 PTO HP)	2.45	50%	1.96	40%
(iii) Tractor 2WD (above 20 PTO HP and up to 40 PTO HP)	3.00	50%	2.4	40%
(iv) Tractor 4WD (above 20 PTO HP and up to 40 PTO HP)	3.60	50%	2.88	40%
(v) Tractor 2WD (above 40 PTO HP and up to 50 PTO HP)	4.50	50%	3.60	40%
(vi) Tractor 4WD (above 40 PTO HP and up to 50 PTO HP)	5.45	50%	4.36	40%
(vii) Tractor 2 WD (Above 50 PTO HP)	6.00	50%	4.80	40%
(viii) Tractor 2 WD (Above 50 PTO HP)	6.50	50%	5.20	40%
Power Tillers				
(i) Power Tiller (8 BHP and up to 11 BHP)	1.00	50%	0.80	40%
(ii) Power Tiller (Above 11 BHP)	1.20	50%	1.00	40%
Combine Harvesters				
(i) Combine Harvester (self-propelled)	9.60	50%	7.68	40%
(ii) Combine Harvester -Tractor powered (without tractor)	3.60	50%	2.88	40%
(iii) Combine Harvester -Tractor powered (with tractor)	8.70	50%	6.96	40%
(iv) Combine Harvester-Chopper-Collector – Tractor Mounted (without tractor)	4.00	50%	3.20	40%
(v) Combine Harvester-Chopper-Collector – Tractor Mounted (with tractor)	7.75	50%	6.20	40%
(vi) Combine Harvester (Track Type)- <6 feet cutter bar width	8.40	50%	6.72	40%
(vii) Combine Harvester (Track Type) - > 6 feet cutter bar width	12.50	50%	10.00	40%
(viii) Combine harvester (Tractor Operated) for potato, groundnut, and other tuber crops	12.00	50%	9.60	40%

(ix)	Sugarcane harvester (Self Propelled) –Wheel type/Track type (Full/Half) (To be procured by the Custom Hiring Centres only)	50.00	50%	40.00	40%
(x)	Maize Combine Harvester (Self- propelled)	12.00	50%	9.60	40%
	Kisan Drone -	5.00	50%	4.00	40%
	Rice/Paddy Transplanter				
(i)	Self-Propelled Rice Transplanter – walk behind type (4 rows)	1.70	50%	1.36	40%
(ii)	Self-Propelled Rice Transplanter- 4 rows and up to 8 rows including riding type	6.00	50%	4.80	40%
(iii)	Self-Propelled Rice Transplanter- above 8 rows - riding type	8.60	50%	6.88	40%
	Self-Propelled Machinery Agricultural/Horticultural Machinery				
(i)	Crop Reaper cum Binder (3 wheel)	1.90	50%	1.52	40%
(ii)	Crop Reaper cum Binder (4 wheel)	2.75	50%	2.20	40%
(iii)	Power Weeder (engine operated below 2 BHP)	0.30	50%	0.24	40%
(iv)	Power Weeder (engine operated 2 BHP and below 5 BHP)	0.40	50%	0.32	40%
(v)	Power Weeder (engine operated 5 BHP and below 7.5 BHP)	0.75	50%	0.60	40%
(vi)	Power Weeder (engine operated 7.5 BHP and above)	0.85	50%	0.68	40%
(vii)	Crop Reaper (Diesel/Petrol engine operated and Battery operated)	0.85	50%	0.68	40%
(viii)	Post Hole Digger/Auger – self propelled	0.20	50%	0.16	40%
(ix)	Pneumatic/Other planter	1.25	50%	1.00	40%
(x)	Areca nut climber harvester	0.30	50%	0.24	40%
(xi)	Tea leaf harvester (Hand held)	0.11	50%	0.088	40%
(xii)	Self-propelled 4 wheel tea leaf harvester	15.00	50%	12.00	40%
(xiii)	Self-Propelled Tool Bar (Ride on Type)	1.55	50%	1.24	40%
(xiv)	Self-Propelled electric agricultural Tool Bar	1.75	50%	1.40	40%
(xi)	Track Trolley	2.10	50%	1.68	40%
(xii)					
(xiii)	Nursery Media Filling Machine	2.10	50%	1.68	40%
(xiv)	Multipurpose Hydraulic System	2.10	50%	1.68	40%
(xv)	Power operated horticulture tools for pruning, budding, grating, shearing etc.	0.35	50%	0.28	40%
(xvi)	Brush Cutter (Electric/Engine Powered)	0.25	50%	0.20	40%
(xvii)	Self-propelled Maize Harvester	0.85	50%	0.68	40%
(xviii)	Electric Tiller/Weeder	0.63	50%	0.504	40%
(xix)	Self-Propelled Forage Harvester				

(a) Single Row	1.50	50%	1.20	40%
(b) Two Row	7.00	50%	5.60	40%
(c) Four Row	9.50	50%	7.60	40%
Tractor/Power Tiller (below 20 BHP) driven equipments.				
A. Land Development, tillage and seed bed preparation equipments:				
(i) MB Plough (Single Bottom)	0.22	50%	0.176	40%
(ii) MB Plough (Single Bottom-Reversible)	0.25	50%	0.20	40%
(iii) Disc Plough	0.25	50%	0.20	40%
(iv) Cultivator	0.20	50%	0.16	40%
(v) Harrow	0.15	50%	0.12	40%
(vi) leveler Blade	0.16	50%	0.128	40%
(vii) Cage wheel	0.15	50%	0.12	40%
(viii) Furrow opener	0.25	50%	0.20	40%
(ix) Ridger	0.20	50%	0.16	40%
(x) Weed Slasher	0.20	50%	0.16	40%
(xi) Furrow opener	0.20	50%	0.16	40%
(xii) Bund former	0.25	50%	0.20	40%
(xiii) Crust breaker	0.10	50%	0.08	40%
(xiv) Rotopuddler	0.13	50%	0.104	40%
(xv) Rotocultivator	0.44	50%	0.352	40%
(xvi) Power Harrow	0.45	50%	0.36	40%
(xvii) Rotavator (up to 4 ft.)	0.45	50%	0.36	40%
(xviii) Chisel Plough	0.15	50%	0.12	40%
B. Sowing, Planting, Reaping and Digging Equipments:				
(i) Post Hole digger	0.40	50%	0.32	40%
(ii) Potato Planter	0.33	50%	0.264	40%
(iii) Potato Digger	0.30	50%	0.24	40%
(iv) Ground nut digger	0.18	50%	0.144	40%
(v) Strip till drill (5 tines)	0.60	50%	0.48	40%
(vi) Tractor drawn crop reaper/ reaper cum binder	0.33	50%	0.264	40%
(vii) Onion harvester	0.33	50%	0.264	40%
(viii) Rice straw Chopper	0.25	50%	0.20	40%
(ix) Raised Bed Planter	0.25	50%	0.20	40%
(x) Sugar cane cutter/Stripper planter (5 tines)	0.33	50%	0.264	40%
(xi) Multi crop planter (5 tines)	0.28	50%	0.224	40%
(xii) Ridge furrow planter	0.23	50%	0.184	40%
(xiii) Pneumatic Planter	0.75	50%	0.60	40%
(xiv) Pneumatic vegetable transplanter	0.75	50%	0.60	40%
(xv) Pneumatic vegetable seeder	0.75	50%	0.60	40%
(xvi) Plastic Mulch Laying Machine	0.23	50%	0.184	40%
(xvii) Raised Bed Planter with inclined plate metering and shaper attachment. (5-7tines)	0.43	50%	0.344	40%
(xviii) Seed treating drum	0.17	50%	0.136	40%
(xix) Seed cum fertilizer drill(5tines)	0.17	50%	0.136	40%

(xx) Aqua ferti seed drill (5-7tines)	0.17	50%	0.136	40%
(xxi) Lateral laying machine	0.40	50%	0.32	40%
C. Inter Cultivation Equipments:				
(i) Grass Weed Slasher	0.25	50%	0.20	40%
(ii) inter row cum intra row weeder	0.18	50%	0.144	40%
D. Equipments for Residue management/Hay and Forage Equipments:				
(i) Sugarcane thrash Cutter	0.25	50%	0.20	40%
(ii) Coconut Frond Chopper	0.30	50%	0.24	40%
(iii) Stubble shaver	0.28	50%	0.224	40%
E. Harvesting & Threshing Equipments (Operated by engine/electric motor below 3 hp and by power tiller, and tractor of below 20 BHP tractor):				
(i) Ground Nut Pod Stripper	0.40	50%	0.32	40%
(ii) Thresher	0.38	50%	0.304	40%
(iii) Multi crop Threshers	0.40	50%	0.32	40%
(iv) Paddy Thresher	0.38	50%	0.304	40%
(v) Brush Cutter (Electric/Engine Powered)	0.20	50%	0.16	40%
(vi) Winnowing fan	0.30	50%	0.24	40%
(vii) Maize Sheller	0.33	50%	0.264	40%
(viii) Mower	0.30	50%	0.24	40%
(ix) Flail Harvester	0.30	50%	0.24	40%
(x) Mower Shredder (ALL PURPOSE/All crops)	0.30	50%	0.24	40%
F. Chaff Cutter (Operated by engine/electric motor below 3 HP and by power tiller and tractor of below 20 BHP tractor)	0.25	50%	0.20	40%
Tractor (above 20- 35 BHP) driven equipments.				
A. Land Development, tillage and seed bed preparation equipments:				
(i) MB Plough (Single Bottom)	0.35	50%	0.28	40%
(ii) Disc Plough	0.25	50%	0.20	40%
(iii) MB Plow (Single Bottom Reversible)	0.35	50%	0.28	40%
(iv) Cultivator	0.18	50%	0.144	40%
(v) Harrow	0.28	50%	0.224	40%
(vi) Leveler Blade	0.18	50%	0.144	40%
(vii) Cage wheel	0.18	50%	0.144	40%
(viii) Ridger	0.15	50%	0.12	40%
(ix) Weed slasher	0.23	50%	0.184	40%
(x) Rotopuddler	0.63	50%	0.504	40%
(xi) Furrow opener	0.18	50%	0.144	40%
(xii) Bund former	0.13	50%	0.104	40%
(xiii) Crust breaker	0.13	50%	0.104	40%
(xiv) Rotocultivator	0.43	50%	0.344	40%
(xv) Power Harrow	0.63	50%	0.504	40%
(xvi) Rotavator up to 5 feet	0.46	50%	0.368	40%
(xvii) Chisel Plough	0.25	50%	0.20	40%

(xviii) MB Plow (Two Bottom -Hydraulic Reversible)	0.71	50%	0.568	40%
(xix) MB Plow (Two Bottom -Mechanical Reversible)	0.40	50%	0.32	40%
(xx) Laser Land Leveller	2.00	50%	1.60	40%
B. Sowing, Planting, Reaping and Digging Equipments:				
(i) Post Hole digger	0.44	50%	0.352	40%
(ii) Potato Planter	0.70	50%	0.56	40%
(iii) Potato Digger	0.65	50%	0.52	40%
(iv) Ground nut digger	0.70	50%	0.56	40%
(v) Crop reaper	0.80	50%	0.64	40%
(vi) Onion harvester	0.75	50%	0.60	40%
(vii) Raised Bed Planter	0.70	50%	0.56	40%
(viii) Sugar cane cutter/Stripper	0.70	50%	0.56	40%
(ix) Multi crop planter	0.50	50%	0.40	40%
(x) Ridge furrow planter	0.45	50%	0.36	40%
(xi) Zero –Till Drill - Multi Crop (7 tines)	0.23	50%	0.184	40%
(xii) Seed treating drum	0.18	50%	0.144	40%
(xiii) Seed cum fertilizer drill (7 tines)	0.23	50%	0.184	40%
(xiv) Direct Rice Seeder (DSR- 7 tines)	0.23	50%	0.184	40%
(xv) Pneumatic Planter (04 rows)	2.00	50%	1.60	40%
(xvi) Pneumatic vegetable transplanter	2.00	50%	1.60	40%
(xvii) Pneumatic vegetable seeder	2.00	50%	1.60	40%
(xviii) Plastic Mulch Laying Machine	0.50	50%	0.40	40%
(xix) Aqua ferti seed drill (9tines)	0.75	50%	0.60	40%
(xx) Raised Bed Planter with inclined plate metering and shaper attachment	0.83	50%	0.664	40%
C. Inter Cultivation Equipments:				
(i) Grass Weed Slasher	0.39	50%	0.312	40%
(ii) Inter row cum intra row weeder	0.50	50%	0.40	40%
D. Equipments for Residue management/Hay and Forage and Transport Equipments:				
(i) Sugarcane thrash Cutter	0.50	50%	0.40	40%
(ii) Coconut Frond Chopper	0.50	50%	0.40	40%
(iii) Rake (small capacity)	1.10	50%	0.88	40%
(iv) Balers(Round) (up to 16 kg per bale)	2.20	50%	1.76	40%
(v) Balers(Round) (Above 16 and up to 25 kg per bale)	2.40	50%	1.92	40%
(vi) Straw reaper	0.75	50%	0.60	40%
(vii) Feed block machine(100- 200 kg/hr)	1.50	50%	0.96	40%
(viii) Stubble shaver	0.43	50%	0.344	40%
(ix) Straw Chopper/Shredder/Mulcher Mounted type 5 ft	0.725	50%	0.58	40%
(x) Trailer/Trolley (upto 3 Ton capacity)	0.75	50%	0.60	40%
(xi) Trailer/Trolley (upto 5 Ton capacity)	1.00	50%	0.80	40%
(xii) Narrow Rear Rim (one pair) for tractors	0.08	50%	0.064	40%

(xv) Tractor front mounted straw loader/grabber	0.75	50%	0.60	40%
E. Harvesting & Threshing Equipments (Operated by engine/electric motor below 5 BHP and tractor of below 35 BHP)				
(i) Ground Nut Pod Stripper	0.50	50%	0.40	40%
(ii) Thresher	1.00	50%	0.80	40%
(iii) Multi crop Threshers	1.25	50%	1.00	40%
(iv) Paddy Thresher	1.00	50%	0.80	40%
(v) Brush Cutter (Electric/Engine Powered)	0.44	50%	0.352	40%
(vi) Maize Sheller	1.00	50%	0.80	40%
(vii) Mower	0.40	50%	0.32	40%
(viii) Flail Harvester	0.40	50%	0.32	40%
(ix) Mower Shredder (ALL PURPOSE/All crops)	0.75	50%	0.60	40%
(x) Crop Reaper cum binder (tractor drawn)	1.25	50%	1.00	40%
F. Chaff Cutter (Operated by engine/electric motor above 3- 5 HP and by tractor of below 35 BHP)	0.34	50%	0.272	40%
Tractor (above 35 BHP) driven equipments.				
A. Land Development, tillage and seed bed preparation equipments:				
(i) Disc Plough (3 Bottom)	0.50	50%	0.40	40%
(ii) Cultivator (9-13 tines)	0.25	50%	0.20	40%
(iii) Harrow – Mounted Type	0.50	50%	0.40	40%
(iv) Harrow – Trailed type	0.50	50%	0.40	40%
(v) Leveler Blade	0.70	50%	0.56	40%
(vi) Cage wheel	0.20	50%	0.16	40%
(vii) Furrow opener	0.33	50%	0.264	40%
(viii) Ridger	0.33	50%	0.264	40%
(ix) Laser Land Leveller				
6 feet	1.35	50%	1.08	40%
7 feet	1.40	50%	1.12	40%
8 feet	1.45	50%	1.16	40%
9 feet	1.60	50%	1.28	40%
10 feet	1.70	50%	1.36	40%
Extended 7-9 feet	1.90	50%	1.52	40%
Extended 8-10 feet	2.00	50%	1.60	40%
(x) Rotavator				
a) 6 feet	0.60	50%	0.48	40%
b) 7 feet	0.70	50%	0.56	40%
c) 8 feet	0.73	50%	0.584	40%
d) 9 feet	0.85	50%	0.578	40%
e) 10 feet	0.95	50%	0.76	40%
(xi) Roto-puddler (7 feet)	0.80	50%	0.64	40%
(xii) Roto-puddler (10 feet)	1.00	50%	0.80	40%
(xiii) Reversible Hydraulic MB plough(2 bottom)	0.705	50%	0.564	40%

(xiv)	Reversible Hydraulic MB plough(3 bottom)	0.915	50%	0.732	40%
(xv)	Reversible Mechanical MB plough(2 bottom)	0.36	50%	0.288	40%
(xvi)	Reversible Mechanical MB plough(3 bottom)	0.50	50%	0.40	40%
(xvii)	Reversible Hydraulic MB plough(4 bottom)	1.25	50%	1.00	40%
(xviii)	Sub –Soiler				
	Single Bottom	0.175	50%	0.14	40%
	Two Bottom	0.30	50%	0.24	40%
	Three Bottom	0.55	50%	0.44	40%
	Four Bottom	0.75	50%	0.60	40%
(xix)	Trench makers (PTO operated)	2.00	50%	1.60	40%
(xx)	Bund former (PTO operated)	1.50	50%	1.20	40%
(xxi)	Backhoe /Loader Dozer (Tractor operated)	3.75	50%	3.00	40%
(xxii)	Backhoe (Tractor operated)	1.50	50%	1.20	40%
(xxiii)	Bund former	0.30	50%	0.24	40%
(xxiv)	Crust breaker	0.35	50%	0.28	40%
(xxv)	Rotocultivator	1.00	50%	0.80	40%
(xxvi)	Power Harrow (PTO operated)	1.35	50%	1.08	40%
(xxvii)	Rotary Disc Harrow (PTO powered)	0.75	50%	0.60	40%
(xxviii)	Stone collector	1.50	50%	1.20	40%
(xxix)	Rotaridger	0.75	50%	0.60	40%
(xxx)	Check Basin Former	0.38	50%	0.304	40%
B. Sowing, Planting, Fertigation Equipments:					
(i)	Raised Bed Planter	0.55	50%	0.44	40%
(ii)	Seed cum fertilizer drill/Zero till Seed cum fertilizer drill/Spatial Zero Till Drill				
	a) 9 tines	0.25	50%	0.20	40%
	b) 11 tines	0.26	50%	0.208	40%
	c) 13 tines	0.28	50%	0.224	40%
	d) 15 tines	0.30	50%	0.24	40%
(iii)	Direct Rice Seeder (DSR)				
	a) 9 tines	0.45	50%	0.36	40%
	b) 11 tines	0.48	50%	0.432	40%
	c) 13 tines	0.50	50%	0.40	40%
(iv)	Inclined Plate Planter with pre-emergence herbicide strip applicator	0.75	50%	0.60	40%
(v)	Sugarcane settling Planter (Two Row)	0.63	50%	0.504	40%
(vi)	Post Hole digger (24 inch and above)	0.75	50%	0.60	40%
(vii)	Potato Planter (automatic)	0.75	50%	0.60	40%

(viii)	Ground nut digger	0.45	50%	0.36	40%
(ix)	Sugarcane cutter/stripper/ planter	0.75	50%	0.60	40%
(x)	Zero –till multi crop planter (9 tines and above)	0.53	50%	0.424	40%
(xi)	Multi crop planter (9 tines and above)	0.90	50%	0.72	40%
(xii)	Happy/Turbo Seeder/Strip Till (Smart) Seeder				
(a)	09 Tynes	0.814	50%	0.651	40%
(b)	10 Tynes	0.842	50%	0.674	40%
(c)	11 Tynes	0.864	50%	0.691	40%
(d)	12 Tynes	0.902	50%	0.722	40%
(xiii)	Super Seeder				
(a)	6 Feet	1.30	50%	1.04	40%
(b)	7 Feet	1.35	50%	1.08	40%
(c)	8 Feet	1.42	50%	1.14	40%
(d)	9 Feet	1.55	50%	1.24	40%
(e)	10 Feet	1.65	50%	1.32	40%
(xiv)	Surface Seeder				
(a)	5 Feet	0.60	50%	0.48	40%
(b)	6 Feet	0.68	50%	0.54	40%
(xv)	Pneumatic Planter	2.25	50%	1.80	40%
(xvi)	Pneumatic, semi-automatic vegetable/multi-seedling transplanter	2.25	50%	1.80	40%
(xvii)	Pneumatic Vegetable Seeder	2.25	50%	1.80	40%
(xviii)	Cassava Planter (9 tines and above)	0.75	50%	0.60	40%
(xix)	Manure spreader	1.50	50%	1.20	40%
(xx)	Urea Deep Placement Applicator	0.75	50%	0.60	40%
(xxi)	Fertilizer Spreader – PTO operated	0.40	50%	0.32	40%
(xxii)	Plastic Mulch Laying Machine	0.50	50%	0.40	40%
(xxiii)	Automatic rice nursery sowing machinery	1.75	50%	1.40	40%
(xxiv)	Aqua ferti seed drill (9 tines and above)	0.75	50%	0.60	40%
(xxv)	Raised Bed Planter with inclined plate metering and shaper attachment.	0.60	50%	0.48	40%
(xxvi)	Precision Multi-crop Planters	2.50	50%	2.00	40%
(xxvii)	Precision Seed Drills	0.80	50%	0.64	40%
(xxviii)	Precision fertilizer applicators	2.00	50%	1.60	40%
(xxix)	Tractor operated seeder for mat type rice nursery	1.50	50%	1.20	40%
(xxx)	Power operated sugarcane sett cutter	0.37	50%	0.296	40%
C. Inter Cultivation Equipments:					

(i) Grass/ Weed Slasher,	0.75	50%	0.60	40%
(ii) inter row cum intra row weeder Weeder (PTO operated)	0.83	50%	0.664	40%
D. Harvesting & Threshing Equipments (Operated by engine/electric motor above 5 hp and tractor of above 35 BHP tractor)				
(i) Ground Nut Pod Stripper	1.00	50%	0.80	40%
(ii) Thresher/Multi crop Threshers upto 4 tonne/hr. capacity	1.25	50%	1.00	40%
(iii) Paddy Thresher	1.40	50%	1.12	40%
(iv) Chaff Cutter	1.00	50%	0.80	40%
(v) Maize Sheller	1.10	50%	0.88	40%
(vi) Crop Reaper cum Binder (tractor drawn)	1.50	50%	1.20	40%
(vii) Thresher/Multi crop Threshers above 4 tonne/hr capacity at least in 2 crops	2.25	50%	1.80	40%
(viii) Infielder	1.00	50%	0.80	40%
(ix) Mower	1.00	50%	0.80	40%
(x) Flail Harvester	1.25	50%	1.00	40%
(xi) Mower shredder (All Purpose/All crops	1.25	50%	1.00	40%
(xii) Potato Digger	0.75	50%	0.60	40%
(xiii) Tractor operated cassava harvester cum lifter	1.00	50%	0.80	40%
(xiv) Tractor operated banana bunch harvester	1.00	50%	0.80	40%
(xv) Motorized Harvesting Sickle/Machine	0.50	50%	0.40	40%
(xvi) Tractor drawn crop reaper	0.75	50%	0.60	40%
(xvii) Onion harvester	0.80	50%	0.64	40%
Equipments for Residue management/Hay and Forage Equipments:				
(i) Sugarcane thrash Cutter,	1.38	50%	1.104	40%
(ii) Coconut Frond Chopper,	1.50	50%	1.20	40%
(iii) Hay Rake				
(a) 6 Arms	1.65	50%	1.32	40%
(b) 9 Arms	2.00	50%	1.60	40%
(c) 11 Arms	2.38	50%	1.904	40%
(iv) Balers				
(a) Round – Mini up to 16 kg per bale	2.00	50%	1.60	40%
(b) Round – Medium –above 16 and up to 40 kg per bale)	2.395	50%	1.916	40%
(c) Round –big more than 180 kg per bale and up to 500 kg per bale)	9.90	50%	7.92	40%

(d) Round – more big - above 500 kg per bale – to be provided under CHCs projects only	17.00	50%	13.60	40%
(e) Rectangular – up to 20 kg per bale	6.60	50%	5.28	40%
(e) Rectangular – more than 200 kg per bale - to be provided under CHCs projects only	17.00	50%	13.60	40%
(v) Silage Baler (1400-1500 Kg/hr capacity)	3.75	50%	3.00	40%
(vi) Wood chippers	1.38	50%	1.10	40%
(vii) Sugarcane ratoon manager	1.25	50%	1.00	40%
(viii) Cotton stalk uprooter	0.75	50%	0.60	40%
(ix) Cotton stalk shredder	0.75	50%	0.60	40%
(x) Straw reaper	1.50	50%	1.20	40%
(xi) Feed block machine (above 200 kg/hr)	3.00	50%	2.40	40%
(xii) Stubble shaver	0.88	50%	0.704	40%
(xiii) Straw Chopper/shredder/ Mulcher				
a) Mounted type 5 ft	0.725	50%	0.58	40%
b) Mounted type 6 ft	0.858	50%	0.686	40%
c) Mounted type 7 ft	0.902	50%	0.722	40%
d) Mounted type 8 ft	0.957	50%	0.766	40%
e) Trailed type	1.471	50%	1.179	40%
f) Trailed (Combo type)	2.00	50%	1.60	40%
(xvi) Super Straw Management System (Super SMS)	0.597	50%	0.478	40%
(xviii) Shrub Master/Cutter cum spreader	0.275	50%	0.220	40%
(xix) Rotary Straw Slasher	0.275	50%	0.220	40%
(xx) Tractor front mounted straw loader/grabber	3.05	50%	2.44	40%
(xxi) Tractor Operated Hydraulic Press Straw Baler	7.00	50%	5.60	40%
(xxii) Rotary Tedder/Hay Tedder (04 Rotors)	2.62	50%	2.10	40%
(xxiii) Rotary Tedder/Hay Tedder (08 Rotors and above)	6.00	50%	4.80	40%
All Manual /Animal drawn equipment/implements/Tools				
A. Land Development, tillage and seed bed preparation equipments:	0.10	50%	0.08	40%
(i) MB Plow/Wedge Plough				
(ii) Disc Plow				

(iii) Cultivator (iv) Harrow (v) Leveler/Planker (vi) Furrow opener (vii) Ridger/bund former (viii) Puddler (ix) Mulch laying machine (x) Digger (Turmeric/Ginger)				
B. Sowing and Planting Equipments: (i) Paddy planter (ii) Cotton Planter (iii) Seed cum fertilizer drill (iv) Raised Bed Planter (v) Planter/zero-till-planter for multi crop use (vi) Dibbler (vii) Equipments for raising paddy nursery (viii) Marker for SRI (ix) Seed treating drum (x) Rice-wheat seeder	0.10	50%	0.08	40%
(xi) Drum Seeder (Below 4 Row)	0.03	50%	0.025	40%
(xii) Drum Seeder (Above 4 Row)	0.04	50%	0.04	40%
(xiii) Stubble Collector	0.030	50%	0.024	40%
C. Harvesting & Threshing Equipments: (i) Ground Nut Pod Stripper (ii) Thresher (iii) Winnowing fan (iv) Tree climber (v) Horticulture Hand tools (vi) Maize sheller (vii) Feed block machine (viii) Spiral grader	0.10	50%	0.08	40%
(vi) Chaff Cutter (up to 3 feet)	0.06	50%	0.048	40%
(vii) Chaff Cutter (above 3 feet)	0.070	50%	0.056	40%
(viii) Manual Cotton Pluckers (12 V battery operated)	0.040	50%	0.032	40%
(ix) Manual Harvesting Tool (Scythe)	0.030	50%	0.024	40%
(x) Telescopic harvesting Poles	0.050	50%	0.040	40%
D. Inter Cultivation Equipments: (i) Grass Weed Slasher, (ii) inter row cum intra row weeder (iii) Cono Weeder (iv) Garden Hand Tools	0.012	50%	0.010	40%
E. Manual Battery Operated Fertilizer Spreader/Broadcaster (Capacity 3-5 Litre)	0.031	50%	0.025	40%
SELF PROPELLED/OTHER POWER DRIVEN HORTICULTURAL MACHINERY				
(i) Chain Saw /Wheel Barrow /Mango Grader/Planter and other suitable	0.45	50%	0.36	40%

self-propelled machineries and equipments for horticulture crops.				
Manual Horticultural equipments				
(i) Aluminium Ladder/Ladder	0.15	50%	0.12	40%
(ii) Aluminium Pole	0.13	50%	0.104	40%
(iii) Plucker	0.05	50%	0.04	40%
Post-Harvest and Value addition Equipments for food grains, Oilseeds and Horticultural Equipments				
(a) Mini Rice Mill				
(i) Up to 0.5 TPH	1.50	50%	1.20	40%
(ii) More than 0.5 TPH and up to 1.0 TPH	1.80	50%	1.44	40%
(iii) Above 1.0 TPH	2.40	50%	1.92	40%
(b) Composite Rice Milling Plant consisting of cleaner cum grader, de-stoner, separator, polisher and elevator				
(i) Capacity more than 500 kg/hr and below 1000 kg/hr	5.40	50%	4.32	40%
(ii) Capacity - 1000 kg/hr and above	9.60	50%	7.68	40%
(c) Mini Dal Mill				
(i) Capacity less than 50 kg/hr	1.20	50%	0.96	40%
(ii) Capacity -50 kg/hr and below 100 kg/hr	1.80	50%	1.44	40%
(iii) Capacity - 100kg/hr and below 150 kg/hr	2.70	50%	2.16	40%
(iv) Capacity -150 kg/hr and above	3.50	50%	2.80	40%
(d) Millet Mill				
(i) Capacity – 40-60 kg/hr	0.60	50%	0.48	40%
(ii) Capacity – More than 60 kg/h and below 100 kg/hr	0.90	50%	0.72	40%
(iii) Capacity 100 kg/hr and above	5.40	50%	4.32	40%
(e) Millet Processing Plant consisting of Millet Mill, Cleaner cum Grader, De-stoner and elevators				
(i) Capacity from 100 to 200 kg/hr	5.40	50%	4.32	40%
(ii) Capacity more than 200 kg/hr	9.60	50%	7.68	40%
(f) Multipurpose Millet Thresher	0.30	50%	0.24	40%
(g) Double Stage Millet de-husker	0.90	50%	0.72	40%
(h) Centrifugal de-huller for Millets	0.72	50%	0.576	40%
(i) Double headed centrifugal de-huller	0.45	50%	0.36	40%
(j) Millet flaking machine	0.60	50%	0.48	40%
(k) Millet popping machine	0.60	50%	0.48	40%
(l) Pedal operated cleaner cum grader for millet	0.15	50%	0.12	40%
(m) Mini Oil Mill/Expeller with filter press(for all types of Horticulture/Food grain/oilseed crop)	3.00	50%	2.40	40%
(n) Mini Oil Mill without filer press (for all types of Horticulture/Food grain/oilseed crop)	1.80	50%	1.44	40%

(o) Pomegranate Aril Extractor	1.80	50%	1.44	40%
(p) Custard apple pulper	1.80	50%	1.44	40%
(q) Dehydration unit/Pricking Machine/Humidifier (for all types of Horticulture/Food grain/oilseed crop)	1.80	50%	1.44	40%
(r) Packing Machines(for all types of Horticulture/Food grain/oilseed crop)	3.00	50%	2.40	40%
(s) All types of Power driven De-husker /sheller /Threshers /Harvesters / De-spiking/ Deconing Machine/Peeler/ Splitter /Stripper /Shredder (for all type of Horticulture / food grain/oil seeds Crops)	0.75	50%	0.60	40%
(t) All types of Boiler/Steamer/Drier (for all types of Horticulture/Food grain/oilseed crop)	1.00	50%	0.80	40%
(u) All types of Solar Driers (for all type of Horticulture / food grain/oil seeds Crops) with floor area of about 400 to 1000 sq. feet.	3.50	50%	2.80	40%
(v) All types of Washing Machines(for all types of Horticulture/Food grain/oilseed crop)	0.60	50%	0.48	40%
(w) All types of Grinder/Pulveriser/Polisher (for all types of Horticulture/Food grain/oilseed crop)	0.60	50%	0.48	40%
(x) All types of Cleaner cum Grader/ Gradient separator /specific gravity separator (for all types of horticulture/Food grain/oilseed crop)				
(i) Capacity less than 1 TPH	1.50	50%	1.20	40%
(ii) capacity from 1 THP and less than 2 TPH	2.40	50%	1.92	40%
(iii) Capacity 2 TPH and above	3.00	50%	2.40	40%
(y) Indented Cylinder				
(i) Capacity – less than 1 TPH	0.72	50%	0.576	40%
(ii) Capacity –1 TPH and less than 2 TPH	1.02	50%	0.82	40%
(iii) Capacity –2 TPH and above	1.74	50%	1.392	40%
(z) Air Screen Cleaner	0.45	50%	0.36	40%
(aa) Flexible Elevator cum Conveyor				
(i) Capacity – less than 1 TPH	1.32	50%	1.056	40%
(ii) Capacity –1 TPH and less than 2 TPH	1.62	50%	1.296	40%
(iii) Capacity –2 TPH and above	2.76	50%	2.208	40%
(bb) Grain Pick up and weighing cum packaging with Silo				
(i) Capacity – less than 1 TPH	8.00	50%	6.40	40%
(ii) Capacity –1 TPH and less than 2 TPH	10.00	50%	8.00	40%
(iii) Capacity –2 TPH and above	14.00	50%	11.20	40%
(cc) Broom Stick Extractor	0.072	50%	0.058	40%
(dd) Grain Collector	0.63	50%	0.504	40%
(ee) Flattened rice/Puffed rice making machine	1.20	50%	0.96	40%

(ff) Papad/Chips making machine	0.90	50%	0.72	40%
(gg) Tofu/Vegan Paneer Plant	1.08	50%	0.864	40%
(hh) Ripening Chamber for Horticultural Produce (1 ton capacity)	1.20	50%	0.96	40%
(ii) Sugarcane rind removing machine foe juice making	0.39	50%	0.312	40%
(jj) Pedal operated cleaner cum grader for millet	0.15	50%	0.12	40%
(kk) Modular Onion Storage Structure (1-5 ton capacity)	0.15	50%	0.12	40%
(ll) Moringa Leaf Stripper	0.30	50%	0.24	40%
(mm) Rope Twisting and winding equipment for plant fibre extract	0.90	50%	0.72	40%
(nn) Multifeed Banana fibre extraction equipment	1.35	50%	1.08	40%
(oo) Makhana Popping and Decortication Machine	3.30	50%	2.64	40%
(pp) Automatic Wadi Making Machine	3.30	50%	2.64	40%
(qq) Mechanized system for primary processes and roasting of raw makhana/Rotating open pan roasting machine-LPG heated	1.02	50%	0.82	40%
(rr) Solar operated phase change material based fruits-vegetables vending pushcart	1.20	50%	0.96	40%
(ss) Paddy mobile dryer	9.00	50%	7.20	40%
(tt) Tractor PTO/Electric Motor operated Onion De-topper cum grader	4.20	50%	3.36	40%
(uu) Tractor PTO/Electric Motor operated garlic bulb breaker cum grader	4.20	50%	3.36	40%
(ww) Tractor PTO/Electric Motor operated Cleaner cum grader with conveyor (for all millets, cereals and pulses)	4.20	50%	3.36	40%
(xx) Cattle Dung Collector	0.16	50%	0.128	40%
(yy) Cow dung Briquetting Machine	0.42	50%	0.336	40%
(zz) Cow dung dewatering machine	0.90	50%	0.72	40%
Plant Protection Equipments				
(i) Manual sprayer: Knapsack/foot/Battery operated sprayer.	0.01	50%	0.008	40%
(ii) Solar powered Knapsack Sprayer	0.02	50%	0.016	40%
(iii) Bullock Cart mounted solar powered high clearance sprayer	0.40	50%	0.32	40%
(iv) Bullock Cart mounted air mist canopy sprayer	0.48	50%	0.384	40%
(v) Powered Knapsack sprayer/Power Operated sprayer (capacity 8 - 12 litres)- ≤ 0.75 hp engine)	0.03	50%	0.024	40%

(vi) Powered Knapsack sprayer/Power Operated sprayer (capacity above 12-16 litres): (> 0.75 to 1.00 hp engine)	0.04	50%	0.032	40%
(vii) Powered Knapsack sprayer/Power Operated sprayer (capacity above 16 litres (> 1.0 hp engine)	0.10	50%	0.08	40%
(viii) Powered Knapsack Mist blower sprayer cum Duster (> 1.0 hp engine)	0.10	50%	0.08	40%
(ix) Tractor Operated Sprayer (air carrier/assisted)	1.38	50%	1.104	40%
(x) Battery operated Sprayer (Boom Type)	0.05	50%	0.04	40%
(xi) Battery Operated Boom Sprayer (walk behind type)	0.05	50%	0.04	40%
(xii) Tractor Operated Sprayer (boom type)	0.41	50%	0.328	40%
(xiii) Eco Friendly Light Trap	0.02	50%	0.016	40%
(xiv) Solar insect trap	0.04	50%	0.032	40%
(xv) Tractor Operated Electrostatic Sprayer	2.50	50%	2.00	40%
(xvi) Bird Scarer	0.75	50%	0.60	40%
(xvii) Self-propelled high ground clearance sprayers (Boom type)	4.00	50%	3.20	40%
(xviii) Tractor mounted precision spraying machines	3.50	50%	2.80	40%
(xix) Vehicle Mounted Sprayer for locust Control	2.50	50%	2.00	40%
(xx) Soil Plant Analysis Development (SPAD) Meter	0.08	50%	0.064	40%
(xxi) Pseudostem injector for Banana	0.08	50%	0.064	40%
(xxii) Tractor operated EPN/Bio agent applicator for sugarcane	0.23	50%	0.184	40%
(xxiii) Power Operated Sugarcane sett Treatment Device (30 – 120 Litres capacity)	0.30	50%	0.24	40%
Specialized Agricultural Machinery				
(a) Solar operated/electric operated animal deterrent bioacoustics equipment (with solar panel)	0.35	50%	0.28	40%
(b) Solar operated/electric operated Animal deterrent bioacoustics equipment (without solar panel)	0.25	50%	0.20	40%
(c) Solar operated/electric operated Hydroponic machine for rising nursery of various crops (below 500 kg capacity)	3.00	50%	2.40	40%
(d) Solar operated/electric operated Hydroponic machine for rising nursery of various crops (500 kg and above capacity)	6.00	50%	4.80	40%
(e) Battery Operated Rubber Tapping Machine	0.10	50%	0.08	40%

Irrigation Equipments				
(i) Petrol/Diesel/Electric/Tractor PTO operated/ portable irrigation pumps up to 15 HP (with ISI/BEE labeled with Minimum 4 Star rated)	0.10	50%	0.08	40%
(ii) Remote motor operators for Electric Pump-sets	0.07	50%	0.05	40%
(iii) Digital Soil Moisture Indicator (DSMS)	0.036	50%	0.029	40%
(iv) Digital Soil Moisture Indicator (DSMS) (GSM Module)	0.045	50%	0.036	40%

Note:

- The States will have the flexibility to add any new machine under the appropriate categories of machines
- The States may make the price discovery of the machines through the process of empanelment as per relevant rules of GFR. The States shall ensure that the prices of the machines are reasonable and comparable with the open market prices.
- The cost subsidy applicable will be limited to the percentage of the cost of the machine fixed by the States through price discovery or max. permissible subsidy per machine as indicated above, whichever is lower.
- The maximum permissible subsidy as indicated above will be inclusive of GST.

Procedure for Credit Linked Capital Subsidy

The following is the gist of procedure to be followed:

1. Advance Subsidy: The 50% eligible subsidy amount for the projects will be released as advance by the Implementing Agencies to the participating Financial Institutions (Banks) on submission of project scrutiny note cum claim form as per requirement and the norms of the interventions. The same would be kept in a Subsidy Reserve Fund Account of the concerned borrowers, to be adjusted finally against loan amount of the bank towards the end of the repayment period and life of the project as per the time schedule.

2. Final Installment of Subsidy: the remaining 50% would be disbursed to the participating Banks by the Implementing Agencies after conduct of an inspection and physical verification of the machines and equipments by the State Level Project Sanctioning Committee and officials from the financing banks.

3. Adjustment of Subsidy to Borrower's Account: The subsidy released to the bank for individual project will be kept in a separate borrower-wise account. The adjustment of subsidy will be back ended. Accordingly, the full project cost including the subsidy amount, but excluding the margin money contribution from the beneficiary, would be disbursed as a loan by the Banks. The repayment schedule will be drawn on the loan amount in such a way that the total subsidy amount is adjusted after the full bank loan component with interest is liquidated.

4. Utilization Certificate: After release of final installment of subsidy, a Utilization Certificate is required to be submitted by the financing Bank certifying that the full amount of subsidy received in respect of the project has been fully utilized (by way of crediting to the "Subsidy Reserve Fund Account- Borrower –wise") and adjusted in the books of Account under the sanctioned terms and conditions of the project within overall guidelines of the scheme.

5. No Interest is chargeable on Subsidy Portion: For the purpose of charging interest on the loan component, the subsidy amount would be excluded. The balance lying to the credit of the subsidy reserve fund account will not form part of demand and time liabilities for the purpose of SLR/CRR

6. Institutional Lending:

(a) Eligible Financial Institutions: The eligible financing institutions under the scheme may be (i) Commercial Banks, Regional Rural Banks (RRBs), State Cooperative Banks (SCBs), State Cooperative Agricultural and Rural Development Banks (SCARDBs), Scheduled Primary Urban Cooperative Banks (PUCBs), Agricultural Development Finance Companies (ADFCs) and such other institutions (ii) Cooperatives where they seek loan from National Cooperatives Development Corporation (NCDC).

(b) Term Loan

For the projects, the amount as eligible as capital subsidy of the project cost can be raised as term loan from the financing banks. The repayment schedule will be drawn on the total loan amount (including subsidy) in such a way that the subsidy amount is adjusted after liquidation of the net bank loan (excluding subsidy). The financial institution may provide working capital separately for undertaking the business by the entrepreneurs.

(c) **Rate of interest and Scale of Financing to the ultimate borrower:** As decided by the financing bank, as per their respective Board approved policy.

(d) **Security:** The security will be as per norms prescribed by RBI from time to time.

(e) **Repayment Period:** Repayment period will depend upon the cash flow and may be generally up to 5 years with a grace of one year.

7. Procedure to be followed for sanctioning of project and release of subsidy

- (a) Interested beneficiaries will submit the project proposal for term loan and subsidy to Bank on application form as prescribed by the concerned bank along with project report and other documents for appraisal and sanction of loan.
- (b) Bank after appraisal and scrutiny of loan application will furnish a brief project profile-cum-claim form for advance subsidy in the prescribed format as may be devised by the project sanctioning committee at the State level. The loan shall be disbursed by the Bank only after the project has been cleared and approved by the State level project sanctioning committee, which shall also have a representative of the concerned Bank.
- (c) The Implementing Agencies on the recommendation of State level project sanctioning committee shall release 50% of the eligible amount of subsidy as advance subsidy to the participating bank for keeping the same in the subsidy fund account (borrower-wise)
- (d) The participating bank shall provide eligible amount of subsidy as term loan to the beneficiary. The banks at their discretion may extend full project cost as term loan to the beneficiary.
- (e) The beneficiary will inform the Bank that the required machines and equipments have been acquired by the beneficiary and the State level project sanctioning committee involving the bank official shall conduct the physical verification of the machines and equipments. After inspection the Bank will submit the claim form to the Implementing Agencies for final subsidy. The claim form shall necessarily be enclosed with inspection report of the committee. The Implementing Agency shall release the final subsidy to banks which will be adjusted against the subsidy amount provided to the banks in advance.
- (f) Monitoring of each project will be done by Banks branches and district level officers of the Implementing Agencies with periodic reporting to the Implementing Agency.

Annexure-XXVII (A)

LIST OF TRAINING PROGRAMMES CONDUCTED AT THE FARM MACHINERY TRAINING & TESTING INSTITUTES

Sl. No.	Name of the Course		Duration	Charges per person per course
I.	USER LEVEL COURSES:			
	U1	Appropriate Mechanization Technology for Energy Management in Agriculture	4 weeks	FREE
	U2	Selection, Operation, Safety and Maintenance of Improved Agricultural Machinery	6 weeks	
	U3	Operation, maintenance and Management of power tiller	2 weeks	
	U4	Training Program on Agro Processing & value addition Equipments	2 weeks	
	U5	Gender friendly Equipments for Women farmers	3 days	
	U6	Utilization of Non-conventional Energy Sources in Agriculture.	1 week	
	U7	Water Management Through sprinkler and drip Irrigation & Water saving devices.	1 week	
	U8	Selection, Operation, and Maintenance of Plant Protection Equipments	1 week	
	U9	Selection, Operation, and Maintenance of improved Harvesting & Threshing machines	2 weeks	
	U10	Selection, Operation, and Maintenance of Hand Pump	1 week	
	U 11	Selection, operation and maintenance of agril. Machinery for dry land agriculture.	2 week	
	U12	Crop Specific Machines:		
	a)	Package of agricultural machinery for Paddy cultivation.	1 week each	FREE
	b)	Package of agricultural machinery for Maize cultivation.		
	c)	Package of agricultural machinery for Vegetable cultivation.		
	d)	Package of agricultural machinery for Sugarcane cultivation.		
e)	Package of agricultural machinery for Horticulture & Medicinal crops cultivation.			
f)	Package of Agricultural machines for oil seeds & pulses			
g)	Package of Agricultural machinery for forage/fodder production and fodder management.			
U13	IT application in farm mechanization			
II.	TECHNICIAN LEVEL COURSES			
	A. Courses on Repair and Overhauling			
	T1	Repair and overhauling of Stationery engines and tractors	6 weeks	Rs. 300/-
	T2	Repair & overhauling of power tillers	2 weeks	Rs. 100/-
	T3	Establishment and management of agricultural machinery repair and maintenance workshop	4 weeks	Rs. 200/-
	T4	Study & Repair of Hydraulic system in Agriculture Machines.	4 weeks	Rs. 200/-
	T5	Repair and maintenance of Auto Electrical equipments and Battery re-conditioning	3 weeks	Rs. 150/-
	T6	Repair, maintenance & rewinding of Electrical motors and submersible pumps	3 weeks	Rs.150/-
	T7	Operation & maintenance of Land shaping and Development machinery	4 weeks	Rs. 500/-

	T8	Repair, maintenance & overhauling of diesel pumping sets	2 weeks	Rs. 100/-
	T9	Maintenance, repair and installation of Combine Harvesters and Straw Reaper.	3 weeks	Rs. 150/-
	B. Earning While Learning Courses:			
	TEL-1	Repair and overhauling of Stationery engines, tractors and diesel pumping sets.	6 months	Rs. 200/-
	TEL-2	Repair & overhauling of power tillers	6 months	Rs. 200/-
	TEL-3	Establishment and management of agricultural machinery repair and maintenance workshop	6 months	Rs. 200/-
	TEL-4	Repair and maintenance of Auto Electrical equipments, Battery re-conditioning, Rewinding of electrical motors and submersible pumps.	6 months	Rs. 200/-
	TEL-5	Maintenance, repair and installation of Combine Harvesters and Straw Reaper.	6 months	Rs. 200/-
III.	MANAGEMENT LEVEL COURSES: (for trainees sponsored by the commercial organizations / Banks/ Manufacturers)			
	M1	Testing and Evaluation of Farm Machinery	1 week	Rs. 2500/-
	M2	Agriculture Machinery Management	1 week	Rs. 2500/-
	M3	Export Management of Agricultural Machinery.	1 week	Rs. 2500/-
	M4	Instrumentation for Farm Machinery Testing and Evaluation	1week	Rs. 2500/-
	M5	Entrepreneurship development to establish custom hiring agro-service centre	8 weeks	Rs. 20000/ (Except for farmers)
	M6	Farm machinery management for dealers / traders/ manufacturers, etc.	1week	Rs. 2500/
IV	ACADEMIC LEVEL TRAINING PROGRAM			
	A1	Trg. program on Farm Power & Machinery for Degree/Diploma Engg.Students. (4 weeks)	4 weeks	Rs. 2000/- per course
	A2	Practical Training programme on Farm Power and Machinery for ITI & 10 +2 vocational students	4 weeks	
V	NB	Need based Training Programme on Mechanization	As per requirement of the Sponsoring agency.	Rs. 1000/- per month (Except Farmers)
VI	FN	Training programme for Foreign National as per requirements under Bilateral programme	10 to 18 weeks (As per requirement of the Sponsoring agency)	As per Govt. policy
VII	TECHNOLOGY TRANSFER CAMPS – OFF CAMPUS			
	TT1	Energy conservation & safety in farm machinery	1 – 2 days	Free
	TT2	Familiarization and demonstration of improved/modern agril. Machines.	1 – 2 days	Free

Annexure-XXVII(B)**Skill Development Programmes aligned to NSQF and notified by ASCI in the area of Farm Machinery for 12 Job Roles**

Qualification Pack Title	QP ID.	Proposed NSQF level	Entry requirements	Total Hours
Tractor operator	AGR/Q1101	4	Class X	200
Harvesting Machine Operator	AGR/Q1102	4	Class X	200
Agriculture Machinery Operator	AGR/Q1103	4	Class 8 preferably	200
Agriculture Machinery Repair and Maintenance Service Provider	AGR/Q1111	5	Class 12 preferably	200
Custom Hiring Service Provider	AGR/Q1112	5	Class 12 preferably	200
Irrigation Service Technician	AGR/Q1104	4	Class 8 preferably	200
Operator-Reaper Thresher and Crop Residue Machinery	AGR/Q1105	4	Class 8 preferably	220
Service and Maintenance Technician-Farm Machinery	AGR/Q1106	4	Class 10 preferably	205
Agriculture Machinery Demonstrator	AGR/Q1107	5	Class 10 preferably	200
Tractor Mechanic	AGR/Q1108	4	Class 10 preferably	220
Farm Workshop Foreman/Supervisor	AGR/Q1109	5	ITI or Class 10 preferably	200
Farm Workshop/Service Manager	AGR/Q1110	6	B. Tech/ B.E / Graduate in Business Administration	200

Annexure-XXVIII

List of institutions approved by the Department for Testing and Certifying Agricultural Machineries and Equipments

S. No.	Name of the State	Name of the Institute
1	BIHAR	Faculty of Agricultural Engineering, Rajendra Agriculture University, PUSA (BIHAR)
2	CHHATTISGARH	State level Agriculture Implement Testing Centre, Directorate (Agricultural Engineering), Agriculture Department, Govt. of Chhattisgarh, TeliBandha, Gorav Path, RAIPUR (CHHATTISGARH)
3	DELHI	Division of Agricultural Engineering, Indian Agricultural Research Institute, NEW DELHI-12.
4	GUJARAT	College of Agricultural Engineering & Technology, Junagarh Agricultural University, JUNAGARH (GUJARAT)#
5	HARYANA	College of Agricultural Engineering & Technology, Chaudhary Charan Singh Agriculture University, HISAR (Haryana)#
6		CCSHAU- Regional Research Station, CCSHAU, Uchani, Karnal (Haryana)
7	JAMMU & KASHMIR	Sher-e-Kashmir University of Agri. Science & Technology, SRINAGAR REGION (J. & K.)
8		Sher-e-Kashmir University of Agri. Science & Technology, JAMMU REGION (J. & K.)
9	JHARKHAND	Birsa Agriculture University, Kanke, RANCHI (JHARKHAND)
10		Jharkhand Agriculture Machinery Testing and Training Centre (JAM-TTC), Govt. of Jharkhand, RANCHI (JHARKHAND)
11	KARNATAKA	University of Agricultural Sciences, Gandhi Krishi Vignyan Kendra, BANGALORE (KARNATAKA.)
12		College of Agricultural Engineering, University of Agricultural Sciences, RAICHUR, KARNATAKA - 584104
13		College of Agriculture Vijaypur, University of Agricultural Sciences Belgaum Rd, Krishi Nagar, Dharwad, Karnataka 580005
14		Farm Machinery Testing Centre, College of Food Technology, University of Horticultural Sciences, Udyanagiri, Navanga, Bagalkot (Karnataka) - 587104
15	KERALA	Farm Machinery Testing Centre, Kerala Agricultural University Kelappaji College of Agricultural Engineering & Technology Tavanur, Malappuram (Dist), Kerala-679573
16	MADHYA PRADESH	Central Institute of Agricultural Engineering, Berasia Road, BHOPAL (MP) #
17		College of Agricultural engineering, Jawaharlal Nehru Krishi Vishvidyalaya, Jabalpur (Madhya Pradesh)
18	MAHARSHTRA	Dr. A.S. College of Agricultural Engineering Mahatma Phule Krishi Vidyapeeth, Rahuri, Distt. Ahmednagar, Maharashtra (MPKV)
19		Farm Machinery Testing, Training and Production Centre, Department of Farm Power and Machinery, Dr. PDKV, Akola #
20		College of Agricultural Engineering and Technology, Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, DAPOLI (MAHARSHTRA)
21		College of Agricultural Engineering, V. N. Marathwada Krishi Vidyapeeth, PARBHANI (MAHARASHTRA)-431402

Annexure-XXVIII (Contd.)

S. No.	Name of the State	Name of the Institute
22	ODISHA	College of Agricultural Engineering and Technology, Orissa University of Agriculture and Technology, BHUBANESWAR
23		State Level Farm Machinery Training & Testing Centre, Agriculture Department, Government of Odisha, Bhubaneswar, Odisha.##
24	PUNJAB	College of Agricultural Engineering and Technology, Punjab Agriculture University, LUDHIANA (PUNJAB)
25		Central Institute of Post-Harvest Engineering and Technology (CIPHET), Ludhiana , 141004##
26	RAJASTHAN	Farm Implements and Machinery Testing & Training Centre, Central Workshop, Swami Keshwanand Rajasthan Agricultural University, Bikaner (Rajasthan).
27		College of Technology and Agricultural Engineering, Maharana Pratap, University of Agriculture and Technology, UDAIPUR (RAJASTHAN)
28	SIKKIM	College of Agricultural Engineering and Post-Harvest Technology, RANIPOOL, GANGTOK (SIKKIM)
29	TAMIL NADU	Agricultural Engineering Collage & Research Institute (AEC&RI) , Tamil Nadu Agricultural University, Kumalur, Trichy (TAMIL NADU)
30		Farm Machinery Testing Center, ICAR-Central Institute of Agricultural Engineering- Regional Center, near AMRC, Coimbatore -641003##
31	TELANGANA	Prof. Jayashanker Telengana State Agriculture University, Hyderabad
32	UTTAR PRADESH	State Level Farm Machinery Training and Testing Institute, Govt. of U.P., Rehmankhera, LUCKNOW (U.P.)
33		Sam Higginbottom Institute of Agriculture, Technology & Science (AAI), Deemed University, ALLAHABAD (U.P.)
34	UTTARAKHAND	College of Technology, Gobind Ballabh Pant University of Agriculture and Technology, PANTNAGAR (UTTARANCHAL)
35	WEST BENGAL	Department of Agriculture & Food Engineering, Indian Institute of Technology, KHARAGPUR (WEST BENGAL.)
36		State Farm Machinery Training-cum-Testing Institute, Faculty of Agricultural Engineering, Bidhan Chandra Krishi Viswavidyalaya (BCKVV), Mohanpur, DISTT. NADIA (WEST BENGAL)
37		CSIR-Central Mechanical Engineering Research Institute (CMERI), Durgapur (West Bengal)

Note: # These designated testing Centres are also authorized to test Plant Protection Equipments

These testing Centres are also authorized to test post-harvest technology equipment and machines

Annexure-XXIX

Pattern of Assistance and Maximum Permissible Subsidy for the Farmers for procurement of crop residue management machines on individual ownership basis

S.No.	Name of the machine/equipment	Pattern of Assistance	Maximum Permissible subsidy per Machine/ Equipment per beneficiary inclusive of GST @ 12% (Rs.)
1.	Super Straw Management System (Super SMS) to be attached with Combine Harvester	50%	59,700
2.	(a) Happy Seeder (b) Smart Seeder		
	a) 09 tine	50%	81,400
	b) 10 tine	50%	84,150
	c) 11 tine	50%	86,350
	d) 12 tine	50%	90,200
3.	Paddy Straw Chopper/ Shredder/Mulcher		
	a) Mounted type (Straw Chopper & Mulcher)		
	i) 5 ft	50%	72,500
	ii) 6 ft	50%	85,800
	iii) 7 ft	50%	90,200
	iv) 8 ft	50%	95,700
	b) Trailed type	50%	1,47,100
4	Shrub Master/Rotary Slasher	50%	27,500
5.	Hydraulic Reversible M.B. Plough		
	a) Two bottom	50%	70,500
	b) Three bottom	50%	91,500
	c) Four bottom	50%	1,25,400
6.	(a) Zero Till Seed cum Fertilizer Drill (b) Spatial Zero Till Drill		
	9 tine	50%	24,800
	11 tine	50%	28,200
	13 tine	50%	30,800
	15 tine	50%	33,000
7.	Super Seeder	50%	1,20,000
8.	Surface Seeder	50%	44,000
9.	Baling Machines		
	Balers (Round – Mini – upto 16kg per bale)	50%	2,20,000
	Balers (Round – Medium –above 16-25 kg per bale)	50%	2,39,500
	Balers (Round –big-180-200 kg per bale)	50%	9,90,000
	Baler (Rectangular 18-20 kg per bale)	50%	6,60,000
	Straw Rake	50%	1,65,000

10.	Crop Reaper		
	(a) Tractor mounted	50%	82,500
	(b) Self-Propelled	50%	90,000
	Self-Propelled reaper cum Binder (3 wheel)	50%	1,92,500
	Self-Propelled reaper cum Binder (4 wheel)	50%	2,60,000

Note:

(a) The financial assistance will be limited to 50% of the cost of the machine or the maximum permissible subsidy per machine as indicated above, whichever is lower.

(b) The States will at their liberty to add any machine as per requirement provided that the machine is useful for crop residue management.

Annexure-XXX

Pattern of Assistance and Maximum Permissible Subsidy per machine under the projects of Custom Hiring Centres

S.No.	Name of the machine/equipment	Pattern of Assistance	Maximum Permissible subsidy per Machine/ Equipment inclusive of GST @ 12% (Rs.)
1.	Tractor 60 HP and above	80%	9,60,000
2.	Super Straw Management System (Super SMS) to be attached with Combine Harvester	80%	95,520
3.	(a) Happy Seeder (b) Smart Seeder		
	a) 09 tine	80%	1,30,240
	b) 10 tine	80%	1,34,640
	c) 11 tine	80%	1,38,160
	d) 12 tine	80%	1,44,320
4.	Paddy Straw Chopper/ Shredder/Mulcher		
	a) Mounted type (Straw Chopper & Mulcher)		
	i) 5 ft	80%	1,16,000
	ii) 6 ft	80%	1,37,280
	iii) 7 ft	80%	1,44,320
	iv) 8 ft	80%	1,53,120
	b) Trailed type	80%	2,35,360
4	Shrub Master/Rotary Slasher	80%	44,000
5.	Hydraulic Reversible M.B. Plough		
	a) Two bottom	80%	1,12,800
	b) Three bottom	80%	1,46,400
	c) Four bottom	80%	2,00,640
6.	(a) Zero Till Seed cum Fertilizer Drill (b) Spatial Zero Till Drill		
	9 tine	80%	39,680
	11 tine	80%	45,120
	13 tine	80%	49,280
	15 tine	80%	52,800
7.	Super Seeder	80%	1,92,000
8.	Surface Seeder	80%	70,400
9.	Baling Machines		
	Balers (Round – Mini – upto 16kg per bale)	80%	3,52,000
	Balers (Round – Medium –above 16-25 kg per bale)	80%	3,83,200
	Balers (Round –big-180-200 kg per bale)	80%	15,84,000
	Baler (Rectangular 18-20 kg per bale)	80%	10,56,000
	Straw Rake	80%	2,64,000

10.	Crop Reaper		
	(a) Tractor mounted	80%	1,32,000
	(b) Self-Propelled	80%	1,44,000
	Self-Propelled reaper cum Binder (3 wheel)	80%	3,08,000
	Self-Propelled reaper cum Binder (4 wheel)	80%	4,16,000

Note:

(a) The financial assistance will be limited to 80% of the cost of the machine or the maximum permissible subsidy per machine as indicated above, whichever is lower.

(b) The States will be at their liberty to add any machine as per requirement provided that the machine is useful for crop residue management.

Procedure for Credit Linked Capital Subsidy on the Custom Hiring Centres Projects and Paddy Straw Supply Chain Projects

The following is the gist of procedure to be followed, to be read along with the flow charts and formats annexed:

1. Advance Subsidy: The 50% eligible subsidy amount for the projects will be released as advance by the State Agriculture Departments to the participating Financial Institutions (Banks) on submission of project scrutiny note cum claim form as per requirement and the norms of the interventions. The same would be kept in a Subsidy Reserve Fund Account of the concerned borrowers, to be adjusted finally against loan amount of the bank towards the end of the repayment period and life of the project as per the time schedule.

2. Final Installment of Subsidy: the remaining 50% would be disbursed to the participating Banks by the State Departments of Agriculture after conduct of an inspection and physical verification of the machines and equipments by the State Level Project Sanctioning Committee and officials from the financing banks.

3. Adjustment of Subsidy to Borrower's Account: The subsidy released to the bank for individual project will be kept in a separate borrower-wise account. The adjustment of subsidy will be back ended. Accordingly, the full project cost including the subsidy amount, but excluding the margin money contribution from the beneficiary, would be disbursed as a loan by the Banks. The repayment schedule will be drawn on the loan amount in such a way that the total subsidy amount is adjusted after the full bank loan component with interest is liquidated.

4. Utilization Certificate: After release of final installment of subsidy, a Utilization Certificate is required to be submitted by the financing Bank certifying that the full amount of subsidy received in respect of the project has been fully utilized (by way of crediting to the "Subsidy Reserve Fund Account- Borrower –wise") and adjusted in the books of Account under the sanctioned terms and conditions of the project within overall guidelines of the scheme.

5. No Interest is chargeable on Subsidy Portion: For the purpose of charging interest on the loan component, the subsidy amount would be excluded. The balance lying to the credit of the subsidy reserve fund account will not form part of demand and time liabilities for the purpose of SLR/CRR

6. Institutional Lending:

(a) Eligible Financial Institutions: The eligible financing institutions under the scheme are (i) Commercial Banks, Regional Rural Banks (RRBs), State Cooperative Banks (SCBs), State Cooperative Agricultural and Rural Development Banks (SCARDBs), Scheduled Primary Urban Cooperative Banks (PUCBs), Agricultural Development Finance Companies (ADFCs) and such other institutions (ii) Cooperatives where they seek loan from National Cooperatives Development Corporation (NCDC).

(b) Term Loan

For the projects of Custom Hiring Centres and Paddy Straw Supply Chain projects, the amount as eligible as capital subsidy of the project cost can be raised as term loan from the financing banks. The repayment schedule will be drawn on the total loan amount (including subsidy) in such a way that the subsidy amount is adjusted after liquidation of the net bank loan (excluding subsidy). The financial institution may provide working capital separately for undertaking the business by the entrepreneurs.

(c) Rate of interest and Scale of Financing to the ultimate borrower : As decided by the financing bank, as per their respective Board approved policy.

(d) Security: The security will be as per norms prescribed by RBI from time to time.

(e) Repayment Period: Repayment period will depend upon the cash flow and may be generally up to 5 years with a grace of one year.

7. Procedure to be followed for sanctioning of project and release of subsidy

- (a) Interested beneficiaries will submit the project proposal for term loan and subsidy to Bank on application form as prescribed by the concerned bank along with project report and other documents for appraisal and sanction of loan.
- (b) Bank after appraisal and scrutiny of loan application will furnish a brief project profile-cum-claim form for advance subsidy in the prescribed format as may be devised by the project sanctioning committee at the State level. The loan shall be disbursed by the Bank only after the project has been cleared and approved by the State level project sanctioning committee, which shall also have a representative of the concerned Bank.
- (c) The State Department of Agriculture on the recommendation of State level project sanctioning committee shall release 50% of the eligible amount of subsidy as advance subsidy to the participating bank for keeping the same in the subsidy fund account (borrower-wise)
- (d) The participating bank shall provide eligible amount of subsidy as term loan to the beneficiary. The banks at their discretion may extend full project cost as term loan to the beneficiary.
- (e) The beneficiary will inform the Bank that the required machines and equipments have been acquired by the beneficiary and the State level project sanctioning committee involving the bank official shall conducted the physical verification of the machines and equipments. After inspection the Bank will submit the claim form to the State Department of Agriculture for final subsidy. The claim form shall necessarily be enclosed with inspection report of the committee. The State Department of Agriculture shall release the final subsidy to banks which will be adjusted against the subsidy amount provided to the banks in advance.

Monitoring of each project will be done by Banks branches and district level officers of the State Department of Agriculture with periodic reporting to the State Agriculture Department.

Annexure-XXXII

(A) Indicative Capital Expenditure for Setting up Paddy Straw Supply Chain (For 3000 MT Paddy Straw per Season)

Sr No	Required machines	Approximate Rate / Unit (Rs. in lakhs)	Qty	Tentative Amount (Rs. in Lakhs)
1	Cutter /Rotary Slasher	0.70	1	0.70
2	Tedder Machine	5.25	1	5.25
3	Raker	5.85	1	5.85
4	Tractor 75 HP and above	18.00	1	18.00
5	Baler (200-300 kg Bale) – Rectangular or round bale	36.50	1	36.50
6	Tractor 50 HP for Tedder and Rake	8.5	2	17.00
7	Trolley (Flat, Single Axle, Local Fabricator) /Automatic bale loading trolley	3.50	3	10.50
8	Tractor attachment for Stacking (grabber)/ telehandler	5.00	1	5.00
9	Moisture Meter	0.35	1	0.35
10	Water tank (5000 Ltr)	0.25	1	0.25
11	Fire Extinguisher	0.05	1	0.05
12	Lightening Arrestor	0.40	1	0.40
Total				99.85 or say Rs. 1.00 Crore

Note:

- (i) Tractors required for transport trollies and grabber are supposed to be taken on rental basis.
- (ii) The machines and equipments and their costs are indicative. The total project cost can only be arrived based on the proforma invoices of the sale of machines.
- (iii) Beneficiaries may have the choice of selection of equipments from within the list as per their requirement.
- (iv) The States also have the flexibility to include any machine under the projects as per their requirement.

(B) Indicative Capital Expenditure for Setting up Paddy Straw Supply Chain (For 4500 MT Paddy Straw per Season)

Sr No	Required machines	Approximate Rate / Unit (Rs. in lakhs)	Qty	Tentative Amount (Rs. in Lakhs)
1	Cutter /Rotary Slasher	0.70	1	0.70
2	Tedder Machine	12.00	1	12.00
3	Raker	25.00	1	25.00
4	Tractor 90-110 HP	44.00	1	44.00
5	Baler (200-500 kg Bale) – Rectangular or round bale	46.00	1	46.00
6	Tractor 50 HP for Tedder and Rake	8.5	2	17.00
7	Trolley (Flat, Single Axle, Local Fabricator) /Automatic bale loading trolley	3.50	3	10.50
8	Telehandler	25.00	1	25.00
9	Moisture Meter	0.35	1	0.35
10	Water tank (5000 Ltr)	0.25	1	0.25
11	Fire Extinguisher	0.05	1	0.05
12	Lightening Arrestor	0.40	1	0.40
Total				181.25 or say Rs. 1.80 Crores

Note:

- (i) For the purpose of financial assistance, the project cost will be limited to Rs. 1.50 Crores i.e. the project cost may be above Rs. 1.50 Crores/project, but the financial assistance from the Government will be calculated based on the project cost of Rs. 1.50 Crores/project.
- (ii) The machines and equipments and their costs are indicative. The total project cost can only be arrived based on the proforma invoices of the sale of machines.
- (iii) Beneficiaries may have the choice of selection of equipments from within the list as per their requirement.
- (iv) The States also have the flexibility to include any machine under the projects as per their requirement.

Sample Bi-Lateral Agreement

This Agreement (herein referred to as “Agreement”) is made on this day of **(DATE)** at **(PLACE)**.

By and Between:

1. ----- (Name of the Biomass Based Industry) -----, a Company Incorporated under Companies Act, 2013 and having its registered office at----- (complete address of Biomass industry)----- (hereinafter referred to as “**Industry**” or “----- (Short Title of Biomass Based Industry)----- ” which expression shall, unless repugnant to the context or meaning thereof, be deemed to include its successors and permitted assigns) of the **FIRST PARTY**;

AND

2. **BENEFICIARY**, which expression shall unless repugnant to the context or meaning thereof, be deemed to include Farmer or group of Farmers or Rural Entrepreneurs or Cooperative Societies of Farmers or Farmers Producer Organizations (FPOs) or Panchayats (hereinafter referred to as “**Aggregator**” which expression shall, unless repugnant to the context or meaning thereof, be deemed to include its successors and permitted assigns) of the **SECOND PARTY**;

(Both of the parties mentioned hereinabove shall be individually referred to as the “**Party**” and collectively as the “**Parties**”)

WHEREAS

- (a) The “**Government**” intends to contain the burning of Agri-residue / paddy straw in the open fields through an approach of providing accepted solutions for ex-situ management of Agri-residue / paddy straw and released guidelines vide OM No. ----- Dated ----- for providing financial assistance to Aggregator to establish Agri-residue / paddy straw supply chain for its utilization in different industries utilizing the same to achieve farmer’s welfare by way of reduced stubble burning and utilizing the abundant Agri-residue / paddy straw towards useful applications.
- (b) ---- (Name of Biomass Based Industry) ----- referred to as an “**Industry**” is inter alia engaged in the manufacturing of --- (Products name) ----- from Agri-residue / paddy straw and other biomass. ---- (Name of Biomass Based Industry) ----- has set up a --- (Products name) ----- Project with capacity (-----), will utilize approximately ----- tons of Agri-residue / paddy straw per day and will utilize approximately ----- tons of Agri-residue / paddy straw per year. The plant is in ----- (Location address of Biomass Based Industry / Plant).
- (c) The ----- (Name and address of Aggregator) ----- referred to as an “**Aggregator**” is desired and willing to invest into the establishment of Agri-residue / paddy straw supply chain by way of acquiring required machinery and equipments through financial support of the

Government and Industry and has agreed to collect, transport, store the Agri-residue / paddy straw at the allocated area or areas allotted by ---- (Name of Biomass Based Industry) -----
- and will supply the same to ---- (Name of Biomass Based Industry) -----.

NOW THEREFORE, in consideration of the foregoing and the mutual covenants contained in this agreement, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

ARTICLE 1 DEFINITIONS AND INTERPRETATION

1.1 Definitions: In this agreement, unless the context otherwise requires or expressly provides, the following words shall have the following meaning respectively:

- a) **Business day** shall be construed as a reference to a day (other than a Sunday) on which banks in the state where I&C Facility is situated are generally open for business
- b) **Biomass Based Industry** means industries utilizing the Agri-residue / paddy straw for various purposes
- c) **Catchment area** shall herein mean area within the radius of 10 to 35 kms of ----- (Name of Biomass Based Industry) ---- plant site situated ----- (Complete address of location) -----
- d) **Price** in reference to this agreement will mean the price at which biomass-based industry will purchase Biomass from the Aggregator.
- e) **Equipment or Machinery** means equipments and machines that are covered under the supply chain i.e., Cutters/Rotary Slashers, tedder, Raker, Baler, tractor, loader, trolley, telehandler etc.
- f) **Financial Assistance** shall be in the form of subsidy which will be provided to the farmer by the Government and biomass-based industry in the ratio mentioned in the scheme guidelines under para -----.
- g) **Law** shall mean all statutes, enactments, acts of legislature or parliament, laws, ordinances, rules, regulations, code, directives and orders of any Government Authority, Tribunal, Board or Court and if applicable, International Treaties and regulations.
- h) **MT** means Metric tonnes
- i) **OEMs** shall mean Original Equipment Manufacturer of the equipments and machines that are covered under the supply chain

- j) **Principal place of Business** in reference to this agreement means for parties -----
----- (Complete address of location of the biomass-based industry) -----
- k) **Supply (collection, transport and storage of Agri-residue / paddy straw)** shall have meant ascribed to it in
- l) **Supply Process Flow** as indicated in para 8 of the concept note
- m) **Software** in reference to this agreement shall be called Straw management and automation mobile application which shall be given to the aggregators by -----
(name of biomass-based industry) -----.
- n) **TPD** means tonnes per day.

1.2 **Interpretation**

Except where the context requires, this agreement shall be interpreted as follows:

- 1 References in this Agreement to any statutory provision shall include a reference to that statute or provision as amended, extended or re-enacted and to any statutory replacement thereof from time to time and shall also include reference to all statutory instruments and orders made pursuant to any such statutory provision.
- 2 the division of this Agreement into clauses and schedules and the insertion of headings and bold typeface are only for convenience and shall not affect the construction or interpretation of any provision of this Agreement;
- 3 words and numbers importing the singular shall include the plural and vice versa;
- 4 references to the Recitals, Clauses and Schedules are to the recitals and clauses of, and schedules to, this Agreement;
- 5 the Schedules to this Agreement form part of this Agreement and shall be deemed to be expressly set out in the body of this Agreement;
- 6 all words (whether gender-specific or gender neutral) shall be deemed of any gender are deemed to include the other gender;
- 7 the terms “hereof”, “herein”, “hereby”, “hereto” and derivative or similar words refer to this entire Agreement or specified Clauses of this Agreement, as the case may be;
- 8 a reference to any Party in this Agreement, including the Parties, shall, where the context permits, include such Person’s executors, administrators, heirs, legal representatives, successors and permitted assigns;
- 9 any obligation under this Agreement not to do something includes an obligation not to agree or allow that thing to be done;
- 10 an agreement, representation or warranty on the part of 2 (two) or more Persons binds them jointly and each of them individually;
- 11 a reference to any Law or to any provision thereof includes references to such Law as it may, during the term of this Agreement or the completion of the transactions

- contemplated herein, be amended, consolidated, modified, re-enacted or replaced by any other Law and to any subordinate legislation or regulation made under the relevant Law;
- 12 Unless the context otherwise requires, any period of time referred to shall be deemed to expire at the end of the last day of such period;
- 13 the expressions “hereof”, “herein” and other similar expressions shall be construed as references to this Agreement as a whole and not limited to the particular Clause or Schedule in which the relevant expression appears;
- 14 references to writing include in electronic form;
- 15 references to “Rupees”, “Rs.” and “INR” are references to the lawful currency of the Republic of India;
- 16 reference to any document includes an amendment or supplement to, or replacement or novation of, that document, but disregarding any amendment, supplement, replacement or novation made in breach of this Agreement;
- 17 reference to an “amendment” includes a supplement, modification, novation, replacement or re-enactment and “amended” is to be construed accordingly;
- 18 any word or phrase defined in the body of this Agreement as opposed to being defined in Article 1.1 above shall have the meaning assigned to it in such definition throughout this Agreement, unless the contrary is expressly stated or the contrary clearly appears from the context;
- 19 the Parties have each participated in the negotiation and drafting of this Agreement and if an ambiguity or question of interpretation should arise, this Agreement shall be construed as if drafted jointly by the Parties thereto and no presumption or burden of proof shall arise favouring or burdening either party by virtue of the authorship of any of the provisions in this Agreement;
- 20 This agreement is made and executed in the English, Hindi and Punjabi Language which shall be the governing text for all purposes.
- 21 Any reference to any period of time shall mean a reference to that according to Indian Standard Time;
- 22 Any reference to day shall mean a reference to a calendar day;
- 23 “**Lakh**” mean a hundred thousand (100,000) and crore means ten million (10,000,000);
- 24 Reference to a “**person**” and wording denoting a natural person shall be construed as a reference to any individual, firm company, corporation society, trust, government, state or agency of a state or any association or partnership (whether or not having separate legal personality) of two or more of the above and shall include successors and assigns;
- 25 The words “**include**” and “**including**” are to be construed without limitation and shall be deemed to be followed by “**without limitation**” or “**but not limited to**” whether or not they are followed by such phases;
- 26 Reference to any date, period or Project Milestone shall mean and include such date, period or Project Milestone as may be extended pursuant to this agreement;
- 27 The damages payable by either party to the other of them, as set forth in this agreement, whether on per diem basis or otherwise, are mutually agreed genuine pre-

- estimated loss and damage likely to be suffered and incurred by the party entitled to receive the same and are not by way of penalty (the “Damages”) and
- 28 Time shall be of the essence in the performance of the parties’ respective obligations. If any time period specified herein is extended, such extended time shall also be of the essence.

ARTICE 2 SCOPE OF THE AGREEMENT

- 2.1 This Agreement details the terms and conditions, financial arrangement and obligation of Government, Industry and Aggregator. Further, any specific terms or conditions, procedure or methodology specified/not specified in this Agreement, but relevant to the scope and deemed necessary to be amended/included, may be mutually discussed and agreed to between the Industry and Aggregator within two (2) months of signing of this Agreement and shall be included as an amendment as per Amendment Article of this Agreement.
- 2.2 Aggregator will undertake Activity at collection end of Agri-residue / paddy straw, transport, storage and supply it to industry in terms of this Agreement. The Industry and Aggregator shall respectively and faithfully abide by and subject themselves to the terms and conditions and stipulations of the Agreement.
- 2.3 The implementation of this Bi-lateral agreement is based on the Guidelines OM No. (.....) Dated....., a pilot project basis to support the investment planned for ex-situ machinery deployment. The programme will be monitored by Department of Agriculture & Farmers Welfare with the help of Agriculture Departments of the State Government. However, the management of supply chain is the responsibility of the Industry in association with the Aggregator.

ARTICE 3 FINANCIAL ARRANGEMENTS

- 3.1 The projects will be implemented under this Bi-lateral agreement between the (Name of biomass-based Industry) who shall be utilizing the Agri-residue / paddy straw ----- and ----- (name of the Aggregator) ----- . This agreement is executed between the parties to ensure smooth implementation of the projects keeping the interests of the ----- (name of biomass-based industry) ----- project and ----- (Name of Aggregator) ----- interests.
- 3.2 Financial assistance will be provided to the Aggregator only on the capital cost of machinery and equipment as indicated in the guidelines issued by the Government and the rest of the capital expenditure and required working capital may be arranged by the aggregator. For working capital, National Agriculture Infra Financing Facility (AIF) by the Farmer or NABARD project financing or financing from any other Banks may be used.

- 3.3** The Escrow agreement shall be executed between the Industry and the Aggregator. All cash inflows and outflows arising out of this agreement or matters incidental thereto shall be credited and debited, as the case may be, in accordance with the provisions of the escrow agreement. All the expenses and liabilities towards arrangement of such escrow account and agreement shall be borne by the Industry and Aggregator equally and jointly.

ARTICE 4 OBLIGATIONS

4.1 Obligations of the Government:

- (a) Empanel the machinery suppliers
- (b) constitute a project sanctioning committee which shall devise a template for submission of project proposal by the Aggregator.
- (c) examine the proposals through project sanctioning committee and approve the projects of Agri-residue / paddy straw supply chain management within 5 days of receipt of proposals
- (d) facilitate the aggregator to get financing from AIF/NABARD/Other financial institutions
- (e) guide the Aggregator for obtaining all regulatory clearances, such as fire, land sealing, conversion from agricultural to non-agricultural and, availability of government land, electricity supply, transmission system, waiver of development charges of development authority etc.
- (f) physical inspection of the machinery procured by the Aggregators and process for release of financial assistance through Escrow Agreement.

4.2 Obligations of the Industry:

- (a) Finalize and submit the project proposal in co-ordination with the Aggregator.
- (b) facilitate the Aggregator in site selection and obtaining all regulatory clearances
- (c) contribute required Industry share of the project as per guidelines into the Escrow account of the Aggregator
- (d) facilitate the Aggregator to get financing from AIF/NABARD/Other financial institutions
- (e) facilitate the Aggregator in procuring the required machinery and equipments from the OEMs empanelled by the Government.
- (f) provide daily scheduling to the Aggregator for supply of required quantity of paddy
- (g) create awareness amongst farmers residing/owing land/property in the catchment area by through convenient mode.
- (h) purchase all the collected Agri-residue / paddy straw from the Aggregator at a rate as may be mutually agreed by Aggregator and Industry. Revisit the rate Year-on-Year based on the market condition.
- (i) shall throughout monitor the effectiveness of the project
- (j) facilitate Aggregator in maintenance and service of the equipments and machines through the authorized service network of the OEMs.

- (k) take actions against the Aggregator for not supplying the desired Quality, Quantity, Price and misuse of the equipment and machine in association with the Government through appropriate committee duly constituted for the purpose.
- (l) Responsible for asset utilization on yearly basis to the Government in terms of annual Agri- residue/ paddy straw collection (in tonnes per Agri-residue / paddy straw type).

4.3 Obligations of the Aggregator:

- (a) arrange land for storage of the collected paddy under the guidance of Industry
- (b) obtain all regulatory clearances, such as fire, land sealing, conversion from agricultural to non-agricultural, electricity supply, transmission system, development charges of development authority etc.
- (c) place order with the empanelled OEMs for procurement of machinery as included in the project proposal.
- (d) Contribute required Aggregator share of the project as per guidelines into the Escrow Account.
- (e) secure Industry contribution for the proportionate amount as per the project proposal and guidelines of the Government
- (f) receive financial assistance from the Government in the Escrow account
- (g) secure required working capital either through own funding or AIF or NABARD or other bank financing
- (h) make payments to the OEMs towards the procurement of machinery in alignment with the Escrow Account regulations.
- (i) tie up with the farmers for procurement of straw from the farmer's fields
- (j) engage necessary skilled and non-skilled manpower for continuous operation of the aggregation of Agri-residue / paddy straw
- (k) acquire required machines and collect the straw as per the scheduling as may be decided by Aggregator and Industry.
- (l) insure equipment or machinery against loss by theft, fire or by the Act of God
- (m) store baled straw as per the SOPs provided by the industry
- (n) insure the risk for the stock of biomass in storage, transit, fire and theft.
- (o) shall be responsible for the management of machinery for collection, Transportation, Storage of Agri-residue / paddy straw and also delivering the end product to the industry on timelines decided by Industry
- (p) shall exclusively provide the Agri-residue / paddy straw at a agreed price to Industry only with whom the agreement is made and not to any other industry.
- (q) Restrict the use of machines only for the use of the industry in designated cluster. In case of use of machines for other Industry, shall take prior consent or no objection from the industry with whom the agreement is signed.
- (r) shall not transfer/sell/mortgage/ hypothecate the machines and equipment in any manner whatsoever.

ARTICLE 5
PURCHASE OF MACHINERY AND EQUIPMENT

- 5.1 The AGGREGATOR shall place an order with the empanelled manufacturers for procurement of Machinery and Equipments.
- 5.2 The Parties shall before (.....), open and establish an escrow account with the _____ Bank (the Escrow Bank”). The payment shall be made according to the timelines stated below:

Financial Milestone/ Timelines:

S.NO	Parties to the Agreement	Contribution in terms (%)	Tentative timelines for releasing payment in “ESCROW ACCOUNT” (Tentative)
1.	GOVERNMENT	65	30.10.2024
2.	INDUSTRY	as may be agreed between industry and aggregator	10.07.2024
3.	AGGREGATOR	Minimum 10	10.07.2024

- 5.3 The payment toward the purchase of Equipment and Machinery will be made from the ESCROW Account to be opened in the name of INDUSTRY. The parties and government will transfer their respective contribution in the ESCROW account according to the ESCROW Agreement.
- 5.4 All the expenses and liabilities towards arrangement / opening of such escrow account and agreement shall be borne by the INDUSTRY and AGGREGATOR Jointly in 50 – 50 Ratio.

ARTICE 6
OWNERSHIP OF EQUIPMENT AND MACHINES

- 6.1 The Government shall not own any Equipment or Machine. It would just purely provide financial support and would monitor the effectiveness of the project.
- 6.2 Industry shall throughout monitor the effectiveness of the project.
- 6.3 Industry shall act as the primary or only consumer of feedstock aggregated by the procured machinery under the scheme and shall have the first right of ownership of

machinery and can acquire possession in case of expiry of tenure of the agreement or termination due to any non-compliance or default on behalf of the Aggregator.

ARTICE 7

QUALITY COMPLIANCE PARAMETER

- 7.1 Below are the Quality acceptance criteria/ parameters of the straw to be supplied by the farmer at Industry Plant site.

S. No.	Description	Acceptance Criteria	Remarks
1.	Type of Bales	To be decided by the industry	
2.	Moisture	To be decided by the industry	
3.	Mandatory use of balers with cutting system	To be decided by the industry	
4.	Compression	To be decided by the industry	
5.	Stacking height	To be decided by the industry	

ARTICE 8

INDEMNITY

Either party will indemnify, defend, and hold harmless other party (including its successors, affiliates and assigns) and their respective directors, officers, employees, agents and/or any third party (the "indemnified persons") against any and all losses, liabilities, judgments, awards, costs, claims, expenses, charges etc. (individually and collectively, referred to as "Damage") (i) a rising out of breach by the defaulting party of any of the terms contained herein; (ii) due to any representation, or other statement made by the defaulting party being or becoming untrue in any manner, (iii) due to any act, omission or negligence of the defaulting party or its personnel and/or persons engaged by him(in) any claims that may be made by the defaulting party's personnel against the suffering party for any reason Whatsoever, without any limit in the amounts or time.

ARTICLE 9

INSURANCE

9.1. Insurance against storage of Machine and equipments:

- a) It is a responsibility of the AGGREGATOR, at its own cost, during the tenure, to acquire adequate comprehensive insurance cover for corresponding to the risk of Equipment and machines against Marine, theft, fire etc;

- b) For corresponding to the risk for the stock of biomass in storage, transit, fire and theft;
- c) The copy of insurance papers shall be supplied to Industry before training by OEMs for Machinery and Equipments starts for Aggregator &
- d) The Selection of insurer shall be the responsibility of the industry.

9.2 Insurance against Machine and Equipments

- a) The Industry and the Aggregator shall purchase an Insurance cover in which contribution in terms of premium shall be borne by the Industry and the Aggregator;
- b) The industry shall pay premium in proportion to its own share as well as Government's share in the capital cost of the machinery and equipment which comes out to be 90% (25% + 65%) contribution in terms of premium amount;
- c) The Aggregator shall pay premium contribution in proportion to its 10% share in the capital cost of the Machine and Equipments &
- d) The selection of Insurer shall be the responsibility of the industry.

ARTICLE 10

VOLUME, QUALITY AND TRANSPORTATION OF CROP RESIDUE

- 10.1 INDUSTRY shall accept Crop Residue in case AGGREGATOR make compliance to the following criteria as given below

(A) Volume for aggregation of Biomass (Agri-residue / paddy straw)

S.No	Description	Default	Remarks
	Volume: Capacity to supply Biomass fuel as per desired specifications (Per season)	In case the supply is <40% (For supply of 3000 MT)	Written Notice will be issued stating with a onetime warning post Non-compliance of which can lead to a situation where ownership of the machines will be transferred to another AGGREGATOR after consulting with the committee defaulting AGGREGATOR.
		In case the supply is <30% (For supply of 4500 MT)	

(B) Quality compliance parameters

S.No.	Description	Acceptance Criteria	Remarks
1.	Type of Bales		
2.	Moisture		
3.	Mandatory use of balers with cutting system		.
4.	Compression		
5.	Stackling height		

(C) TRANSPORTATION OF BIOMASS FROM FARM TO GATE

In case the AGGREGATOR defaults in supplying the agreed biomass from farm to gate i.e not transporting aggregated biomass to the gate then a Written Notice will be issued stating with a onetime warning post Non-compliance of which can lead to a situation where ownership of the machines will be transferred to another AGGREGATOR after consulting with the committee defaulting Aggregator.

ARTICLE 11**ASSIGNMENT AND SUBCONTRACT AND SUBSTITUTION**

- 11.1 The “AGGREGATOR” shall not without the prior written approval of INDUSTRY, assign or transfer its rights or obligations under the agreement or any part thereof, or any share, or interest therein to any other person.
- 11.2 That in case “AGGREGATOR” is unable to perform in any Season, he can propose the name of other person in writing and if approved by Committee, he can substitute the AGGREGATOR for the Season and accordingly Rights and Obligation under this agreement will be Assigned to that Person and that Person for the purposes of this Agreement will know as Substituted Aggregator for that Season.
- 11.3 That in case of Assignment to Substituted Aggregator, Machinery and Equipment will be hand over by AGGREGATOR to that person for that particular Season.
- 11.4 That proposal of substitution should be made before 1st August of Every Year.

ARTICLE 12 AMENDMENTS TO THE AGREEMENT

No amendment or modification of this Agreement shall be valid unless the same is made in writing by the Parties and their authorized representatives and specifically stating the same to be an amendment of this Agreement. The modifications/ changes shall be effective from the date on which they are made/ executed unless otherwise agreed to.

ARTICLE 13 NOTICES

All notices and communications required to be served under this agreement shall be considered to be duly served if the same been posted by registered mail at its last known address of business.

ARTICLE 14 TENURE

This agreement shall come into force from the date of signing of this agreement and will continue till supply of quantity as given in Article... (which shall be added at the later stage) or Five years, whichever is earlier.

ARTICLE 15 EFFECTIVE DATE AND TERMINATION OF THE BI-LATERAL AGREEMENT

- 15.1 This Agreement shall be deemed to have come into effect from the date of signing of the Agreement.
- 15.2 **Termination:** This Agreement may be terminated by Industry in consultation with Government constituted committee by giving a one **(7) days'** notice in writing to Aggregator in the following cases:
- (a) If Aggregator obtains the financial assistance on the basis of false information/ false statement.
 - (b) If Aggregator and Industry does not take up the Activity as per the terms of the Agreement.
 - (c) If performance of Aggregator or Industry is not found satisfactory as per obligations indicated in Article 4 of the Agreement.
 - (d) If any fraud/ embezzlement is detected subsequently and not reported by Aggregator or Industry.
 - (e) Suppressing information regarding Conflict of Interest by the parties.
 - (f) If Aggregator or Industry is declared insolvent by the relevant competent authority.
 - (g) If Aggregator and Industry commits material breach of this Agreement.
 - (h) Non-payment/ non-realization of penalties or any dues by the aggregator and/or Industry

- 15.3 In the event of termination of the Agreement vide Clause 15.2, the rights and obligations of the Parties thereto shall be settled through mutual discussion between the Parties. Provided that any pending payments with respect to invoices for all completed Activities shall be paid by the Aggregator within thirty (30) days of date of termination of this Agreement. Provided further that in the event of termination of the Agreement vide Clause 15.2, the machines and equipment together with all physical assets acquired under the project are taken into the custody by the Industry.

ARTICLE 16

FORCE MAJEURE

- 16.1 Neither of the party, in any way, except for any payment related obligations, be held liable for non-performance either whole or in part of this agreement or for any delay in the performance thereof in consequence of any Act of God, epidemics, quarantine restrictions, lawful strike, lock out, delivery interruptions, orders including administrative orders or decrees of any Government or Government authority, revolutions, wars, acts of enemies embargoes or other import restrictions or by any other acts, whether or not of the same class or kind as those set forth above, not within the control of the party, fulfilment on whose part is interfered with and which by exercise of reasonable diligence, the said party is unable to prevent.
- 16.2 Promptly but not later than 2 days, upon the occurrence of an event or circumstance that a party considers may subsequently lead it to claim force majeure relief under this agreement, such party shall give notice to such effect to the other party, describing such event or circumstance and the obligations the performance of which could be delayed or prevented thereby,
- (a) The parties shall exercise reasonable diligence to resume normal performance of this agreement as soon as possible, after the occurrence of an event of force majeure.
 - (b) Even prior to resumption of normal performance, the parties shall continue to perform their obligations under this agreement to the extent not prevented by such event of force majeure.

ARTICLE 17

GOVERNING LAWS AND JURISDICTION

This agreement shall be governed and construed in accordance with the laws of India including without limitation, the relevant Central and State acts and the rules, regulations and notifications issued and amended there under from time to time and subject to clause 18 below, the courts of (.....) shall have the exclusive jurisdiction in relation to all disputes arising from or relating to the agreement.

ARTICLE 18
DISPUTE RESOLUTION

- 18.1 A dispute shall be deemed to have arisen under this agreement, when either party notifies the other party of any issue, difference or dispute in writing to that effect.
- 18.2 Any dispute arising out of this agreement shall be resolved amicably through discussions in good faith with a view to expeditiously resolve such dispute. In the event the Dispute cannot be resolved amicably within the period of 30 days from the date of its occurrence, either party may refer the dispute for resolution to State Government and even if not resolved, actions may be taken according to Arbitration and conciliation act, 1996.
- 18.3 The venue of arbitration shall be ----- and the language of arbitration shall be in English or Punjabi. The arbitrator shall pass a reasoned award and the award shall be final and binding on all the parties.

SEAL OF PARTIES

In witness whereof the Parties here to have signed this Agreement on the day of (Month) and year mentioned hereinbefore

For and on behalf of Industry Name: Designation: Seal: _____	For and on behalf of Aggregator Name: Designation: Seal: _____
Witnesses: (Name Address) 1. _____ 2. _____ Date: _____	Witnesses: (Name Address) 1. _____ 2. _____ Date: _____

User manual for Mobile application



Government of India

Ministry of Agriculture and Farmers Welfare

Department of Agriculture and Farmers Welfare



Soil Health Card

SHC Mobile App User Guide



App Version 1.2.0.4

**Farmer Registration and the Sample Collection
Can be done in *Both Online & Offline* Mode**

**किसान पंजीकरण और नमूना संग्रह ऑनलाइन
और ऑफलाइन दोनों मोड में किया जा सकता है**

Updated on: 30/04/2024

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SHC Mobile App

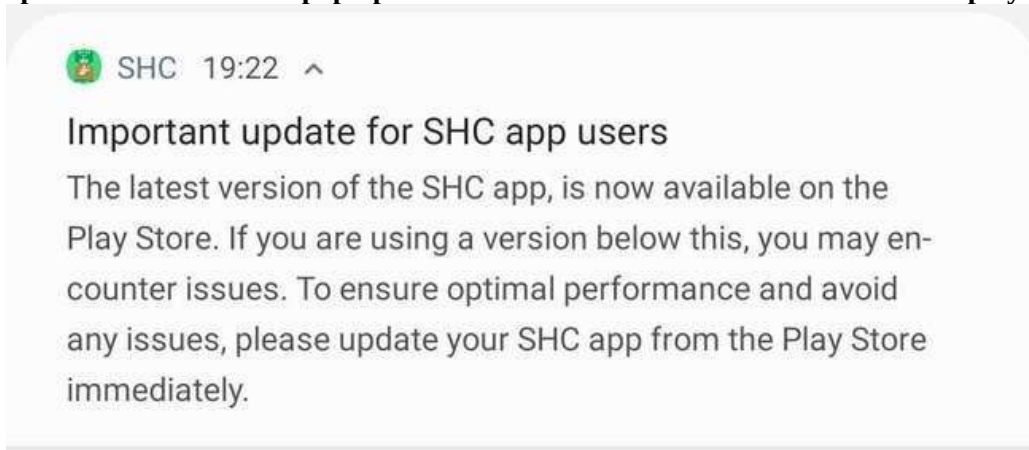
Instruction for version 1.2.0.4

- App will operate in both online or offline mode for farmer registration and sample collection. Online / Offline modes can be enabled simply by pressing the online slider button in the app home page below the sample collection dashboard.
- Users does not required internet connection to do the registration in offline mode
- In offline mode users have to sync the data to upload online and to view in track samples. Users are restricted to sync the data only between 5PM to 10AM
- QR code scanning has been disabled for offline mode
- Sample ID will be generated automatically and has to be pasted in the soil sample for testing purpose

How to Update

- Sync or export the existing offline records. Send the exported record file to the STL/District/customer service team for safety
- Update the app from Google Play Store:
https://play.google.com/store/apps/details?id=com.kt_goi_shc&hl=en
- Import the offline records

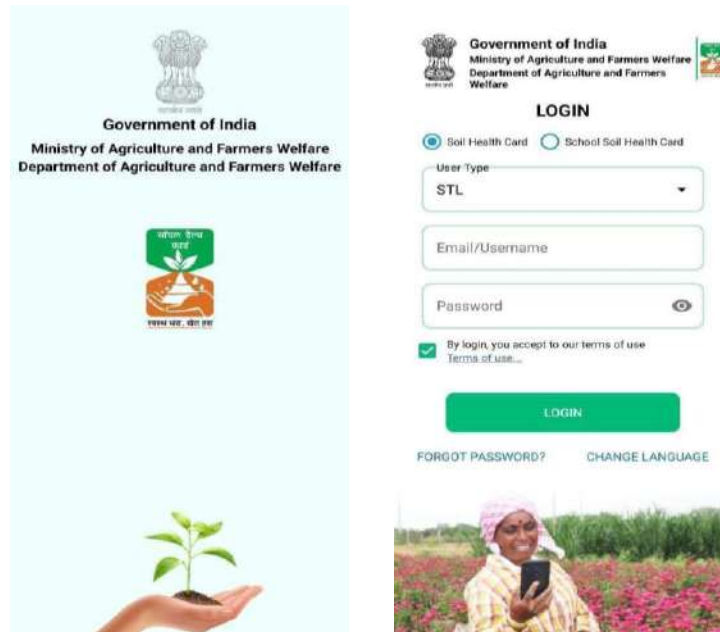
NOTE: Update notification will pop up whenever the latest version is available in the playstore



App Install

Download and Install the Mobile app from the drive link given below:

https://play.google.com/store/apps/details?id=com.kt_goi_shc



Device Requirement

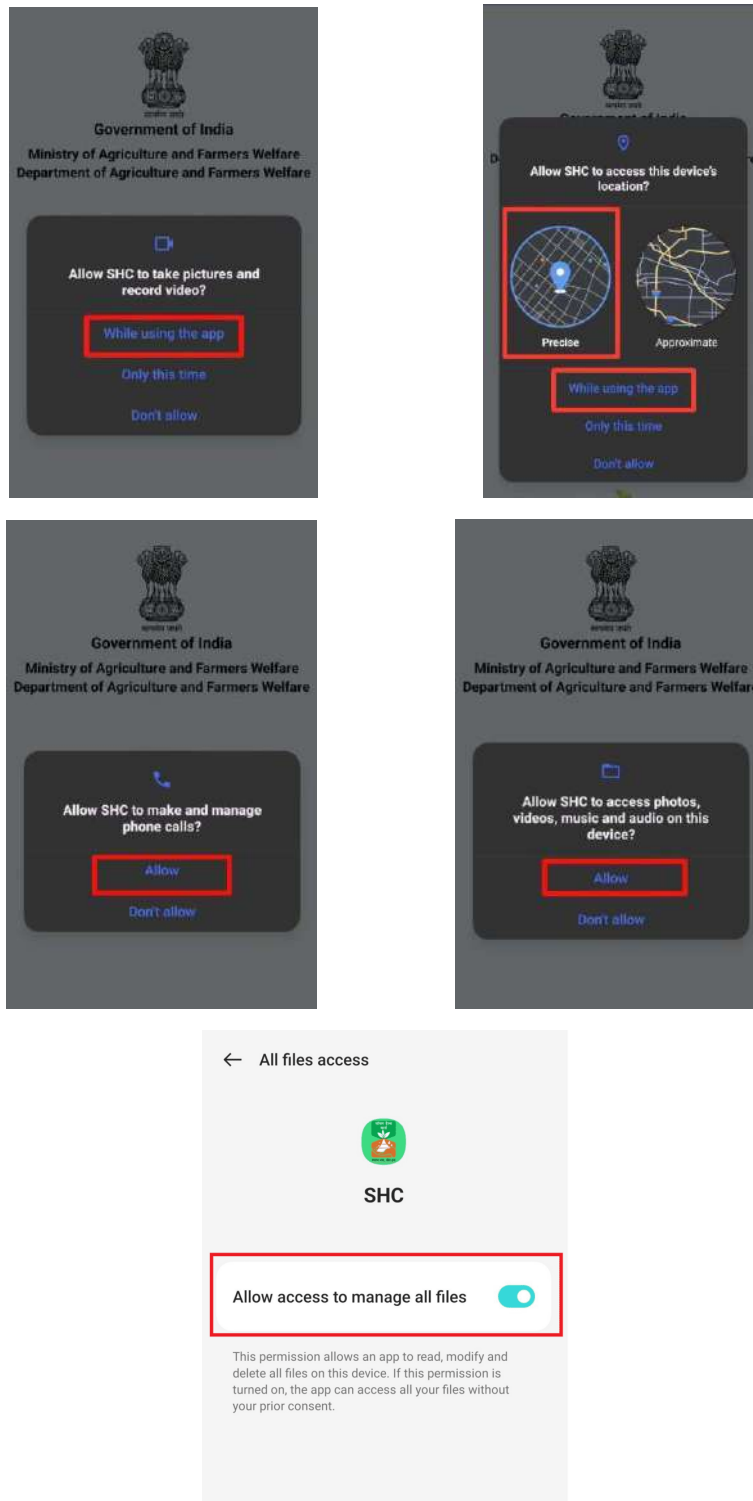
- Android 9.0 and above

App Permission

- Allow SHC to take pictures and record video
 - Select “While using the app” to accept
- Allow SHC to access this device’s location
 - Choose “Precise” and select “While using the app” to accept
- Allow SHC to make and manage phone calls
 - Select “Allow”
- Allow SHC to access photos, videos, music and audio on this device
 - Select “Allow”

Kindly make sure all the above permissions are enabled as per procedure to avoid the interruption in the registration process

- ❖ You may need to enable “Allow access to manage all files” permission for all files access to store & view the offline records and press back button in the top to visit the main page



Login

- Open the SHC mobile application
- You will be navigated to login page with selection of “Soil Health Card” or “School Soil Health Card”, “User Type”, “username” and “Password”
- Choose the type in the radio button of your login
- Select User type as STL or Saathi from the dropdown menu
- Fill out all the credentials and make sure that by default the checkbox “By login, you accept to our Terms of use...” is marked or not, if not need mark the check box
- Click on “LOGIN” button

Government of India
Ministry of Agriculture and Farmers Welfare
Department of Agriculture and Farmers Welfare

LOGIN

☒ Soil Health Card ☐ School Soil Health Card

User Type
STL

Email/Username

Password

☒ By login, you accept to our terms of use
[Terms of use...](#)

LOGIN

[CHANGE LANGUAGE](#)

Soil Health Card

Hi Assistant director of

Logout

Government of India
Ministry of Agriculture and Farmers Welfare
Department of Agriculture and Farmers Welfare

Soil Health Card 2024-25

190

Tests Allotted 190
Samples Collected 21
Test Completed 4

Online Unallotted Test

Farmer Registration

Sample Collection

Incentives to VLSTL

Run Test

Track Sample

Sync (0)

Dashboard

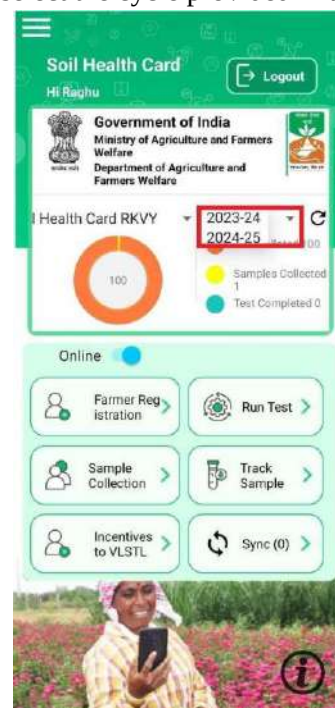
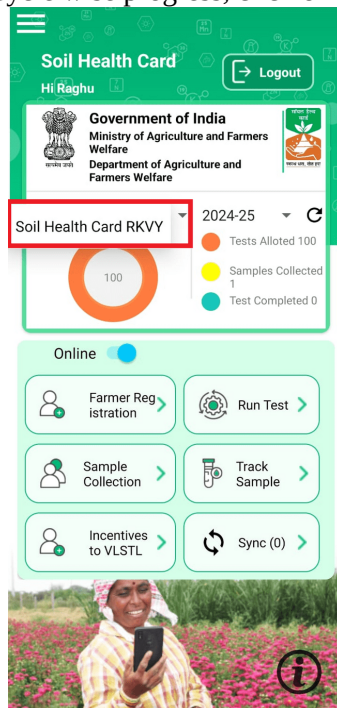
Now, the allotment count is fetched based on the scheme and cycle parameters.

Select Scheme:

To view the scheme wise progress, click on the scheme name and select the scheme name provided in the dropdown

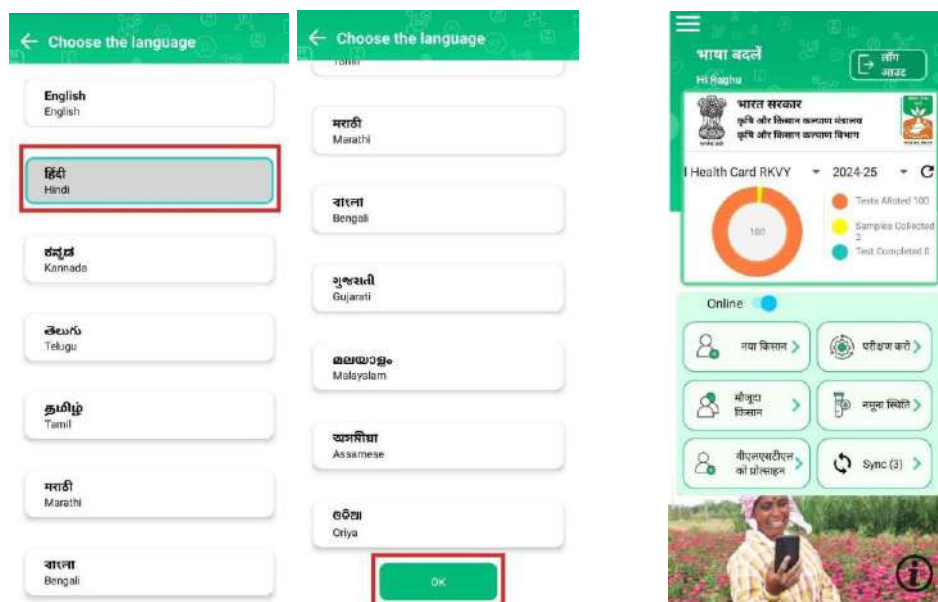
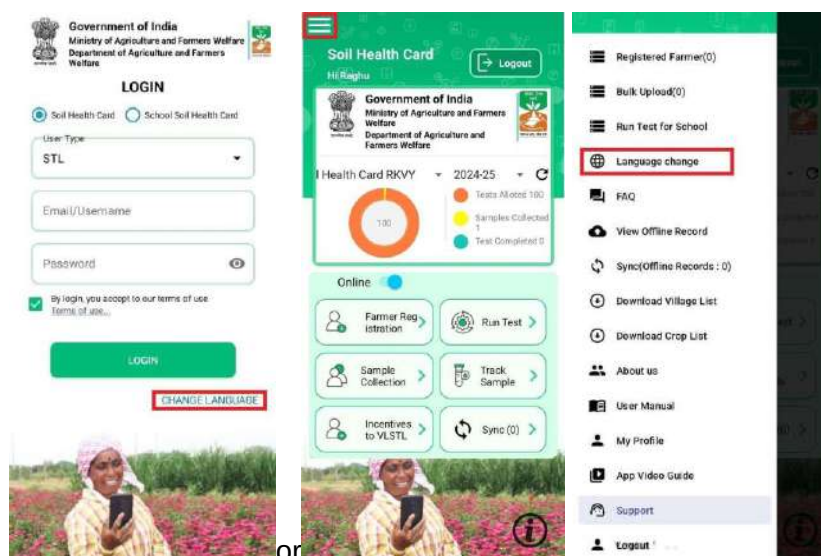
Select Cycle:

To view the Cycle wise progress, click on the year option and select the cycle provided in the dropdown



Change language

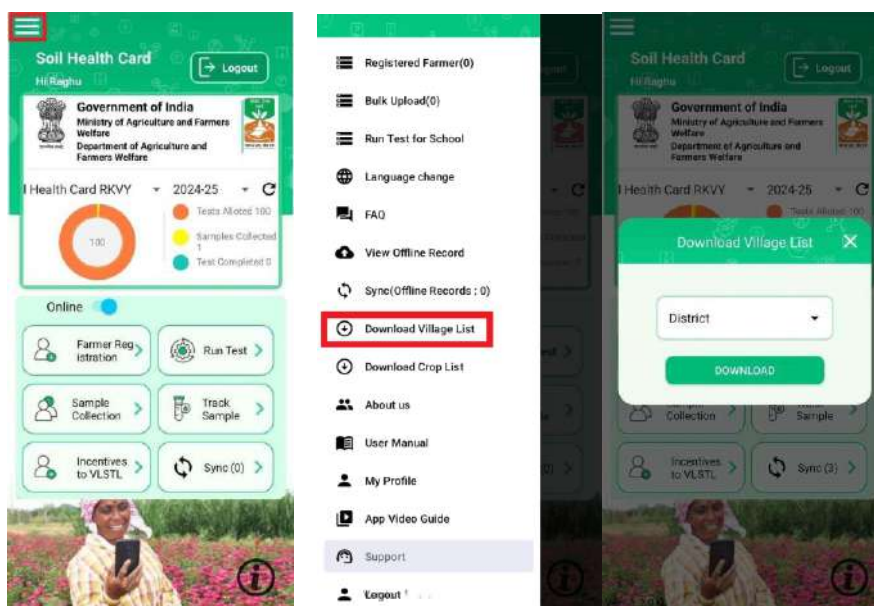
- You can change the language of your preference by clicking on the “CHANGE LANGUAGE” button from the triple bar icon in the top left corner.
- After this, you will be navigated to “Choose the language” page
- Here you will have a list of 11 languages and choose one language whichever you prefer. Click on the “OK” button.
- The App language can also be changed from the login page.



District selection

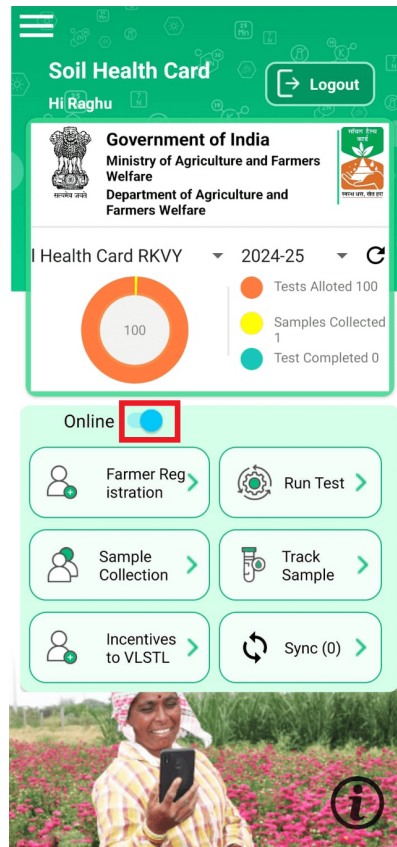
Users can register the samples from the other districts, by downloading the village list available in other districts. The procedure to download the village list is as follows:

- Click on the triple bar icon in the top left corner in the home page
- Select “Download Village List” option
- Select the district from the dropdown of where you are going to collect the samples and press “Download” to download the village list of the selected district
- If the user needs to select the village from other district, they can repeat the same process



Online and Offline Mode

- There is a toggle button provided in the home page to Register farmers and sample collection in Offline and Online mode



Unallotted Tests

Users have the option to collect soil samples without target allotment by activating the 'Unallotted Tests' feature on the home screen. Please note that these tests are not subsidized by the government, therefore testing fees must be collected directly from the farmer or landowner seeking a soil health card.

To enable unallotted tests:

1. Slide the 'Unallotted Tests' toggle to the ON position.
2. A popup will appear; press 'Yes' to confirm.
3. Once activated, users can collect samples without a target allotment.

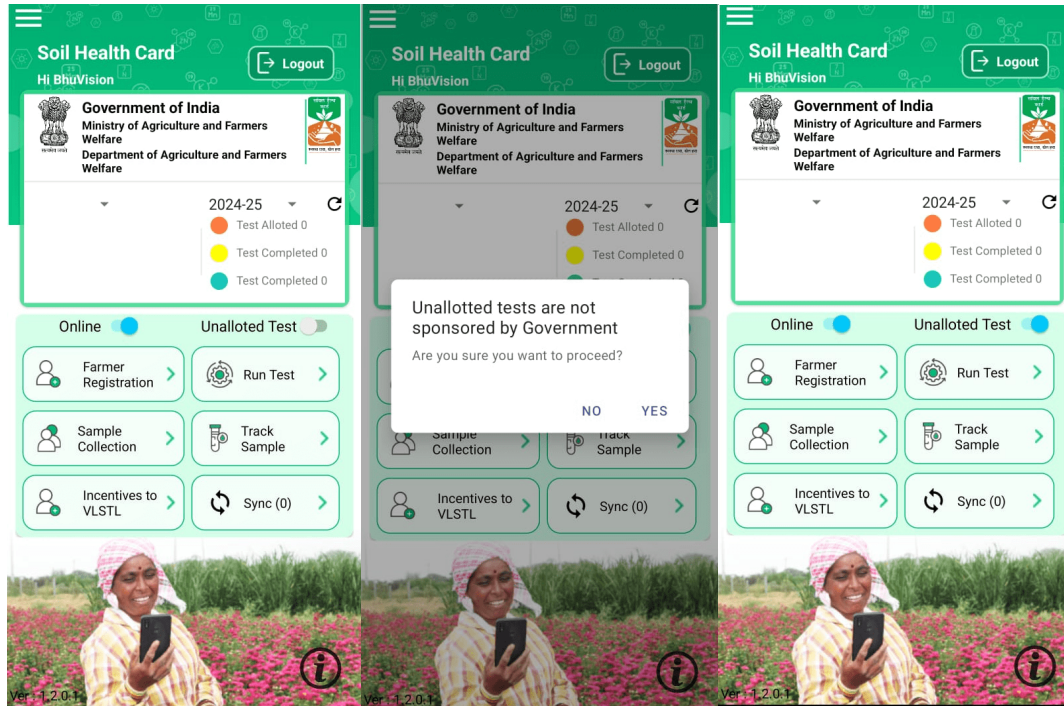


Fig. Enabling unallotted tests

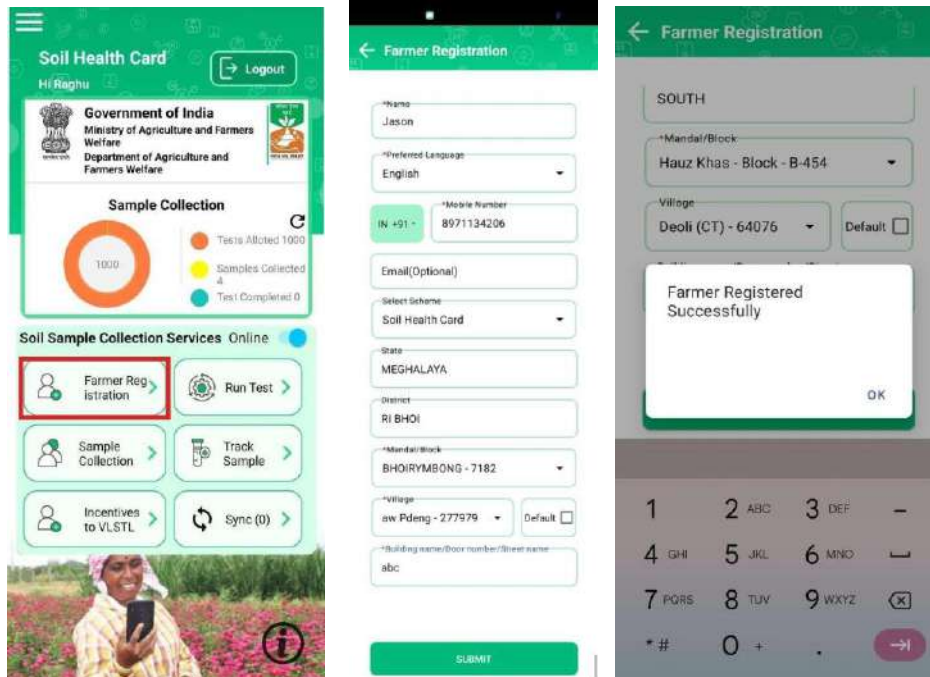
Farmer Registration

(Refer Offline Farmer Registration : Page No.: 25)

User needs to add farmer details for whom the soil sample test is being conducted. The procedure to add the details of the farmers is as follows:

- Click on the “Farmer Registration” button in the home page
- Add the details of the farmer:
 - Name of the farmer
 - Preferred language of the farmer
 - Mobile number of the farmer

- Email(Optional)
- Address of the farmer: Select Block, Village, and fill Building number/ Door number etc. There is a Set default option for Block and village selection for collecting multiple samples in the same village.
- Click on the “Submit” button. You will get a popup with “Farmer registered Successfully”

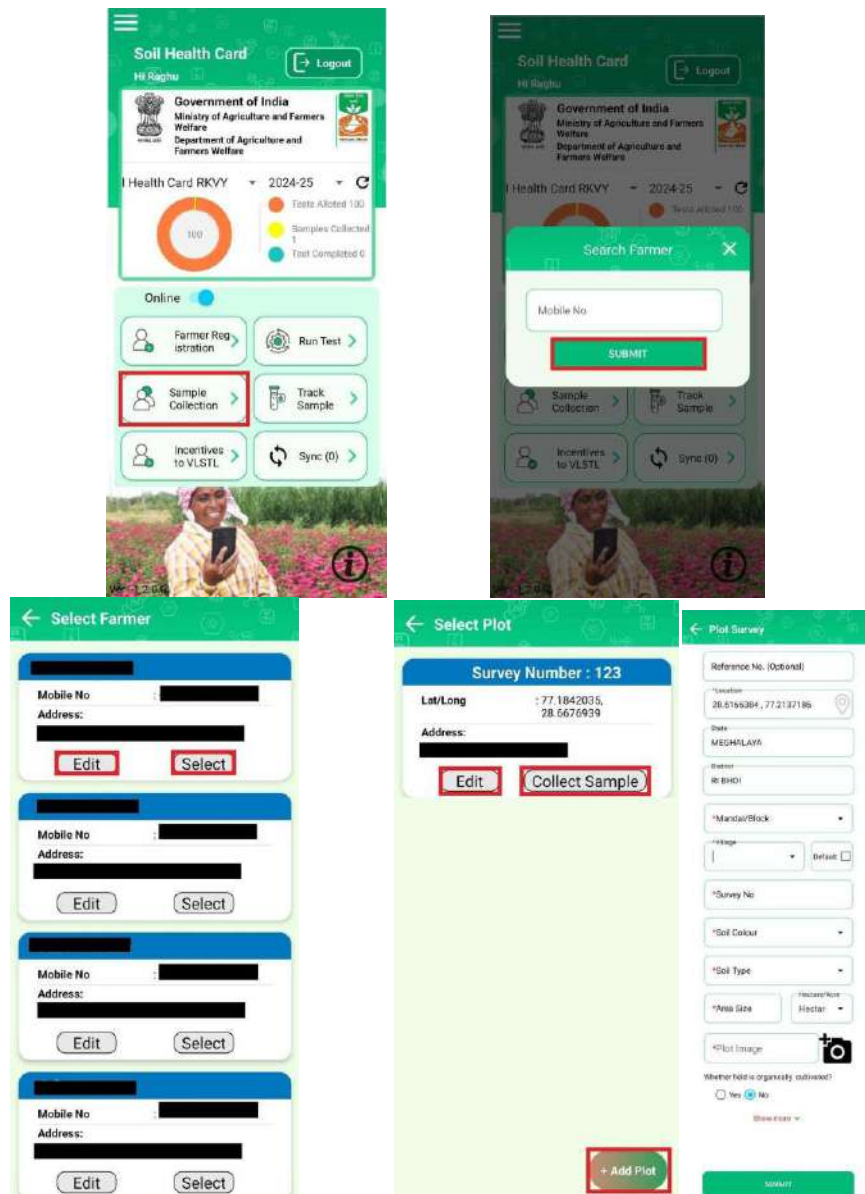


Plot Registration

(Refer Offline Sample collection : Page No.: 25)

Once the farmer details are available in the SHC database / Offline records,

- Click the **Sample Collection** button in the home page.
- Enter the Mobile Number of Registered Farmers
- To edit the farmer details click on Edit option
- To register a plot Click on Add Plot option
- If the Plot has been registered, Click on Collect sample



The user needs to add the plot that is associated with the farmer. This information is mandatory before running the tests. The following plot information are collected from a the farmer:

- Location of the plot: Geo location will be captured automatically (the field officer has to visit the field while registration). User can refresh the geo location by clicking the Map icon on the location field
- State: Based on the STL, it is auto fetched and cannot be changed
- District : Based on the STL, it is auto fetched and can be changed in the Download Village List Option
- Mandal/Block: Dropdown field
- Village: Dropdown field. (For multiple collections in the same village, Click on the Default button)
- Survey Number: The survey number of the plot being added is captured here
- Soil Color: Dropdown field (if one is unaware of this, select the option “unsure”)
- Soil Type: Dropdown field
- Area Size: The size of the plot that is being added (it can either be in acres or hectares)
- Plot Image: Need to take a picture of plot
- Whether field is organically cultivated: Yes or No
- If Certified: Yes/No
- After all the fields are filled, select “Submit” to register the sample

Note:

- ❖ GPS location permission is required to get the plot location
- ❖ Camera permission is required to scan the QR code and to take plot images
- ❖ If any of the app permission is turned off, user cannot register the soil sample

Optional Details:

- Click on “show more” option to add the optional details
- Previous Crop: Dropdown field (list will not be available as the sample has been registered in offline mode)
- Stoniness: A radio button. Can have the value of Yes/No. If the farmer/input operator is not sure of the same, please select “Unsure”
- Land Sloping: A radio button. Can have the value Yes/No. If the farmer/input operator is not sure of the same, please select “Unsure”
- Drainage: A dropdown field
- Water source: A dropdown field

- Water source capacity: This field appears only when the “Water Source” is NOT rainfed. It is a dropdown field
- Electricity connection at Farm: Yes/No
- Electricity Phase: This appears if the “Electricity Connection” value entered by the farmer/input operator is “Yes”
- Irrigation Pump: This appears if the “Electricity Connection” value entered by the farmer/input operator is “Yes”

The image displays two side-by-side screenshots of a mobile application form titled "Plot Survey".

Left Screenshot:

- Header: "Plot Survey" with a back arrow and a "Show less" link.
- Fields:
 - Previous Crop (dropdown)
 - Stoniness? (radio buttons: Yes, No, Unsure; "No" is selected)
 - Land Sloping? (radio buttons: Yes, No, Unsure; "No" is selected)
 - Drainage (dropdown)
 - Water Source (dropdown)
 - Water Source Capacity (dropdown)
 - Electricity Connection At Farm? (radio buttons: Yes, No; "Yes" is selected)
 - Electricity Phase (radio buttons: 1 Phase, 3 Phase; "3 Phase" is selected)
 - Irrigation Pump? (radio buttons: Yes, No; "Yes" is selected)

Right Screenshot:

- Header: "Plot Survey" with a back arrow.
- Fields:
 - Pump size in HP (text input)
 - DT Connection (dropdown)
 - Previous yield (text input with minus and plus buttons)
 - Target Yield (text input)
 - Previous yield price (INR/Quintal) (text input with a rupee symbol)
 - How many trolleys of manure were added to the plot in the previous season? (text input)
 - Fertilizer applied in previous season (Optional) (text input with minus and plus buttons)
- Bottom: A green "SUBMIT" button.

- Pump Size in HP: This appears if the “Irrigation Pump” value entered by the farmer/input operator is “Yes”
- DT Connection: A dropdown field
- Previous Yield: Numeric field (Previous yield obtained)
- Target Yield: Numeric field (Target yield for the current season)
- Previous Yield Price: Numeric field (should be in INR/quintal)
- The amount of manure added: Numeric field
- Fertilizer that was applied in the previous season

After filling the above details click on the “SUBMIT” button.

Sample Collection

(Refer Offline Sample collection : Page No.: 30)

Once the farmer details and plot details are available in the SHC database / Offline records,

- Click the **Sample Collection** button in the home page.
- Enter the Mobile Number of the Registered Farmers
- To edit the farmer details click on Edit option
- To register a plot Click on Add Plot
- If the Plot has been registered, Click on Collect sample

The screenshots illustrate the following steps in the SHC app:

- Home Page:** Displays the user's profile, health card status, and a grid of action buttons. The **Sample Collection** button is highlighted with a red box.
- Search Farmer:** A modal screen to search for a farmer by mobile number. The **SUBMIT** button is highlighted with a red box.
- Select Farmer:** A list of registered farmers. Each entry has **Edit** and **Select** buttons, both highlighted with red boxes.
- Select Plot:** A screen to select a plot for sampling. It shows survey details and a **Collect Sample** button highlighted with a red box.
- Collect Sample:** A screen to enter details for the sample collection, including location, scheme, cycle, and crops. The **SUBMIT** button is highlighted with a red box.
- Collect Sample:** A screen to enter details for the sample collection, including previous crop, yield, target yield, and previous yield price. The **SUBMIT** button is highlighted with a red box.



The user needs to add the sample details. This information is mandatory before running the tests. The following information is collected from the farmer:

- Location of the plot: Geolocation will be captured automatically (the field officer has to visit the field while registering). Users can refresh the geolocation by clicking the update button on the location field
- Select Scheme: Select the Scheme from the dropdown list accordingly.
- Select Cycle: Select the year under which the sample is to be collected
- Preferred Crops: Up to 6 Crops can be selected from the dropdown list. (If the same crops are to be selected for multiple samples, Click on the Default button)
- Click on the QR code symbol to scan the QR code
- After all the fields are filled, select “Submit” to register the sample

Note:

- ❖ GPS location permission is required to get the plot location
- ❖ Camera permission is required to scan the QR code
- ❖ If any of the app permission is turned off, user cannot register the soil sample

Optional Details:

- Click on “show more” option to add the optional details
- Previous Crop: Dropdown field (list will not be available as the sample has been registered in offline mode)

- Previous Yield: Numeric field (Previous yield obtained)
- Target Yield: Numeric field (Target yield for the current season)
- Previous Yield Price: Numeric field (should be in INR/quintal)
- The amount of manure added: Numeric field

After filling the above details click on the “SUBMIT” button.

Run Test

NOTE: The result entry for samples collected without QR code is to be done in the Soil health card portal using STL login.

- Option 1: Click on the “Run Test” button in the home page
 - Camera will open and scan the QR code which is uploaded during plot registration
 - After scanning the QR code, farmer details will be displayed correspond to the sample
 - Click on the Farmer name and Plot Details will be shown. Click on the plot details.
- Option 2: Click on Registered farmers option in the triple bar icon
 - Select the option “collected sample” for the respective farmer
 - Select the option “Run Test” to the respective sample
- Here we need to select the device (Click on the “Select the device” button)
- Device list will display and select the device
- Click on “NEXT” button
 - Static Lab: If you selected “Static lab” as a device, list of parameters will display and need to pass the value for all the parameters
 - Third-party app: If a third-party app is used to perform the test, the third-party app is launched to complete the test. The test results are automatically fetched to the SHC database after the completion of the test.
 - Click on the “SUBMIT” button

Note:

- ❖ Run Test option is enabled only to STL users. Saathi cannot run the test.

Run Test: Option 1



Run Test	Test Result Entry
Farmer Details	Nitrogen (N)(kg/ha)
Ramesha Kumar - 2	Phosphorus (P)(Kg/ha)
Mobile No : +919898979797	Potassium (K)(Kg/ha)
Computed ID : SHC2023-271-16-ow3o	Sulphur (S)(ppm)
Soil Type : Arid or Desert Soil	Zinc (Zn)(ppm)
Plot Location : XX.XXXXXX, XX.XXXXXX	Copper (Cu)(ppm)
Soil Colour : Yellow	Iron (Fe)(ppm)
Preferred Crop : Carrot	Organic Carbon (OC)(w%)
Area Size : 2 Hector	Boron (B)(ppm)
Survey No : 111/2B	Manganese (Mn)(ppm)
Sample collected : 2023-09-28T16:53:39.933Z	EC(dS/m)
Status : Pending	pH
Select the device	Submit
NEXT	

Run Test: Option 2

Registered Farmer(0)

Bulk Upload(0)

Run Test for School

Language change

FAQ

View Offline Record

Sync(Offline Records : 0)

Download Village List

Download Crop List

About us

User Manual

My Profile

App Video Guide

Support

Logout 1.2.0.0 - RELEASE

Bulk Uploaded Farmer

Ramesha Kumar - 2

Mobile No : +91 9898979797

Address: A3, Bhalswa Jahangir Pur (CT), NORTH, DELHI, Bhalswa Jahangir Pur (CT), NORTH, DELHI

Edit

Collected Sample

Sample Collection

Ramesha Kumar - 8

Mobile No : +91 9898979803

Address: A9, Bhalswa Jahangir Pur (CT), NORTH, DELHI, Bhalswa Jahangir Pur (CT), NORTH, DELHI

Edit

Collected Sample

Sample Collection

Ramesha Kumar - 1

Mobile No : +91 9898979796

Address: A2, Bhalswa Jahangir Pur (CT), NORTH, DELHI, Bhalswa Jahangir Pur (CT), NORTH, DELHI

Edit

Collected Sample

Sample Collection

Ramesha Kumar - 5

Mobile No : +91 9898979800

Address: A6, Bhalswa Jahangir Pur (CT), NORTH, DELHI,

Soil Samples

Plot Location : XX.XXXXX, XX.XXXXX

Soil Colour : Yellow

Preferred Crop : Carrot

Area Size : 2

Survey No : 111/2B

Computed ID : SHC2023-271-16-ow3o

Sampling Date : 2023-09-28T16:53:39.934Z

Status : Test Pending

Run Test

Edit Test

Run Test

Farmer Details

Ramesha Kumar - 2

Mobile No : +919898979797

Computed ID : SHC2023-271-16-ow3o

Soil Type : Arid or Desert Soil

Plot Location : XX.XXXXXX, XX.XXXXXX

Soil Colour : Yellow

Preferred Crop : Carrot

Area Size : 2 Hector

Survey No : 111/2B

Sample collected : 2023-09-28T16:53:39.933Z

Status : Pending

Select the device

NEXT

Test Result Entry

Nitrogen (N)(kg/ha)

Phosphorus (P)(Kg/ha)

Potassium (K)(Kg/ha)

Sulphur (S)(ppm)

Zinc (Zn)(ppm)

Copper (Cu)(ppm)

Iron (Fe)(ppm)

Organic Carbon (OC)(w%)

Boron (B)(ppm)

Manganese (Mn)(ppm)

EC(dS/m)

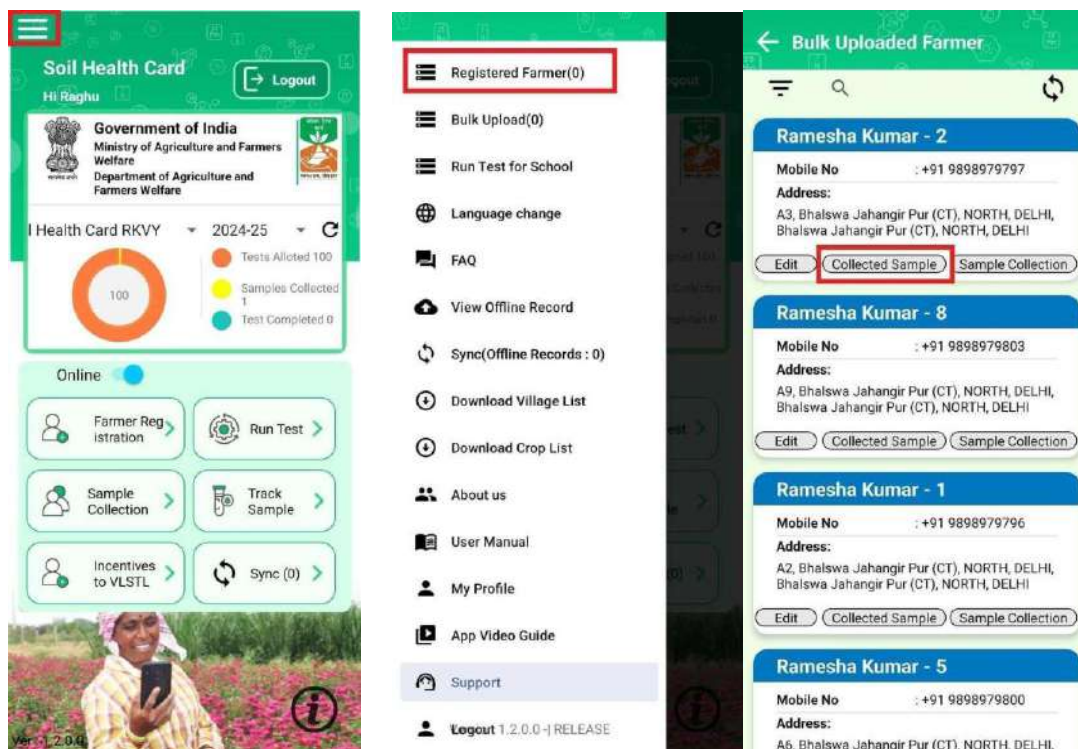
pH

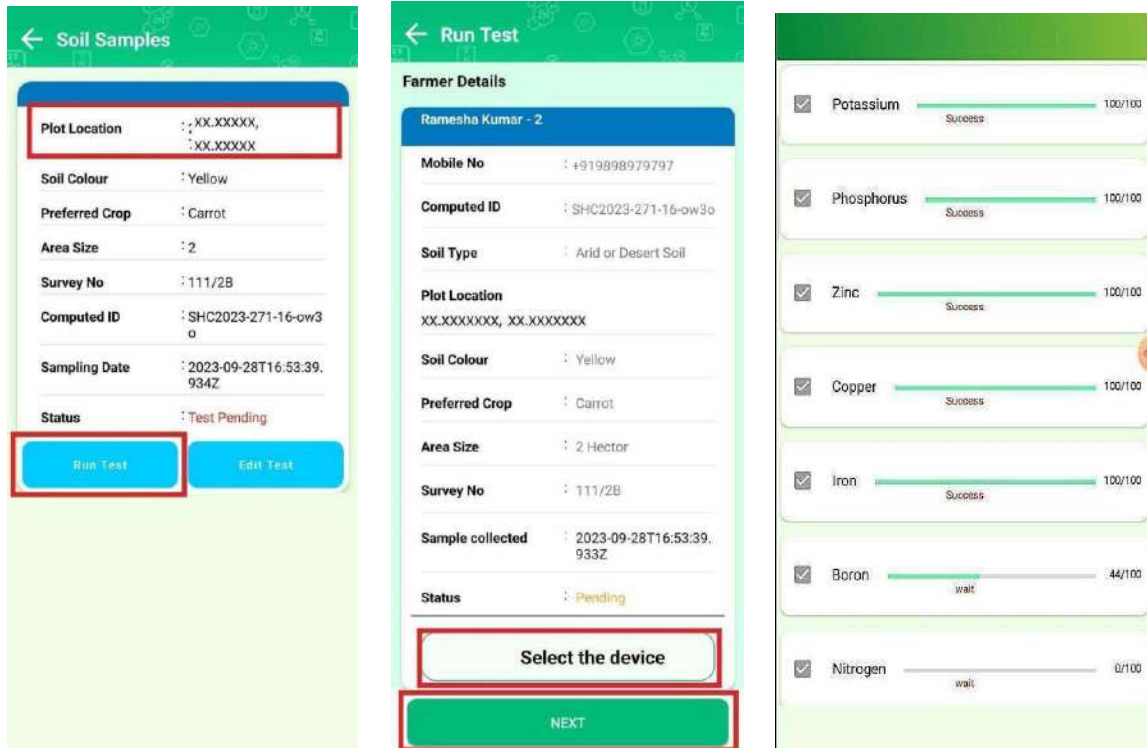
Submit

Run Test: Private Labs

For Private labs, the option to run the test is enabled so that the soil analysis is performed using third-party apps. To run the test follow these steps:

1. Navigate to the 'Registered Farmers' page and search for the desired farmer.
2. Click on the 'Collected Sample' button to view the soil samples collected for that farmer. The sample details will be displayed.
3. Click the 'Run Test' button to proceed.
4. The farmer's details will appear. From the dropdown menu, select the device you wish to use for the soil test, then click the 'Next' button.
5. A third-party application will launch. Click the 'Accept' button to continue.
6. Follow the guidelines provided by the device manufacturer to perform the soil analysis.
7. Once the soil analysis is completed successfully, the SHC (Soil Health Card) application will reopen displaying the test results.
8. Click the 'Proceed' button. After the test results are uploaded, users can view the Soil Health Card either from the 'Registered Farmers' page or the 'Track Sample' page.
9. If a test fails in the third-party application, users can simply repeat the procedure outlined to perform the tests again.





Third-party App

NOTE:

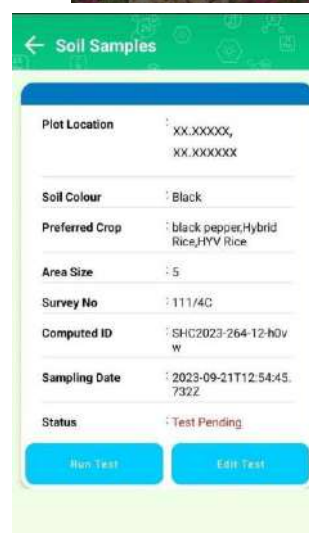
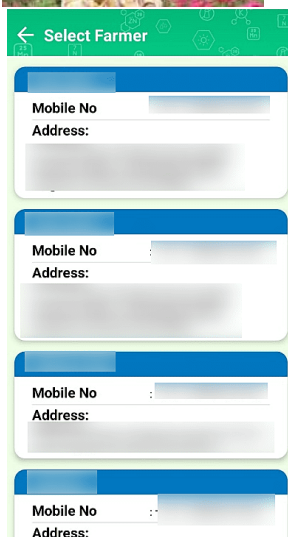
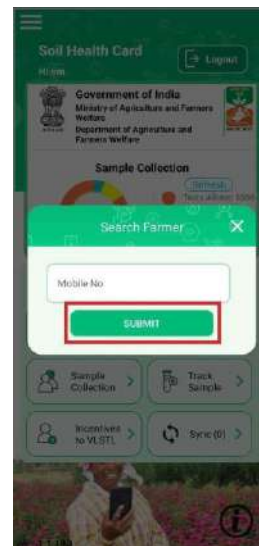
If the plot location and image are missing, users should utilize the edit option to update both the plot image and location.



Track Sample

Here you can check the status of your soil sample.

- Click on the “Track Sample” button in the home page
- Search farmer dialog box will display, here we need to enter the mobile number which was entered during the farmer registration, and click on “SUBMIT” button
- Farmers list which is associated with the entered mobile number will display, select the farmer and the respective plot to which you wish to check the status.
- User can edit the plot/sample details using “Edit Test” option
- User can run the test without scanning the QR code using “Run Test” option in the track sample page



Offline Mode

In offline mode, users can do the farmer registration and collect Samples for offline registered Samples. SHC App will work in offline mode if the internet or network is not available. Users can use offline mode by selecting the online/offline toggle button.

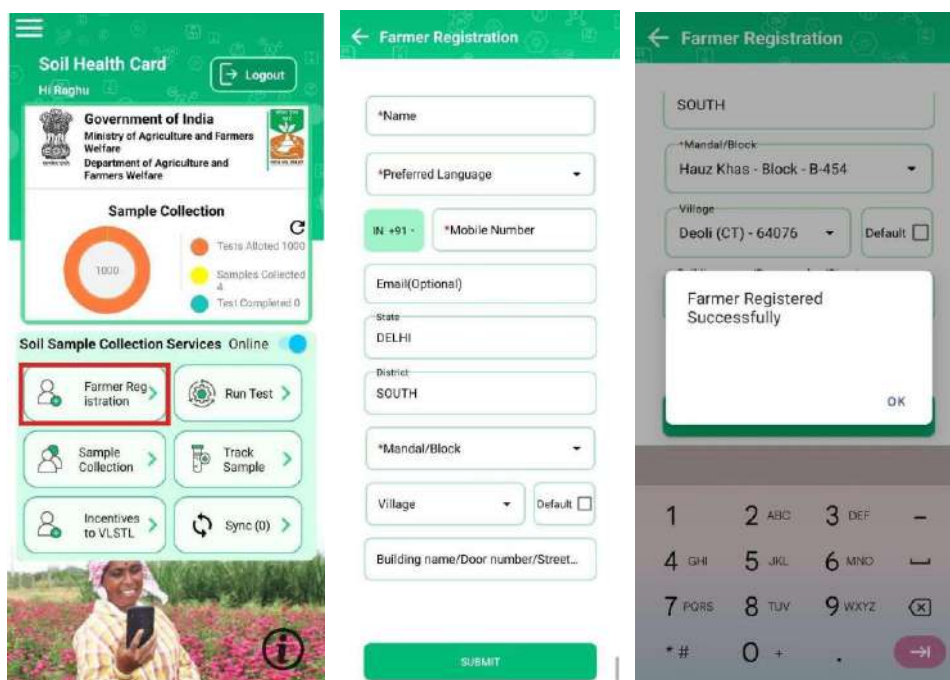
Note:

- ❖ Login has to be done while the internet is connected
- ❖ Village list for the registration should be downloaded while the internet is connected, if the sample is collected from different district

Farmer Registration

User needs to add farmer details for whom the soil sample test is being conducted. The procedure to add the details of the farmers is as follows:

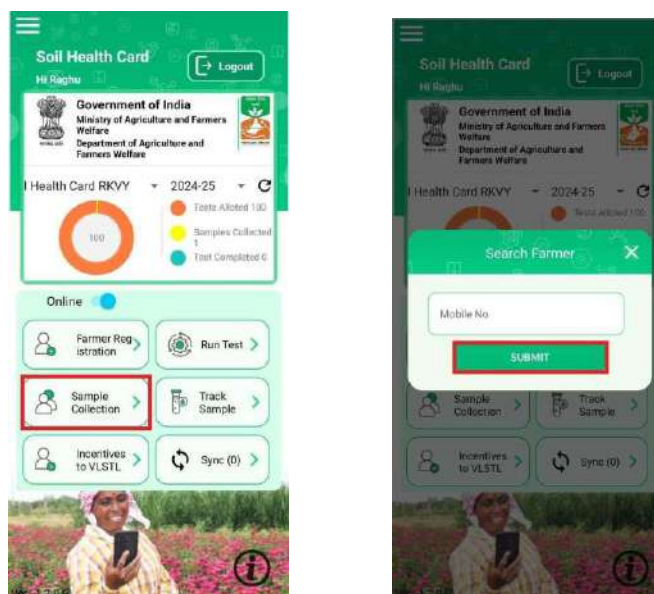
- Click on the “Farmer Registration” button in the home page
- Add the details of the farmer:
 - Name of the farmer
 - Preferred language of the farmer
 - Mobile number of the farmer
 - Email(Optional)
 - Address of the farmer: Select Block, Village, and fill Building number/ Door number etc. There is a Set default option for Block and village selection for collecting multiple samples in the same village.
- Click on the “Submit” button. You will get a popup with “Farmer registered Successfully”



Plot Registration

Once the farmer details are available in the SHC database / Offline records,

- Click the **Sample Collection** button in the home page.
- Enter the Mobile Number of Registered Farmers
- To edit the farmer details click on Edit option
- To register a plot Click on Add Plot option
- If the Plot has been registered, Click on Collect sample



The image displays three mobile application screens for agricultural data collection:

- Select Farmer:** A screen with a green header and four identical forms for adding farmers. Each form includes fields for Mobile No. and Address, with 'Edit' and 'Select' buttons below.
- Select Plot:** A screen with a green header and a form for adding a new plot. It shows 'Survey Number : 123' and fields for Lat/Long, Address, and a 'Collect Sample' button. A '+ Add Plot' button is at the bottom.
- Plot Survey:** A screen with a green header and a form for collecting sample data. It includes fields for Reference No. (Optional), Location, State, District, Village, Survey No., Soil Colour, Soil Type, Area Size, and Plot Image. A 'Submit' button is at the bottom.

The user needs to add the plot that is associated with the farmer. This information is mandatory before running the tests. The following plot information are collected from a the farmer:

- Location of the plot: Geo location will be captured automatically (the field officer has to visit the field while registration). User can refresh the geo location by clicking the Map icon on the location field
- State: Based on the STL, it is auto fetched and cannot be changed
- District : Based on the STL, it is auto fetched and can be changed in the Download Village List Option
- Mandal/Block: Dropdown field
- Village: Dropdown field. (For multiple collections in the same village, Click on the Default button)
- Survey Number: The survey number of the plot being added is captured here
- Soil Color: Dropdown field (if one is unaware of this, select the option “unsure”)
- Soil Type: Dropdown field
- Area Size: The size of the plot that is being added (it can either be in acres or hectares)
- Plot Image: Need to take a picture of plot
- Whether field is organically cultivated: Yes or No
- If Certified: Yes/No
- After all the fields are filled, select “Submit” to register the sample

Note:

- ❖ GPS location permission is required to get the plot location
- ❖ Camera permission is required to scan the QR code and to take plot images
- ❖ If any of the app permission is turned off, user cannot register the soil sample

Optional Details:

- Click on “show more” option to add the optional details
- Previous Crop: Dropdown field (list will not be available as the sample has been registered in offline mode)
- Stoniness: A radio button. Can have the value of Yes/No. If the farmer/input operator is not sure of the same, please select “Unsure”
- Land Sloping: A radio button. Can have the value Yes/No. If the farmer/input operator is not sure of the same, please select “Unsure”
- Drainage: A dropdown field
- Water source: A dropdown field
- Water source capacity: This field appears only when the “Water Source” is NOT rainfed. It is a dropdown field
- Electricity connection at Farm: Yes/No
- Electricity Phase: This appears if the “Electricity Connection” value entered by the farmer/input operator is “Yes”
- Irrigation Pump: This appears if the “Electricity Connection” value entered by the farmer/input operator is “Yes”
- Pump Size in HP: This appears if the “Irrigation Pump” value entered by the farmer/input operator is “Yes”
- DT Connection: A dropdown field
- Previous Yield: Numeric field (Previous yield obtained)
- Target Yield: Numeric field (Target yield for the current season)
- Previous Yield Price: Numeric field (should be in INR/quintal)
- The amount of manure added: Numeric field
- Fertilizer that was applied in the previous season

After filling the above details click on the “SUBMIT” button.

←

Plot Survey

Show less ^

Previous Crop

Stoniness ?

☐ Yes
☒ No
☐ Unsure

Land Sloping ?

☐ Yes
☒ No
☐ Unsure

Drainage

Water Source

Water Source Capacity

Electricity Connection At Farm?

☒ Yes
☐ No

Electricity Phase

☐ 1 Phase
☒ 3 Phase

Irrigation Pump ?

←

Plot Survey

Irrigation Pump ?

☒ Yes
☐ No

Pump size in HP

DT Connection

Previous yield

-

+

Target Yield

Previous yield price (INR/Quinta)

₹

How many tonnes of manure were added to the plot in the previous season?

Fertilizer applied in previous season (Optional)

-

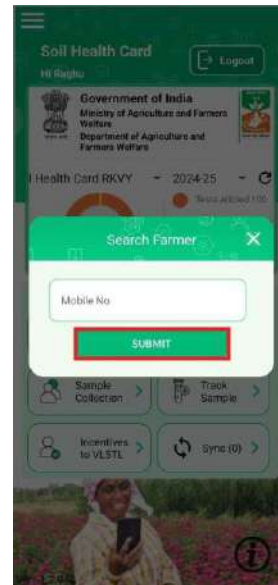
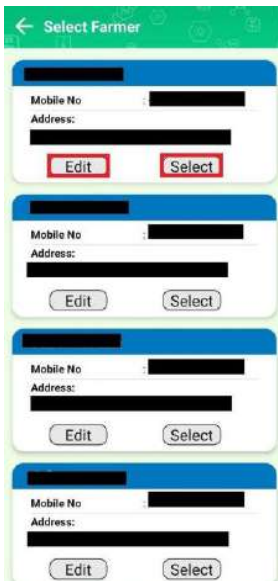
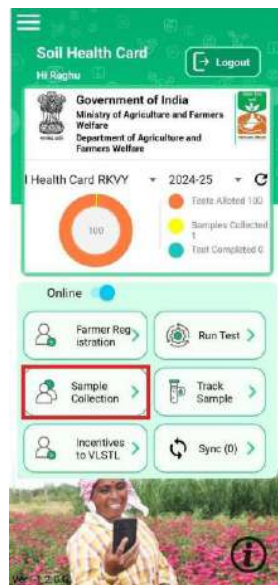
+

SUBMIT

Sample Collection

Once the farmer details and plot details are available in the SHC database / Offline records,

- Click the **Sample Collection** button in the home page.
- Enter the Mobile Number of Registered Farmers
- To edit the farmer details click on Edit option
- To register a plot Click on Add Plot
- If the Plot has been registered, Click on Collect sample



The user needs to add the sample details. This information is mandatory before running the tests. The following information are collected from a the farmer:

- Location of the plot: Geo location will be captured automatically (the field officer has to visit the field while registration). User can refresh the geo location by clicking the Map icon on the location field
- **Select Scheme:** Select the Scheme from the dropdown list accordingly.
- **Select Cycle:** Select the year under which the sample is to be collected
- Preferred Crops: Upto 6 Crops can be selected from the dropdown list. (If the same crops are to be selected for multiple samples, Click on the Default button)
- QR code cannot be scanned in offline mode
- After all the fields are filled, select “Submit” to register the sample
- Pop up message with a sample ID will be displayed. Note down the sample ID and click on OK

Note:

- ❖ GPS location permission is required to get the plot location
- ❖ Camera permission is required to scan the QR code
- ❖ If any of the app permission is turned off, user cannot register the soil sample

Optional Details:

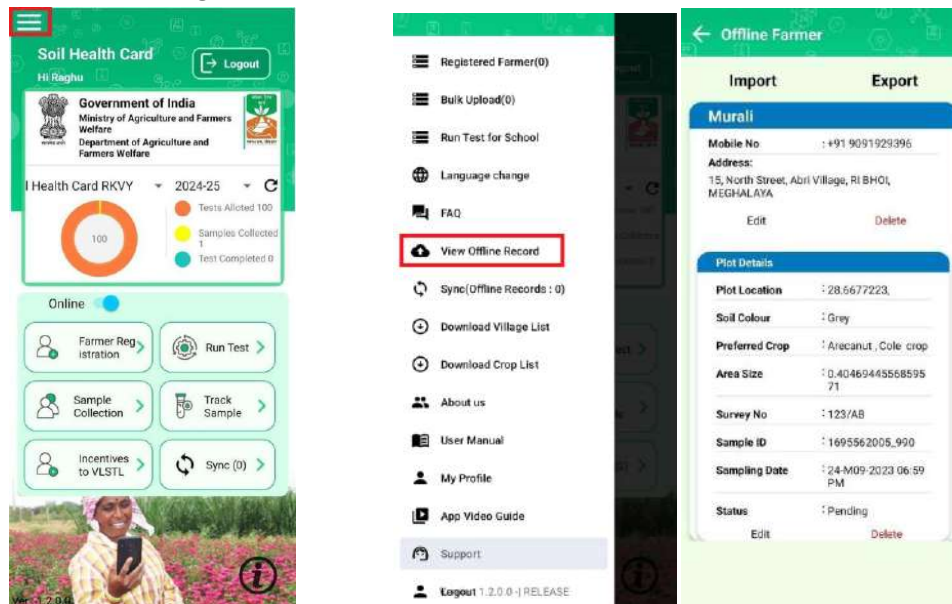
- Click on “show more” option to add the optional details

- Previous Crop: Dropdown field (list will not be available as the sample has been registered in offline mode)
- Previous Yield: Numeric field (Previous yield obtained)
- Target Yield: Numeric field (Target yield for the current season)
- Previous Yield Price: Numeric field (should be in INR/quintal)
- The amount of manure added: Numeric field

After filling the above details click on the “SUBMIT” button.

View Offline Record:

- Click on the triple bar icon in the top left corner in the home page
- Click on “View Offline Record”
- The list of offline registered farmers details is shown on the screen.



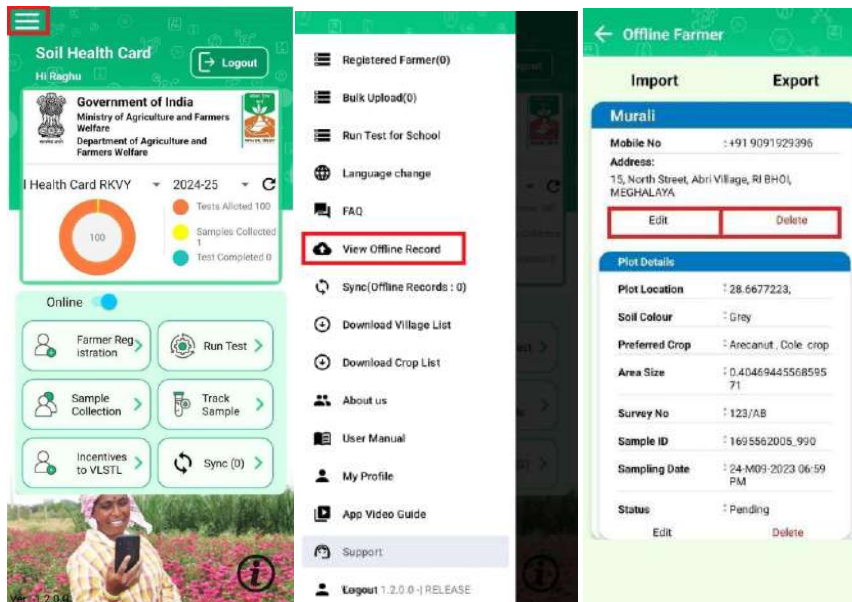
Note:

- After Import, the user will not be able to see the offline records, if the samples are collected 1.1.20.1 or earlier, due to addition of block feature from 1.1.21.0
- If the samples cannot be synced, it can be exported again and share it to our customer support team

Edit/Delete Details of Farmers Registered:

The details of the farmers collected in offline mode like name, Mobile number & Address can be edited. The offline farmers registered can also be deleted before Syncing to the server.

- Click on the triple bar icon in the top left corner in the home page
- Click on “View Offline Record”
- Click on the Edit button below the farmer details
- Edit the Farmer details and click Submit button
- Click the Delete button to delete the offline registered farmer details.

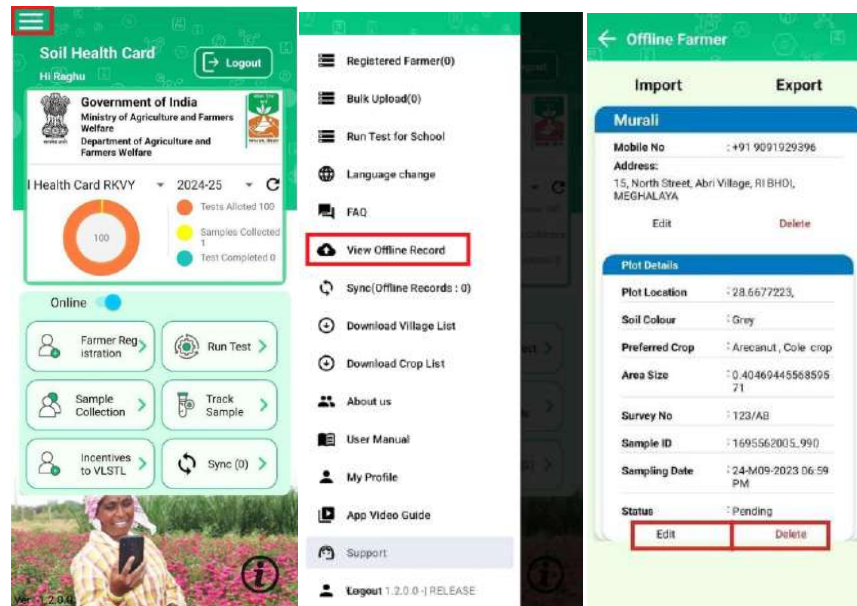


Edit/Delete Details of Sample collection:

The details of the samples collected in offline mode like Crop, Village, soil details & survey number

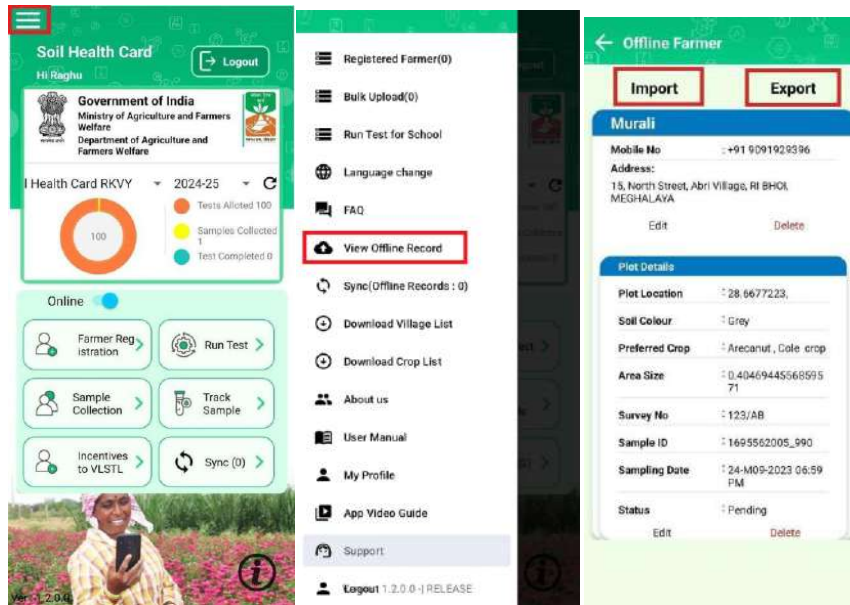
can be edited. The offline samples registered can also be deleted before Syncing to the server.

- Click on the triple bar icon in the top left corner in the home page
- Click on “View Offline Record”
- Click on the Edit button below the plot details
- Edit the sample details and click Submit button
- Click the Delete button to delete the offline samples registered



Import / Export the Offline Records:

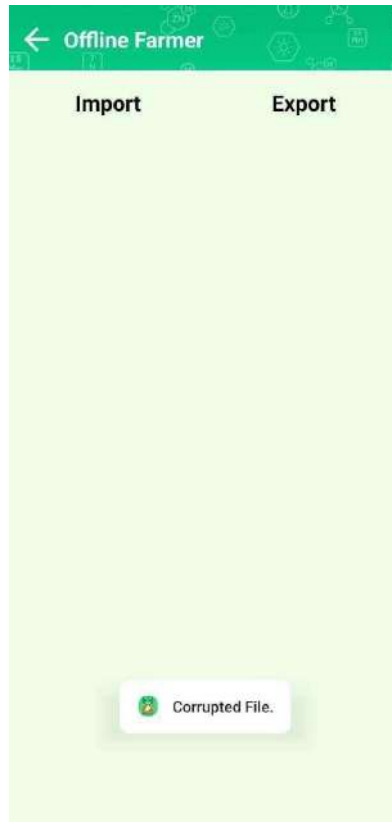
- Click on the triple bar icon in the top left corner in the home page
- Click on “View Offline Record”
- Click on “Export”



- Users can export the data collected in offline mode, if they face any issues during synchronization.
- Export can be done in different mediums (ex: e-mail, whatsapp, etc.)
- Export file will be in **txt** format
- After the export, If the file is not shared, find the json formatted file in below path in your mobile



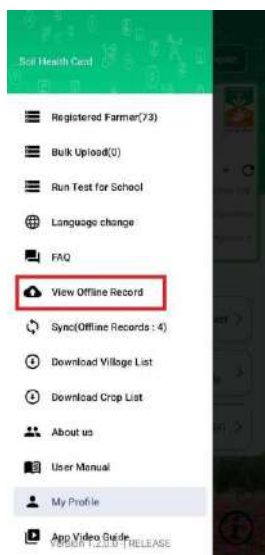
- Click on “Import” to import the last exported file of the same Login. If the user logs in with a different ID the log file will not get imported, and “Corrupted file” message will be displayed.



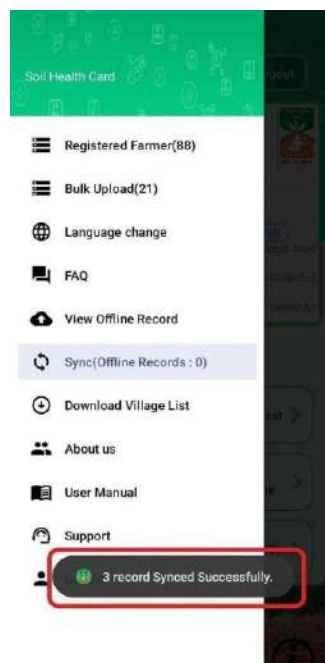
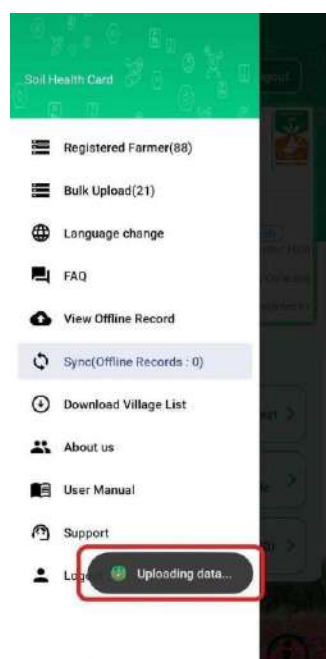
Sync offline registered data to online:

- Users have to sync the data to upload online and to view in track samples. Users are restricted to sync the data only between 5PM to 10AM

- To Sync the data collected in offline mode to the SHC server, you need a stable internet connection. Turn on the internet.
- Click on the triple bar icon in the top left corner in the home page
- The number of records collected in offline mode is displayed in front of the Sync button. Press the Sync
- “Uploading Data” will be displayed.
- After a few seconds (depending on the number of farmers registered & samples collected in offline mode), “Sync successful” message is displayed.
- If “Error connecting server, please try again” is displayed on the screen. Click the Sync button again.



or

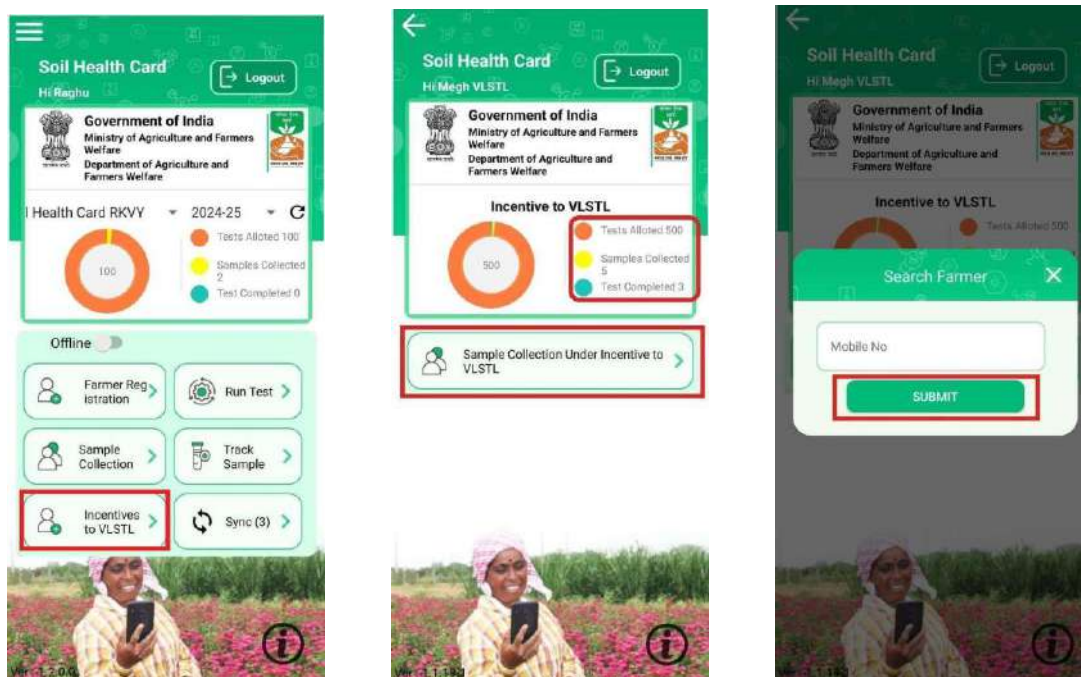


Sample Collection under Incentive to VLSTL:

- Once the farmer details are available in the SHC database / Offline records, click the **Incentive to VLSTL** button in the home page.
- Click on “Sample Collection under Incentive to VLSTL”
- Enter the mobile number and click “Submit” button to start registering the sample
- Separate dashboard is available for Incentive to VLSTL page

Note:

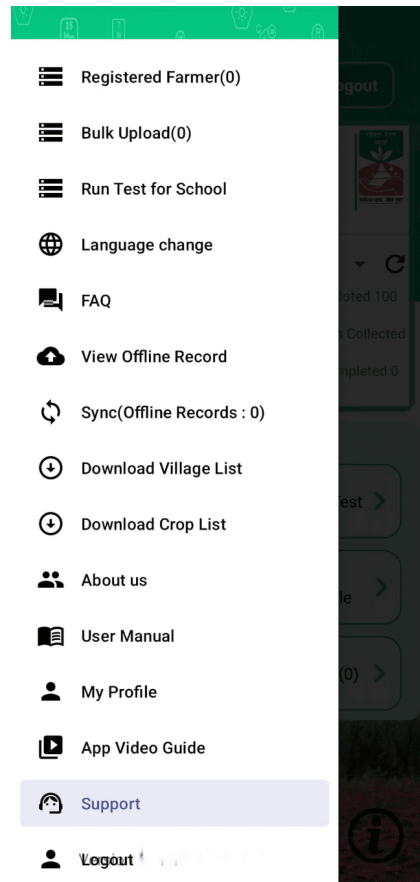
- ❖ Only Village Level STL user can access this page for the sample collection



- Follow the same procedure of sample collection to register the plot under Incentive to VLSTL

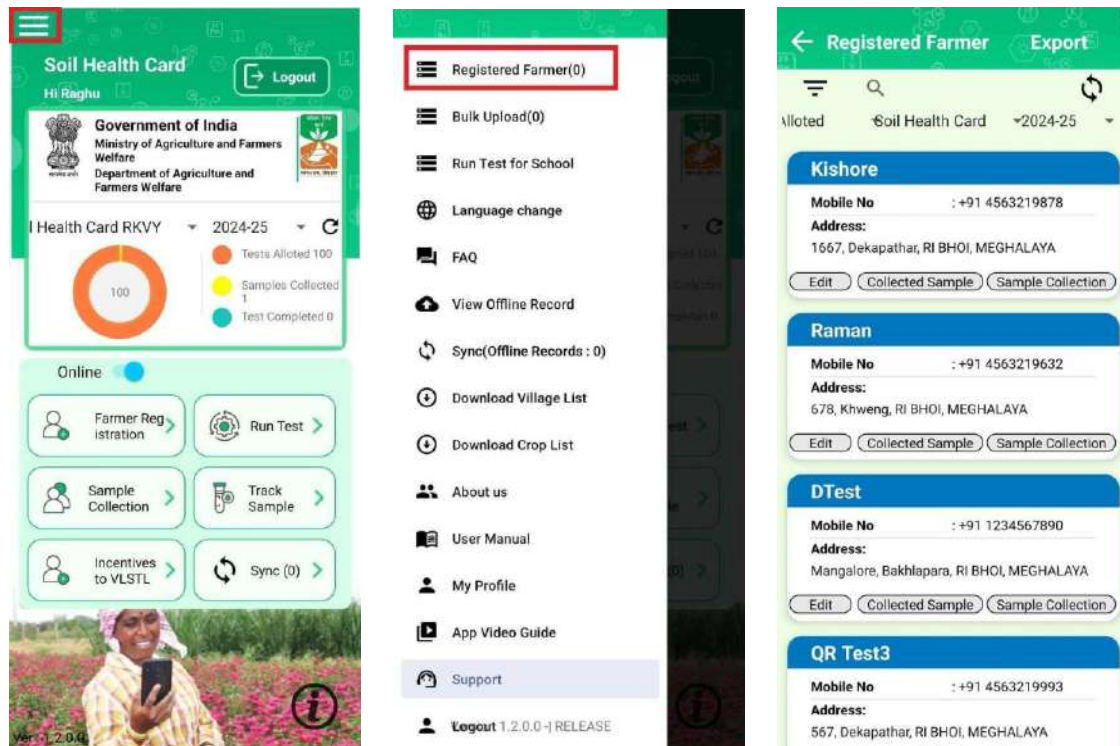
Triple Bar Icon Options

- Registered Farmers (0)
- Bulk Upload (0)
- Run Test for School
- Language Change
- FAQ
- View Offline Record
- Sync (Offline Records: 0)
- Download Village List
- Download Crop List
- About us
- User Manual
- My Profile
- App Video Guide
- Support
- Logout



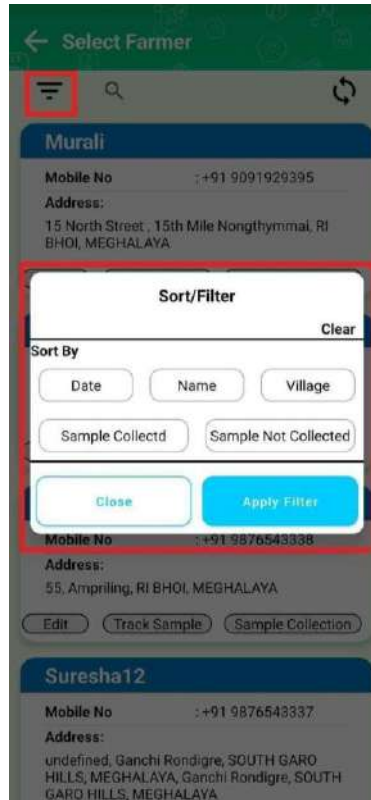
Registered Farmer's List:

- Users can view/Edit the online registered farmers under the STL/Saathi login
- Click on the triple bar icon in the top left corner in the home page



- Users can edit the online registered farmer's details
 - Select "Edit" option under the farmer's details
 - Modify the details and Submit to update the details
- Users can track the sample under this section of the particular farmer
- Users can also collect the soil sample under this section of the particular farmer
- Registered Farmer page can be sorted by
 - Date
 - Farmer Name
 - Village
 - Samples collected / Samples not collected
- Select the sort option and click "Apply filter". If you want to clear the filter, click "Clear" button on the filter page
- Registered Farmer page can also be sorted by
 - Allotted/Unallotted
 - Scheme
 - Cycle
- Registered Farmer page can be filtered by
 - Farmer name

- Mobile number
- If the farmer's list is not updated, “Refresh” button is available to update the registered farmer's page



Bulk Upload:

- Users can access the bulk uploaded data of farmer registration and sample collection uploaded in the STL login under Bulk upload (2023-24) option in the admin panel
- STL users cannot Run the test of bulk uploaded data of 2023-24 until STL/saathi users update the plot geolocation and the plot image by visiting the field using the mobile application.

Procedure to upload the excel file by the STL user:

Step1: Download Sample file By clicking on Download Excel file

Step2: Fill the Sample File

Step3: Select Farmer's District, Sub district, Village and Crops(Upto 6 crops) and results.

Step4: Click on Upload File button and Upload the file

Step5: Click on Submit button

Step6: After upload is successful, use the export option in the 'Soil Health Cards' page and check if all the records are uploaded. If any records are missing in exported file, upload only missing records separately in the excel file

Procedure to download the bulk upload data in mobile app:

- Click on the triple bar icon in the top left corner in the home page
- Click on “Bulk Upload”
- Click on the Download button.
- Select the Block and Village and Download.
- To update the Plot details of the Farmers
- Click on “Collected Sample”
- Select “Edit Test” button
- By default location will be displayed as 0.0, 0.0
- Click on map button in the location field to refresh the geo location
- Verify all other fields uploaded using excel file such as mandal, preferred crops, survey no, soil color, soil type
- Take the plot image
- Note down the sample ID available in the QR code field
- Click “submit” to update the plot details
- Once the plot details has been updated, this farmer details and sample details will be enabled in the Registered farmer’s page for

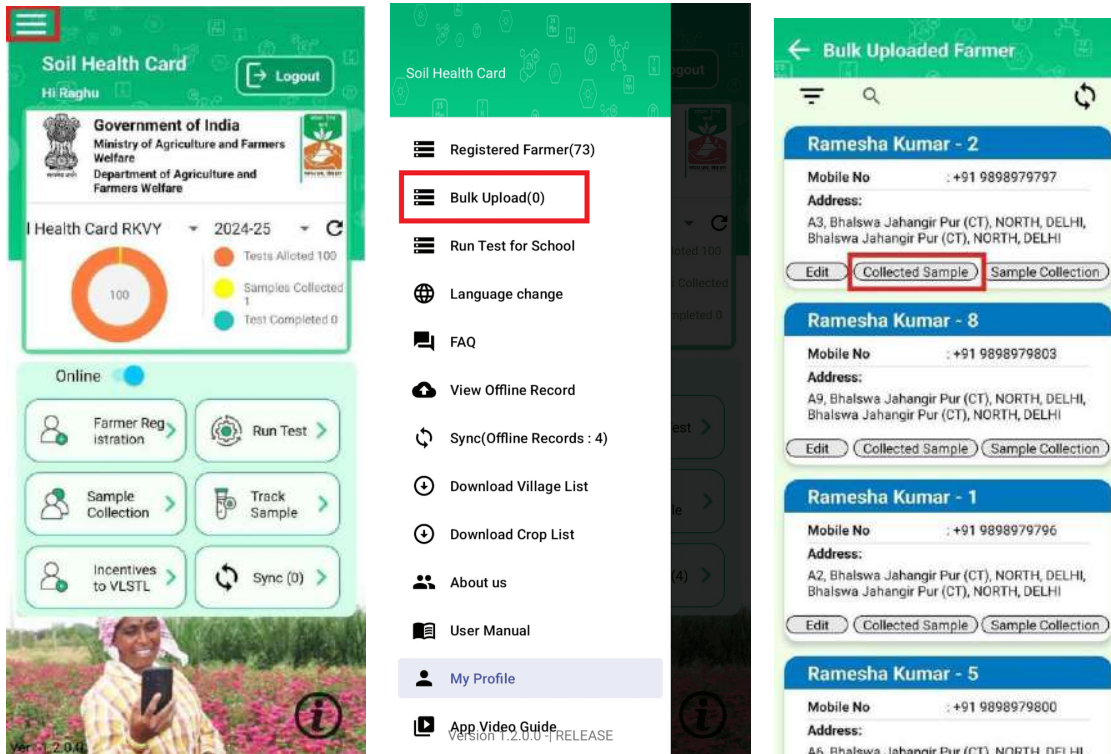
Procedure to update the plot location and image:

- Click on the triple bar icon in the top left corner in the home page
- Click on “Bulk Upload”
- Click on “Collected Sample”
- Select “Edit Test” button
- By default location will be displayed as 0.0, 0.0
- Click on map button in the location field to refresh the geo location
- Verify all other fields uploaded using excel file such as mandal, preferred crops, survey no, soil color, soil type
- Take the plot image
- Note down the sample ID available in the QR code field

- Click “submit” to update the plot details
- Once the plot details have been updated, this farmer details and sample details will be enabled for printing the Soil health card.

Note:

- ❖ User cannot Run the test in Bulk Upload option
- ❖ User cannot Run the test in Registered farmer page without updating the plot details in Bulk Upload



Soil Samples

Plot Location : 0.0, 0.0

Soil Colour : Yellow

Preferred Crop : Carrot

Area Size : 2

Survey No : 111/2B

Computed ID : SHC2023-271-16-ow30

Sampling Date : 2023-09-28T16:53:39.934Z

Status : Test Pending

Run Test

Edit Test

Plot Survey

*Location : 0.0, 0.0

State : DELHI

District : NORTH

Sub District : Civil Lines

*Mandal/Block : Udupi

Village : Bhalswa Jahangir Pur (CT)

*Preferred Crops : Carrot

*Survey No : 111/2B

*Soil Colour : Yellow

*Soil Type : Arid or Desert Soil

Plot Survey

*Location : XX.XXXXXX, XX.XXXXXX

State : DELHI

District : NORTH

Sub District : Civil Lines

*Mandal/Block : Udupi

Village : Bhalswa Jahangir Pur (CT)

*Preferred Crops : Carrot

*Survey No : 111/2B

*Soil Colour : Yellow

*Soil Type : Arid or Desert Soil

Plot Survey

Village : Bhalswa Jahangir Pur (CT)

*Preferred Crops : Carrot

*Survey No : 111/2B

*Soil Colour : Yellow

*Soil Type : Arid or Desert Soil

Area Size : 2.0

Hectare/Acre : Hectare

IMG_1695923097.jpg

Show more

SUBMIT

Soil Health Card

Logout

Government of India

Ministry of Agriculture and Farmers Welfare

Department of Agriculture and Farmers Welfare

Sample Collection

5000

Tests Allotted 5000

Samples Collected 20

Test Completed 4

Soil Sample Collection

Farmer Registration

Sample Collection

Incentives

Services

Run Test

Track Sample

Spn(0)

Plot updated successfully

Note:

275

← Soil Samples

Plot Location

: 0.0, 0.0

Soil Colour

: Yellow

Preferred Crop

: Carrot

Area Size

: 2

Survey No

: 111/2B

Computed ID

: SHC2023-271-16-ow3
0

Sampling Date

: 2023-09-28T16:53:39.
934Z

Status

: Test Pending

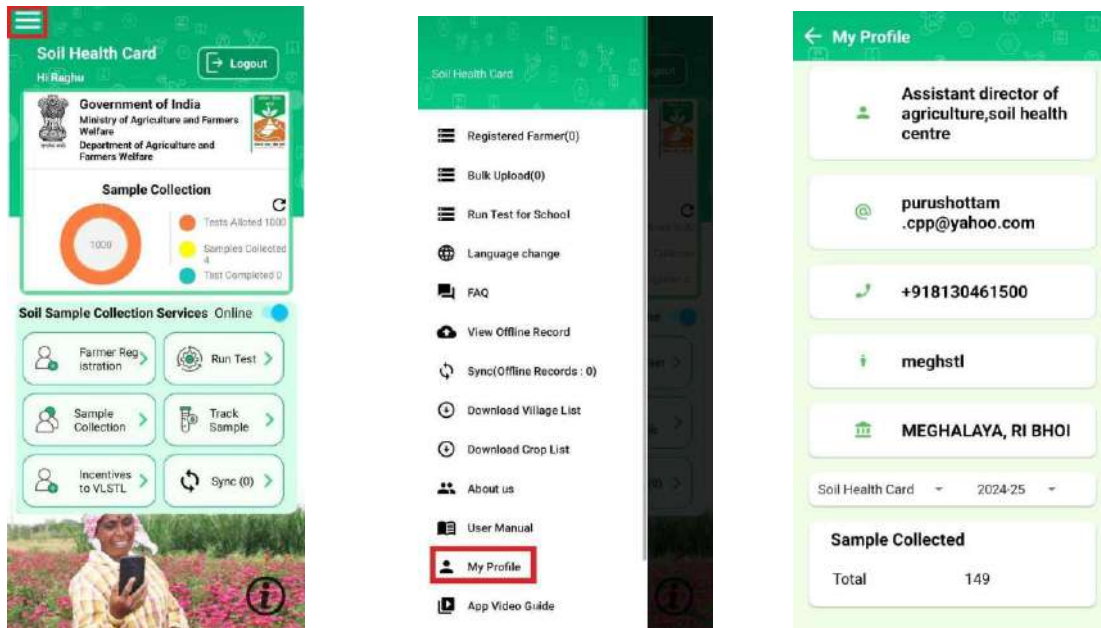
Run Test

Edit Test

Run test not available in Bulk upload.

My Profile:

- Users can view their profile details in My Profile option
- They can also check their sample collection status in each scheme and cycle

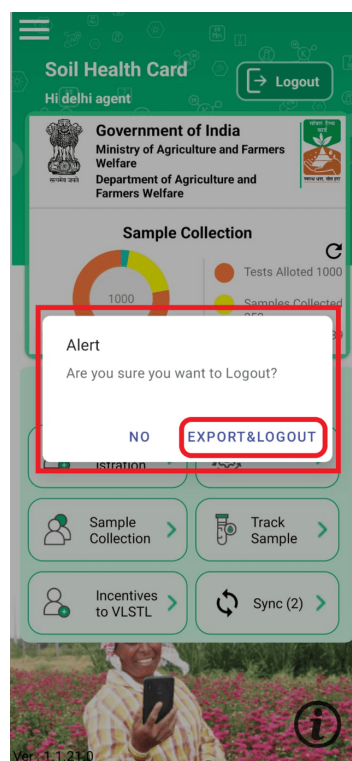
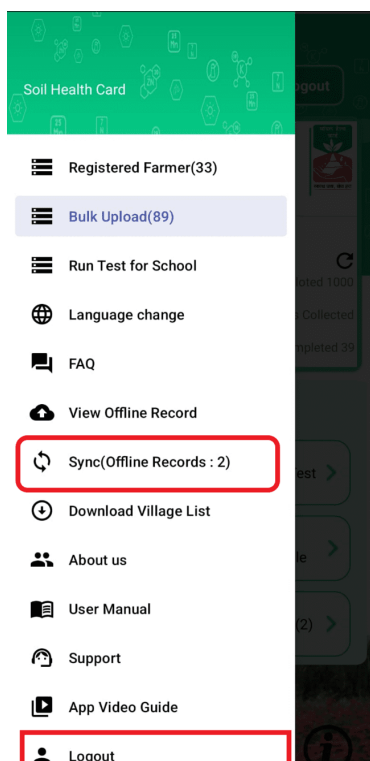


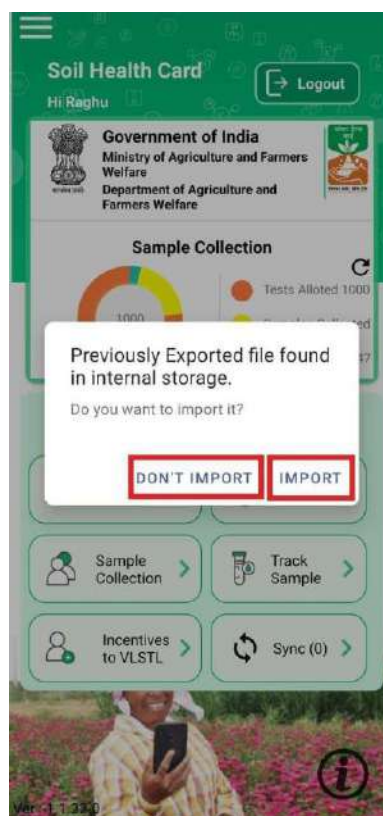
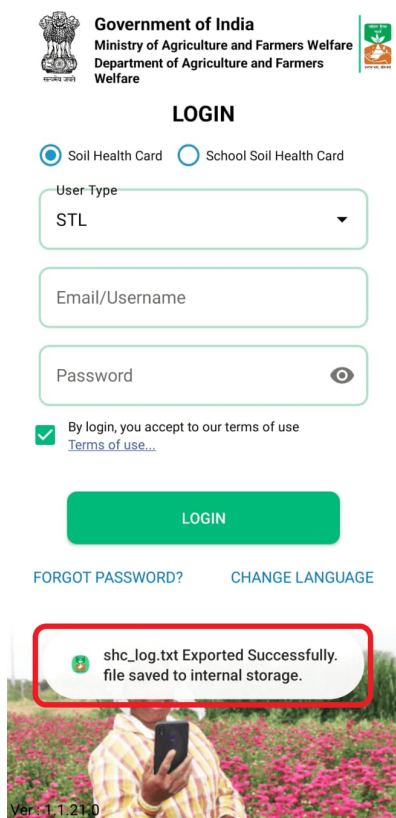
Instructions for offline registration:

1. In offline mode, the data is stored in the phone's local memory. In case App data is cleared from settings by the user, the offline data will be lost if not synced. So users must Sync offline data or Export offline data before clearing App data.
2. Offline app data will be lost if the user logs out if data is not synced before logout. A message is displayed if the user tries to logout when offline data is still in the local memory.
3. Do not collect huge amounts of records offline like 100s of samples without syncing the data to the server. In case if the data is lost because of any of the reasons stated in 1, 2, 3, the offline data can not be recovered at any cost.
4. It is advised to use the offline mode to collect only 10-20 samples and whenever net connectivity is available, please Sync the data to the server. Understand the offline mode by collecting 5-10 samples by turning off the internet to understand how it works. Then Sync the data by connecting to the Internet. After Sync, check the sample collection status by using Track Sample.
5. App login will not work in offline mode. Users need to login to the app when connected to the internet only.
6. QR scan is disabled in offline mode. QR scan is not needed in offline mode. After submission, a Sample ID is displayed on the screen. This Sample ID must be noted and needed for the Run Test. Option to scan QR or entry of Sample ID in 'Run Test' will be given in the upcoming update.
7. Users can use offline mode by turning off the mobile data/internet in case of server congestions or slow response from server. Frequently sync the data in case more data is collected in offline mode.

Logout Option

- You can logout from the application by clicking on the “Logout” button available at the top right corner of the home page.
- You can also logout from the application by clicking on the triple bar icon in the top left corner of the home page
- In the menu option, select “Logout”
- In the confirmation dialogue box, select on “OK” (*please ignore the message: data present in local will be lost, sync before logout*)
- In the Alert dialogue box, select “EXPORT & LOGOUT” option to export the offline records, if any available
- You will then be redirected back to the login page and you can either enter a new username/password or again log back in with the same credentials
- After logging in there will be a popup message asking to import the exported file. (if there was any exported file while logging out)
- If you want to import the files then click on IMPORT, If not then click on DON'T IMPORT.





Technical Support

If you have any queries related to the usage of the mobile application, please send us an email at: soilhealthcard.support@krishitantra.com

Alternatively, you can raise a ticket by visiting our support page at:

<https://support.soilhealth.dac.gov.in/>

Citizen Charter

File No. 10-3/2023-Fert Use (127715)
Government of India
Ministry of Agriculture and Farmers Welfare
Department of Agriculture & FW
(Fert Use Cell/ INM Division)

Krishi Bhawan, New Delhi-110001
Dated the 25th October, 2023

OFFICE MEMORANDUM

Subject Citizen Charter for Soil Testing and Issue of Soil Health Card by States/ UTs. under
Soil Health & Fertility of RKVY-cafeteria scheme- reg.

The undersigned is directed to refer to the above subject and to enclose a copy the
Citizen Charter for Soil Testing and issue of Soil Health Card under Soil Health & Fertility of
RKVY-cafeteria scheme for necessary action.



(Chandra Shekhar Prasad)
Under Secretary to the Govt. of India

Encl: As above:

To

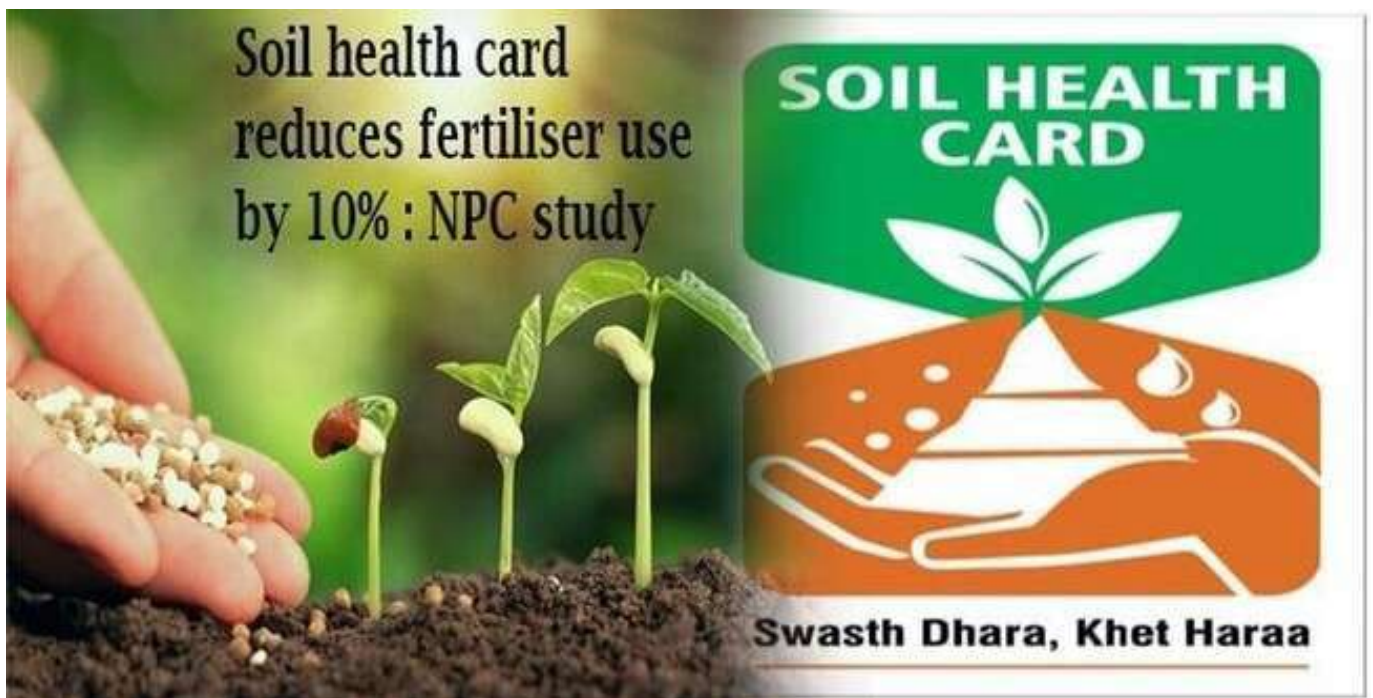
1. All Principal Secretary/ Secretary (Agriculture), State Governments/UTs
2. All Directors (Agriculture), State Governments/UTs
3. All Nodal Officers (Soil Health card Scheme), State Governments/UTs

Copy to:

- i. PPS to JS (INM)
- ii. Assistant Director General (Soil & Water Management), ICAR-Natural Resource Management Division, KAB-II, Pusa, New Delhi – 11 0 012
- iii. M/s Klonec Automation Systems Private Limited, 402, 4th Floor, Ajanta Business Centre Bejai, Kapikad Mangaluru-575004 Karnataka, Email: sandeep.kondaji@krishitantra.com with a request to upload on the Soil Health Card Portal.

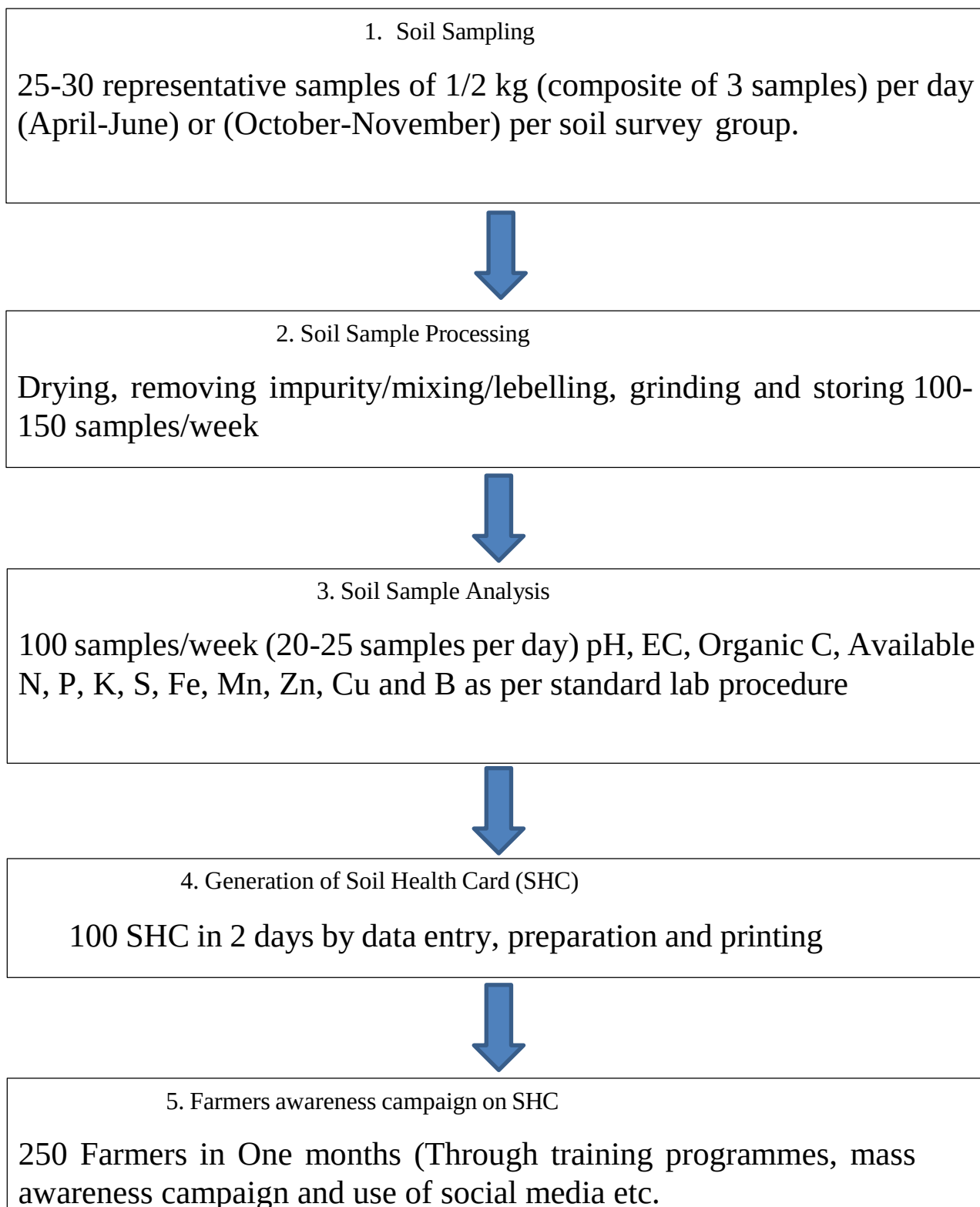
CITIZEN CHARTER

(Soil Testing and Issue of Soil Health Card)



Soil sample collection, processing, analysis and issue of Soil Health Card to individual farmers with details of personal information, soil health parameters and recommendation within 25 days (30 days in case of Hilly & NE states) of soil sample collection. Creation of awareness among the farmers about the Soil Health Card parameters and the recommendations given at the time of issuing of Soil Health Card for soil and crop management.

FLOW CHART



Soil Sample Analytical Protocol/ Method

S. No	Parameters	Test Method	Unit
1	pH (2% solution) at 25°C	Glass electrode pH meter	Number scale
2	Electrical Conductivity (2% Solution) at 25°C	EC Meter	dS/m
3	Organic Carbon (oven dried sample)	Volumetric Method (Walkley and Black,1934)	w%
4	Nitrogen as N	Kjeldahl Digestion Method	Kg/ha
5	Phosphate as P ₂ O ₅	Bray's & Kurtz 1945 (For Acidic Soil)/ Olsen's 1954 Method (For Alkaline Soil)	Kg/ha
6	Potassium as K ₂ O	Flame Photo Meter	Kg/ha
7	Sulphur as 'S'	Barium Sulphate Method by Calculation	ppm
8	Zinc as 'Zn' oven dried sample	Digestion Followed by AAS	ppm
9	Copper as 'Cu' oven dried sample	Digestion Followed by AAS	ppm
10	Iron as 'Fe' oven dried sample	Digestion Followed by AAS	ppm
11	Manganese as 'Mn' oven dried sample	Digestion Followed by AAS	ppm
12	Boron as 'B' oven dried sample	Digestion Followed by AAS	ppm

Manual for Soil Health Card Portal



Government of India

Ministry of Agriculture and Farmers Welfare

Department of Agriculture and Farmers Welfare



 Soil Health Card

**Portal, Admin Panel
User Guide**

Version 1.1

Updated on: 01/04/2023

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INTRODUCTION

“Soil Health Card (SHC)” Scheme is a Government of India’s scheme promoted by the Department of Agriculture, Co-operation & Farmers Welfare under the Ministry of Agriculture & Farmers Welfare. It is being implemented through the Department of Agriculture of various States and Union Territory Governments.

A Soil Health Card gives the nutrient status of soil of Farmers land holdings, along with the fertilizers recommendations and soil amendments needed to maintain soil health in the long run.

Soil Health Card portal is a Web based Workflow Application to generate Soil Health Cards in a uniform format throughout the country. It provides provision for Soil Sample Registration, Test Results entry, Automatic calculations of the fertilizers recommendations based on General Fertilizers Recommendations provided by States and finally, generation of Soil Health Card in local languages.

Soil Health Card Application consists of five major modules:-

- User Registration and its approval by State Administrator
- Sample Registration
- Test Result Entry by Analyst
- Fertilizer Recommendation
- Soil Health Card Generation

This document gives detailed instructions regarding the operations of the Soil Health Card portal.

About SHC Portal

SHC Web portal is available at URL: <https://soilhealth.dac.gov.in/>. The soil health card portal provides all the information needed about the Soil Health Card Scheme. Following features are available in the SHC Portal:

- Soil Maps with state-wise nutrient details
- Scheme progress and progress of portal entry
- Login to Admin Panel
- Farmers corner to Track soil sample, print soil health card, fertilizer dosage for crop, and locate soil testing laboratory
- Technical documentations, Guidelines & Downloads
- Directories & E-learning
- Contact details

About Admin Panel:

The salient features of the SHC admin panel are:

- Create Authorities like state, district authorities
- Soil testing labs run by Village Level entrepreneurs (VLEs)
- Every level of authority is managed by users. Users are assigned with a list of permissions to manage their roles.
- Each authority gets assigned with a number of allotted tests to be completed before the expiry date. After the completion of the tests, the authority gets payment which are then paid to the low-level authorities and Soil Testing Labs (STLs)
- The Vendors and device manufacturer's empanelment for inclusion of their services related to Soil Health Card.
- The Village Level Entrepreneurs (VLEs) need to use the soil sample collection App to perform the soil tests under the SHC portal.

The following sections give detailed overview and operational guidelines of the admin panel.

Admin Panel

Accessing SHC Admin Panel

To login, enter the URL: <https://soilhealth.dac.gov.in/> and click on **Login** button at the right-side top of the window, And select the Central, State, District, STLs option.



User Registration

For new user registration, the user has to click the User Registration option in the Login page. New users need to fill in the registration form and click on the Submit button. Once the Admin approves the request, The user will be able to operate the login.

The screenshot shows the 'Sign in' section of the Soil Health Card portal. It includes a 'User type' dropdown menu, a 'Username/Email' text field, and a 'Password' text field with a toggle for visibility. Below these fields is a checkbox for 'I'm not a robot' and a CAPTCHA image. A red box highlights the 'User registration?' link next to the CAPTCHA. At the bottom, there is a 'SIGN IN' button.



Government of India
Ministry of Agriculture and Farmers Welfare Department
of Agriculture and Farmers Welfare

Soil Health Card

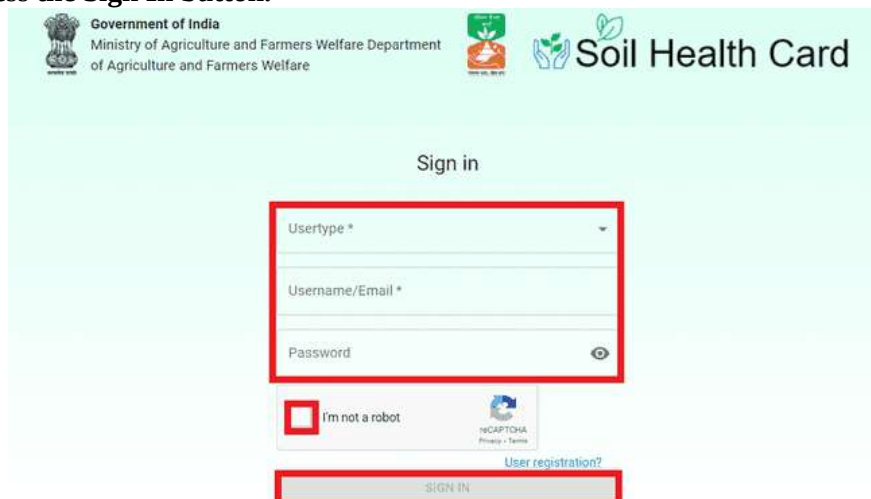
User Registration

User Type: [Dropdown] State: [Dropdown]
 District: [Dropdown] Authority: [Dropdown]
 Name: [Text] Phone Number: [Text]
 Email: [Text] Staff id: [Text]
 Department Name: [Text] Address: [Text] [Location Icon]
 Username: [Text] Password: [Text] [Eye Icon]
 Confirm Password: [Text] [Eye Icon]

Sign In

User Login

In the login page, select your User Type, enter User Name and Password. Click on the I'm not a robot option and press **the Sign In button**.



Government of India
Ministry of Agriculture and Farmers Welfare Department
of Agriculture and Farmers Welfare

Soil Health Card

Sign in

Ustertype * [Dropdown]
 Username/Email * [Text]
 Password [Text] [Eye Icon]

☐ I'm not a robot [reCAPTCHA]

[User registration?](#)

SIGN IN

User Types

- Central User
- State User
- District User
- STL
- Supervisor

STATE USER

DASHBOARD

After successful login, you will see the dashboard.



Dashboard lets us generate region-wise, year-wise statistics as:

- Number of STLs
- Number of Samples Collected
- Tests completed

EDIT USER PROFILE

Click Profile under Account to edit the user profile.

The screenshot shows the 'Soil Health Card' dashboard. On the left is a green sidebar with navigation links: Dashboard, User Management, Target Allocation, Soil Health Cards(SHC), Report, Crop Management, Fertilizer Management, STL, School SHC, Master Directory, and Help Center. The main content area is titled 'Dashboard' and displays several data cards. A red box highlights the 'ACCOUNT' menu in the top right corner, which includes options for Profile, Change Password, and Sign out.

Total Active Labs: 4	Wells Lab		Wholes Lab	
	Established Labs: 2	Registered Labs: 2	Established Labs: 0	Registered Labs: 0
	Sanctioned Labs: 0	Labs to be Registered: 0	Sanctioned Labs: 0	Labs to be Registered: 0

Total Registered Labs: 4	Wells Lab		Village Level Lab	
	Established Labs: 0	Registered Labs: 0	Established Labs: 0	Registered Labs: 2
	Sanctioned Labs: 0	Labs to be Registered: 0	Sanctioned Labs: 0	Labs to be Registered: 0

Soil Samples Collected: 87		Soil Samples to be collected: 40	
Target of Soil Samples Collection: 1			

Soil Samples Tested: 4		Remaining Soil Samples to be tested: 83	
Soil Samples Collected: 87			

In The User Profile page, You can edit the Staff ID, Name, Address, Phone, E-mail, Department Name and Click on the Submit button.

The screenshot shows the 'User Profile' page. The left sidebar is the same as the dashboard. The main content area has a form with the following fields: Staff ID, Name, Address, Phone, Email, and Department Name. There is a blue 'Submit' button next to the Address field and a grey 'UPDATE' button at the bottom right of the form.

USER MANAGEMENT - CREATE AUTHORITY

In the organization hierarchy, the lower levels like States, Districts are termed as Authority in the admin panel. The Central user can create State level Authorities. State users can create District level authorities. Each Authority needs to be named and assigned to a geological region. Central user can create State-level authorities. State-level users can create district-level authorities.

Create Authority

To create an authority, select **User Management** and click **Create Authority**.

State	District	Name	Username	Phone Number	Status	UserType	Action
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	ENABLE RESET PASSWORD
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	ENABLE RESET PASSWORD

Enter the name of the authority and select a region from the list. Click the Submit button to create the authority.

Office Name*

District*

Note: Office name, district name

- CENTRAL
- EAST
- NEW DELHI
- NORTH
- NORTH EAST
- NORTH WEST
- SHAHDARA
- SOUTH
- SOUTH WEST
- South East

The new authority created is listed with details such as name of the authority, region, number of users, number of STLs, number of farmers and status.

USER MANAGEMENT - APPROVAL & USERS LIST

Click on the **Disable** button to Disable the users and **Reset Password** button to change the password of the users.

The screenshot displays the 'User Management' section of the Soil Health Card application. On the left is a green sidebar with navigation links: Dashboard, User Management, Target Allocation, Soil Health Cards(SHC), Report, Crop Management, Fertilizer Management, STL, School SHC, Master Directory, and Help Center. The main content area has a header with the 'Soil Health Card' logo and a user profile icon. Below the header, there's a 'User Management' title and a search bar with fields for Username, District (set to 'DISTRICT'), User Type (set to 'DISTRICT'), and Status. A 'CREATE AUTHORITY' button is on the right. The interface shows 'Total Records: 2' and an 'EXPORT' link. A table lists two users with columns for State, District, Name, Username, Phone Number, Status, UserType, and Action. The 'Action' column for each user contains 'DISABLE' and 'RESET PASSWORD' buttons. The first row's buttons are highlighted with a red border. At the bottom right, it shows 'Rows per page: 50' and '1-2 of 2'.

State	District	Name	Username	Phone Number	Status	UserType	Action
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	DISABLE RESET PASSWORD
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	DISABLE RESET PASSWORD

TARGET ALLOCATION

To create a test allotment, click **Test Allotment** under **Target Allocation**. Click on **Create Test Allotment**.

Test Allotment

Total Tests Sanctioned: [Redacted]

Total Test Allotted: [Redacted]

Remaining Test for Allotment: [Redacted]

District: [Redacted]

Total Records: 1

Cycle	Region	Username	Allotted Test count	Sample Collected	Test Completed	Test Parameters	Expire	Action
2023-24	[Redacted]	[Redacted]	1000	67	4	p, K, B, Fe, Zn, Cu, S, OC, pH, EC, M...	3/31/2024	[EXPORT]

[CREATE TEST ALLOTMENT](#)

Enter the number of tests to be allotted, Select the Authority under which the User is to be allotted, Select the User, And click on the **Submit** button.

Create Test Allotment

Number of Test: 0

Authority: [Redacted]

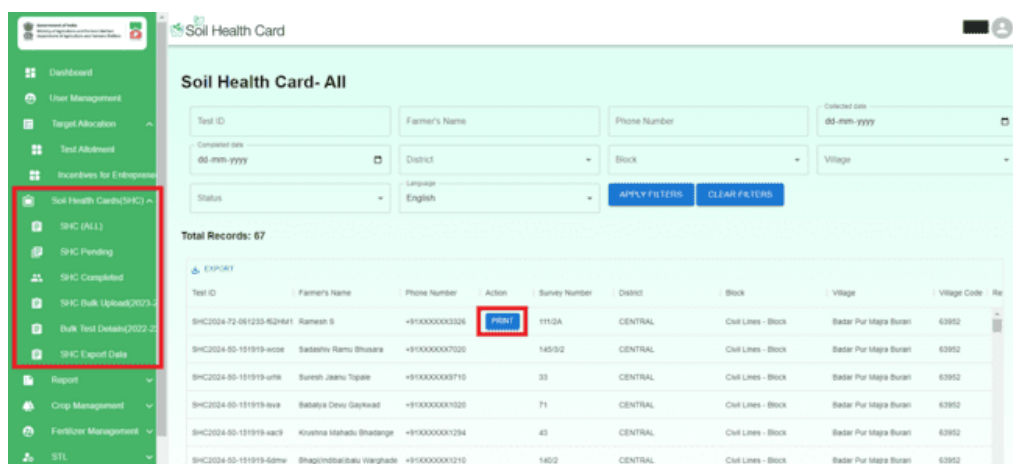
User: [Redacted]

[SUBMIT](#)

allottedTestCount must be greater than or equal to 1

SOIL HEALTH CARDS

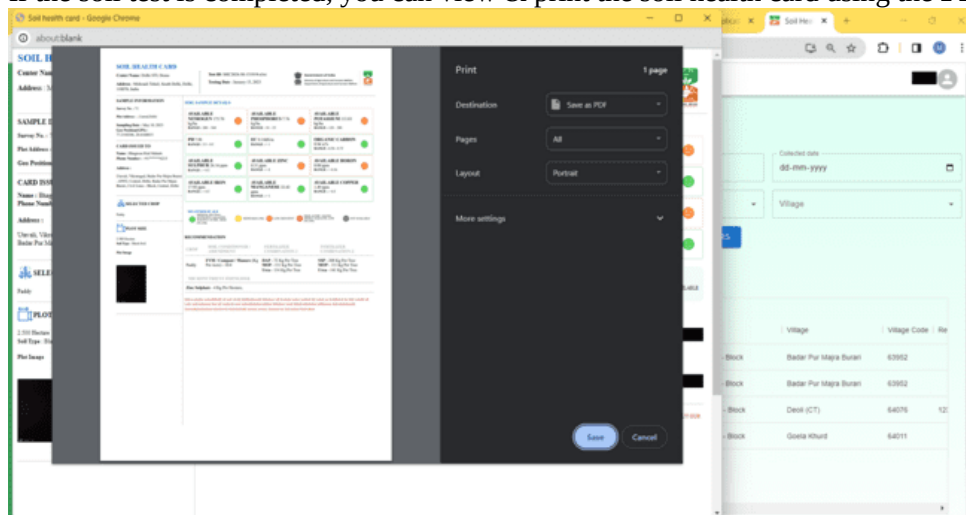
To view details of soil samples collected, Click on **SHC ALL** under **Soil Health Cards**.



List of options available under the section:

1. SHC (ALL)
2. SHC Pending
3. SHC Completed
4. SHC Bulk upload (2023-24)
5. Bulk Test details (2022-23)
6. SHC Export data

If the soil test is completed, you can view & print the soil health card using the **Print** button.



REPORTS

To generate reports click on the **Report** on the left-side menu. The list of reports is listed.

Progress Report

District:

EXPORT

State	District	Target Allotted	Samples Collected	Percentage Samples	Test Completed	Percentage Tests	Farmers	Bulk Test 2020-24	Incentive Allotted	Incentive - Samples Collected	Incentive - Tests Completed
DELHI	SOUTH WEST	0	1	100%	1	100%	1	0	0	0	0
DELHI	CENTRAL	0	61	100%	2	100%	61	0	0	0	0
DELHI	SOUTH	1000	5	0.10%	1	0.10%	3	0	0	0	0
DELHI	NORTH	0	0	0	0	0	1	0	0	0	0

Rows per page: 50 1-4 of 4

List of Reports that can be generated as below:

Progress Report (Statewise / Districtwise / Villagewise)

Blockwise progress report

Portal status report

SHC Legacy report (Legacy SHC)

Physical progress / Achievement

STL wise progress report

Agent wise samples report

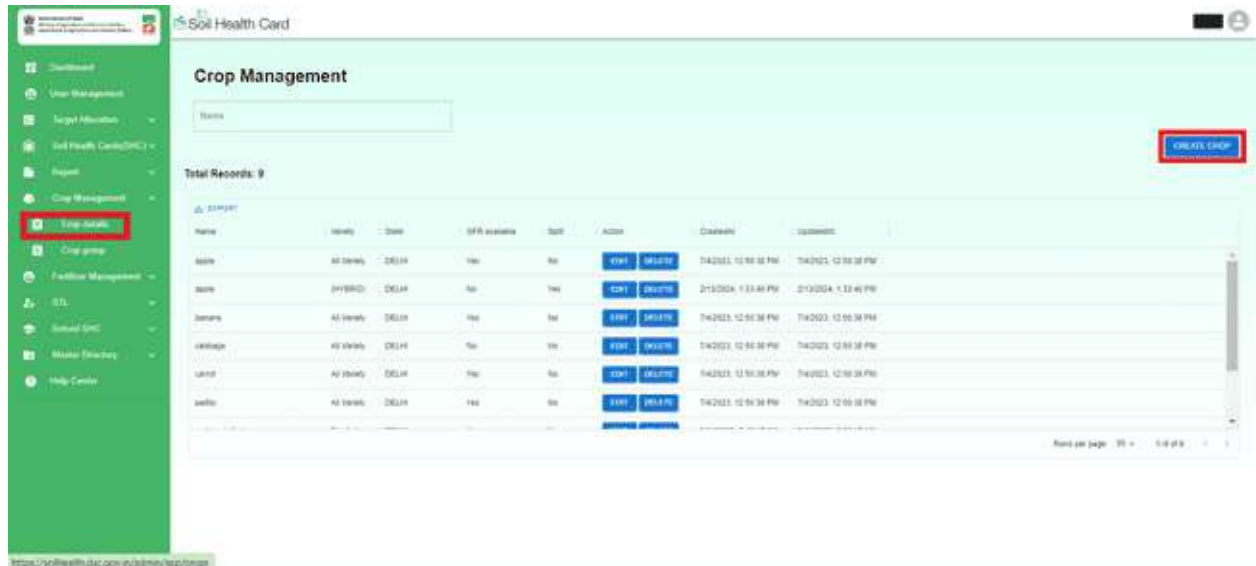
Farmer details

SHC component progress

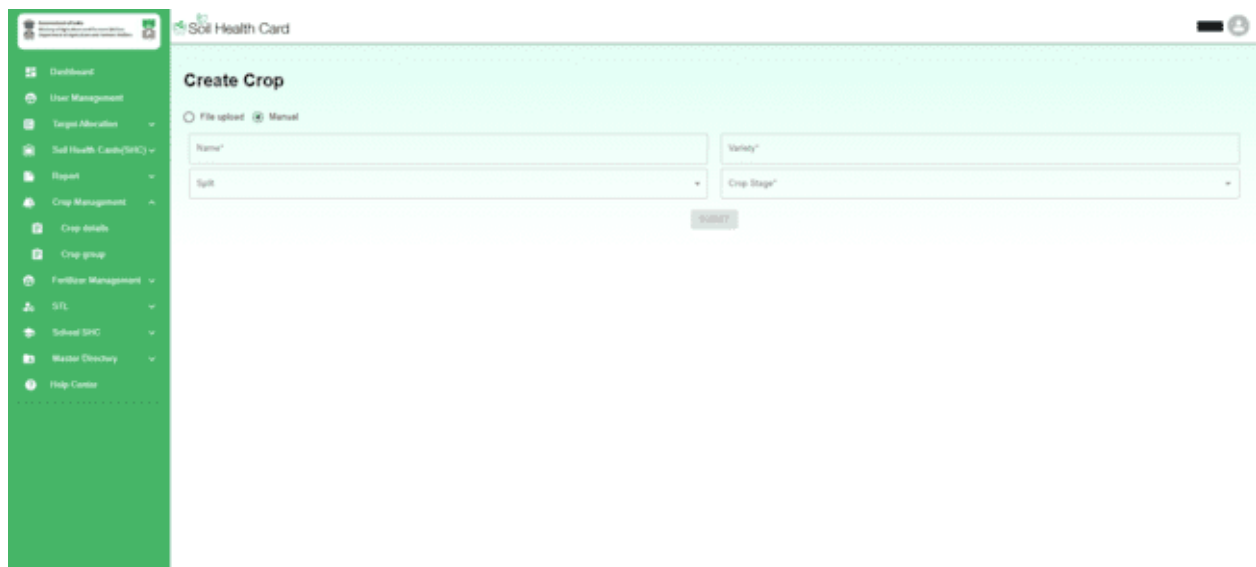
CROP MANAGEMENT

CROP DETAILS

Click on Crop Details under Crop Management. Click on the Create Crop option



Select the Manual option and enter the crop details



- Enter Crop name
- Crop variety
- Select Split crop (Yes / No)
- Select Crop stage from the drop down

Click on the Submit button. The added crop will be displayed in the Crop details page



To Bulk upload the Crop details, select File upload Radio Button

Click on Download Sample Excel File

Open the Excel file and fill the crop details.

Save the excel file and click Upload File button and select the Excel file

Click the Submit Button. The added crop will be displayed in the Crop details page.

The crop details can be edited by clicking on the Edit option in the Crop Details page.

CROP GROUP

Click on the Crop Group under Crop Management section, Click Create group option

Crop Group Management

Name

Total Records: 4

EXPORT

Group name	Crops	CreatedAt	UpdatedAt	Action
Fruits	banana,apple	8/22/2023, 7:46:53 PM	8/22/2023, 7:46:53 PM	EDIT
Tree	jackfruits,guava,banana,apple,carrot	8/23/2023, 8:59:07 PM	9/14/2023, 6:15:03 PM	EDIT
Vegetables	carrot,cabbage	8/25/2023, 7:26:06 PM	8/25/2023, 7:26:06 PM	EDIT
Grains	peachy,carrot,peachy,carrot	9/14/2023, 9:47:16 AM	9/14/2023, 9:01:07 AM	EDIT

Rows per page: 50 1-4 of 4

Enter the Crop group name and choose the crops from the dropdown which was created in the crop details section. Minimum 2 crops have to be selected to create the crop group

Click the Submit button.

Create Crop Group

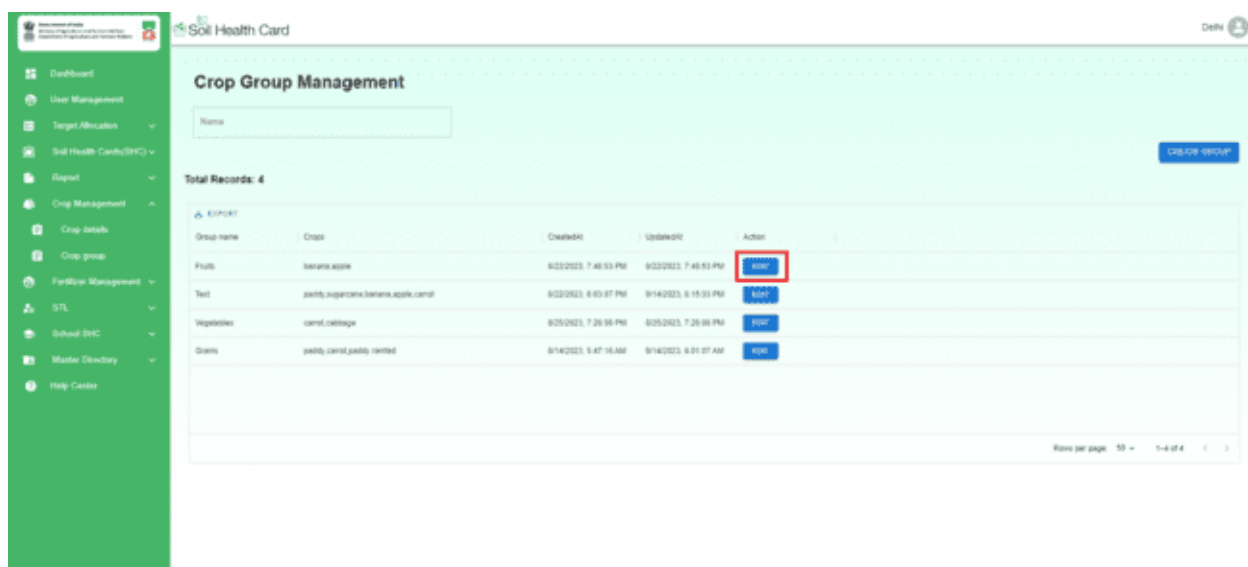
Name*

Crops*

Submit

The Crop groups and crop names are shown in the Crop Group page.

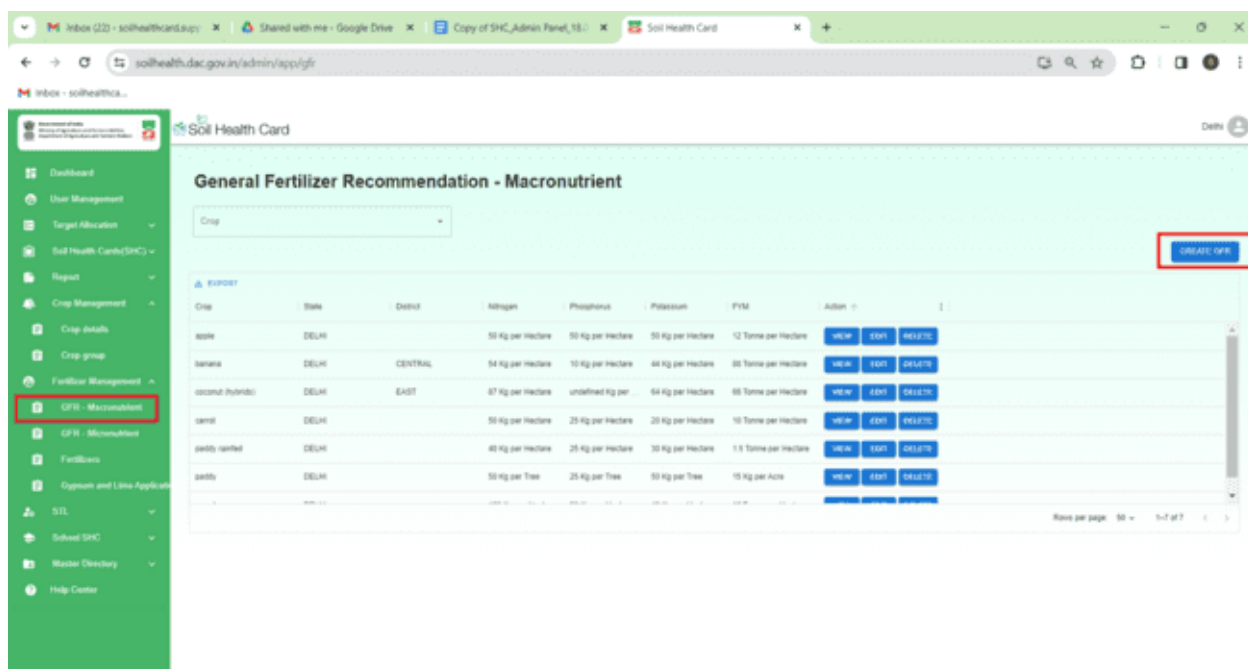
You can edit the crop group by clicking on the Edit button



Click submit to update the crop group

GFR - MACRO NUTRIENTS

Click on GFR - Macronutrient option under Fertilizer Management option, and Click on Create GFR option.



User can create the GFR for a particular district or for the entire state by choosing the toggle switch (For all districts)

Create GFR - Macronutrient

For All Districts

District* Crop Group* Crop Name*

General Recommended Dosage (GRD)

Unit: Kg per Hectare N(Kg per Hectare) P(Kg per Hectare) K(Kg per Hectare) FYM(Tonne per Hectare) Tonne per Hectare

Gypsum Recommendation: \$ Kg per Hectare

Lime Recommendation: \$ Kg per Hectare

Auto Fill

Choose the crop group from the dropdown, which was created in the crop management / crop group

select the crop from the dropdown which lies under the selected crop group

Select the unit for the GRD (General Recommended Dosage) which will be entered by the user

Kg per Hectare

Kg per Acre

Kg per Tree

Kg per Plant

Grams per Plant

Kg per Pit

Grams per Pit

Grams per Tree

GRD unit cannot be changed once submitted

Choose the Nitrogen fertilizer recommendation based on

Nitrogen

Organic Carbon

Enter the GRD value for the N, P, K, FYM

Select AutoFill option to calculate the range in below table

Lime Recommendation: \$ Kg per Hectare

Auto Fill

Based On: Nitrogen	Phosphorus	Potassium	FYM (Based on OC)	General Rule
Recommendation (Kg per Hectare)	Recommendation (Kg per Hectare)	Recommendation (Kg per Hectare)	Recommendation (Tonne per Hectare)	
V(L140)	V(L15)	V(L140)	V(L140-20)	1.66 times GRD
Very Low	Very Low	Very Low	Very Low	
L(140-200)	L(15-10)	L(100-120)	L(120-200)	1.33 times GRD
Low	Low	Low	Low	
M(200-300)	M(10-20)	M(120-200)	M(200-300)	GRD
Medium	Medium	Medium	Medium	
H(300-700)	H(20-40)	H(200-500)	H(300-700)	0.67 times GRD
High	High	High	High	
VH(700-)	VH(40-)	VH(500-)	VH(700-)	0.34 times GRD
Very High	Very High	Very High	Very High	

Submit

Click on the Submit button to register the GFR - Macronutrients

Registered GFR will be displayed in the GFR page

General Fertilizer Recommendation - Macronutrient

Crop:

[UNLATCH GFR](#)

Crop	State	District	Nitrogen	Phosphorus	Potassium	FYM	Action
Banana	DEHU	CENTRAL	50 Kg per Hectare	10 Kg per Hectare	40 Kg per Hectare	50 Tonne per Hectare	VIEW EDIT DELETE
coconut (hybrids)	DEHU	EAST	87 Kg per Hectare	undefined Kg per	64 Kg per Hectare	60 Tonne per Hectare	VIEW EDIT DELETE
cardamom	DEHU		50 Kg per Hectare	25 Kg per Hectare	20 Kg per Hectare	10 Tonne per Hectare	VIEW EDIT DELETE
peachy varietal	DEHU		40 Kg per Hectare	25 Kg per Hectare	30 Kg per Hectare	1.5 Tonne per Hectare	VIEW EDIT DELETE
peachy	DEHU		50 Kg per Tree	25 Kg per Tree	50 Kg per Tree	10 Kg per Acre	VIEW EDIT DELETE

Rows per page: 50 1-7 of 7

Click on Edit to modify the GFR - Macronutrients

Follow the same procedure to update the GFR - Macronutrients.

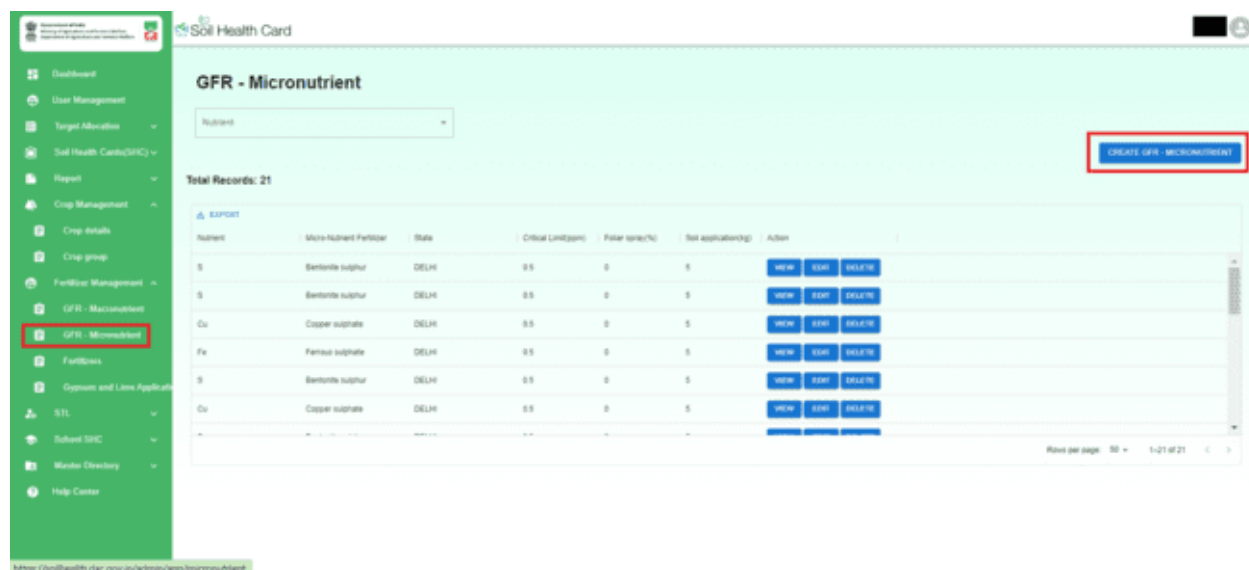
GRD unit cannot be edited

Update the GRD values and select AutoFill to modify in the below table

Click submit to update the GFR - Macronutrients

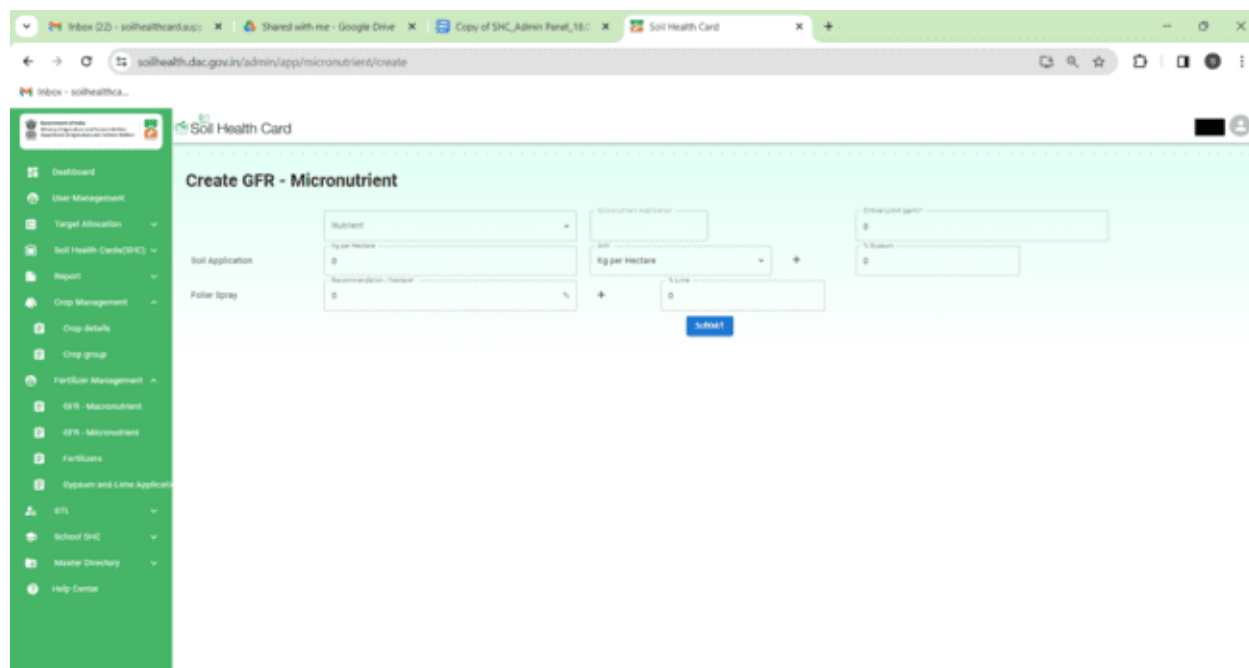
GFR - MICRO NUTRIENTS

Click on the GFR - Micronutrient Fertilizer option under Fertilizer Management option Click on the Create GFR - Micronutrient option



Select the Micronutrient from the drop down menu

Verify the Micronutrient fertilizer name displays in the Micronutrient Application box



Enter the Critical Limit value for the micronutrient (in ppm)

Enter the recommendation value for the micronutrient

Soil Application (kg/ha)

Gypsum (%)

Foliar spray (%)

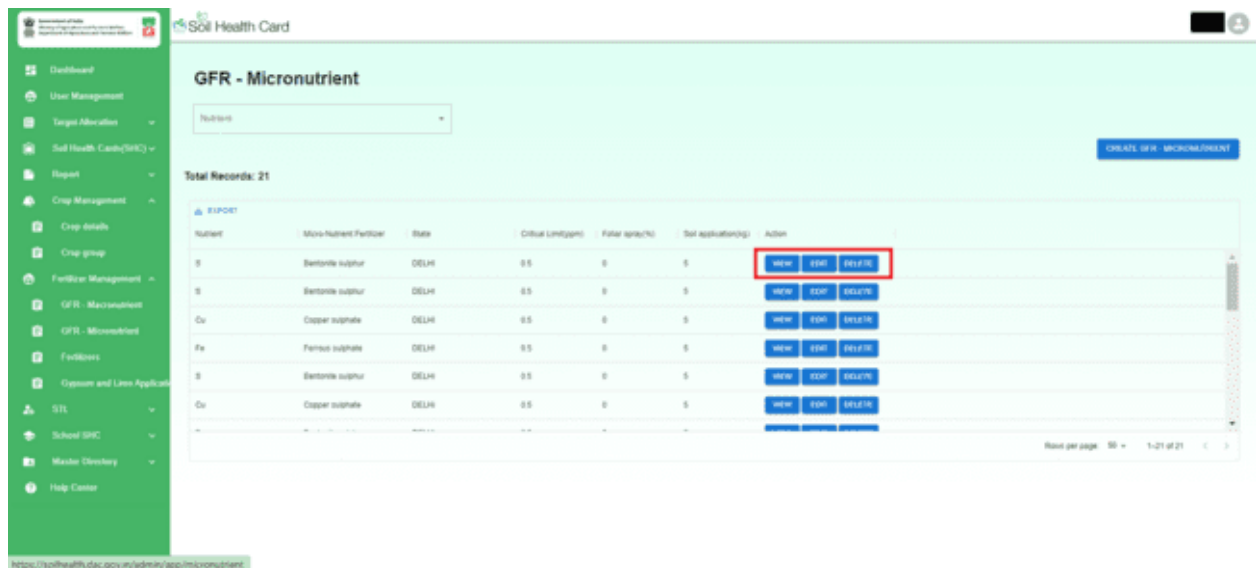
Lime (%)

Soil Application or/and Foliar Spray value is mandatory to get the micronutrients recommendation (It should not be zero)

If Gypsum or/and Lime % values are not available , you can enter as zero (0)

Click Submit to add the Micronutrient GFR

List of added micronutrients display in the GFR - Micronutrient page



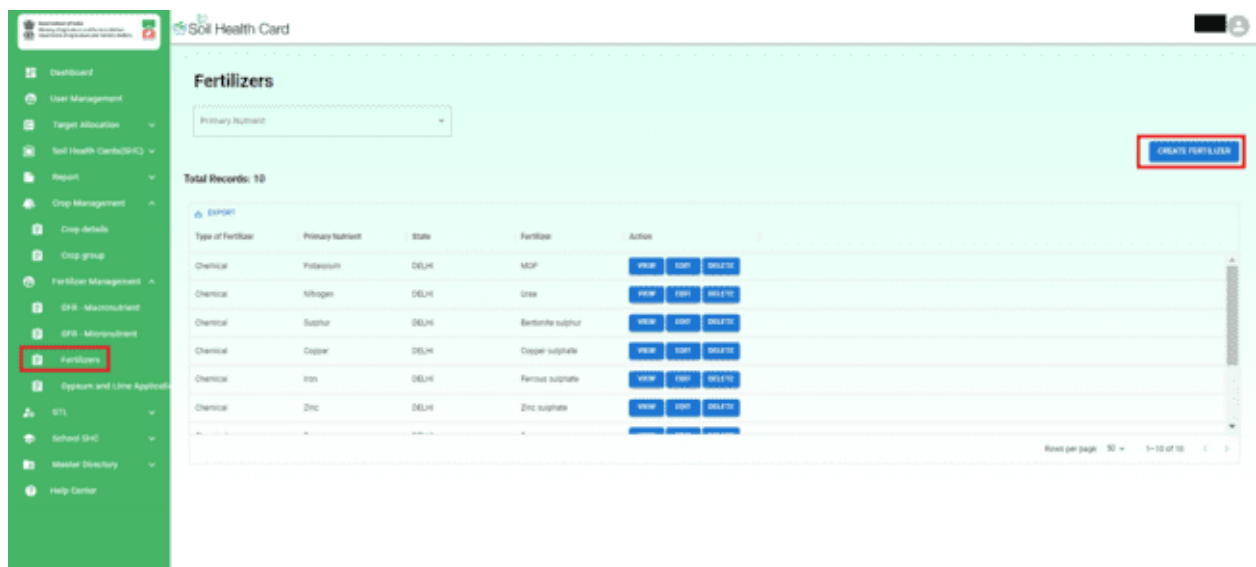
User can view the added micronutrients by clicking View option

User can edit the details of the GFR using Edit option

Click submit button to update the fertilizer

FERTILIZERS

Click on the Fertilizers option under the Fertilizer Management option. Click on the Create Fertilizer option



Select the fertilizer type from the drop down (Chemical)

Select the primary nutrient of the fertilizer from the drop down

Select the fertilizer from the drop down. If the fertilizer name is not available, kindly contact the support team to add the fertilizer name to the list (Only name will be added, Composition will not be added by the support team)

Enter the bag capacity of the fertilizer in kgs/bags

Enter the compositions for all the parameters of the respective fertilizer

Click Submit to save the fertilizer

Registered Fertilizers will be displayed in the Fertilizer page

The screenshot shows the 'Create Fertilizer' form in the Soil Health Card system. The form includes a sidebar with navigation options like Dashboard, User Management, Target Allocation, and Soil Health Cards (SHC). The main form area has a 'Type of Fertilizer' dropdown set to 'Chemical', a 'Primary Nutrient' dropdown, and a 'Fertilizer' dropdown. Below these are input fields for 'Composition (NPK)' with sub-fields for N, P, and K. A 'SUBMIT' button is at the bottom right.

User can view the entered composition and the details using view option

User can edit the composition and other details using Edit option

After modification, click submit to update the fertilizer details.

The screenshot shows the 'Fertilizers' list in the Soil Health Card system. The list displays a table of registered fertilizers with columns for Type of Fertilizer, Primary Nutrient, Status, Fertilizer, and Action. The 'Action' column contains 'VIEW', 'EDIT', and 'DELETE' buttons. The 'EDIT' button for the first row is highlighted with a red box.

Type of Fertilizer	Primary Nutrient	Status	Fertilizer	Action
Chemical	Potassium	DELHI	MOP	VIEW EDIT DELETE
Chemical	Nitrogen	DELHI	Urea	VIEW EDIT DELETE
Chemical	Sulphur	DELHI	Bentonite sulphur	VIEW EDIT DELETE
Chemical	Copper	DELHI	Copper sulphate	VIEW EDIT DELETE
Chemical	Iron	DELHI	Ferrous sulphate	VIEW EDIT DELETE
Chemical	Zinc	DELHI	Zinc sulphate	VIEW EDIT DELETE

Click on Edit option to add crops or remove the crops

STL

Registered Soil Testing Laboratories in the state are listed under STL section
List of STLs as below

1. Static labs
2. Mobile labs
3. Mini labs
4. Village level STL
5. Private labs
6. KVK labs

State users can do the reset password for the STLs using the reset password option.

Static Lab

Search: District: Username:

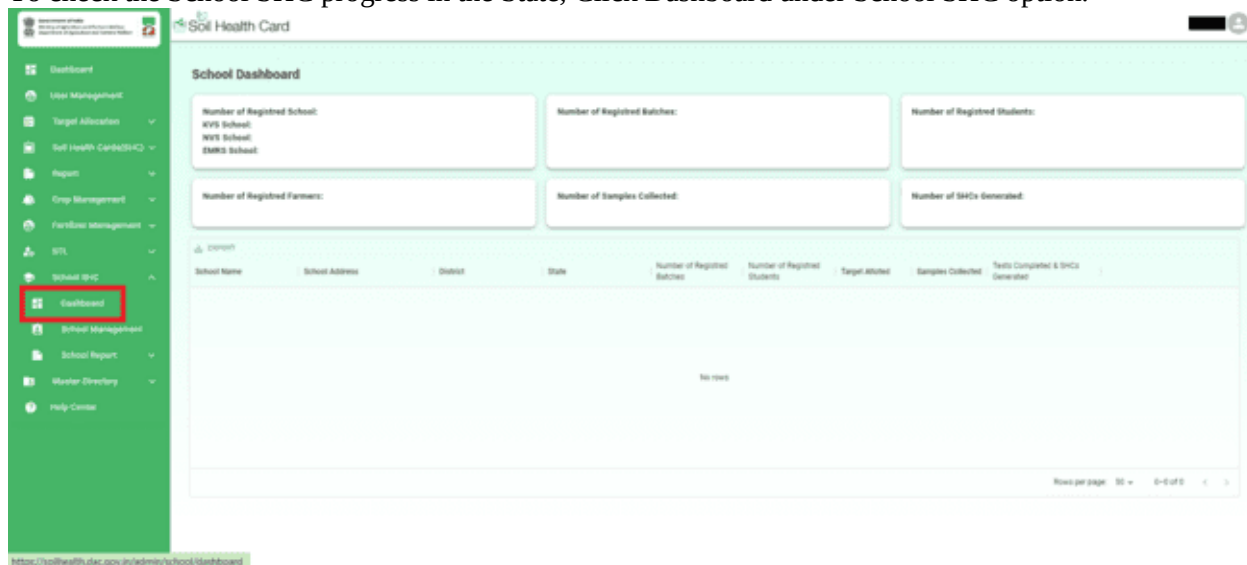
Total Records: 2

Name	Username	District	Village	Address	Phone	Status	Created At	Updated At	Action
[REDACTED]	admin	SOUTH		Maharaj Talast, South Del.	[REDACTED]	Active	6/14/2023, 2:04:14 PM	6/14/2023, 2:04:14 PM	Reset Password
[REDACTED]	centraldelhi	CENTRAL	Bader Pur Mahe Buzel	Jalgaon New Delhi, Del.	[REDACTED]	Active	2/9/2024, 9:05:03 PM	2/29/2024, 6:56:41 PM	Reset Password

Records per page: 50 1-2 of 2

School SHC

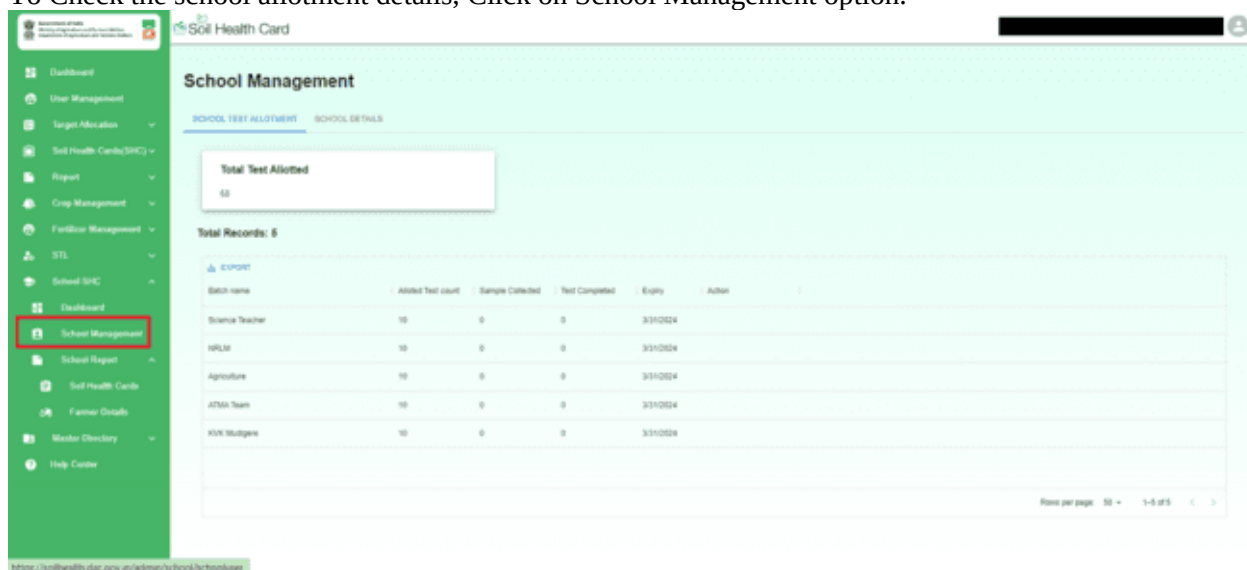
To check the School SHC progress in the State, Click Dashboard under School SHC option.



The screenshot shows the 'School SHC' dashboard. On the left is a green sidebar with a menu. The 'Dashboard' option is highlighted with a red box. The main content area is titled 'School Dashboard' and features six summary cards: 'Number of Registered School', 'Number of Registered Batches', 'Number of Registered Students', 'Number of Registered Farmers', 'Number of Samples Collected', and 'Number of SHCs Generated'. Below these cards is a table with columns: School Name, School Address, District, State, Number of Registered Batches, Number of Registered Students, Target Batch, Samples Collected, and Tests Completed & SHCs Generated. The table is currently empty, showing 'No rows'. At the bottom right of the table, it says 'Rows per page: 50' and '0-0 of 0'.

<https://soilhealthidac.gov.in/edms/school/dashboard>

To Check the school allotment details, Click on School Management option.



The screenshot shows the 'School Management' page. On the left is a green sidebar with a menu. The 'School Management' option is highlighted with a red box. The main content area is titled 'School Management' and has two tabs: 'SCHOOL TEST ALLOTMENT' (active) and 'SCHOOL DETAILS'. Under the 'SCHOOL TEST ALLOTMENT' tab, there is a 'Total Test Allotted' card showing '50'. Below this is a 'Total Records: 5' label and an 'EXPORT' button. A table follows with columns: School name, Allotted Test count, Samples Collected, Test Completed, Expiry, and Action. The table contains five rows of data:

School name	Allotted Test count	Samples Collected	Test Completed	Expiry	Action
Science Teacher	10	0	0	3/31/2024	
WRLM	10	0	0	3/31/2024	
Agriculture	10	0	0	3/31/2024	
ATMA Team	10	0	0	3/31/2024	
KVK Mulgure	10	0	0	3/31/2024	

At the bottom right of the table, it says 'Rows per page: 50' and '1-5 of 5'.

<https://soilhealthidac.gov.in/edms/school/schooluser>

To check the School Soil Health Cards, Click on Soil Health Cards under, School Reports. You can print the soil health cards



Ministry of Health and Family Welfare

Department of Health and Family Welfare



Soil Health Card



Dashboard

User Management

Target Allocation

Soil Health Cards(SHC) ▼

Report

Crop Management

Fertilizer Management

SIL ▼

School SHC ▼

Dashboard

School Management

School Report ▼

Soil Health Cards

Farmer Details

Master Directory ▼

Help Center

Test details

Test ID

Phone Number

Collected date

Completed date

Status

Language

EXPORT

Test ID	Farmer Name	Phone Number	Action	Survey Number	Village	District	Status	Collected date	Completed date
BHC2023-258-09-qd27			Print	83			Test completed	9/15/2023, 3:13:54 PM	11/15/2023, 3:59:39 PM
BHC2023-258-09-Saan			Print	12			Test completed	9/15/2023, 2:56:49 PM	9/26/2023, 3:53:18 PM
BHC2023-257-11-jvQ2			Print	157			Test completed	9/14/2023, 5:24:39 PM	11/24/2023, 11:20:09 AM
BHC2023-257-11-86Jx			Print	31			Test completed	9/14/2023, 5:18:28 PM	11/24/2023, 11:31:19 AM
BHC2023-257-11-vm7s			Print	92			Test completed	9/14/2023, 5:12:52 PM	11/24/2023, 11:32:22 AM
BHC2023-257-11-86Jx			Print	65			Test completed	9/14/2023, 5:06:34 PM	11/24/2023, 11:29:38 AM

Go to Page

1

2

3

MASTER DIRECTORY

To manage the District Blocks and villages, Click on Local Government Directory under Master Directory.

To add villages, Click on Add Village. To search for District, Block or village, enter the desired details and click on the Search button.

The screenshot shows the 'Local Government Directory' interface. A red box highlights the search filters at the top, which include dropdown menus for 'District', 'Block', and 'Village', a 'Search' text input field, and a 'SEARCH' button. Below the filters, there are tabs for 'DISTRICT', 'BLOCK', and 'VILLAGE'. The 'BLOCK' tab is selected, and the text 'SELECT DISTRICT, BLOCK' is displayed. A 'ADD VILLAGE' button is visible in the top right corner. The table below shows 'Total Records: 0' and an 'EXPORT' button. The table headers are: State Name, State LSG Code, District Name, District LSG Code, Block Name, Block LSG Code, Village Name, Village LSG Code, and Action. The table is currently empty, showing 'No rows'. The left sidebar contains a menu with 'Local Govt Directory' highlighted. The URL at the bottom is 'https://soilhealthindia.gov.in/admin/app/masterDirectory'.

Once searched user can edit or view the details.

The screenshot shows the 'Local Government Directory' interface after a search. The search filters at the top now contain specific values. The 'BLOCK' tab is selected, and the text 'SELECT DISTRICT, BLOCK' is displayed. A 'ADD VILLAGE' button is visible in the top right corner. The table below shows 'Total Records: 1' and an 'EXPORT' button. The table headers are: State Name, State LSG Code, District Name, District LSG Code, Block Name, Block LSG Code, Village Name, Village LSG Code, and Action. The table contains one row with data. The 'Action' column for this row has two buttons, 'VIEW' and 'EDIT', which are highlighted with a red box. The left sidebar contains a menu with 'Local Govt Directory' highlighted. The URL at the bottom is 'https://soilhealthindia.gov.in/admin/app/masterDirectory'.

LOGOUT

Click the **Signout** button to terminate the session.

The screenshot displays the 'Soil Health Card' dashboard. On the left is a green sidebar menu with options: Dashboard, User Management, Target Allocation, Soil Health Cards(SHC), Report, Crop Management, Fertilizer Management, STL, School SHC, Dashboard, School Management, School Report, Soil Health Cards, Farmer Details, Monitor Directory, Local Govt Directory, and Help Center. The main dashboard area is titled 'Dashboard' and contains several data visualizations. At the top, there are three tables: 'Total Active Lates: 363', 'Total Registered Lates: 374', and a table with 10 columns for different late categories. Below these are two large yellow bars representing 'Soil Samples Collected: 128968' and 'Target of Soil Samples Collection: 204025'. At the bottom, there are two more yellow bars representing 'Soil Samples Tested: 128963' and 'Remaining Soil Samples to be tested: 3'. On the right side of the dashboard, there is a user profile dropdown menu with options: Profile, Change Password, and Sign out (highlighted with a red box).

Total Active Lates: 363	
Registered Lates: 26	Registered Lates: 26
Registered Lates: 30	Lates to be Registered: 5
Registered Lates: 6	Registered Lates: 15
Registered Lates: 8	Lates to be Registered: 5

Total Registered Lates: 374	
Registered Lates: 1	Registered Lates: 1
Registered Lates: 7	Lates to be Registered: 3
Registered Lates: 101	Registered Lates: 201
Registered Lates: 200	Lates to be Registered: 30

Soil Samples Collected: 128968	
Target of Soil Samples Collection: 204025	Soil Samples to be collected: 154353

Soil Samples Tested: 128963	
Soil Samples Collected: 128968	Remaining Soil Samples to be tested: 3

DISTRICT USER

DASHBOARD

After successful login, you will see the dashboard.



Dashboard lets us view the overall details such as:

- Number of Labs Registered
- Target Allotted
- Number of Samples Collected
- Tests completed

SOIL HEALTH CARDS

To view details of soil samples collected, Click on **SHC ALL** under **Soil Health Cards**. Users can filter the soil health cards by Test ID, Saathi, Farmer Name etc.

The screenshot shows the 'Soil Health Card- All' interface. On the left is a green sidebar with navigation options: Dashboard, Target Allocation, Soil Health Cards(SHC) (highlighted), SHC (ALL), SHC Pending, SHC Completed, SHC Printed, SHC Not Printed, SHC Bulk Upload(2023-24), Bulk Upload(2023-23), Bulk Test Details(2022-23), Report, STL, and Help Center. The main area is titled 'Soil Health Card- All' and contains a filter section with fields for Test ID, Farmer's Name, Phone Number, Collected date (dd-mm-yyyy), Status (Pending), Block, Village, Language (English), and Printout Status. There are 'APPLY FILTERS' and 'CLEAR FILTERS' buttons. Below the filters, it says 'Total Records: 0' and shows an 'EXPORT' button. A table with columns Test ID, Farmer's Name, Phone Number, Action, Survey Number, District, and Block is displayed, showing 'No rows'.

SHC BULK UPLOAD 2023-24

The uploaded samples of Bulk upload 2023-24 are displayed in this option. Once the Saathi users verify the location, the cards can be printed, Plot can be updated and results can be edited.

The screenshot shows the 'Bulk Uploaded Details' interface. The sidebar is the same as the previous screenshot, with 'SHC Bulk Upload(2023-24)' highlighted. The main area is titled 'Bulk Uploaded Details' and contains filter fields for Test ID, Saathi, Farmer's Name, Phone Number, Collected date (dd-mm-yyyy), District, Block, Village, Status, Language (English), and Printout Status. There are 'APPLY FILTERS' and 'CLEAR FILTERS' buttons. Below the filters, it says 'Total Records: 61' and shows an 'EXPORT' button. A table with columns Test ID, Farmer's Name, Phone Number, Action, Survey Number, District, Block, Village, and Village Code is displayed. The table contains 6 rows of data. The first row is highlighted, and the 'ACTION' column for the first row has buttons: 'EDIT IN EXCEL', 'UPDATE PLOT', 'PRINT', and 'MAKE AS PENDING'.

Test ID	Farmer's Name	Phone Number	Action	Survey Number	District	Block	Village	Village Code
SHC2024-09-091231-RD4801	Ramesh S	+910000000000	EDIT IN EXCEL UPDATE PLOT PRINT MAKE AS PENDING	11026	CENTRAL	Civil Lines - Block	Bader Pur Wapsa Bazar	63952
SHC2024-09-101919-vccw	Siddharth Ramu Shrivastava	+91000000007029	EDIT IN EXCEL UPDATE PLOT DELETE	149302	CENTRAL	Civil Lines - Block	Bader Pur Wapsa Bazar	63952
SHC2024-09-101919-ujhs	Suresh Jyoti Topale	+91000000008719	EDIT IN EXCEL UPDATE PLOT DELETE	33	CENTRAL	Civil Lines - Block	Bader Pur Wapsa Bazar	63952
SHC2024-09-101919-kaw	Balabala Devi Gayakwad	+91000000001925	EDIT IN EXCEL UPDATE PLOT DELETE	71	CENTRAL	Civil Lines - Block	Bader Pur Wapsa Bazar	63952
SHC2024-09-101919-rads	Khushi Mahesh Bhadange	+91000000001284	EDIT IN EXCEL UPDATE PLOT DELETE	43	CENTRAL	Civil Lines - Block	Bader Pur Wapsa Bazar	63952
SHC2024-09-101919-admr	Bhagchandra Babu Bhargade	+91000000001219	EDIT IN EXCEL UPDATE PLOT DELETE	14902	CENTRAL	Civil Lines - Block	Bader Pur Wapsa Bazar	63952

Bulk Upload (2022-23)

To upload the samples collected in the year 2022- 23 Click on Bulk Upload (2022-23) under Soil Health Cards SHC option.

Download the Sample file By clicking on the Download Excel file option

Fill the Sample details in the Excel file and save the file

To upload the file Fill the Test center name and address, Click on the Upload File button and Upload the Excel file

Click on the Submit button

Bulk Upload (2022-23)

Step1: Download Sample file By clicking on Download Excel file
Step2: Fill the Sample File
Step3: Fill the Test center name and address
Step4: Click on Upload File button and Upload the file
Step5: Click on Submit button

[Download Excel File](#)

TestCenter name TestCenter address

[Upload File](#)

Important Instructions for Excel File Upload:

1. Delete the sample data provided in 2nd row before uploading.
2. Don't leave any empty cell(s)/fields in the excel file.
3. Date format in the excel file should be "YYYY-MM-DD Add ' (apostrophe) ' symbol before YYYY.
4. Use the selection list for State, District and Crop. Do not manually enter the data in these fields.
5. Up to 5 crops can be added in the 'Crop' field. Use the 'Available Crops' drop-down for the available crops list and copy and paste it in the 'Crop' field. Use comma (,) to fill more crops.
6. Maximum limit for the number of sample entries in one excel file is 100.
7. 'Duration'(number of months), 'Yield'(kg or Quintal per Hectare) & 'Area Under Cultivation' (in Hectare) must be in number format.
8. If dropdown list is not working in Excel 2010 or older versions refer the Crops Sheet for state name and Crop name. Refer Districts sheet for districts name.

BULK TEST DETAILS (2022-23)

To view the samples uploaded in 2022-23, Click on Bulk Test details (2022-23), Users can find the required sample using the Sample Number, Collected Date, Completed Date and Village.

To download the soil health cards for the samples, Click on the Print option,

To delete the Samples, Click on the Delete button.

The screenshot displays the 'Bulk Test Details' page of a web application. On the left is a green sidebar with a menu containing: Dashboard, Target Allocation, Soil Health Cards(SHC), SHC (ALL), SHC Pending, SHC Completed, SHC Picked, SHC Not Picked, SHC Bulk Upload(2023-24), Bulk Upload(2022-23), **Bulk Test Details(2022-23)** (highlighted with a red box), Report, STL, and Help Center. The main content area has a header 'Bulk Test Details' and a search filter box (outlined in red) with fields for Sample Number, Collected date (dd-mm-yyyy), Completed date (dd-mm-yyyy), and Village, along with a Language dropdown set to 'English' and a 'SEARCH' button. Below the search box, it states 'Total Records: 8'. An 'EXPORT' link is present above a table. The table has columns: Sample Number, Farmer, Village, Action, Crop, Collected date, Completed date, and CreatedAt. The 'Action' column contains 'PRINT' and 'DELETE' buttons for each record. The first two buttons for the first record are highlighted with a red box. The table lists 8 records with sample numbers 3, 1, 2, 3, 2, 1, 1, and 1. The crops include Cotton (Bt), Cucumber, Gram (img...), Cotton Groundnut (painted), Wheat..., Chilli, Cotton (Kaspu), Groundnut..., Paddy (Kharif), Cotton, Soybean (...), and Paddy (Kharif), Cotton, Soybean (...). The dates for collection and completion are 10/22/2022 and 4/24/2023 for the first three records, and 6/12/2022 and 6/18/2022 for the remaining five. The 'CreatedAt' column shows 6/20/2023 for all records. At the bottom right, there are 'Go to Page', 'PREV', and 'NEXT' buttons.

Sample Number	Farmer	Village	Action	Crop	Collected date	Completed date	CreatedAt
3	Suresha	Usupi	PRINT DELETE	Cotton (Bt),Cucumber,Gram (img...	10/22/2022	4/24/2023	6/20/2023
1	Ramesha	Usupi	PRINT DELETE	Cotton,Groundnut (painted),Whea...	10/22/2022	4/24/2023	6/20/2023
2	Ganesha	Usupi	PRINT DELETE	Chilli,Cotton (Kaspu),Groundnut ...	10/22/2022	4/24/2023	6/20/2023
3	KIRAN RAMBHAU W...	CHANDALI BUJ	PRINT DELETE	Paddy (Kharif), Cotton, Soybean (...)	6/12/2022	6/18/2022	6/16/2023
2	MAHAGAI KISAN TE...	CHANDALI BUJ	PRINT DELETE	Paddy (Kharif), Cotton, Soybean (...)	6/12/2022	6/18/2022	6/16/2023
1	MARUTI MALLAJI K...	CHANDALI BUJ	PRINT DELETE	Paddy (Kharif), Cotton, Soybean (...)	6/12/2022	6/18/2022	6/16/2023
			PRINT DELETE				
			PRINT DELETE				

REPORTS

To generate reports click on the **Report** on the left-side menu. The list of reports is listed.



List of Reports that can be generated as below:

Progress Report (Villagewise)

Blockwise progress report

SHC Legacy report (Legacy SHC)

STL wise progress report

Agent wise samples report

Farmer details

STL

To view the laboratory details of the district Click on the STL option.

The Types of laboratories are:

Static Lab

Mobile Lab

Mini Lab

Village Level STL

Private Labs

KVK Labs

To register a new lab click on the Register STL button.



Fill out all the fields in the Registration form such as:

District, Sub District, Village, Pincode, Address, Latitude & Longitude, Lab Name, Lab Incharge Name, Lab Incharge Designation etc. and click on the Submit Button. The newly created STL will be displayed in the STL page.

Details of the labs can be edited by clicking on the Edit button, Make the necessary changes and click on the Submit button.

Labs can be Enabled or Disabled by clicking on the Enable/Disable button

To reset the password, Click on the Reset Password button



STL USER

DASHBOARD

After successful login, you will see the dashboard.

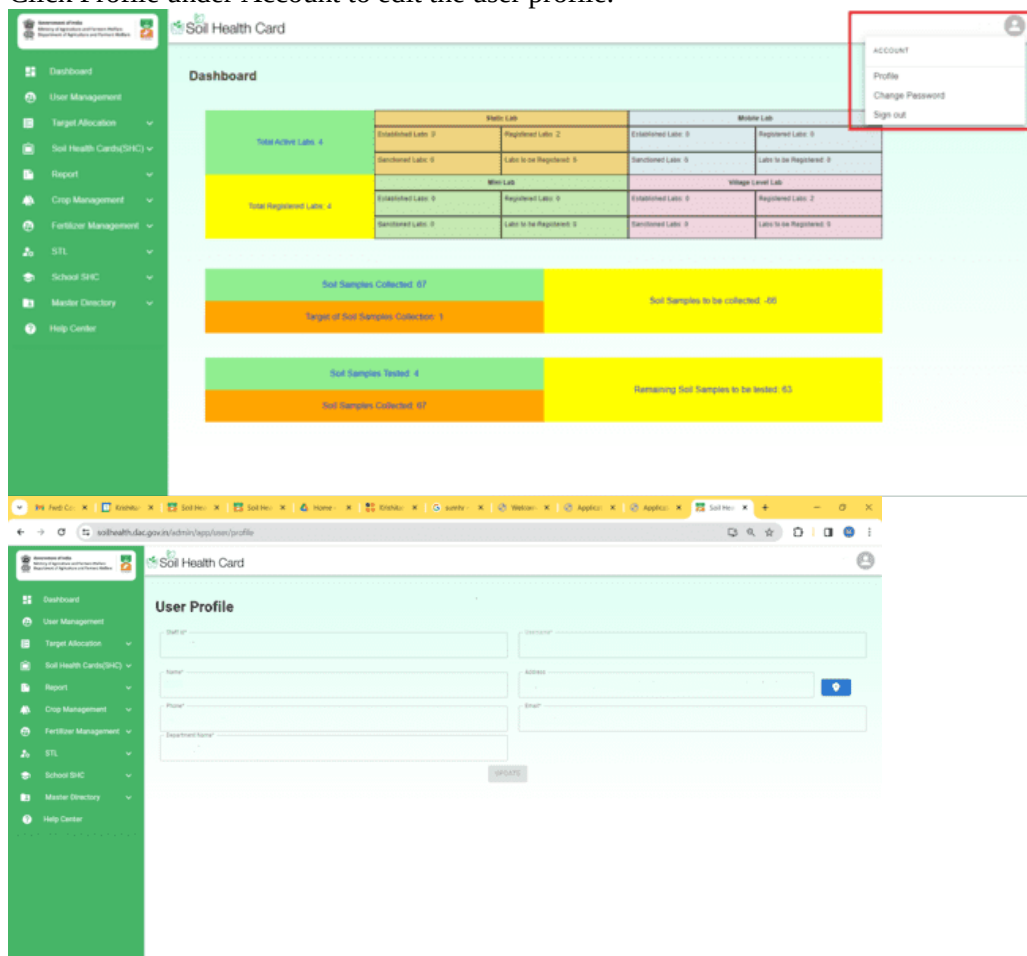


Dashboard lets us view the overall details such as:

- Target Allotted
- Number of Samples Collected
- Tests completed

EDIT USER PROFILE

Click Profile under Account to edit the user profile.



SOIL HEALTH CARDS

To view details of soil samples collected, Click on **SHC ALL** under **Soil Health Cards**.

Users can filter the soil health cards by Test ID, Saathi, Farmer Name etc.

To enter the results of collected samples click on Result Entry

To edit the results, Click on Edit Result

To edit the Plot details, Click on Update Plot option,

To delete the samples click on the Delete option. Samples can only be deleted prior to the Result Entry

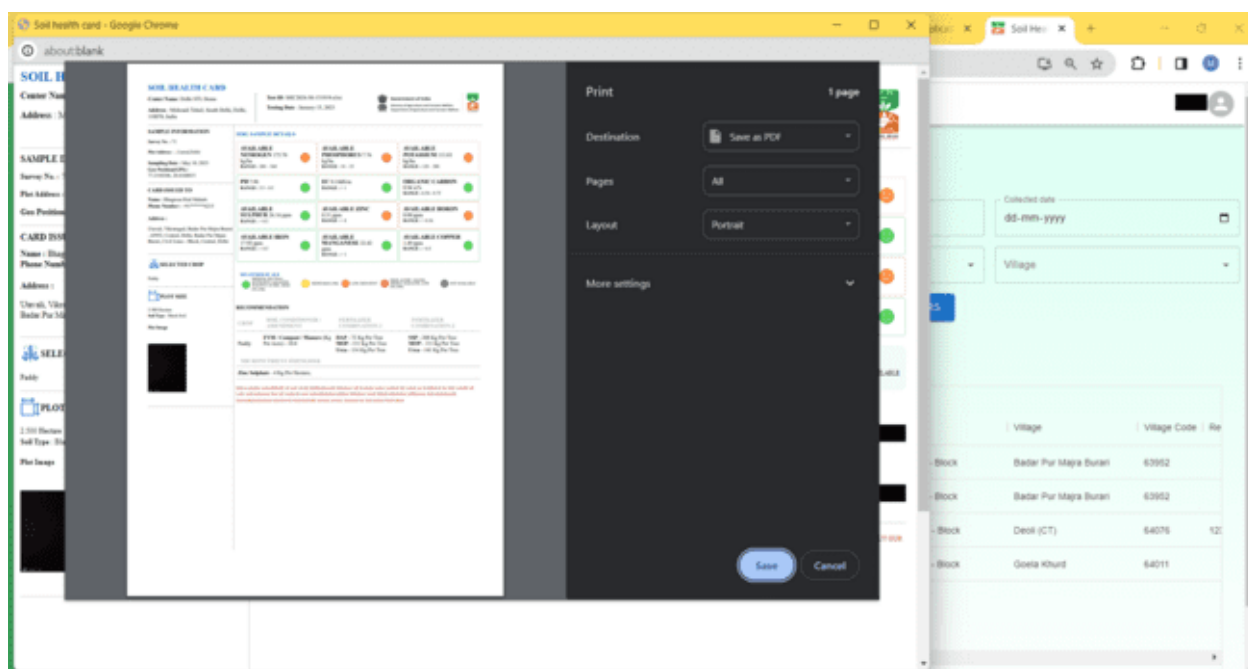
Once the Soil health cards are printed, Click on Mark as printed

The screenshot shows the 'Soil Health Card - All' page. On the left is a sidebar with navigation options: Dashboard, Soil Health Cards (SHC) - All, SHC Pending, SHC Completed, SHC Printed, SHC Not Printed, SHC Bulk Upload (2023-24), Bulk Upload (2023-24), Bulk Upload (2023-23), Bulk Result Entry, Bulk Test Details (2023-23), SHC Export Data, Report, Saathi, Generate Certificate, and Help Center. The main content area has a filter section with fields for Test ID, Saathi, Farmer's Name, Phone Number, District, Block, Village, and Printout Status. Below the filters is a table with 67 total records. The table columns are Test ID, Farmer's Name, Phone Number, Survey Number, District, Block, Village, and Village Code. Each row has action buttons: 'REVIEW ENTRY', 'UPDATE PLOT', 'DELETE', 'EDIT RESULT', 'PRINT', and 'MARK AS PRINTED'. The 'MARK AS PRINTED' button is highlighted in red in the original image.

In the Result Entry page, Enter the values of the parameters and click on the Submit button.

The screenshot shows the 'Test Result Entry' page. It has a search bar for Test ID. Below is a 'Farmer Details' section with fields for Test ID, Survey Number, District, Block, Village, and Village Code. The main section is for entering test results, with fields for pH, EC (dS/m), Organic Carbon (Corg%), Nitrogen (N) (kg/ha), Phosphorus (P) (kg/ha), Potassium (K) (kg/ha), Sulphur (S) (kg/ha), Boron (B) (ppm), Zinc (Zn) (ppm), Iron (Fe) (ppm), Manganese (Mn) (ppm), and Copper (Cu) (ppm). There are 'Print' and 'Save' buttons at the bottom.

If the soil test is completed, you can view & print the soil health card using the **Print** button.



BULK UPLOAD 2023-2024

Bulk upload 2023-24 option is provided to upload samples that were collected offline.

- Download the excel file and input all the farmer and sample details
- Enter the District, Block, Village and the preferred crops and upload the file.
- Click on the Submit button.

The screenshot shows the 'Bulk Upload (2023-24)' page of the Soil Health Card portal. On the left is a green sidebar with navigation links: Dashboard, Soil Health Cards(SHC) (with a sub-menu for ALL, Pending, Completed, Filled, Not Filled), Bulk Upload(2023-24) (highlighted), Bulk Upload(2023-23), Bulk Result Entry, Bulk Test Details(2023-23), SHC Export Data, Region, State, Generate QR Code, and Help Center. The main content area has a title 'Bulk Upload (2023-24)' and a list of steps: Step1: Download Sample file by clicking on Download Excel file; Step2: Fill the Sample File; Step3: Select Farmer's District, Sub district, Village and Crops(Upto 6 crops); Step4: Click on Upload File button and Upload the file; Step5: Click on Submit button; Step6: After upload is successful, use export option in 'Soil Health Cards' page and check if all the records are uploaded. If any records are missing in exported file, upload only missing records separately. Below the steps is a red-bordered box containing a 'Download Excel File' link, four dropdown menus for 'District', 'Block', 'Village', and 'Crops', a blue 'UPLOAD FILE' button, and a grey 'Submit' button. Below this box, the text 'Important Instructions for Excel File Upload:' is followed by five numbered instructions: 1. Delete the sample data provided in 2nd row before uploading; 2. Don't leave any empty cell(s)/fields in the excel file; 3. Date format in the excel file should be 'YYYY-MM-DD' Add ' (apostrophe) symbol before YYYY; 4. Maximum limit for the number of sample entries in one excel file is 100; 5. 'Area Under Cultivation' (in Hectare) must be in number format. The URL at the bottom is https://soilhealth.dac.gov.in/wdms/app/bulktest23_24.

SHC BULK UPLOAD 2023-24

The uploaded samples of Bulk upload 2023-24 are displayed in this option. Once the Saathi users verify the location, the cards can be printed, Plot can be updated and results can be edited.

Soil Health Card

Bulk Uploaded Details

Test ID: [Text Box] Saathi: [Dropdown] Farmer's Name: [Text Box] Phone Number: [Text Box]

Created on: [Text Box] Submitted on: [Text Box] District: [Dropdown] Block: [Dropdown]

Village: [Dropdown] Status: [Dropdown] Language: [Dropdown] Printout Status: [Dropdown]

APPLY FILTERS **CLEAR FILTERS**

Total Records: 61

Test ID	Farmer's Name	Phone Number	Action	Survey Number	District	Block	Village	Village Code	Pin
SHC2024-72-00123-RD4801	Ramesh S	+910000000328	EDIT DETAILS UPDATE PLOT PRINT SEND AS REQUEST	11124	CENTRAL	Civil Lines - Block	Bester Pur Mape Burali	63952	
SHC2024-55-151919-vcoe	Siddharth Ramu Bhucara	+9100000007020	EDIT DETAILS UPDATE PLOT DELETE	14532	CENTRAL	Civil Lines - Block	Bester Pur Mape Burali	63952	
SHC2024-55-151919-ufm	Suresh Jyoti Topale	+9100000000710	EDIT DETAILS UPDATE PLOT DELETE	33	CENTRAL	Civil Lines - Block	Bester Pur Mape Burali	63952	
SHC2024-55-151919-iva	Babasa Deva Gaywad	+9100000001520	EDIT DETAILS UPDATE PLOT DELETE	71	CENTRAL	Civil Lines - Block	Bester Pur Mape Burali	63952	
SHC2024-55-151919-lad5	Krushna Mahesh Bhadange	+9100000001284	EDIT DETAILS UPDATE PLOT DELETE	43	CENTRAL	Civil Lines - Block	Bester Pur Mape Burali	63952	
SHC2024-55-151919-adm	Bhagindrabhai Varghade	+9100000001218	EDIT DETAILS UPDATE PLOT DELETE	1482	CENTRAL	Civil Lines - Block	Bester Pur Mape Burali	63952	

<https://soilhealthindia.gov.in/edms/apply/test/BulkUploadDetails>

Go to Page: [Page Number] **NEXT**

BULK RESULT ENTRY

To enter the results of Samples in Bulk, Click on Bulk Result Entry.

Download by result sheet by village or saathi and click on Download Result Sheet

Once the results have been entered in the excel file select the village or saathi option and upload the file.

Verify the results and click on the Submit button

The screenshot displays the 'Bulk Result Entry' page within the Soil Health Card (SHC) portal. The interface is divided into three main steps, each highlighted with a red border:

- Step 1: Generate Result Sheet**
 - Maximum 100 records will be downloaded in single file.
 - Selection options: ☒ Village, ☐ Agents.
 - Dropdowns: 'District' and 'Village'.
 - Status dropdown: 'Pending'.
 - Summary: No of Records: 67, No of Tests Pending: 63.
 - Button: DOWNLOAD RESULT SHEET.
- Step 2: Upload Result Sheet**
 - Buttons: UPLOAD FILE, VERIFY, and a placeholder for a file name.
- Step 3: Verification**
 - Only recent 100 records will be downloaded.
 - Selection options: ☒ Village, ☐ Agents.
 - Dropdowns: 'District' and 'Village'.
 - Status dropdown: 'Completed'.
 - Button: DOWNLOAD RESULT SHEET.

A green sidebar on the left contains navigation links: Dashboard, SHC Cards(SHC) n, SHC (ALL), SHC Pending, SHC Completed, SHC Process, SHC Not Process, SHC Bulk Upload(2023-24), Bulk Upload(2023-24), Bulk Upload(2022-23), Bulk Result Entry, Bulk Test Details(2022-23), SHC Export Data, Report, Saathi, Generate QRcode, and Help Center. The URL at the bottom is <https://soilhealth.dac.gov.in/admin/app/next/bulkresultentry>.

Bulk Upload (2022-23)

To upload the samples collected in the year 2022- 23 Click on Bulk Upload (2022-23) under Soil Health Cards SHC option.

Download the Sample file By clicking on the Download Excel file option

Fill the Sample details in the Excel file and save the file

To upload the file Fill the Test center name and address, Click on the Upload File button and Upload the Excel file

Click on the Submit button

The screenshot shows the 'Bulk Upload (2022-23)' page. On the left is a green sidebar with a menu. The main content area has a light blue header with the title 'Bulk Upload (2022-23)'. Below the header, there are five steps listed: Step1: Download Sample file By clicking on Download Excel file; Step2: Fill the Sample File; Step3: Fill the Test center name and address; Step4: Click on Upload File button and Upload the file; Step5: Click on Submit button. A red box highlights the 'Download Excel File' button. Below this, there are two input fields: 'TestCenter name' and 'TestCenter address', both highlighted with red boxes. Below these fields are two buttons: 'UNAVAILABLE' and 'SUBMIT', both highlighted with red boxes. At the bottom, there is a section titled 'Important instructions for Excel File Upload:' followed by a list of seven instructions.

Bulk Upload (2022-23)

Step1: Download Sample file By clicking on Download Excel file
Step2: Fill the Sample File
Step3: Fill the Test center name and address
Step4: Click on Upload File button and Upload the file
Step5: Click on Submit button

[Download Excel File](#)

TestCenter name

TestCenter address

[UNAVAILABLE](#) [SUBMIT](#)

Important instructions for Excel File Upload:

1. Delete the sample data provided in 2nd row before uploading
2. Don't leave any empty cell(s)/fields in the excel file
3. Date format in the excel file should be "YYYY-MM-DD Add ' (apostrophe) symbol before YYYY
4. Use the selection list for State, District and Crop. Do not manually enter the data in these fields
5. Up to 6 crops can be added in the 'Crop' field. Use the 'Available Crops' drop-down for the available crops list and copy and paste it in the 'Crop' field. Use comma (,) to fill more crops
6. Maximum limit for the number of sample entries in one excel file is 100
7. 'Duration'(number of months), 'Yield'(kg or Quintal per Hectare) & 'Area Under Cultivation' (in Hectare) must be in number format
8. If dropdown list is not working in Excel 2010 or older versions refer the Crops Sheet for state name and Crop name. Refer Districts sheet for districts name.

REPORT GENERATION

To generate reports click on the **Report** on the left-side menu. The list of reports is listed.

Progress Report

District:

EXPORT

State	District	Target Allocated	Samples Collected	Percentage Samples	Test Completed	Percentage Tests	Farmers	Bulk Test 2023-24	Incentive Allocated	Incentive - Sample Collected	Incentive - Test Completed
DELHI	SOUTH WEST	0	1	NaN%	1	NaN%	1	0	0	0	0
DELHI	CENTRAL	0	61	NaN%	2	NaN%	61	61	0	0	0
DELHI	SOUTH	1000	5	0.50%	1	0.10%	3	0	0	0	0
DELHI	NORTH	0	0	0	0	0	1	0	0	0	0

Rows per page: 50 1-4 of 4

Click on the type of report you want to generate.

SAATHI

To create a Saathi user, Click on the Saathi option, and click on Create Saathi.

To edit the saathi details, click on the Edit option

To disable the saathis user, Click on the Disable option

To transfer the saathi user, Click on the Transfer button

To reset password of the saathi, Click on the Reset password option

The screenshot shows the 'Saathi' management page. On the left is a green sidebar with navigation links: Dashboard, Soil Health Cards (3x1), Report, Saathi, Generate Certificate, and Help Center. The main content area has a header 'Saathi' with search filters for Username and Status. A 'CREATE SAATHI' button is highlighted with a red box. Below is a table with 3 records. The 'Action' column for each record contains four buttons: EDIT, DISABLE, TRANSFER, and RESET PASSWORD, all highlighted with red boxes.

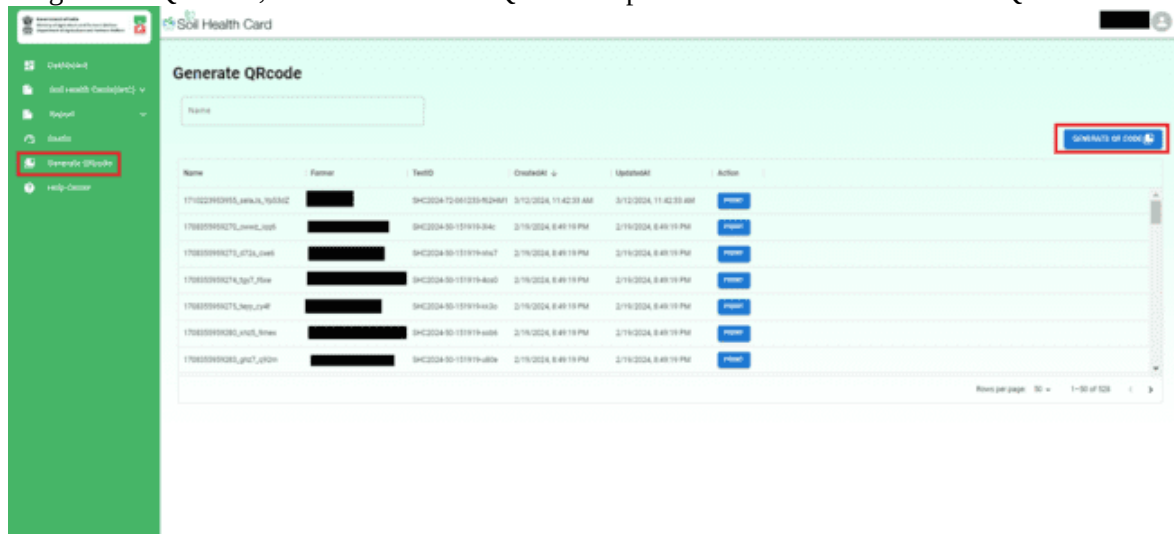
Username	Name	Phone	Status	Created At	Action
[REDACTED]	[REDACTED]	[REDACTED]	Active	3/2/2024	EDIT DISABLE TRANSFER RESET PASSWORD
[REDACTED]	[REDACTED]	[REDACTED]	Active	9/29/2023	EDIT DISABLE TRANSFER RESET PASSWORD
[REDACTED]	[REDACTED]	[REDACTED]	Active	9/14/2023	EDIT DISABLE TRANSFER RESET PASSWORD

In the Create saathi page, Enter the Saathi details and click on the Submit button

The screenshot shows the 'Create Saathi' form. It has two columns of input fields. The left column contains Name*, Phone Number*, Address*, and Password*. The right column contains Email*, Qualification*, Username*, and Confirm Password*. A 'SUBMIT' button is located at the bottom center, highlighted with a red box.

GENERATE QR CODE

To generate QR code, Click on Generate QR Code option and click on the Generate QR Code button.



Enter the desired name and number and click on save. Once the QR code is generated, Click on Print button.

The form has two input fields: 'Name' with the value 'abc' and 'Number of QR code to Generate' with the value '10'. A blue 'SAVE' button is to the right.



LOGOUT

Click the **Signout** button to terminate the session.

The screenshot displays the 'Soil Health Card' dashboard. On the left is a green sidebar menu with options: Dashboard, User Management, Target Allocation, Soil Health Cards(SHC), Report, Crop Management, Fertilizer Management, STL, School SHC, Dashboard, School Management, School Report, Soil Health Cards, Farmer Details, Monitor Directory, Local Govt Directory, and Help Center. The main dashboard area is titled 'Dashboard' and contains several data visualizations:

- Total Active Labs: 363** (Green bar)
- Total Registered Labs: 374** (Yellow bar)
- Soil Samples Collected: 128968** (Green bar)
- Target of Soil Samples Collection: 204025** (Orange bar)
- Soil Samples Tested: 128963** (Green bar)
- Soil Samples Collected: 128968** (Orange bar)

There are also several tables and charts showing detailed data, including 'Status Lab', 'Mobile Lab', 'Waste Lab', and 'Waste Lab'.

In the top right corner, there is a user profile dropdown menu with the following options: Profile, Change Password, and **Sign out** (highlighted with a red box).

Guidelines for setting up of Village Level Soil Testing Labs

File No. 14-33/2022-Fert. Use
Government of India
Ministry of Agriculture & Farmers Welfare
Department of Agriculture & Farmers Welfare
(Fertilizer Use Cell / INM Division)

Krishi Bhawan, New Delhi
Dated the 22nd June, 2023

To

All States Principal Secretaries Agriculture
/Director of Agriculture/Nodal Officers of Soil Health Card,
States Government/UTs

Subject: Implementation of Soil Health Card Scheme under "Soil Health & Fertility" of
Rashtriya Krishi Vikas Yojana (RKVY) from the year 2023-24 -Reg.

Sir,

I am directed to refer to this Department's letter of even no. dated 27.02.2023 and to say that in suppression of all the existing guidelines/instructions, following modifications in the scheme have been made: -

- i. The guidelines for setting of VLSTLs have been revised and enclosed herewith for necessary action.
- ii. All VLSTLs will be registered on the portal
- iii. Tests to VLEs may be allocated as per number of test specified in the enclosed guidelines.
- iv. State will ensure 100% user registration for State user, District user and all the Soil Testing Labs (STLs) Users and their Agents for the soil sample collection by 30.06.2023.
- v. Proper protocol to be followed for Annual Maintenance of labs by state owned agencies / or by ICAR/KVKs.
- vi. Timely validation of reagents, standard solutions, consumables items etc used in soil testing labs may be ensured.

This issue with the approval of competent authority.


(Chandra Shekhar Prasad)

Under Secretary to the Govt. of India

Copy to:

1. PPS to Secretary (A&FW)
2. PPS to Add. Secretary (INM)

3. PPS to JS (INM)
4. DS (INM)
5. Fertilizer Use Cell
6. Mr. Sandeep Kondaji CEO, Klonec Automation Systems Pvt. Ltd.,E-mail
ID:sandeep.kondaji@krishitantra.com.

Guidelines for establishment of Village Level Soil Testing Lab under Soil Health and Fertility Scheme of RKVY from year 2023-24 onwards

1. Introduction:

Soil Health Card helps in evaluating the nutrient content and fertility of soil. It provides information based on various nutrients. This data is crucial for delivering the appropriate fertilizer recommendation. Soil management is needed for soil fertility and crop productivity. By analysing soil health by these cards, farmers can understand the specific nutrient deficiency or imbalance in their soil. This allows them to make informed decision about the type and quality of fertilizer required. Therefore with the use of soil health card, the inputs provided can lead to higher yield, better quality crops and increased profitability farmers thus doubling their income. Because of soil health card sustainable agriculture practices are done preventing environmental degradation. Soil Health Card plays crucial role in formulating efficient agriculture policy and programme. The data collected from soil health card is utilized to assess overall soil health status across the region identifying trend and development target intervention. This help in designing policy related to soil management, agriculture extension services and research and development in agriculture.

The Soil Health Cards (SHCs) scheme introduced in the year 2014-15 to assist State Governments to issue soil health cards to all farmers in the country. Soil health card provides information to farmers on nutrient status of their soil along with recommendation on appropriate dosage of nutrients to be applied for improving soil health and its fertility. This scheme has been merged as Soil Health & Fertility of Rashtriya Krishi Vikas Yojana (RKVY) from the year 2022-23.

The main objective of the scheme is to assist states in promoting Integrated Nutrient Management (INM) through judicious use of chemical fertilizers including secondary and micro nutrients in conjunction with organic manures & bio-fertilizers for improving soil health and its productivity. This scheme has sub-components like, setting up/ strengthening of Soil Testing, Fertilizers/ Bio-fertilizers & Organic fertilizers Quality Control Labs, promoting Micro-nutrients, and testing soil samples to issue Soil Health Cards. Soil Samples should be processed following standard procedures and analyzed for various parameters viz, pH, electrical conductivity (EC), Organic Carbon, available N, P, K, S and micronutrients (Zn, Cu, Fe, Mn& B). Soil Health Card provides information to farmers on soil nutrient status of their soil and recommendation on appropriate dosage of nutrients to be applied for improving soil health and its fertility.

To popularize the soil test analysis in a campaign mode and to create awareness among the farmers about the soil health for judicious use of chemical fertilizers, organic manure, the component of 'Setting up of Village Level STLs' is being implemented under the scheme. The aims of Soil Health & Fertility scheme is to promote judicious



use of fertilizers as well as crop specific sustainable soil health management by using ICT enabled management system. Village level labs can also be set up by SHGs under The Rural Awareness Works Experience (RAWES) programme, Krishi Sakshis, students of Govt. schools, Agriculture graduates from SAUs, PACS etc.

The decentralization of laboratories at village level facilitates farmers to find the laboratories very near to his dwelling. Target for setting of 7500 labs has been kept for the three years i.e. 2023-26 in the country. As it will be operated by local youth; it will not only help in employment generation but also to ensure behavioral changes of frames for adopting SHC recommendations.

2. Objectives:

(i) Accessible and Affordable Soil Testing:

The primary objective of village-level soil testing labs is to provide easy access to soil testing facilities for farmers at the grassroots level. By establishing labs within the village or nearby areas, farmers can conveniently get their soil samples tested without the need to travel long distances or incur additional expenses.

(ii) Timely and Accurate Soil Analysis:

The labs aim to provide farmers with timely and accurate soil analysis results. By analyzing the soil samples using standardized techniques and equipment, these labs ensure that farmers receive reliable information about their soil's health status. This allows farmers to make informed decisions regarding fertilizer application and soil management practices.

(iii) Customized Soil Nutrient Recommendations:

Village-level soil testing labs help generate personalized soil nutrient recommendations based on the analysis results. By considering the specific nutrient requirements of different crops and the nutrient levels in the soil, these labs provide farmers with tailored recommendations for fertilizer application, thus promoting efficient nutrient management practices.

(iv) Soil Health Awareness and Education:

These labs serve as educational platforms to increase farmers' awareness about soil health and the importance of soil testing. Lab technicians can interact with farmers, explain the soil test reports, and provide guidance on appropriate soil management practices. This helps in disseminating knowledge and empowering farmers to make informed decisions for sustainable agricultural practices.



(v) Cost-effective Soil Management:

Village-level soil testing labs enable farmers to optimize their fertilizer use and minimize input costs. By accurately determining the nutrient content of the soil, farmers can avoid over- or under-application of fertilizers, thus preventing nutrient imbalances and reducing unnecessary expenses. This leads to cost-effective soil management and improved economic returns for farmers.

(vi) Soil Health Monitoring and Long-term Planning:

Soil testing labs also contribute to long-term soil health monitoring and planning. By regularly testing soil samples over time, farmers can track changes in soil health parameters and take proactive measures to prevent soil degradation. This promotes sustainable land management practices and helps in maintaining soil fertility for future generations.

(vii) Data Collection for Agricultural Research:

Village-level soil testing labs contribute to the collection of valuable soil data at the local level. This data can be utilized by agricultural research institutions, universities, and government agencies for conducting studies, formulating policies, and developing region-specific agricultural interventions. It aids in the generation of scientific knowledge and evidence-based decision-making in agriculture.

(viii) Employment generation for rural youth:

As village level soil testing labs are to be set up by local youth. This will increase employment in rural areas.

(ix) Strengthening of Soil Testing Laboratories in the country:

It will increase the number of soil testing laboratories in the country and ultimately it will help to increase the testing capacity of soil samples. Therefore, it will reduce load on static labs and will help farmers to get tested their Soil at door steps.

3. Strategy:

To achieve the above objectives, the following strategies will be adopted: -



- (i) Identification of individual entrepreneur i.e. rural youth and community based entrepreneurs i.e. Self Help Groups, PACs, Schools, Agriculture Universities etc for setting up of Village Level Soil Testing Labs
- (ii) Organizing training of VLSTLs on soil sampling, testing, generation of soil health card by manufacturers and state government.
- (iii) VLSTLs will further educate farmers about fertilizer recommendation and crop recommendation.

4. Scheme Structure

The State Level Executive Committee (SLEC) on the recommendation of District Level Executive Level Committee (DLEC) will approve the empanelment of VLSTLs.

4.1 State Level Executive Committee (SLEC):

The SLEC of RKVY will also be the SLEC for SH&F. It will oversee the implementation of scheme components of the respective states through regular meetings with the nodal and other line Departments.

4.2 District Level Executive Committee

District Level Executive committee (DLEC) will be responsible for carrying forward the objectives of the scheme for project formulation, implementation and monitoring. The District Level Executive Committee (DLEC) will comprise of the following.

District Collector/ Deputy Commissioner	Chairman
Deputy Director (Agriculture/District Agriculture Officer	Member Secretary
District Horticulture Officer	Member
Soil Testing Officer	Member
Representative from KVKs/SAUs	Member

4.3 DLEC will be responsible for carrying forward the objectives of the scheme for project evaluation, implementation and monitoring. The office of Deputy Director (Agri) / Distt. Agriculture Officer shall be the district nodal agency with following functions.

- (I) Identification of individual beneficiary i.e. village level young entrepreneur and community based beneficiaries i.e. PACS, SHGs, School, Agriculture University etc in transparent and time bound manner.
- (II) Identification of the premises for establishment of VLSTL which will include the owned or rented space by private entrepreneurs or school labs, SAUs labs, SHGs office, PACS office etc.

- (III) Geo-tagging of above such premises will also be ensured through the revamped SHC portal and mobile application. .
- (IV) Verification of proof of procured Lab equipment / inputs.
- (V) The DLEC will submit proposal to SLEC and SLEC shall ensure selection of beneficiary and approve it within 30 days from the date of receipt of the application(s).
- (VI) Training to the beneficiary Entrepreneur will be organized by VLSTL supplier. Govt. soil testing laboratories /KVKs/SAUs etc will provide training on sampling, registration, testing and generating soil health through mobile application.
- (VII) The jurisdiction preferably one SHC entrepreneur/ SHG in one Gram Panchayat/Gram Sabha of the village level soil testing project will be decided by DLEC.
- (VIII) In case of Cluster of Villages, DLEC will decide the area of Jurisdiction of Village Level Entrepreneur.
- (IX) One percent of the samples tested by the beneficiary will be validated by checking of the same sample by three different labs including static labs by state agencies / ICAR-KVKs/any third party.
- (X) Testing capacity of each VLSTL is approximately 3000 soil samples in a year. Accordingly, each VLSTL may be assigned soil testing of 300 soil samples @Rs 300/per soil sample for which cost will be borne under the scheme. In addition to that, for the next 500 soil samples, VLE will be given incentive @ Rs.20 per soil sample only from scheme. After that for soil testing will be undertaken by VLE as per the rate decided by the respective State Government.

5. BENEFICIARY:

- (i) The beneficiary/village level entrepreneur should be a youth whose age should not be below 18 years and should not be more than 27 years. SHGs, FPOs, PACs can also be enrolled as VLSTL. Eligibility of enrollment of these groups will be decided by DLEC.
- (ii) The beneficiary entrepreneur must be 10th pass with science and knowledge of computer.
- (iii) The applicant entrepreneur shall submit the application along with requisite qualification certificate, PAN Card, Aadhar Card to the office of Deputy Director/District Agriculture Officer.
- (iv) The applicant/entrepreneur group should have their own premises/ rented building with lease agreement for atleast four years

Handwritten signature

6. Financial Assistance & Timelines:

- (i) Under the scheme one time financial assistance of Rs. 1.50 lakh will be given for establishment of Village Level Soil Testing Lab (VLSTL)
- (ii) SLEC will finalize the entrepreneur's proposals, received from the District Level Executive Committee (DLEC). The entire procedure will take maximum one-month time.
- (iii) State Government will release financial assistance to entrepreneurs within a week after approval of the application.
- (iv) Entrepreneurs after receiving fund will submit receipts of procurement of lab equipments, consumables etc. will to DLEC within 15 days.

7. Timelines for sampling and testing: -

- i. Sampling and registration on portal: 0-1 days
- ii. Analysis of soil samples : 2-4 days
- iii. Reporting of analytical data by Mobile App and generation of SHC : 4-5 days

8. Role of Panchayati Raj Institutions (PRIs), SHGs, PACS, SAUs, Govt. Schools, and KVKs/ICAR:-

Gram Panchayats/SHGs, Krishi Sakhi under NRLM / RAWA, PACS, SAUs, KVKs/ ICAR Government Schools etc can play vital role in agricultural developments. The State Government will ensure active participation of these institutions in the implementation of Soil Health Management. PRIs can organize capacity-building programs for farmers to enhance their understanding of soil testing and its implications. They can arrange training sessions in collaboration with agricultural experts and extension officers to familiarize farmers with the process of soil sampling, interpretation of soil test reports, and adoption of recommended soil management practices.

9. Monitoring of activities:

District Agriculture Officer in close coordination of KVKs will be responsible for monitoring of the projects and soil sampling, testing and generating SHC as per timelines mentioned in Para 7 above.

10. Impact Assessment, Periodic Evaluation and Reporting

- (i) The Soil Health Card Scheme will be implemented through active involvement and coordination of State Governments, local implementing agencies, beneficiary entrepreneurs and farmers. A periodic review of performance and outcome will be ensured by the office of District Agriculture Officer.



- (ii) Centre/State Government/ICAR will evaluate performance of the this component of the scheme by frequent field visits.

11. Expected outcome:

The establishment of village-level soil testing labs is expected to result in

- (i) Enhanced soil health awareness,
- (ii) Informed decision-making,
- (iii) Customized nutrient recommendations,
- (iv) Sustainable soil management,
- (v) Cost-effective fertilizer use,
- (vi) Improved crop yields and quality,
- (vii) Environmental sustainability, and
- (viii) Knowledge generation.

These outcomes collectively contribute to sustainable agricultural practices, increased productivity, and the well-being of farmers and rural communities.

12. Training of Beneficiary Entrepreneur:

The training programme will be organized by State Government and Manufacturer for beneficiary entrepreneur. Training will include how to collect sample using mobile application, sampling Methodology, how to run the test in village level soil testing labs, maintenance of soil testing machine, how to use the consumables, and finally how to generate the soil health card using test results through mobile application on SHC portal. Entrepreneurs will also be trained for awareness generation of farmers about fertilizer use and crop recommendation based on soil health card.

13. Financial Structure of project of Village Level Soil Testing Lab.

Sr.No.	Item	Cost (Rs.in Lakh)
1.	Soil Testing Machinery with reagents & sample shaker machine and AMC for one year	1.00
2.	Distilled Water, pH Meter, Conductivity meter, Electronic balance, Glass-ware, filter- papers and other need based lab consumables.	0.50
	Total	1.50

14. Sample collection and testing Charges applicable:

Sample collection, Testing and generation of Soil Health Card to farmers- @ the rate of Rs. 300/- per sample which will involve:-



Sl. No.	Item	Cost (in Rs.)
1	Soil Sample Collection	Rs.40
2.	Consumable used for testing	Rs. 150
3.	Awareness of farmers	Rs. 110
	Total	Rs.300

15. Payment of testing Charges:

Payment to VLSTLs will be made through DBT mode.



Sl. No.	Item	Cost (in Rs.)
1	Soil Sample Collection	Rs.40
2	Consumable used for testing	Rs. 150
3	Awareness of farmers	Rs. 110
	Total	Rs.300



Annexure-XXXVIII

Admissible items including illustrative list of equipment for setting up of Static Soil Testing Laboratory with annual analyzing capacity of 10,000 samples per annum (For analyzing NPK, secondary nutrients & micronutrients in soil and water)

S.No	Item	Quantity
1	Inductively Coupled Plasma Spectrophotometer(ICP)	1
2	Conductivity Meter	2
3	pH Meter	2
4	Shaking Apparatus	2
5	Electronic Balance	1
6	Analytical Balance/Top Loading Balance	2
7	Drying Oven	1
8	Computer with appropriate Software	1
9	Table Top Centrifuge	1
10	GPS System with Mobile Phone	1
11	Miscellaneous equipments such as Distillation unit, Sieving-system, Auto-titrators, bar code Scanner & Printer etc.	

Annexure-XXXIX

Admissible items including illustrative list of equipment for setting up of Mobile Soil Testing Laboratory with annual analyzing capacity of 5,000 samples per annum (For analyzing NPK, secondary nutrients & micronutrients in soil and water)

S.No	Item	Quantity
1	Atomic Absorption Spectrophotometer (AAS) for MSTL	1
2	Spectrophotometer	1
3	Flame Photometer	1
4	Conductivity Meter	2
5	pH Meter	2
6	Shaking Apparatus	2
7	Electronic Balance	1
8	Analytical Balance/Top Loading Balance	2
9	Drying Oven	1
10	Computer with appropriate Software	1
11	Table Top Centrifuge	1
12	GPS System with Mobile Phone	1
13	Portable Gen set of 7.5 KVA silent type	1
14	Portable Kit	2
15	Customized Vehicle	1
16	Miscellaneous equipment's such as Distillation unit, Sieving system, Auto-titrators, Bar code Scanner & Printer etc.	-

Note:

Atomic Absorption Spectrophotometer (AAS) for MSTL, Spectrophotometer, Flame Photometer, Conductivity Meter, pH Meter, Shaking Apparatus, Electronic Balance, Analytical Balance/Top Loading Balance, Drying Oven, Computer with appropriate Software, Table Top Centrifuge, GPS System with Mobile Phone, Portable Gen set of 7.5 KVA silent type, Portable Kit, Customized Vehicle, Miscellaneous equipments such as Distillation unit, Sieving system, Auto-titrators, Bar code Scanner & Printer etc

Annexure-XL

List of admissible items and equipment for Strengthening of Static/ Mobile Soil Testing Laboratory

S. No.	Items	Quantity
1	Inductively coupled Plasma Spectrophotometer/ Atomic Spectrophotometer(ICP/AAS)	1
2	Conductivity Meter	1
3	pH Meter	1
4	Shaking Apparatus	1
5	Electronic Balance	1
6	Analytical Balance/Top Loading balance	1
7	Drying Oven	1
8	Computer with appropriate Software	1
9	Table Top Centrifuge	1
10	GPS System with Mobile Phone	1
11	Portable Gen set of 7.5 KVA silent type	1
12	Miscellaneous equipments such as Distillation unit, Sieving - System, Auto-titrators, bar code Scanner & Printer, etc	-

Annexure-XLI

Illustrative list of Equipments for setting up of new State Fertilizer Testing Labs

S.No.	Items	No.
1	Inductively Coupled Plasma Spectrophotometer/ Atomic Spectrophotometer (ICP/AAS)	1
2	Auto N-Analyzer	1
3	Spectrophotometer	1
4	Water Bath-cum-Shaker	1
5	Muffle Furnace + Oven	1
6	pH Meter	2
7	Vacuum Pump	2
8	Electronic Balance	2
9	Analytical Balance	1
10	Digestion/Distillation Set	2
11	Karl Fisher Apparatus	2
12	Deionizer	1
13	Computer with appropriate Software	1
14	Lab. Articles	1
15	Misc. equipment's such as Auto-titrators etc.	-

Annexure-XLII

Illustrative list of Equipments for Strengthening of existing State Fertilizer Quality Control Laboratory

S.No.	Items	No.
1	Inductively Coupled Plasma Spectrophotometer/ Atomic Spectrophotometer(ICP/AAS)	1
2	Auto N-Analyzer	1
3	Spectrophotometer	1
4	Water Bath-cum-Shaker	1
5	Muffle Furnace + Oven	1
6	pH Meter	1
7	Vacuum Pump	1
8	Electronic Balance	1
9	Analytical Balance	1
10	Digestion/Distillation set	1
11	Karl Fisher Apparatus	1
12	Deionizer	1
13	Computer with appropriate Software	1
14	Lab. Articles	1
15	Miscellaneous equipment's such as auto-titrators, bar code Scanner & Printer, etc	-

Annexure-XLIII

List of Equipments and Plant and Machinery for Setting up New Bio-fertilizer and Organic Fertilizer (organic manures) Quality Control Laboratory for Capacity of 1000 samples/ year (Essential equipments, for strain maintenance and quality control glass ware, plastic ware etc.

(Rs. in lakh)

S. No.	Item	Quantity required(No)	Rate	Amount
1.	Vertical Autoclave 600x350mm	2	0.8	1.600
2.	Hot Air Oven	2	0.6	1.200
3.	Refrigerator 300 lit	1	0.3	0.300
4.	BOD In cub at or 290 lit	2	1.2	2.400
5.	Laminar air flow work station, working table Size 3'x2'	2	1.5	3.000
6.	Rotary shaker (capable of holding 25 no., flasks of 100- 500 ml capacity)	2	1.25	2.500
7.	Binocular research micro scope with phase contrast attachment (MOST IMPORTANT) having turret condenser and matching phase objectives of 10x,40x and 100x magnification, 10x wide field eye pieces and telescopic centering eyepiece.	1	2.20	2.200
8.	pH Meter (Micro Processor based) and conductivity meter	1 each	0.3	0.600
9.	Small oil free air compressor	2	0.5	1.000
10.	Air conditioners1.5 ton split type	4	0.3	1.200
11.	Miscellaneous equipments and tools such as colony counter, balances, micro liter pipettes/ Deionizer etc	-	LS	4.000
12.	Glass ware and plastic ware aids		LS	2.500
13.	Centrifuge15,000 rpm	1	1.50	1.50
14.	ICP	1	30	30.00
15.	Auto N-Analyzer	1	10.00	10.00
16.	Moisture analyzer	1	2.0	2.0
17.	Chemicals etc.	LS	-	2.50
18.	Assistance for hired manpower on contract	LS		10.00
19.	Computer with appropriate software	1	1.50	1.500
20.	Contingencies	LS	-	5.000
	Total			85.00

Note: For strengthening of existing BOQCL assistance shall be limited to Rs.45.00lakh. Any of the equipment's mentioned above shall be the admissible items for strengthening.

Rain-fed Area Development (RAD) Cost Norms

Sl. No.	Item	Practices	Proposed Cost Norms
1.	Integrated Farming System	Crops (Millets Crops / Oilseed/ Pulses/Vegetables/fodder) + Trees (Horticulture/Agro Forestry)+Livestock {Milch cows/Bufaloes/small ruminants (10animals (Sheep or Goat or Pigs)/ 50 birds (Duck/ Poultry) }	Rs.30,000/-(thirty thousand) will be provided to each farming family for taking up Integrated Farming System as given at S.No.1and at least two activities given at S.No.2 to 5 shall be included depending on the need of farm house hold, resource available and convergence mechanism identified. The assistance of Rs. 30,000/-shall be uniform for all farmers irrespective of the size of their landholding.
2.	Fishery(Fingerlings)Units	Fisheries in ponds or Rice field	
3.	Apiculture(Bee Keeping)	One unit per farm under plantation/Millets/ Crops.	
4.	Silage making for increased availability of green fodder round the year	Construction of Silo Pit either below ground or above ground with provision of Chaff Cutter and Weighing Balance	
5.	Vermicompost Units/organic input Production unit, green manuring	Construction of Vermicompost units, organic input production units and green manuring.	
6	Capacity Building	Monitoring and capacity building of the beneficiaries through Community Resource Persons (CRPs) under SRLM, Self Help Groups, Champion Farmers under NF program etc.	Rs. 10,000/- per cluster.
7	Formulation of projects for Voluntary Carbon Market by Govt. Agencies/Organisations	Project based	100% assistance to Government agencies/ organizations.
8	Admin Cost	As per RKVY norms	

Note:

(RAD should be complimented by schemes such as WDC-PMKSY, MGNREGA, NFNSM, other components of RKVY, National Mission on Edible Oil-Oilseeds (NMEO-OS), Mission for Integrated Development of Horticulture (MIDH), National Mission on Natural Farming, Sub Mission on Agricultural Extension(SMAE) etc. through convergence.)

Format for Annual Action Plan (AAP) of RAD

The AAP format shall be prepared as given below:

Details of Cluster/Village—

S. No	Name of Cluster-	Total Area under Cluster	Proposed Area under RAD In Cluster	Nos. of Beneficiaries

Implementing Agency:

Total Area proposed for development:

Total Nos. of Cluster:

Total Nos .of beneficiaries:

Farming System	Area proposed (ha.)/ Nos.	Number of Beneficiaries	Estimated total Cost (CS+SS)	Assistance Sought from RAD
Integrated Farming System (ha)				
Fishery (fingerlings) Units				
Apiculture Unit				
Silage Unit				
Vermicompost Units/Organic input production unit, Green Manuring				
Capacity Building				
Admin Cost				
Grand Total				

Rainfed Area Development (RAD) Progress Reporting Format

Sl.	Activity	Unit (ha/ nos)	Physical		Financial				Incurred Cost per unit(Rs.)
			Approve d Target	Achieveme nt	Total cost	Achievement			
						Central Share	State Share	Total	
1	Integrated Farming System (ha)								
2	Fishery(Fingerlings) Units								
3	Apiculture Unit								
4	Silage Unit								
5	Vermicompost Units/ Organic input production unit, Green Manuring								
6	Capacity Building								
7	Admin Cost								
	Total								

Annexure-XLVI-A

Progress reporting format for TSP and SCSP component under RAD

A. Physical achievement

Cluster/District	Physical Target						Physical Achievement					
	SC		ST		General		SC		ST		General	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female

B. Financial Target

Cluster/District	Financial Target						Financial Achievement					
	SC		ST		General		SC		ST		General	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female

C. Average enhancement of farmer's income:

D. Average enhancement in cropping intensity:

Functions of National/State/District Project Management Team (PMT)

- PMT, at all levels, will provide technical backstopping and also help in monitoring of the scheme implementation. The responsibilities of PMTs/ experts at national/state/ district levels are as follows:
 - Design understanding of Sustainable Agriculture Systems including eco system services at Farm level and cluster level.
 - Design understanding of Farmer Producer Organization (FPOs) and Producer Companies (PCs) for value addition and marketing of surplus produce at different cluster levels (GP, Block and District).
 - Design of training Modules of SAS and Farmer producer Organisations (FPOs) & PCs.
 - Coordination for Convergence of resources at national, state, district and GP level.
 - Take up concurrent evaluation based on case studies in identified areas.
 - Performance Matrix development for monitoring.
 - Administration and Coordination of PKVY at respective levels.
 - Undertake publicity/information campaign to create awareness about the scheme activity including organizing workshops/conferences/symposium etc.

Essential qualifications for Support Agency

- Legally registered body under relevant act for last 3 years supported with their annual reports.
- Financially sound supported through last 3 years balance sheets
- At least 3 years of experience in management of organic adoption and certification programmes (Third party or PGS) or organic farming conversion projects through experienced manpower in organic farming.
- Proven track record in facilitating market linkages to their developed organic groups/ clusters.
- Have strong in-house technical team competent in organic farm management, value addition, certification and marketing
- Have experience in FPO/FPC formation and providing handholding to such organizations in their business management.
- Competence in market facilitation and past record in handholding farmer groups in successful marketing shall be the key requirement for selection of service providers.

Roles and Responsibilities of Support Agency

- Deployment of manpower as Lead Resource Persons (LRPs) for effective implementation of programme.
- One LRP shall be deployed for minimum of 100 farmers (means one LRP for 5 groups having 100 ha area.
- Group/ cluster formation through mobilization of interested farmers
- Collection of basic data such as Aadhar card/ PAN card/ Voter ID card, land details and bank account No (for DBT), last 3 years farm history.
- Helps in registration of local groups and ensure generation of user ID and password for data uploading on PGS-India website
- Facilitate local group in data uploading and management on PGS website/ state ICT network (farmers details, 3 years farm history sheets, group summary sheets etc.), if local group do not have access to computer.
- Ensure access of portal data to public to build trust and credibility in the system
- Capacity building of LPs on implementation requirements and ensure implementation of all activities through LRPs
- Trainings to farmers on organic farming activities, as sit in annual plan of action preparation, packing, marketing, logo preparation, transportation etc.
- Helping farmers in developing suitable organic packages and guiding them on regular basis for optimum productivity
- Helping farmers in adopting suitable on farm strategies for nutrient and pest management
- Capacity building of farmers through trainings, group meetings and exposure visits on
- Capacity building of farmers on PGS group operations, documentation, peer appraisals and certification decision
- Capacity building of farmers on PGS standards implementation.
- Capacity building of groups and clusters in institutional development/ FPO/FPC making and their professional management
- Translate and print PGS paper work in local languages
- Submission of monthly, quarterly, half yearly and annual reports
- Facilitating market linkages-Introducing local marketing initiatives to ensure that PGS certified produce finds market as premium produce in local and city markets
- Helping states in brand building activities and projecting states potential in national and international trade fairs with in the country.

Eligible Criteria for Regional Councils

- The organisation/agency should have experts in technical, marketing, training fields
- Should have support of atleast 10 local groups (total 50 farmers). List of farmers to be uploaded as per prescribed format
- Organization should be financially sound supported by legal status (3 years audit report required
- Must not have been black listed from any organization (self declaration required).
- Proof/certificate of adequate experiences (05 years) of PGS-India/any other certification (TPS) in organic farming
- Situated in the area of functioning (proposed to operate PGS-India programme) with permanent office and working personnel's
- If proposed for operation in any other places other than its HQ, then address of branch offices will be required
- Must have adequate infrastructure for online activity (like computer, printer, internet facility etc.)

Roles and Responsibilities of Regional Councils as Agencies endorsing PGS Certification Process

- State Government can select any Regional Council from the list of duly authorized RCs available on PGS website. Preference may be given to RCs located in the nearby areas for cost effectiveness
- One RC shall be given not less than 1000 ha and not more than 3000 ha area in one state (1-3cluster) for certification activities.
- Physical verification of groups at least once a year, including participation in some peer appraisals by group for peer appraiser's competence assessment
- Periodic checking of data being uploaded-Checking of local group summary work sheets for organic certification; whether complete in all respects and are maintained by groups
- Appraisal of summary sheets and communication of compliances/ non-compliances
- Endorsement, returning for review or denial of certification decision
- Activate and issue Certification UID to each Local group in case of endorsement
- Print and distribute annual organic certificates to individual farmer members
- Coordinating RCOF, NCOF, state Government authorities for sample collection for residue analysis and sending to authorized testing laboratories
- Communication of test results
- Time to time reporting to NCOF and State Government authorities

Roles and Responsibilities of Lead Resource Persons (LRPs)

- LRPs can be chosen from the local group of farmers
- LRs shall be the main field functionary and shall be responsible for farmer registration, documentation of the group members, uploading data in coordination with RC and handholding group members for PGS standards implementation in field, PGS documentation, group meetings and helping group members in Peer-appraisals.
- Supervising PGS standards implementation, nutrient and pest management protocols, inputs production, purchase and use
- Participate in peer appraisals as external member, help farmers in peer appraisal report preparation, summary sheet development and yields assessment
- Coordinate with RCs for physical verification and timely data submission.
- Submission of time to time reports to cluster coordinator
- Providing hard data to cluster coordinator for uploading

Methodology for providing certification assistance to individual farmers/small farmer groups and large contiguous area under traditional/default organic farming

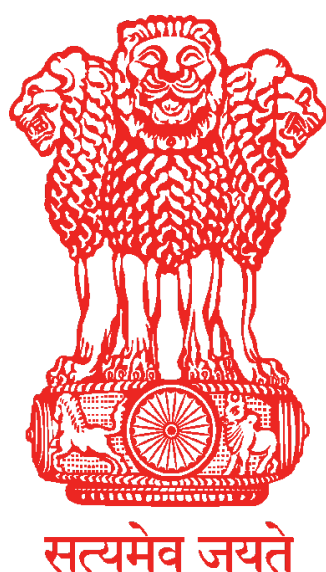
1. Methodologies for individual and small group farmers will be as follows:

- a) States will identify the willing farmers/ groups and encourage them to register themselves for certification with concerned Regional Council accredited certification body under NPOP and farmers/ groups can approach the state authorities for enrolment or can enroll directly with intimation to state.
- b) Enrolled farmers/groups will have to register themselves on the Jaivik Kheti portal, once they are ready with scope certificate having IC-1 status.
- c) States can access the details of such farmers/ groups from Jaivik Kheti portal from time to time and send verified list to the PKVY national Project Monitoring Unit. Funds will be reimbursed directly to the Regional Councils and Certification Bodies on receipt of verified list from the state. Regional Councils and certification bodies can also assist the states for getting their farmers/ groups verified by the state.
- d) States will ensure adequate publicity and awareness to attract more and more farmers and small groups.
- e) Based upon state-wise registration and verification, funds will be provided as reimbursement directly to the RCs or certification bodies within the limit prescribed under component 14 B (3&4).
- f) In case if a farmer is having land less than 1.00 ha then his cost will be calculated on prorata basis.

2. Certification of traditional/ default organic areas

- a) Declaration of the defined area as chemical input usage and GMO free (at least no such input use history in last 5 years) by state Government and/or local administration. Ban on use of all agro-chemicals within the identified geographical territory
- b) Adoption of organic farming policy and practices by all the farmers in the region and its corroboration by village councils or Gram Panchayats
- c) One-time documentation of all cultivated land and farmers and making of village wise clusters/ groups. Registration of village as one unit with total area and number of farmers
- d) State may constitute an experts committee comprising of members from MoA & FW, APEDA, NCOF and states to evaluate the organic status of the area and recommend for declaration of the defined area as organic. The committee will also give recommendations on the need for reduction or elimination of conversion period
- e) Subsequent annual inspection will be taken up by the RCs as per PGS-India peer appraisal. There will be single Peer appraisal of the village and uploading of village data on PGS-India website.
- f) Once the entire area villages are certified the entire area can be declared as organic
- g) For ensuring marketing there will be need for capturing of estimated yield, commodity-wise, village-wise and farmer-wise on PGS portal.
- h) Financial assistance will be provided to the Gram Panchayats or States (for hiring the resource agencies/ persons) for capacity building and certification facilitation @ Rs. 900/- per hal year for three years, as per the provisions at component 14 B (3&4).

National Mission on Natural Farming



Operational Guidelines

**Integrated Nutrient Management Division
Department of Agriculture, & Farmers Welfare
Ministry of Agriculture & Farmers Welfare
Krishi Bhavan, New Delhi – 110 001**

1. About Natural Farming (NF)

- 1.1** Natural Farming is a chemical free farming, involving livestock (preferably local breed of cow) integrated natural farming methods and diversified crop systems rooted in the Indian traditional knowledge. It is aimed towards improving soil health and restoring ecosystems and reducing input cost to the farmer to achieve greater climate resilience. NF recognises the interdependence of the natural ecosystem amongst soil, water, microbiome, plants, animals, climate and human requirements.
- 1.2** Natural farming is integrated with livestock (preferably local breed of cow), involves use of on-farm inputs like Beejamrut, Jeevamrut, Ghan Jeevamrut, Neemastra, Dashparni, etc., multi-cropping systems, Pre-monsoon dry sowing, biomass based mulching, use of traditional varieties of seeds, integration of trees on buffer zones of farm, etc. NF practices improves soil structure, nutrition & soil organic carbon, enhances moisture retention & water holding capacity, promotes crop diversification and encourages natural habitats that enhance the on-farm biodiversity. NF follows local agro-ecological principles rooted in local knowledge and location specific technologies. On-farm innovations like application of multi-species green manure, farm made manure, compost, etc. are emerging along with the other components.
- 1.3** Knowledge of Natural Farming which is being practiced by farmers across the country, is traditionally built within the farmers and their communities. To leverage this, NMNF will enable a decentralized cross learning ecosystem blending the traditional NF knowledge of practicing farmers and the communities with the scientific approaches evolved in the Agricultural Universities (AUs) / Krishi Vigyan Kendras (KVKs) / ICAR Institutions, etc.

2. Need

- 2.1** The green revolution technologies have revolutionized food production and transformed the Indian agriculture from subsistence to a surplus generating enterprise. Now, there is a need for exploring alternative agricultural systems that are more sustainable and offer better climate resilience.
- 2.2** Natural Farming is a highly location specific farming system. The transition period towards natural farming depends on the organic carbon content of the soil, practice of all NF packages of practices, cropping system adopted, local agro-ecology, among others. For example, in soil with organic carbon content higher than 1%, the

transition to natural farming is faster in comparison to soils with lower soil organic carbon. Similarly, the transition period is quicker in rainfed agriculture areas than in irrigated regions due to factors such as high chemical input use.

- 2.3 A planned transition towards a mass movement (*Jan Bhagidari*) for natural farming needs to be scientifically backed up and requires dedicated long term investment on the capacities/ knowledge of the scientific research and extension systems. A robust knowledge extension needs to be established to provide necessary support to the farmers, community based organisations (CBO) such as Self Help Groups (SHG), Village organizations (VO), Primary Agricultural Credit Society (PACS), Farmer Producer Organisations (FPOs), etc. Close collaboration with practicing NF farmers/ communities, Local NF Institutions (LNFI) are essential for such a transition.
- 2.4 In order to institutionally root the transition process, it is essential to have location specific solutions, scientifically backed knowledge based extension, reorientation of research towards local agroecology and on-farm research with both scientists and farmers.

3. Chemical Free Farming Systems

- 3.1 The Government of India is promoting chemical-free farming systems of agriculture through Mission Organic Value Chain Development for North Eastern Region (MOVCDNER), Paramparagat Krishi Vikas Yojna (PKVY), and NF under a sub-scheme of PKVY - Bhartiya Prakratik Krishi Paddhati (BPKP).
- 3.2 Now, Department of Agriculture & Farmers Welfare (DA&FW) is upscaling BPKP in a Mission mode through the National Mission on Natural Farming building upon the strength of the NF concept, and the success achieved in spreading NF through efforts of Centre and State Agricultural Universities (SAUs), practicing NF farmers, institutions/ organizations carrying out NF extension and farmer communities.

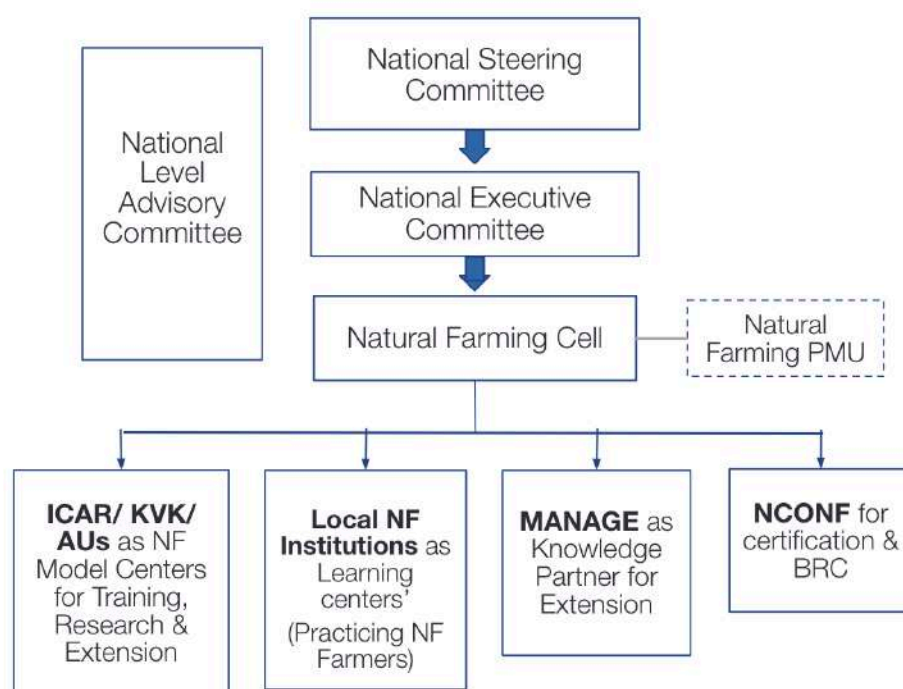
4. National Mission on Natural Farming (NMNF)

- 4.1 NMNF is a standalone Centrally Sponsored Scheme under Department of Agriculture & Farmers Welfare (DA&FW), Ministry of Agriculture & Farmers Welfare (MoA&FW) with an outlay of ₹2481.00 crore, (Government of India share is ₹1584.00 crore and States share is ₹897.00 crore). The Mission is a shift to strengthen agriculture practices with scientifically backed approaches towards sustainability, climate resilience and safe food.

4.2 Mission Objectives

- i. To promote nature based sustainable systems of farming, enhancing usage of on-farm made natural farming bio-inputs to reduce dependency on externally purchased inputs and input cost reduction. To also improve soil health and have sustainable agriculture practices.
 - ii. To popularize livestock (preferably local breed of cow) integrated agriculture-animal husbandry models.
 - iii. To strengthen on-farm agroecological research and knowledge based extension capacities of ICAR institutions, KVKs, Agricultural Universities, etc.
 - iv. To build upon the on-field experience of practicing NF farmers and scientific expertise to thereby evolve & improvise location specific NF package of practices for increased spread of NF.
 - v. To establish scientifically supported common standards and easy farmer friendly certification procedures for naturally grown chemical-free produce.
 - vi. To create and promote a single national brand for naturally grown chemical-free produce.
- 4.3** Till the 15th finance commission, awareness generation, orientation and capacity building of Missions at the State/ District/ Block/ Gram Panchayat (GP)/ Villages, scientists from ICAR / KVK / AUs, NF experts, implementing agencies, farmers, community based organizations and Gram Panchayats shall be taken up. NMNF will be implemented in 15,000 clusters in willing Gram Panchayats to outreach the message of NF to 1 crore farmers and initiate NF in 7.5 Lakh Ha area. These clusters will be the seeding areas where the willing farmers would be trained on NF package of practices and generate on-ground experiences. Baseline and periodic real time data shall be maintained through IT Portal to track progress, monitor, assess impact of NMNF and identify policy support requirements.

5. Administrative Structure at National Level :



5.1 National Steering Committee (NSC) at DA&FW - At the National level, the Mission will be steered by a National Steering Committee (NSC) under the Chairpersonship of Hon'ble Minister of Agriculture & Farmers' Welfare.

5.1.1 Composition of the NSC :

i.	Minister of Agriculture & Farmers' Welfare	Chairperson
ii	Secretary, Ministry of Animal Husbandry & Dairying	Member
iii	Secretary, Department of Fisheries	Member
iv	Secretary, Department of Rural Development	Member
v	Secretary, Department of Water Resources, River Development and Ganga Rejuvenation	Member
vi	Secretary, Ministry of Food Processing Industries	Member
vii	Secretary, Ministry of Tribal Affairs	Member
viii	Secretary, Ministry of Women and Child Development	Member
ix	Secretary, DARE & DG, ICAR	Member
x	Secretary, Ministry of AYUSH	Member
xi	Secretary, D/o Agriculture & Farmers' Welfare	Member
xii	Concerned Representative of NITI Aayog	Member
xiii	Agriculture Ministers of four States (on rotation basis for 2 years)	Member

xiv	Chairperson, FSSAI	Member
xv	Chairman, APEDA	Member
xvi	Practicing NF Farmers (2 numbers nominated by Hon'ble Minister of Agriculture & Farmers' Welfare)	Member
xvii	Additional Secretary (INM)/ Joint Secretary (INM), DA&FW	Member Secretary

5.1.2 The NSC may co-opt technical/ field experts from the Central/ State Institutions, Agencies and Research Organizations working in the field of Natural Farming. The NSC shall meet at least twice a year.

5.1.3 Roles and responsibilities - NSC will be the policy making body providing overall direction and guidance to the Mission and monitor & review its progress & performance. NSC will be empowered to approve any modification, revision or amendment in the operational guidelines and implementation strategy, during the course of Mission implementation. The NSC will meet once a year, minimum.

5.2 National Executive Committee (NEC) - The NSC will be assisted by a National Executive Committee (NEC), constituted at the level of the DA&FW

5.2.1 Composition of NEC

i.	Secretary, DA&FW	Chairperson
ii.	DDG (NRM), ICAR	Member
iii	DDG (Extension), ICAR	Member
iv	DDG (Education), ICAR	Member
v	Additional Chief Secretary/ Principal Secretary (Agriculture) (from 4 States on rotation basis)	Member
vi	Joint Secretary, Department of Animal Husbandry & Dairying	Member
vii	Joint Secretary (NRLM), Department of Rural Development	Member
viii	Joint Secretary, Ministry of Cooperation	Member
ix	Chairman, APEDA	Member
x	Director, ICAR-IIFSR, Modipuram	Member
xi	Practicing NF Farmers (2 numbers nominated by Secretary, DA&FW)	Member
xii	Joint Secretary (INM)	Member Secretary

5.2.2 Roles and responsibilities - The NEC will be responsible for overall implementation and performance of Mission activities. NEC shall sanction the proposals from Natural Farming Cell, DA&FW, undertake monitoring, performance assessment and recommend any modification, revision or amendment to the Mission guidelines and implementation strategy (if needed) to the NSC for approval and implementation. The NEC will meet twice a year, minimum.

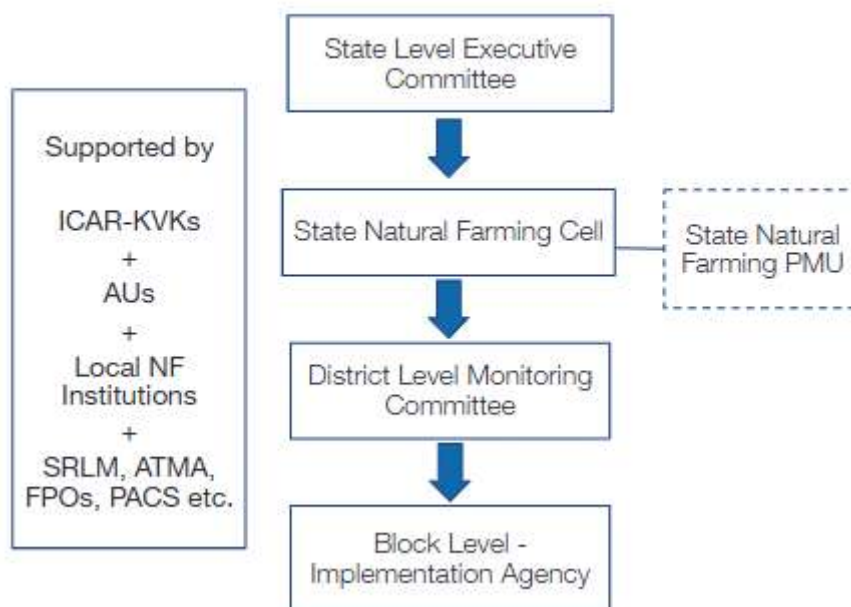
5.3 Natural Farming Cell, INM Division, DA&FW - At the National level, the Natural Farming Cell, DA&FW, headed by Joint Secretary (Integrated Nutrient Management Division) would be responsible for the overall implementation of NMNF across the country. The NF Cell will develop overall policy, operational guidelines for the Mission, handhold the States, Central Institutions & other stakeholders in implementation and also carry out various activities such as capacity building, publicity, monitoring, impact evaluation, etc. The NF Cell will coordinate with the ICAR, MANAGE, NCONF, States, National/ International Organisations, Experts on NF, etc. for proposals, Annual Action Plans and implementation. Further, the NF Cell will be assisted by a Project Monitoring Unit (PMU). Services of NF Experts can also be taken for specific activities.

5.4 National Advisory Committee – To advise on technical aspects and rollout of NMNF, an Advisory Committee is proposed to be constituted at DA&FW with following members :

i.	Additional Secretary (INM), DA&FW	Chairperson
ii.	Joint Secretary (INM), DA&FW	Member
iii.	Joint Secretary (NRLM), Department of Rural Development	Member
iv.	Joint Secretary, Ministry of Cooperation	Member
v.	DDG (NRM), ICAR	Member
vi.	DDG (Extension), ICAR	Member
vii.	DDG (Education), ICAR	Member
viii.	Director General, MANAGE	Member
ix.	Chairman, APEDA	Member
x.	Senior Advisor (Agriculture), NITI Aayog	Member
xi.	Principal Coordinator, AINPOF, ICAR-IIFSR	Member
xii.	Representative from States (2)	Member
xiii.	Representative from Agricultural Universities (2)	Member

xiv.	Practicing NF farmer (2 number nominated by Additional Secretary(INM), DA&FW)	Member
xv.	Director/ Deputy Secretary (NF)	Member Secretary
xvi.	Technical Experts (as required)	Co-opted Members

6. Administrative Structure at State Level :



6.1 State Level Executive Committee (SLEC) shall be headed by the Chief Secretary of the concerned State and consist of Additional Chief Secretary/ Agriculture Production Commissioner/ Principal Secretary/ Secretary (Agriculture), representatives from ICAR, SAUs and allied Departments like Horticulture, Animal Husbandry, SRLM, Agriculture Marketing, Rural Development etc. and practicing NF farmers as members. The SLEC may decide to have a dedicated Government owned agency/ corporation as an implementation arrangement in the state. The committee shall be responsible for the effective implementation of the Mission. In consultation with the State Nodal Department, the SLEC shall prepare the implementation strategy and approve the Annual Action Plan prepared by the State Natural Farming Cell. The State is advised to position nodal officers who are committed and passionate about implementing NF in the State Natural Farming Cell, and District/ Block mission implementation levels.

6.2 State Natural Farming Cell - States shall create a dedicated State Natural Farming Cell at the State headquarter of the State Nodal department headed by the Additional Chief Secretary/ Agriculture Production Commissioner/ Principal Secretary/ Secretary (Agriculture) of the State. The State NF Cell shall consist of the

Director (Agriculture/ ATMA), Joint Directors of Agriculture (ATMA, Training, Marketing, IT, etc.), Deputy/ Assistant Directors of Agriculture, Agriculture Officers and other supporting staff.

6.2.1 Functions of the State NF Cell :

- I. Prepare State Level Annual Action Plan by compiling District-wise Action Plan and submit to the State Level Executive Committee (SLEC) for approval and thereafter forward the same to NEC .
- II. Receive funds from DA&FW for implementation, release as per approved Annual Action Plan and oversee its implementation, regular monitoring & review of programmes.
- III. Organize workshops, seminars, capacity building and training programme for all interest groups/stakeholders at State/District level.
- IV. Conduct independent performance and impact evaluation to assess the performance of schemes in their States.
- V. The State Government and other designated implementing agencies, will ensure active participation of the Panchayati Raj Institutions (PRIs), State Rural Livelihood Missions (SRLM), Farmer Producer Organisations (FPOs), Primary Agricultural Cooperative Society (PACS) etc in the implementation of this scheme
- VI. State Government may involve PRIs, SRLM, FPOs, PACS etc in publicity, outreach of demonstrations and training of farmers and in ensuring participation of farmers from nearby areas for widespread dissemination of technology.
- VII. Any other task as directed by SLEC/ Nodal Department.

6.2.2 The State NF cell may be supported by the State Project Monitoring Unit consisting of Consultants/ Technical Assistants, etc. having technical and administrative expertise on Natural Farming for providing technical guidance and effective monitoring of the scheme implementation. States can decide the number of officials based on their requirements from within the allocated budget.

6.3 District Level Monitoring Committee - The District level implementation will be supervised by a committee under the chairpersonship of District Collector/ Deputy Commissioner and composed of Joint Director (Agriculture)/ District Agriculture Officer, Project Director (ATMA), Head of Krishi Vigyan Kendra, practicing NF farmers and representatives from other allied Departments like

Horticulture, Animal Husbandry, Watershed, SRLM, Cooperatives, Agricultural Produce Market Committee, Local NF Institutions, Agriculture University, etc. as members. Implementation of the Mission will be supported and monitored by the designated Nodal Department.

- 6.4 Block Level Monitoring Committee** - The Block level mission implementation will be monitored by a committee under the chairpersonship of Block Development Officer, and composed of Block Technical Manager/ Assistant Technical Manager (ATMA), Assistant Director of Agriculture/ Block Agriculture Officer, SRLM, practicing NF farmers and representatives from other allied Departments as members, etc.
- 6.5** The District Level Monitoring Committee can, wherever required, position ATMA, SRLM, KVKs, or Non-Government Organizations (NGO) as **Block Implementing Agency (BIA)** under the supervision of the Block Level Monitoring Committee. The indicative criteria for selecting an NGO as BIA is given in Annexure I. The BIA shall coordinate with the Krishi Sakhis/ Community Resource Persons (CRPs), Gram Panchayats, FPO, PACS, ATMA, State designated Officer for Gram Panchayat and training institutions (KVK/ AU/ LNFI) under the overall supervision of Block Level Monitoring Committee for the implementation of the Mission activities at Block Level.
- 6.6** The structure presented above is indicative. As decided by the SLEC, States can create and define suitable administrative structure based on local strengths & strategies strictly within the financial framework that is provided in the activity wise cost components of this Mission guideline.
- 7. Mission Implementation Strategy** - The Mission will create a favorable support ecosystem for farmers in a contiguous landscape for progressive transition to Natural Farming. This will include decentralized farmer-to-farmer extension system supported by; localized and context specific agri-infrastructure such as Bio-Input Resource Centers (BRCs), community managed traditional varieties seed systems, small scale farm implements, etc; and market systems such as local farmers' markets; value addition in food processing, etc.
- 8. Training Ecosystem** - Natural Farming is a knowledge and local agro-ecology based farming practice which requires behavioral changes in farmers and community members. The mission will hence adopt an extension strategy that is focused on on-farm

knowledge that is scientifically derived from NF practice on farmers' fields, and is supported with continuous hand holding of farmers.

- 8.1** The Scientists, Farmer Master Trainers (FMT), nodal person from Local Natural Farming Institutions (LNFI) and State Government Officials will undergo orientation and training on NF at **Centers' of Natural Farming (CoNF)**. AUs, national level NF Institutions etc. that are promoting NF, have experience, credibility and expertise in conducting NF training programmes and have ongoing research initiatives will be identified as CoNF by DA&FW in consultation with States. A CoNF should have NF model demonstration farms at farmers' fields for training activities and exposure visits. The mission in the State will start with training conducted in the CoNFs. CoNF centers will conduct 2 rounds of training for Scientists from ICAR/ KVK/ AU, Central / State Government officials, and to all FMTs.

i. 2 Scientist and 1 FMT from each of the 425 KVKs (total = 1275 trained personals),

ii. 3 Scientists and 1 FMT from each of the 40 AUs (total = 160 trained personals),

iii. 40 State Government officials from each state (from 4 Officials from State HQ (Agriculture + SRLM + Horticulture + AH&D etc), 1 from District (Nodal for NF), 2 from ATMA of each district, 1 from SRLM of each district - 1200 officials)

iv. 1 FMT and 1 nodal person from each Local Natural Farming Institutions (total = 400 trained personals).

The indicative process guidelines along with a suggested list of CoNF is attached in Annexure II.

- 8.2** The Krishi Vigyan Kendra (KVK), Central and State Agricultural Universities (AU), Local Natural Farming Institutions (LNFI) and Farmer Master Trainers (FMT) shall provide on-field training in NF model demonstration farms of farmer fields covering locally relevant NF practices, package of NF practices and preparation of NF inputs such as Beejamrut, Jeevamrut, Neemastra etc and other location specific good NF practices. A total of 665 training institutions - 425 KVKs, 40 AUs (SAUs/ CAUs/ ICAR and other Institutions) and 200 LNFI; will develop multiple NF model demonstration farms on farmers fields to train, conduct exposure visits, develop NF Package of Practices (PoPs), documentation, extension and research duly capturing the farmers' knowledge. The detailed indicative guidelines for Farm Workers is given in Annexure III.

- 8.3** Approximately 2060 NF model demonstration farms will be established for hands-on training on natural farming. The NF model demonstration farms will be established by each of the 665 training institutes -

- i. Three at farmers fields and One at on-station developed by each of the 425 Krishi Vigyan Kendra (KVKs) and 40 Agricultural Universities (AUs).
- ii. One NF model demonstration farm will be established by each of the 200 LNFI.

Further, FMT, Krishi Sakhis (Community Resource Persons - CRP) will also have their farms as NF model demonstration farms.

8.4 Local Natural Farming Institutions (LNFI) are fully functional NF farms existing for more than 3 years in at least 2 acres of land, which are already used as training sites. LNFI will be identified by State/UTs and onboarded on the NMNF IT portal. Further these LNFIs must have necessary basic training facilities as mentioned in Annexure IV and a minimum of 10 practicing NF farmers trained/associated with them, preferably from the same or neighbouring District to impart training on NF. The LNFI and its associated practicing NF farmers will work closely with the Block and District Level Monitoring Committee. The need based establishment support for LNFI shall be assessed and enabled by the District Level Monitoring Committee. The detailed indicative guidelines for the LNFI are given in Annexure IV.

8.5 The on-field training and extension system will be supported by **Farmer Master Trainers (FMT)** - farmers who are practicing NF for a minimum of 3 years and their farms would also serve as NF model demonstration farms. Each of the training institutions (KVK/ AU/ LNFI) will have 1 FMT to develop the NF model demonstration farms, train Krishi Sakhis (CRPs) and willing farmers on NF along with the Scientists/ NF Experts and provide continuous handholding support to Krishi Sakhi (CRPs) and Block Level Mission Implementation team. The FMTs will regularly visit the clusters to ensure that all the NF package of practices and preparation of on farm inputs like Beejamrut, Jeevamrut, etc. are followed by the willing farmers. The selection of FMTs shall be done by the respective training institution in consultation with the District Level Monitoring Committee. The Indicative detailed Guidelines for FMT are given in Annexure V.

8.6 The farmer to farmer led extension system will be anchored by the local Community Based Organisations (CBO) like SHGs, FPOs, PACS, etc.

9. Research Ecosystem for Natural Farming - ICAR, KVKs, AUs and other Institutions engaged with research on NF shall carry out research and documentation on NF on fields of practicing NF farmers', FMT, NF model demonstration farms and other sites of

Mission implementation; thereby evolving location & landscape specific package of practices for NF and contribute to the overall research capacity in agroecology based NF. For this purpose, the Mission will provide Competitive Research grants.

10. Dedicated Natural Farming Curriculum at Agricultural Universities - Dedicated certificate, diploma, undergraduate and postgraduate courses on NF have been/ shall be developed. NF shall be included in the Rural Agricultural Work Experience (RAWE) programme. Additionally, on field internship opportunities on NF for graduate / postgraduate students / youths from agriculture and allied backgrounds shall be initiated.

11. Nodal Division for the training programs including visits conducted by KVK will be the ICAR - Agricultural Extension Division. Nodal Division for the RAWE program, UG/PG dedicated course on NF, student internships, training programs (including field visits etc) which will be conducted by AU will be the ICAR Agricultural Education Division. ICAR - Natural Resource Management (NRM) Division shall be the Nodal Division to develop the protocols, guidelines and coordinate the development of NF model demonstration farms across KVKs/ AU/ LNFI/ farmers fields, documentation of NF package of practices and competitive research grants. All the Nodal Division of ICAR shall coordinate with institutions and develop & submit Annual Action Plan (AAP). Nodal Divisions will monitor the progress of the plan, conduct progress evaluation, impact assessment and submit quarterly progress report to DA&FW. The funds will be released as per the extant guidelines and approved AAP, submission of Utilisation Certification (UC) etc.

12. Implementation at NF Clusters

12.1 Priority Areas - The Mission will be implemented in the priority districts as given below :

- i. Namami Gange regions of 5 km corridor along river Ganga
- ii. Districts on the banks of major rivers as decided by the State
- iii. Districts with high fertiliser input sale in States
- iv. Districts with Low fertiliser input sale in States
- v. Districts with tribal areas - Blocks from the Tribal Sub plan
- vi. Districts with strong SRLM / PACS / FPOs and other Community Based Organisations (CBOs)

Preference will be given to areas having the presence of practicing NF farmers.

12.2 The Mission will work in selected 15,000 Clusters across the identified districts from the priority areas reaching 7.5 Lakh Ha area. The District will identify Gram Panchayats (GP) in suitable Blocks for taking up NMNF. In each selected GP, cluster(s) of contiguous areas cumulative to 50 Ha and approximately 125 farmers will be developed as NF clusters based on their willingness to implement NF within the identified GP. The cluster size may be reviewed and appropriately set for the Himalayan/ hilly States and areas with difficult terrain by the respective SLEC. Each farmer is encouraged to start in small landholding, and is eligible for support under NMNF to a maximum of one acre to enable learning. In case cumulative contiguous area of 50 Ha. could not be found in 1 GP, the cluster can be formed in adjoining GPs (not more than 2-3 GPs).

12.3 To encourage the spirit of competition, the States are encouraged to take up programs to mobilise interest of the Gram Panchayat (GP) to adopt Natural Farming, such GPs which come forward to promote NF may have natural preference in selection. The District Level Monitoring Committee shall identify and onboard Gram Panchayats that are willing to take up NF from within the NMNF priority regions. Such GPs may also be encouraged to converge their own funds or mobilise other resources for the promotion of NF in a landscape approach.

12.4 30,000 Krishi Sakhis (Community Resource Persons - CRP) - For easy scaling up of NF practices and knowledge, the farmer to farmer extension is to be anchored in Community Based Organisations (CBOs) like women SHGs/ FPOs/ PACS etc. Two CRPs per cluster will be deployed to generate community wide awareness and mobilise farmers to practice NF. Krishi Sakhis or practicing NF farmers must be the CRPs, the indicative process guideline for Krishi Sakhi (CRP) is given in Annexure VI.

i. The Krishi Sakhis (CRP) will undergo on-field hands-on training by FMTs and Scientists/ Experts associated with KVK/ AU/ LNFI.

ii. A team of 2 Krishi Sakhis (CRP) will mobilise approximately 125 willing farmers and form a cluster (cumulative area of 50 Ha).

iii. The Krishi Sakhis (CRP) with support from Block level mission, ATMA and FMT etc will organise meetings with members of SHGs, Anganwadi, Gram Sabha etc orienting them about the benefits of NF, about the Mission and on preparation of bio-inputs like Jeevamrut, Beejamrut, etc.

iv. The Krishi Sakhis (CRPs) will mobilise and enroll the willing farmers to practice NF at the beginning of each crop season.

v. With help of the FMT, the Krishi Sakhi (CRP) will orient the enrolled farmers on the NF practices that are to be followed during the season and ensure their implementation in the field.

12.5 Willing Farmers in a NF clusters - The 125 willing farmers get initiated into NF and progressively expand the number of NF practices and the area allocated for NF within their land holding. Farmers may start practicing NF in a smaller area and gradually expand to their entire land holding as they gain experience and confidence on NF. The 125 willing farmers will then each create awareness and train 6 more farmers to initiate NF practices, expanding the outreach of NF to additional ~750 farmers per cluster.

12.6 The 18.75 Lakh trained farmers will create awareness and train 6 more farmers each in the NF model demonstration farms of trained farmers and farms attached to KVK/ AU/ LNFI etc thereby encouraging 1 crore farmers to initiate NF. The trained farmers will be provided with output based incentive to practice NF package of practices & NF good practices like PMDS, application of Beejamrut, Jeevamrut, etc., diversified cropping system, etc.; train 6 more farmers, upkeep of their livestock, prepare NF inputs or purchase NF inputs from BRC, and purchase drums, mixing & storage containers, etc. The detailed indicative guidelines for the trained willing farmers are given in Annexure VII.

12.7 State Mission Unit, District and Block Level Monitoring Committees will conduct regular monitoring of farm level indicators, farmer progressions and extension of NF across the clusters. States may also carry out social audits to ensure communities involvement/ ownership and accountability.

13. A simple participatory certification system shall be initiated for the farmers transitioning to NF as part of the Mission, similar to the Participatory Guarantee System. NCONF shall develop the certification procedures.

14. Common Branding - Common National Brand shall be developed for naturally grown chemical-free produce. The detailed Operational Guidelines will be developed and shared.

15. National Institute of Agricultural Extension Management (MANAGE)

15.1 MANAGE is proposed to be developed as the knowledge partner on NF capacity building and extension. The following will be the roles of MANAGE :

- I. For other than those trained at CoNF and 665 training institutions, MANAGE to conduct training and capacity building of scientists from AUs/ KVKs/ ICAR institutions and Officials from Ministries and Department of Centre/ State/ District/ Block levels, Master trainers, Krishi Sakhis, FPOs, PACS, Gram Pradhans, SHGs, etc.
- II. Conduct refresher training programs for Scientists from KVKs and AUs, nodal persons from LNFI, FMTs, Krishi Sakhi (CRPs) etc. to reinforce their expertise in NF techniques, research findings, extension practices etc.
- III. Creation of training modules, study materials, course content, IEC materials and learning tools for Scientists, FMTs, Krishi Sakhi (CRPs), Central/ State/ District/ Block Level Officials, etc. To be prepared in partnership with practicing NF farmers, CoNF, KVKs, AUs, LNFI, NF experts, ICAR institutions and Government & Non-Government Institutions with experience and expertise on NF. Funds routed to States/ SAMETI/ State appointed institutions as decided by SLEC to translate, print and distribute the set of training kit materials (NF posters, NF study material, FAQ, One pager note on NF etc.) Carry out yearly updation and improvement of the same.
- IV. Facilitate and conduct regular workshops/ conferences/ consultations in collaboration with practicing NF farmers, CoNF, KVKs, AUs, LNFI, NF experts, ICAR institutions, State departments, NCONF, and Government & Non-Government Institutions with experience and expertise on NF etc. for cross learning, knowledge exchange and develop extension tools, frameworks and extension materials that will be essential for NF extension such as case studies, success stories, etc.
- V. Coordinate the establishment and strengthening of CoNF, LNFI FMT etc. in collaboration with the State and District Missions. Release funds and coordinate submission of Utilisation Certification (UC) to the institutions for the purposes as given in paragraph 22.
- VI. Assist in the conduction of all training programs at CoNF and LNFI in coordination with District and Block Mission Monitoring Committees. Release funds to the institutions for the purposes as given in paragraph 22.

- VII. Establish and maintain a decentralized knowledge management system for Natural Farming within MANAGE to facilitate cross-learning and knowledge exchange. Facilitate linkages between state departments, ATMA, KVKs, AU, Local NF institutions, FMTs associated with the institutions, practicing NF farmers, district and block level monitoring committees, and other stakeholders.
 - VIII. Conduct periodical impact studies on NF extension management to identify challenges, evaluate outcomes, and recommend improvements to enhance the overall effectiveness and reach of NF extension practices.
- 15.2** MANAGE will submit Annual Action Plan (AAP) for its mandate to DA&FW for approval. MANAGE will monitor the progress of the plan, conduct progress evaluation, impact assessment and submit quarterly progress report to DA&FW. The funds will be released as per the extant guidelines and approved AAP, and submission of Utilisation Certification (UC) etc.
- 16. National Centre for Organic and Natural Farming (NCONF)**
- 16.1** NCONF, a subordinate office of DA&FW shall work towards development and maintenance of an IT portal for NF, develop NF certification procedures & undertake certification and development of knowledge materials & conduct training & extension activities for Bio-Input Resource Centres (BRCs).
- 16.2** NCONF will submit Annual Action Plan (AAP) for its mandate to DA&FW for approval. NCONF will monitor the progress of the plan, conduct progress evaluation, impact assessment and submit quarterly progress report to DA&FW. The funds will be released as per the extant guidelines and approved AAP, and submission of Utilisation Certification (UC) etc.
- 17. National Rural Livelihood Missions (NRLM)/ SRLM / FPO / PACS**
- 17.1** The Mission proposes to work closely with NRLM/ SRLM in a convergence mode to evolve a strategy for spreading NF across all the prioritised Clusters with Cluster Level Federations (Krishi Sakhi, Pashu Sakhis, SHGs, Village Organisations, etc.) of NRLM in the country. In the clusters where NRLM/ SRLM agencies are appointed as the Block Implementing Agencies, capacities will be built of NRLM / SRLM to work as Implementing Agencies on ground for the Mission implementation as per the strategy decided by the State Level Executive Committee. Members of the SHGs can be

Community Resource Persons (CRPs) for the clusters under the Mission. NRLM shall support the units at grassroot level for implementation activities like outreach, awareness generation, mobilization, training, certification, etc. Also, SHGs will be one of the ideal choices for setting up and/or operation of Bio-input Resource Centres.

18. Convergence with NF initiatives of other Ministries, Government, Philanthropy, CSR, International Institutions, etc.

18.1 Convergence will also be explored with the various programmes/projects/ schemes of Central & State Governments viz. schemes of DA&FW, APEDA, Rural Development, Ministry of Food Processing Industries, Ministry of Panchayati Raj, Ministry of Ayush, Cooperation, Department of Animal Husbandry & Dairying (DAH&D), Ministry of Tribal Affairs, etc.; Non-Government Organizations, Philanthropy, CSR, International Institutions, etc. associated with NF on thematics ranging from value addition in food processing, safe & nutritious food, water quality, etc. For example, linkages with *Goshalas* will be explored for ensuring the availability of inputs, enhancing local livestock (preferably local breed of cow) population through breed improvement, development of NF model demonstration farms at Central Cattle Breeding Farms/ Regional Fodder Stations, etc. through convergence with DAH&D, provide market linkages at district/ block/ GP levels through convergence for local farmers' markets, APMC (Agricultural Produce Market Committee) Mandis, Haats, Depots, etc.

19. Bhartiya Prakritik Kheti Bio-input Resource Centres (BRCs)

19.1 For the successful adoption of NF, access to livestock and plants for preparing animal and plant based NF inputs are key. Therefore, it is proposed to establish 10,000 need-based BRCs for production and supply of NF inputs at local levels in an enterprise model and support farmers willing to adopt NF and those who are not in a position to prepare these by themselves.

19.2 These BRCs can be operated by practicing NF farmers, FPOs, SHG, PACS/ Cooperatives, local rural entrepreneurs, KVKs, etc. with *Goshalas* at Gram Panchayat or any other agency identified by the State.

19.3 Detailed Operational Guidelines for establishment, operational modalities and protocols will be developed and shared.

20. Procedure & Timelines for Submission & Approval of Annual Action Plan and Fund Flow Mechanism

20.1 Tentative Implementation Timeline

S. No	Tentative Timeline	Activity	Responsibility	Remarks/ Assumptions
1	By 30.12.2024	Identification of Scientists & FMTs from KVKs & AUs, State Officials, etc. for training at CoNF	ICAR + States/UTs	
2		Submission of AAP by States/ UTs	States/ UTs	
3	15.01.2025	1st Round of 4 days Training to Scientists & FMTs from KVKs, AUs and LNFIs, State Officials at CoNF	CoNF	- 1 round of residential training of 4 days duration for Scientist & FMTs from KVKs/ AUs/ LNFIs and State Officials - Batches of 70 - 80 participants at each training at CoNF
4	10.01.2025 to 31.01.2025	Awareness Generation at GPs by trained Scientists, FMTs, Krishi Sakhis and MANAGE	Scientists from AUs/ KVKs, FMTs, Krishi Sakhi, MANAGE	
5	10.02.2025	Identification of GP for mission	State/ District	
6		Onboarding of Local NF Institutions through States/ UTs	States/ UTs + MANAGE	
7		Linking of KVKs/ AUs/ LNFIs to the respective GPs	States/ UTs	- Each Training institute shall be linked to ~23 GPs
8		Identification of Krishi Sakhis (CRP) at GPs	District level monitoring committee	
9	15.02.2025	First Round of 5 days Training to Krishi Sakhis/ CRPs at KVK/ AU/ LNFI	KVK/ AU/ LNFI and MANAGE	- 5 day training per batch - Batches of 30

				participants at each training - 10 training days per center for 2 batches
10	25.02.2025	Onboarding of BRC entrepreneurs	NCONF	
11	25.02.2025 to 10.03.2025	Mobilisation activities for enrolment of Willing Farmers at GPs	Krishi Sakhi (CRP)	Continuous activity in the clusters
12		Onboarding of Willing Farmers at GPs through IT Portal	Krishi Sakhi (CRP)	
13	01.03.2025 to 15.07.2025	Farmer training at KVK/ AU/ LNFI (batch of 50 participants)	KVK/ AU/ LNFI and MANAGE	- 1 day duration each - Batches of 50 participants at each training - Total 56 batches per training institution - 15 training days per month
14	16.08.2025 to 30.09.2025	Field visit of Scientists & FMTs to clusters	Scientists & FMTs of KVK/ AU/ LNFI	- 1 visit per cluster (Kharif) - 15 days per month - 25 clusters are linked with each KVK/AU/LNFI
15	15.02.2026 to 25.02.2026	Second round of Training of Scientists & FMTs from KVKs/ AUs/ LNFIs at CoNF	CoNF / MANAGE	- 4 day training - Batches of 500 participants at each training at CoNF
16	25.02.2026 to 10.03.2026	Second Round of Training of Krishi Sakhis/ CRPs at KVK/ AU/ LNFI	KVK/ AU/ LNFI and MANAGE	- 5 day training - Batches of 50 participants at each training

20.2 The tentative allocation for the States for the next financial year will be intimated by NF Cell, INM Division, DA&FW by February every year.

I. The State Government will prepare a prospective implementation

plan for the duration of the Mission with details of potential regions for the clusters, and timelines for implementation. Encouraging the spirit of competition, willingness from Gram Panchayats will be done to identify Gram Panchayats for the mission. Subsequently a consolidated action plan on a project basis with details such as area to be taken up in each cluster; NF cropping systems to be adopted, number of beneficiaries to be on-boarded, implementation schedule with a time bound road map along with annual targets and funds requirements shall be prepared.

- II. The Annual Action Plan (AAP) duly approved by SLEC along with the minutes of SLEC, shall reach DA&FW for examination, deliberation and final approval by first week of April every year. Post facto approvals from SLEC can also be considered.
- III. NF Cell at DA&FW will examine, sanction AAP, release funds and accordingly intimated to States.
- IV. For receiving funds under NMNF, it is mandatory for States to open SNA and Child Agencies Account and map the same in PFMS
- V. States/ Implementing agencies will furnish utilization certificate (UC) in the prescribed format (Form GFR 12-C) and physical & financial progress report containing physical and financial targets of the previous grants-in-aid, along with State share, before requesting for release of subsequent installments.
- VI. All Implementing Agencies (IAs) are required to maintain subsidiary accounts of the grants-in-aid and get the same audited from a Chartered Accountant.
- VII. Output based incentives to farmers will be released as per provisions for release of funds contained in GFR 2017 and instructions issued in this regard by Government of India from time to time.

21. Online Digital Monitoring Mechanism

- 21.1** The Mission will have a strong online based monitoring and evaluation mechanism. NMNF will have a robust online digital portal with a geospatial data system for tracking the progress of the Mission's activities - onboarding, maintaining baseline and periodic data. The portal will capture and track the field data in the clusters - of farmers, farms, soil health, etc. and NF practices, providing an

assessment of the progressive spread of NF. Baseline data will be captured and the progress tracked on a Web-GIS-Mobile integrated system. Dashboards and reports will be generated for conducting impact assessment across all levels.

21.2 The digital Portal will provide a dynamic updated repository of institutions, resource farmers, trainers, organizations involved in NF across the country including their geotagged information. In addition to the program database, the Portal will also compile NF related databases of various institutions/organizations/groups working on NF independent of the Mission; thus, providing an integrated database of NF for the country.

21.3 The digital Portal will also be the knowledge repository serving various stakeholders, sharing local innovations in NF practices, providing curated knowledge products such as packages of practices, training modules, communication materials and such others useful for the practitioners.

21.4 Submission of Reports and uploading of information on NF Portal - The dedicated portal of NMNF will function as a central knowledge management-cum-reporting and progress review platform. All Central and State level implementing agencies will be required to upload quarterly progress in the respective module. Acceptance of the Utilization Certificates and subsequent release of installments will be linked with the progress uploaded on this portal.

22. Cost Components - Overall Mission Components and Cost Norms (limited to 15th Finance Commission Period)

S No.	Program Initiatives	Description	Centre (₹ Lakhs)	State (₹Lakhs)	Total (₹ Lakhs)
1	Support to MANAGE*		4,000.00	0.00	4,000.00
2	Support to NCONF		1,458.50	0.00	1,458.50
3	Support to AUs/ ICAR Institutions/ KVKs/ Local NF Institutions** for development of NF Model Demonstration Farms		3,685.52	0.00	3,685.52
4	Training support through CoNF**, KVK, AU, LNFI		10,450.7	0.00	10,450.7
5	Implementation Support to 15,000 NF clusters of minimum 50 Ha each	- Total output based on incentive of ₹1500 Crore for 7.5 Lakh Ha - ₹4,000 per acre per year for 2 years	125,892.00	83,928.00	209,820.00

S No.	Program Initiatives	Description	Centre (₹ Lakhs)	State (₹Lakhs)	Total (₹ Lakhs)
		- ₹598.2 Crore as support for implementation - ₹7976 per Ha			
6	Support for Bio-Input Resource Centre (need based)	₹100,000/- per BRC, with total 10,000 BRC	6,000.00	4,000.00	10,000.00
7	PMU support at State/ District level/ other mission management expenditures	2% of GoI share in entire Centre-State component	2,637.84	1,758.56	4,396.40
8	National/ Regional/ State level Publicity, awareness generation, National/ Regional Seminars, exhibitions, trade fair, etc., additional need based workshops, training programs, pilot projects/ convergence initiatives on NF with allied Ministries/ Departments/ States and other components which are not covered in the scheme by the Mission Headquarter		2,776.84	0.00	2,776.84
9	Mission Management cost at National level, including hiring of professional Project Monitoring Unit, IEC components, innovative component or impact/ research studies, etc.		1,500.00	0.00	1,500.000
	GRAND TOTAL		158,401.40	89,686.56	248,087.96
			or 158,400.00	or 89,700.00	or 248,100.00
*Activities exclusively being undertaken by MANAGE					
**Funds for activities and programs by CoNF and Local NF Institutions shall be routed through MANAGE					

22.1 MANAGE as knowledge partner (100% Central Share)

S. No.	Parameter/ Component	Amount (₹ lakh)
A	MANAGE as knowledge partner on NF capacity building and extension (Manpower, Infrastructure and Travel)	800.00
B	Training and Capacity building programs (i+ii)	1395.00
i	Officials from Ministries and Department of Centre/ State/ District/ Block levels, Master trainers, etc. Total 225 trainings each of 4 days duration @ ₹3000/- per participant per day for 25 participants	675.00

ii	Scientists from KVK/ AU, Nodal persons from LNFI, FMTs, Krishi Sakhi (CRPs), FPOs, Gram Pradhans, SHGs, etc. Total 300 trainings each of 4 days training duration @ ₹2000/- per participant per day for 30 participants	720.00
C	Creation of training modules, study materials, course content, IEC materials and learning tools. Funds routed to States/ SAMETI/ State appointed institutions as decided by SLEC to translate, print and distribute the set of training kit materials (NF posters, NF study material, FAQ, One Page Note on NF, etc.) - Training kit @ ₹1000/- for 1835 Scientists and FMTs, 1200 Central/ State/ District/ Block Level Officials and 30,000 Krishi Sakhis (CRPs) - 6 sets of posters for each cluster @ ₹300/- per poster set for 15,000 clusters	600.35
D	Workshops/ conferences to develop extension tools, frameworks and knowledge materials that will be essential for NF extension 18 Programs @ ₹15 Lakh each for 50-100 participants	270.00
E	Regional/ National Consultations for cross learning and knowledge exchange. 10 Programs @ ₹45 Lakh each for 300 participants	450.00
F	Conduct periodic impact studies, documentation of knowledge and extension materials such as success stories, case studies, videos, etc.	400.00
G	Total (A + B + C + D + E + F)	3,915.35
H	Institutional charge (2%)	78.307
	Grand Total (G + H)	3,993.66 or 4,000.00

22.2 National Centre for Organic and Natural Farming (100% Central Share)

S No.	Component Description	Cost Breakup(Rs)	Amount (₹ Lakhs)
(A)	Development of online NF portal and mobile application, its management and maintenance.		150.00
(B)	Development of round the year green cover NF model demonstration farms for demonstration, and training	- 1 NF model demonstration farm at each of the 5 RCONFs - (i + ii) * 5	8.5

i	Farm worker	- 1 Farm worker @ ₹400/- per day* up to maximum of 150 person-days per year as per actuals for 2 years	1.2
ii	Farm inputs, seeds, equipments, materials, etc. as support for development of NF model demonstration farms	₹50,000/- per NF model demonstration farm, as per actuals, for 2 years 1. One time Costs: ₹10,000 - Tools, equipments for Input preparation - ₹5000 - Other Infrastructure - boards, posters, etc. - ₹5000 2. Support per season for 2 years (4 seasons) - ₹10,000 - Raw materials for input preparation - ₹4000 - Biomass mulching material - ₹4000 - Seed and planting materials - ₹2000	0.5
(C)	Training and capacity building for BRC entrepreneurs	- 2 rounds of 3 day duration @ ₹2000/- per head per day for 10,000 participants	1,200.00
(D)	Development of e-learning modules, films, videos, success stories and documentation work including publicity and training on certification, etc. Study cum exposure visits for collection of best practices, success stories and media outreach		50.00
(E)	Organize Seminars/ conferences / consultations/ workshops		50.00
	Grand Total (A + B + C + D + E)		1,458.50
* Limited to minimum wages rate prescribed by the State for unskilled labor; Eg; ₹340/day in UP, ₹ 320/day in Maharashtra, ₹460/day in Karnataka			

22.3 Development of NF model demonstration farms for knowledge documentation, research and training at AUs/ ICAR Institutes/ KVKs/ Local NF Institutions
(100% Central Share)

S No.	Component Description	Cost Breakup	Amount per AU (₹in Lakhs)
(A)	Development of round the year green cover NF model demonstration farms at AUs. Minimum 1 farm on-station, and 3 farms at farmer fields.		

Cost for one on-station NF model demonstration farms			
i	Farm worker	- 1 Farm worker @ ₹400/- per day* up to maximum of 150 person-days per year as per actuals for 2 years	1.2
ii	Farm inputs, seeds, equipments, materials, etc. as support for development of NF model demonstration farm	₹50,000/- per NF model demonstration farm, as per actuals, for 2 years 1. One time Costs: ₹10,000 - Tools, equipments for Input preparation - ₹5000 - Other Infrastructure - boards, posters, etc. - ₹5000 2. Support per season for 2 years (4 seasons) - ₹10,000 - Raw materials for input preparation - ₹4000 - Biomass Mulching material - ₹4000 - Seed and planting materials - ₹2000	0.5
iii	Total for one NF model demonstration farm (i + ii)		1.7
iv	Development of 3 NF model demonstration farms at farmer field by AU - Farm inputs, seeds, equipments, materials, etc. as need based support for development of NF model demonstration farms	₹50,000/- per NF model demonstration farm, as per actuals, for 2 years 1. One time Costs: ₹10,000 - Tools, equipments for Input preparation - ₹5000 - Other Infrastructure - boards, posters, etc. - ₹5000 2. Support per season for 2 years (4 seasons) - ₹10,000 - Raw materials for input preparation - ₹4000 - Biomass Mulching material - ₹4000 - Seed and planting materials - ₹2000	1.5
v	Output based incentive to Farmer Master Trainer (FMT) for development of 4 NF model demonstration farms and conducting demonstration at clusters/ fields of trained willing farmers.	- 1 FMT for 2 years - 15 days per month as per actuals @ ₹400 per day + ₹200 for TA per month as per actuals	1.49

	Output of the FMT will be monitored real time on IT portal		
vi	Documentation & research of NF practices, and NF model demonstration farms of on-station and farmer field farms	- ₹1 Lakh per year for 2 years (one time cost)	2.00
vii	Total (iii + iv + v + vi)		6.69
viii	Miscellaneous charges (as per actuals)	2% of Total	0.134
ix	Total per AU / ICAR institute		6.822
x	Total for 40 AUs / Institutes (in Lakhs) (ix * 40)		272.87
(B)	Development of round the year green cover NF model demonstration farms for KVKs . Minimum 1 farm on-station, and 3 farms at farmer fields.		
	Cost for one on-station NF model demonstration farm		
i	Farm worker	- 1 Farm worker @ ₹400/- per day* up to maximum of 150 person-days per year as per actuals for 2 years	1.2
ii	Farm inputs, seeds, equipments, materials, etc. as support for development of NF model demonstration farm	@ ₹50,000/- per NF model demonstration farm as per actuals for 2 years 1. One time Costs: ₹10,000 - Tools, equipments for Input preparation - ₹5000 - Other Infrastructure - boards, posters, etc. - ₹5000 2. Support per season for 2 years (4 seasons) - ₹10,000 - Raw materials for input preparation - ₹4000 - Biomass Mulching material - ₹4000 - Seed and planting materials - ₹2000	0.5
iii	Total for one NF model demonstration farm (i + ii)		1.7
iv	Development of 3 NF model demonstration farms at farmer field - Farm inputs, seeds, equipments, materials, etc. as need based support for development of NF model demonstration farm	@ ₹50,000/- per NF model demonstration farm as per actuals for 2 years 1. One time Costs: ₹10,000 - Tools, equipments for Input preparation - ₹5000 - Other Infrastructure - boards,	1.5

		posters, etc. - ₹5000 2. Support per season for 2 years (4 seasons) - ₹10,000 - Raw materials for input preparation - ₹4000 - Biomass Mulching material - ₹4000 - Seed and planting materials - ₹2000	
v	Output based incentive to FMT for development of 4 NF model demonstration farms and conducting demonstration at clusters/ fields of trained willing farmers. Output of the FMT will be monitored real time on IT portal	- 1 FMT for 2 years - 15 days per month as per actuals @ ₹400 per day + ₹200 for TA per month as per actuals	1.49
vi	Total (iii + iv + v)		4.69
vii	Miscellaneous charges (as per actuals)	2% of Total	0.094
viii	Total per KVK (vi + vii)		4.782
ix	Total for 425 KVKs (viii * 425)		2,032.25
(C)	Support for Competitive Open Research grants and field internships on NF	- Maximum ceiling limit for each grant (research + internship): ₹20-50 lakhs; Minimum number of grants: 50, subject to the overall allocation of ₹1240 Lakhs	1,240
(D)	NF Research & Training cell for overall coordination, monitoring & evaluation at ICAR-IIFSR and ATARIs.	- Inclusive of 13 young professionals at ₹45,000/- per month for 2 years (2 for ICAR-IIFSR and 1 for each 11 ATARIs)	140.40
(E)	Establishing LNFI as on field support to NF clusters (Funds routed through MANAGE)	- 200 LNFI, each consisting of 10 Practicing NF Farmers - Need based support @ ₹50,000 per institution, as per actuals 1. One time Costs: ₹10,000 - Tools, equipments for Input preparation - ₹5000 - Other Infrastructure - boards, posters, etc. - ₹5000 2. Support per season for 2 years (4 seasons) - ₹10,000	100.00

		- Raw materials for input preparation - ₹4000 - Biomass Mulching material - ₹4000 - Seed and planting materials - ₹2000	
	GRAND TOTAL (A.x + B.ix + C + D + E)		3,685.52
* Limited to minimum wages rate prescribed by the State for unskilled labor; Eg; ₹340/day in UP, ₹ 320/day in Maharashtra, ₹460/day in Karnataka			

22.4 Training Support through CoNF, KVK, AU and LNFI (100% Central Share)

S No.	Component Description	Cost Breakup	Amount (₹ Lakhs)
(A)	Training at Centers' of Natural Farming (CoNF)		
(i)	- 2 Scientist and 1 FMT from each of the 425 KVKs (total = 1275 trained personals) - 3 Scientists and 1 FMT from each of the 40 AUs (total = 160 trained personals) - 1 FMT and 1 nodal person from each Local Natural Farming Institutions (total = 400 trained personals) (Funds routed through MANAGE)	- Total 8 days long training (2 rounds of 4 days each) - ₹2000/- per day per participant; all inclusive	293.6
(ii)	Training of Government Officials - 4 Officials from State/UT HQ (Agriculture, SRLM, Horticulture, Animal Husbandry, etc.) - 1 from District (Nodal for NF) - 2 from ATMA of each district - 1 from SRLM of each district - 40 Officials from each state - 1200 officers from 30 States/UTs (Funds routed through MANAGE)	- 1 round of 3 days long training - ₹2000/- per day per participant; all inclusive	72.00
	Total training for 1200 Officials, 970 Scientists, 200 LNFI point persons and 665 FMTs at CoNF (i+ii)		365.6

(B)	Output based incentive to FMT of LNFI for training and demonstration	- 1 Practicing NF Farmer* per LNFI = 200 farmers - (₹6000 + ₹200 for TA/DA) per month per farmer - 15 days per month as per actuals @ ₹400 per day + ₹200 for TA per month as per actuals	297.6
(C)	Training of Krishi Sakhis (CRP) Krishi Sakhis (CRP) are mandated to do cluster wide awareness generation, meetings with local groups, mobilization of farmers, demonstrations, field training, progress data collection, continuous hand holding farmers, and other cluster level extension activities. Each Krishi Sakhi (CRP) shall undergo continuous rounds of rigorous hands-on training programs. - Krishi Sakhis (CRP) trained at NF model demonstration farms of FMT/ KVK/ AUs/ LNFI (Funds routed through MANAGE)	30,000 Krishi Sakhis/ (CRP) : - Each Krishi Sakhi (CRP) undergoes 2 training programmes of 5 days duration each (total 10 days duration) - @ ₹1200/- per participant per day, including resource fee of Master Trainer - Resource fee of Master trainer is capped at ₹1000/- per day per Master Trainer - TA shall be as per actuals	3,600.00
(D)	Training programs for farmers - No. of training institutes = 425 KVKs + 40 AUs + 200 LNFI = 665 - No. of farmers to be trained till March 2026 = 18.75 Lakh farmers - Total outreach of farmers under NMNF = 18.75 Lakh x 6 = 1.12 crore farmers		
(i)	18.75 Lakh farmers will have 2 rounds of 1 day each training at 665 KVK/ AU/ LNFI. - 665 (425 KVKs + 40 AUs + 200 LNFI)	- 2 training programs (of 1 day duration) per farmer in batches of 50 farmers each - 125/- per farmer per day	4,687.5
(ii)	Training programs of 18.75 Lakh farmers at NF model demonstration farms of farmer fields for 2 years by FMT at the NF clusters	- 2 programs of 1 day duration per year, in batches of 50 farmers per cluster - ₹20 per farmer per day	1,500.00
	Total training for 18.75 Lakh farmers, 2 rounds in KVK/ AU/ LNFI and 2 rounds in cluster ((i) + (ii))		6,187.5
Total Training Support Through CoNF, KVK, AU and LNFI			10,450.7

(A+B+C+D)	

22.5 Support to NF clusters

Support to States (60:40 or 90:10 Central and State Share)

S. No.	Component	Cost breakup	Amount per cluster for 2 years (₹ Lakhs)	Total Amount for 15,000 clusters (₹ Lakhs)
A	Output based incentive to Krishi Sakhis (CRP) for hand-holding, training, extension, and documentation for 2 years. Output of the Krishi Sakhi (CRP) will be monitored real time on the IT portal.	- 2 Krishi Sakhis (CRP) per cluster - 16 days (5 hours per day) per month as per actuals @ ₹300 per day + ₹200 for TA per month as per actuals - ₹1.2 Lakhs per Krishi Sakhis (CRP) for 2 years	2.40	36,000.00
B	Block Level Mission Implementation : Awareness generation at GP - Attended by Gram Panchayat leaders, Farmers, SHG women, etc. - 4 programs per GP per year - 50-75 participants per program	Per program cost - ₹2000/- - 1 Resource person @ ₹500/-, all inclusive - Refreshments @ ₹20/ for 50 participants = ₹1000/- - Miscellaneous (Pamphlets, banner, stationary etc) @ ₹500/-	0.16	2,400.00
C	Output Based incentive to approximately 18.75 Lakh trained willing farmers to practice NF, train more farmers, upkeep of livestock (preferably local breed of cow)/ preparation of NF inputs (including purchase of mixing & storage containers, etc.)/ purchase of NF inputs from BRC (approximately 125 farmers per cluster)	- ₹4000/- per acre per year for a cluster of 50 Ha land for 2 years (₹300 per month to practice NF, train more farmers, upkeep of livestock/ preparation of inputs/ purchase of NF inputs from BRC and ₹400 per year as one time support for procurement of drums, etc.) - Maximum incentive up to 1 acre per farmer	10.00	150,000.00
D	NF Certification for 18.75 Lakh trained willing farmers	- ₹2100/- per Ha	1.05	15,750.00
E	Block Level Mission Implementation : Orientation programs for farmers to	Per activity cost = ₹1200/- - TA to Block Level coordinator travel @ ₹200/-	0.048	720.000

	express willingness to initiate NF - 2 orientation programs per year - 25-30 participants per program	- Refreshments @ ₹20/- per participants - Miscellaneous (Pamphlets, banner, stationary, etc.) @ ₹500/-		
F	Provide study materials, farm diary, FAQ booklet etc provided to trained willing farmers (~18.75 lakh)	@ ₹200/- per farmer for a clusters of 125 farmers - Farm dairy @ ₹50/- - Study material @ ₹100/- - FAQ booklet @ ₹50/-	0.25	3,750.00
G	Support for mobile devices for Krishi Sakhis (CRP)	- Need based one time cost @ ₹4,000 per Krishi Sakhi/ (CRP)	0.08	1,200.00
	Total per Cluster (A + B + C + D + E + F + G)		13.99	209,820.00

23. Expected Outcomes

- 23.1 Rejuvenation and sustainability of Mother Earth for future generations
- 23.2 Builds climate resilience in agriculture across Gram Panchayat against droughts, floods, cyclones, etc.
- 23.3 Reduction in chemical input usage
- 23.4 Improvement in soil health and fertility through in situ generation of organic matter from multi crop systems.
- 23.5 Invites a wide range of biodiversity such as beneficial insects, birds, etc. which are beneficial for on farm pollination, natural pest and disease management, etc.
- 23.6 Provides safe, nutritious and chemical-free food to farmer family and local consumers
- 23.7 Reduced burden of diseases to farmer families due to reduction in exposure to chemicals
- 23.8 Higher carbon sequestration, enabling farmers to access Carbon Credit markets
- 23.9 Savings for Government on account of fertilizer subsidy

24. Expected Outputs

- 24.1 15,000 Gram Panchayats evolve NF model clusters
- 24.2 7.5 Lakh Ha area initiated under NF
- 24.3 18.75 Lakh trained willing farmers initiate NF
- 24.4 Outreach to 1 crore farmers about NF
- 24.5 30,000 trained Krishi Sakhis (CRP) capable of providing farmer-extension services on Natural Farming

- 24.6** 10,000 need based Bio-Input Resource Centers (BRC) developed in entrepreneurial mode across the country
- 24.7** ~2000 NF NF model demonstration farms developed at farmers' fields and on-station at KVKs, and AUs across the country for scientific documentation and development of agroecology specific packages of practices for different NF models.
- 24.8** Scientifically supported certification system for NF produce
- 24.9** National brand for naturally grown chemical free produce

Indicative Process Guideline for Block Level Mission Implementation

The Block Level Mission Implementation will be carried out by the Block Level Monitoring Committee constituted under the chairpersonship of Block Development Officer (BDO), and Block Technical Manager/ Assistant Technical Manager (ATMA), Assistant Director of Agriculture/ Block Agriculture Officer, practicing NF farmers and representatives from other allied Departments as members, etc. The Committee can choose to appoint a Block Implementation Agency (BIA) like federations under SRLM/ FPOs/ PACS/ NGOs. The indicative process guidelines for the Block level Mission implementation and the criteria of selecting an NGO as a BIA are given below. Any other activities with regards to the Mission implementation may be added suitably.

1. Activities for Block Level Mission Implementation :

1.1. Generate willingness of Gram Panchayat (GP) to participate in the Mission

- 1.1.1.** Awareness generation meetings in coordination with ATMA, SRLM, practicing NF farmers, KVKs, AUs, LNFI, etc.
- 1.1.2.** Engage local leaders, CBOs, and other stakeholders to support and participate in the meetings.
- 1.1.3.** Support GPs in the process of filling the willingness application.

1.2. Hand Holding and Support services at Cluster level

- 1.2.1.** Coordinate the process of identification of potential Krishi Sakhi (CRP) from the willing GPs in collaboration with CBOs and inform the District level committee for selection of Krishi Sakhi (CRP).
- 1.2.2.** Coordinate training and field visits in consultation with KVK/ AU/ LNFI, FMT and Krishi Sakhi (CRP) at the clusters.
- 1.2.3.** Support Krishi Sakhi (CRP) in conducting meetings with farmers and other stakeholders for ensuring cohesiveness in Mission implementation.
- 1.2.4.** Regularly visit each village of the cluster every month to monitor farm activities and understand the challenges faced by the farmers.
- 1.2.5.** Facilitate the solutions for challenges faced by farmers through experts from KVK/ AU/ LNFI.
- 1.2.6.** Coordinate and support Krishi Sakhi (CRP) in conducting the Awareness generation meetings, demonstration activities, crop cutting experiments, field visits, training programs, etc.
- 1.2.7.** Support the Krishi Sakhi (CRP) in maintaining the farmer diary.

1.3. Documentation and reporting

- 1.3.1.** Prepare a comprehensive GP level due diligence report highlighting the land type, crops grown, irrigation source, number of practicing NF farmers, quantity of fertilizers and other chemical inputs used, etc. This exercise must be carried out at the start of the Mission implementation in GP.
- 1.3.2.** Prepare season wise action plans for the cluster and submit it to the District Level Monitoring Committee.
- 1.3.3.** Work with training institutions (KVK/ AU/ LNFI) in preparing the season wise training calendar for their respective clusters.
- 1.3.4.** Support Krishi Sakhi (CRP) in documenting data of farmers attending the training programs, demonstrations, etc. on the NMNF IT portal.
- 1.3.5.** Facilitate soil testing of the soil samples at the soil testing labs collected from the fields of trained willing farmers and distribute Soil Health cards.
- 1.3.6.** Collection of data and information related to the implementation, management and monitoring of the project and submission of information in online portal.
- 1.3.7.** Prepare Monthly progress report of consolidated activities.
- 1.3.8.** Enter data of all activities into the NMNF IT portal.
- 1.3.9.** Prepare quarterly progress reports of the cluster activities.

1.4. Monitoring and evaluation

- 1.4.1.** Closely monitor the activities at cluster as per the Cluster level action plan submitted.
- 1.4.2.** Verify the monthly work done reports and endorsement documents of Krishi Sakhi (CRP) at cluster level.
- 1.4.3.** Coordinated with District Administration for release of payment to Krishi Sakhi (CRP) and trained willing farmers as per their performance and outputs.
- 1.4.4.** Support Training Institution in monitoring the outputs of the FMT.
- 1.4.5.** Support Training Institution/ District Level Monitoring Committee in verifying that the farm of FMT continues to be an NF model demonstration farm.
- 1.4.6.** Prepare half yearly field assessment reports highlighting strengths, challenges, and areas for improvement, document best practices followed at the cluster level, etc.

2. Selection Criteria in case of appointing a Non-Government Organisation (NGO) as a Block Implementing Agency

SNo	Details	Verification process
1.	Should have prior experience of NF for at least 3 years and should have a good reputation for working in the	- Submit proof of engagement such as a Work Order / Engagement Letter / Completion Certificate / LoA, etc.

	field.	- Field verification at ongoing project sites
2.	Should have prior experience of working with local Community Based Organisation (CBOs) in GP/Block like SHG, FPO, PACS, etc.	Submit an attested certificate from the CBO certifying the work and engagement details .

Indicative Process Guidelines for Centers' of Natural Farming (CoNF)

The Centers of Natural Farming (CoNF) will impart training on all aspects of Natural Farming for the trainers of the Mission. The indicative criteria and process guidelines are given below. Any other activities pertaining to the Mission implementation may be added suitably.

1. Selection Criteria

- 1.1. Has Natural Farming model farms for training and demonstrations purposes
- 1.2. Has proven experience of training farmers, Scientists, Government Officials
- 1.3. Has ongoing research initiatives on Natural Farming, working on farmers' fields
- 1.4. Has associated practicing NF farmers, Scientists and NF experts to conduct training programmes
- 1.5. Has facilities to host participants for residential trainings (at least more than 300 participants)

2. Activities to be undertaken

- 2.1. Continuous rounds of training to Scientists, State/District Government Officials and Farmer Master Trainers

3. Suggested list of CoNF :

- 3.1. Gurukul Kurukshetra, Haryana
- 3.2. Indo-German Global Academy for Agroecology Research and Learning (IGGAARL), Andhra Pradesh
- 3.3. Gujarat Natural Farming Science University (GNFSU), Halol, Gujarat
- 3.4. Dr. Yashwant Singh Parmar University of Horticulture and Forestry, Solan, Himachal Pradesh
- 3.5. University of Agricultural Sciences (UAS), Dharwad, Karnataka
- 3.6. Tamil Nadu Agricultural University (TNAU), Tamil Nadu
- 3.7. Birsa Agricultural University (BAU), Jharkhand
- 3.8. Regional Centre of Organic and Natural Farming, Imphal, Manipur

Indicative Process Guidelines for Farm Workers at NF Model Demonstration Farms

Each Training Institution (KVK and AU) will be provided with one (1) farmer worker to develop the NF model demonstration farm and support the institution during the training programs. The indicative process guidelines for the farm worker are given below. Any other activities pertaining to the Mission implementation may be added suitably.

1. Selection Criteria :

- 1.1. Must preferably be a Krishi Sakhi/ Self Help Groups (SHGs) member.
- 1.2. Should have been practicing NF for a minimum of 1 year and be well versed with NF.
- 1.3. Should reside near the associated training centre (KVK/ AU).
- 1.4. Should have good communication skills and be able to read and write in the local language (at least 5th class pass).
- 1.5. Preferably have undergone prior training on NF.
- 1.6. Should be committed to support in development and maintenance of NF Model Demonstration Farm.

2. Selection Process :

- 2.1. Farm Worker, who is endorsed by the local village organisation. shall be selected by the respective KVK/ AU.
- 2.2. The training institution and village organisation shall be responsible for monitoring the work of the Farm Worker and ensuring regular payment of wages in Aadhar authenticated Bank Accounts.

3. Roles and Responsibilities :

- 3.1. Support in establishment and regular maintenance of NF Model Demonstration Farm at on station plot of KVKs/ AUs.
- 3.2. Carry out following farming activities :
 - 3.2.1. Land preparation, Sowing, and farm management.
 - 3.2.2. Preparation and application of on farm inputs for Soil health management (Nutrient management).
 - 3.2.3. Preparation and application of on farm inputs for Plant health management.
 - 3.2.4. Identification and control of Pests, Diseases & Weeds.
 - 3.2.5. Preparation of bio-inputs like Beejamrut, Jeevamrut, Neemastra, Dashparni, etc.
 - 3.2.6. Carry out harvesting and post harvesting activities.

- 3.3. Support the Scientists and FMT during training and demonstration activities such as preparation of on-farm inputs, etc.
4. The payments to the farm worker should be made to their Aadhar authenticated Bank Accounts.

Indicative Process Guidelines for Local Natural Farming Institutions (LNFI)

The Local Natural Farming Institutions (LNFI) will impart training on all aspects of Natural Farming implementation for the successful implementation of the Mission. The indicative criteria and process guidelines are given below. Any other activities pertaining to the Mission implementation may be added suitably.

1. **Selection Criteria :**
 - 1.1. Can be a practising NF farmer or NF training center or Community of NF farmers (like SRLM groups, etc.).
 - 1.2. Must have a well established NF model demonstration farm, practicing NF for a minimum of 3 years.
 - 1.3. Should have a minimum of 10 associated practising NF farmers, who :
 - 1.3.1. Should be practicing NF for a minimum of 2 years and must have a well established NF model demonstration farm..
 - 1.3.2. Should have undergone formal or informal training on NF with KVK / AU/ NF expert institutions..
 - 1.3.3. Should be associated with LNFI in training and extension activities.
 - 1.3.4. Must have on-farm problem identification and quick decision making skills..
 - 1.3.5. Preferably have experience in conducting field visits, and field demonstration activities..
 - 1.4. The Institution must continue to practice NF and maintain their farm as a NF model demonstration farm.
 - 1.5. The institution must have prior experience in providing training on NF.
 - 1.6. Should have training facilities to host at least 50 people at a time.
 - 1.6.1. Training space that can comfortably host 50 people, with options for group activities, individual seating, demonstrations and presentations.
 - 1.6.2. Basic Audio and Video equipment like a projector and screen are available
 - 1.6.3. Rooms or dormitory-style accommodations with basic necessary amenities (Beds, Bathrooms etc.) are available as per state training centre norms.
 - 1.6.4. A large dining area that can serve meals at scheduled times
 - 1.7. Institutions must identify an FMT who will be trained at CoNF or other training institutions.
 - 1.8. Should be able to maintain training program records and accounts.
 - 1.9. Must be willing and able to update Mission implementation activities on NMNF IT portal.

2. Selection Process :

- 2.1. States in consultation with the District and Block Level Monitoring Committee, KVKs, AUs, etc. shall identify LNFI from near the Districts/ Block/ Gram Panchayats selected for Mission implementation.
- 2.2. LNFI will be onboarded by the District Level Monitoring Committee.
- 2.3. The District Level Monitoring Committee will assess and suitably provide necessary need based training aids for the LNFI.
- 2.4. Upon identification of the LNFI, they shall be notified and on-boarded by the State NF Cell. The FMT identified by the LNFI shall then be trained at Centres' of Natural Farming (CoNF).
- 2.5. The identified LNFIs should be connected with

3. Roles and Responsibilities :

- 3.1. Maintain an on-farm NF model demonstration farm with location specific crops and NF practices.
- 3.2. Maintain regular farm diary records.
- 3.3. Coordinate preparation of training calendar with Block Level Monitoring Committee for their respective linked NF cluster farmers.
- 3.4. Conduct training programmes and field visits in coordination with District/ Block Level Monitoring Committee, ATMA, Krishi Sakhis (CRP), etc. as planned in the State level annual action plan.
- 3.5. Carry out necessary arrangements for the training programmes such as preparation of inputs like Jeevamrut, Ghan jeevamrut, Beejamrut, etc.
- 3.6. Provide continuous hand holding support to trained willing farmers, Krishi Sakhis (CRP) and Block Level Monitoring Committee in the linked NF clusters.
- 3.7. Maintain records of training programmes conducted and upload training program reports on the NMNF IT portal.
- 3.8. Conduct regular field visits to linked clusters :
 - 3.8.1.1. To handhold trained willing farmers in practicing NF package of practices, preparation of on-farm inputs, etc.
 - 3.8.1.2. To handhold and support Krishi Sakhi (CRP) in training, awareness generation, demonstrations, preparation of on-farm inputs like Jeevamrut, Beejamrut, etc.
 - 3.8.1.3. Carry out extension of NF across the clusters with support of the local ATMA team, Krishi Sakhis (CRP), etc.

4. Monitoring Process :

- 4.1. Activities conducted by the LNFI shall be monitored regularly by the District Level Monitoring Committee and in case of unsatisfactory performance the necessary action should be initiated for replacement.

Indicative Process Guidelines for Farmer Master Trainer (FMTs)

The Farmer Master Trainer will maintain his/her NF farm as NF model demonstration farm to thereby provide training and handholding support to the Krishi Sakhis (CRP), Trained willing farmers to ensure that all the NF package of practices and preparation of on farm inputs like Beejamrut, Jeevamrut, etc. are followed. Any other activities with regards to the Mission implementation may be added suitably. The indicative process guidelines are given below.

1. Selection criteria

- 1.1. Must be practicing NF for a minimum of 3 years with a well established NF farm.
- 1.2. Should have good communication skills and be able to read and write in the local languages (at least 7th class pass).
- 1.3. Once selected, the FMT should be willing to undergo training at Centres' of Natural Farming or other training institutions.
- 1.4. Should be committed to provide training, conduct exposure visits, visit the clusters for hand-holding of farmers and Krishi Sakhis (CRP) through demonstration, preparation of on-farm inputs, etc.
- 1.5. Should continue to practice NF and maintain their farm as a NF model demonstration farm for training other farmers.
- 1.6. Should be aware of local contexts and communicate in local language.
- 1.7. Preferably belong to the same Block/ District that is located near the associated training centre (KVK/ AU/ LNFI).
- 1.8. Preferably have prior experience in providing training on NF.
- 1.9. Krishi Sakhi (CRP) are also eligible to become FMTs.

2. Selection & Monitoring Process

- 2.1. FMT shall be nominated by the District Level Monitoring Committee.
- 2.2. The Training Institution shall be responsible for monitoring the work of the FMT along with the Block Level Monitoring Committee.
- 2.3. FMT's own farm should continue to be a NF model demonstration farm and must be verified every year by agencies as decided by the District Level Monitoring Committee.

3. Roles and Responsibilities

3.1. Development of NF Model Demonstration Farm

- 3.1.1.** Design the NF model demonstration farms at on station plots of KVK/ AU and at fields of 3 farmers.
- 3.1.2.** Train, guide and work with the farm worker in developing and maintenance of the NF model demonstration farm.
- 3.1.3.** Conduct regular monitoring and maintenance of NF model demonstration farms.

3.2. Trainings to Willing Farmers, Krishi Sakhi (CRP) and Field visits

- 3.2.1.** Facilitate visits to NF model demonstration farms associated with the training institution (KVK/ AU/ LNFI).
- 3.2.2.** Conduct training of trained willing farmers and Krishi Sakhis (CRP) at the NF model demonstration farms of training institutions (KVK/ AU/ LNFI).
- 3.2.3.** Conduct field visits to clusters for extension of NF and provide handholding support to Krishi Sakhi (CRP) and trained willing farmers in practicing NF.
- 3.2.4.** Support Krishi Sakhis (CRP) in monitoring field level activities and maintenance of farm diary.

- 3.3.** Details of training, their activities and progress of NF model demonstration farms must be updated in the NMNF IT portal.

- 4.** Output based incentive to the FMT should be paid to their Aadhar authenticated Bank Accounts.

Indicative Process Guidelines for Krishi Sakhis (CRPs)

The Krishi Sakhi/ CRPs will form the backbone for Mission implementation at the Gram Panchayat. Two (2) Krishi Sakhi (CRPs) will be deployed at each cluster. The indicative process guidelines for the Krishi Sakhi (CRP) are given below. These can be further expanded suitably for Mission implementation.

1. Selection criteria :

- 1.1. Must be a Krishi Sakhi/ Women SHG member.
- 1.2. Krishi Sakhis must have experience in NF for a minimum of 1 year. If no such Krishi Sakhi is found, then any other active SHG member, who is keen to learn, practice NF and is willing to take up the role can be selected. In both the instances the farms of the Krishi Sakhi (CRP) will be used as NF model demonstration farms
- 1.3. Should provide an undertaking that she/he will practice NF and prepare their farm as NF model demonstration farm in the next two years.
- 1.4. Must be active and able to give time in the cluster for all the mission implementation activities.
- 1.5. Must preferably be a resident of the respective cluster.
- 1.6. Krishi Sakhi (CRP) must be endorsed by the local Village Organisations(VO).
- 1.7. Should have good communication skills and be able to read and write in the local languages (at least 7th class pass).
- 1.8. Preferably have prior experience in generating community-wide awareness
- 1.9. Must have basic knowledge of using smartphones/ tab.
- 1.10. Should be committed to undergo training programs, exposure visits, etc.

2. Selection and Monitoring process :

- 2.1. The District level Monitoring Committee in coordination with the local village organisation (VO) will select the Krishi Sakhi (CRP).
- 2.2. Selected Krishi Sakhi (CRP) will be trained at NF model demonstration farms at KVK/ AU/ LNFI, etc.
- 2.3. The Krishi Sakhi/ CRPs shall be continuously monitored by the associated community based organisations (CBO) like VO. The CBO must submit an attested document endorsing the work done by the Krishi Sakhi (CRP) on a monthly basis to the Block Level Monitoring Committee.
- 2.4. The Block Level Monitoring Committee will verify the activities of Krishi Sakhi (CRP) on the IT portal on a monthly basis.

3. Roles and Responsibilities :

3.1. Mobilization of Farmers

- 3.1.1.** Regularly conduct community-wide awareness generation for GP members, SHGs/ FPOs/ PACS and other CBO members, School students, Anganwadi centers, Health workers and other community members.
- 3.1.2.** Mobilise farmers to take up NF.
- 3.1.3.** Conduct regular registration & enrollment of willing farmers
- 3.1.4.** Conduct demonstrations of preparation of on-farm inputs like Jeevamrut, Beejamrut, etc. and trainings to willing farmers at GP.
- 3.1.5.** Ensure participation and attendance of willing farmers for all training programs.
- 3.1.6.** Work with trained willing farmers and form clusters.

3.2. Handhold Trained Willing Farmers in practicing NF package of practices

- 3.2.1.** Visit farms of trained willing farmers and support them in preparation and application of NF on-farm inputs such as Jeevamrut, Beejamrut, etc.
- 3.2.2.** Conduct regular visits to farms of trained willing farmers and handhold them in following up and ensuring practice of all NF package of practices.
- 3.2.3.** Support the community to establish Bio-Input Resource Centers (BRC) units and link established BRC units with willing farmers.
- 3.2.4.** Collect soil samples for Soil Health testing, assess physical changes in soil parameters, and provide NF based advisories for improving soil health.
- 3.2.5.** Mobilize trained willing farmers for training at NF model Demonstration Farms of KVK/ AU/ LNFI.
- 3.2.6.** Mobilize farmers for training by FMT and scientists from KVK/ AU/ LNFI at cluster level.
- 3.2.7.** Train 6 more farmers and demonstrate preparation of on-farm inputs like Jeevamrut, Beejamrut, etc. at farms of trained willing farmers.
- 3.2.8.** Conduct crop cutting experiments on the fields of trained willing farmers.
- 3.2.9.** Coordinate with the willing farmers for certification, marketing and branding of naturally grown chemical free produce.

3.3. Collect and Upload periodic data of cluster level activities on NMNF IT Portal

- 3.3.1.** Field level data of the trained willing farmer to track NF package of practices followed, soil health card, etc.
- 3.3.2.** Progression of trained willing farmers - no. of crops sown, area under NF, etc.
- 3.3.3.** Training and on-field demonstration activities in the cluster.
- 3.3.4.** Enrollment and registration of willing farmers.
- 3.3.5.** Regularly update the calendar of activities and work done.

- 4.** The output based incentive to the Krishi Sakhis (CRP) should be paid to their Aadhar authenticated Bank Accounts.

5. Following are the tentative calendar of activities and targets for Krishi Sakhi (CRP),

S. No.	Activities	Target outputs per Krishi Sakhi (CRP) (Season wise)			
		Kharif	Rabi	Kharif	Rabi
1.1	Generate community wide awareness on NF.	60 farmers	80 farmers	100 farmers	120 farmers
1.2	Mobilise and register willing farmers.	12 farmers	48 farmers	12 farmers	48 farmers
1.3	Carry out demonstration activities, preparation in on-farm inputs and training to willing farmers at Gram Panchayat.				
2.1	Visit fields of trained willing farmers for hand holding support and data collection.	12 Initiated fields	24 Initiated fields 12 Intensified fields	12 Initiated fields 36 Intensified fields	12 Initiated fields 48 Intensified fields
					Total 60 farmers
2.2	Field visits to farms of trained willing farmers for field experiments like crop cutting experiments.	2 plots	2 plots	5 plots	5 plots
3.1	Coordinate training of trained willing farmers at KVK/ AU/ LNFI.	12 farmers		12 farmers	
3.2	Mobilize willing farmers for training by FMT, Scientists, NF experts, etc. from KVK/ AU/ LNFI at Gram Panchayat.	24 farmers	24 farmers	24 farmers	24 farmers

Indicative Process Guidelines for Trained Willing Farmers

The trained willing farmer will form the backbone of NF activities in the cluster. 125 trained willing farmers will be enrolled in the scheme from each Cluster in the first 2 years. The indicative process guidelines for the trained willing farmers are given below. These can be further expanded suitably for Mission implementation.

1. Selection criteria :

- 1.1. Willing to practice few or all NF packages of practices, to start within a portion of land.
- 1.2. Must be a resident of the Gram Panchayat.
- 1.3. Is willing to attend awareness generation meetings, training and demonstration on NF practices at KVKs/ AU/ LNFI and at the Gram Panchayat.
- 1.4. Willing to create awareness, train and handhold 6 more farmers to initiate NF package of practices.
- 1.5. Must ensure that their farm becomes a NF model demonstration farm and can be used for training 6 more farmers to initiate NF.

2. Roles and Responsibilities :

- 2.1. Attend awareness generation meetings on NF at Gram Panchayat level.
- 2.2. Initiate NF practices in a portion of their land.
- 2.3. Attend training on NF at KVKs/ AU/ LNFI.
- 2.4. Form NF clusters by creating awareness, training and bringing in 6 more farmers to initiate NF packages of practices.
- 2.5. Conduct outreach activities for the 6 more farmers with support from the Krishi Sakhis (CRP), FMT, Scientists (KVKs/ AUs), ATMA officials etc.
- 2.6. From July 2025 onwards, the 18.75 lakh trained willing farmers will further train 6 more farmers so as to reach approximately 1 crore farmers by March 2026.

3. The progression journey of a farmer's transition towards natural farming

3.1. Aware :

- 3.1.1. Continuous rounds of awareness generation activities, demonstrations, field exposure meetings, trainings etc shall be conducted across the Gram Panchayat

3.2. Initiate NF practices :

- 3.2.1. The trained farmers will initiate practicing NF in some portion of their land after the first season.

- 3.2.2. Indicators for Adoption of basic NF practices at this stage are : Pre Monsoon Dry Sowing, Application of on farm inputs like Beejamrut, Jeevamrut, Neemastra etc.

3.3. Intensify NF practices :

- 3.3.1. Farmers who have initiated NF for more than 3 years will intensify NF practices fully/partially in the same land or extend it to large portion of landholding while refining their techniques
- 3.3.2. Start generating awareness on NF to other farmers.

3.4. Transform to full land holding :

- 3.4.1. Farmers who have intensified NF for more than 4 years in partial landholding will transform their entire landholding from conventional agriculture practices to Natural Farming practices
- 3.4.2. Start training other farmers on NF.

4. Output based incentive :

- 4.1. ₹4000/- per acre per year for 2 years (maximum incentive for up to 1 acre per farmer) will be released in installments to the aadhar authenticated bank accounts of trained willing farmers as per the following norms mentioned :

Year	Installment	Timeline	Amount (INR)	Outputs Expected
Year 1	1st	August	2000/-	a. Participate the trainings at KVK/ AU/ LNFI and clusters b. Purchase of drums, mixing & storage containers, etc. c. Upkeep of livestock d. Prepare on farm inputs like Beejamrut, Jeevamrut, Neemastra etc. e. Purchase necessary inputs from BRC f. Start NF good practices like Pre Monsoon Dry Sowing (PMDS)
	2nd	February	2000/-	a. Prepare on farm inputs like Beejamrut, Jeevamrut, Neemastra etc. b. Practicing Multi Cropping system and continue

				adopting good NF practices. c. Purchase inputs from BRC.
Year 2	3rd	Mid Kharif	2000/-	a. Continue practicing NF to develop into an NF model demonstration farm. b. Generate awareness and train 6 more farmers at the NF model demonstration farms.
	4th	Mid Rabi	2000/-	a. Continue practicing NF in their farms. b. Train and handhold 6 more farmers to initiate NF practices such as Pre Monsoon Dry Sowing, Beejamrut, Jeevamrut etc.
