

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

ORIGINAL APPLICATION NO. 1093 of ~~2024~~ 2024

**IN THE MATTER OF:**

New Item titled "Study finds wide variety of nitrogen-use efficiency in Indian 'rice varieties'" appearing in the Hindu dated 11.08.2024

**INDEX**

<b>S.NO</b>	<b>PARTICULARS</b>	<b>PAGE</b>
1.	Additional Counter Affidavit filed on behalf of the Respondent No.2 i.e. Ministry of Agriculture and Farmers Welfare	3 to 9
2.	<b>ANNEXURE – I</b> Copy of the guideline scheme for Soil Health Card (SHC) and Soil Health Management (SHM) attached.	10 to 19
3.	<b>ANNEXURE-II</b> Copy of the guideline of scheme for Crop Diversification Program attached.	20 to 27
4.	<b>ANNEXURE-III</b> Copy of the guideline of Scheme for Paramparagat Krishi Viksas Yojana attached.	28 to 60
5.	<b>ANNEXURE-IV</b> Copy of the guidelines and scheme for Mission Organic Value Chain Development for North Eastern Region (MOVCDNER) attached.	61 to 110
6.	<b>ANNEXURE-V</b> Copy of the detailed guideline of scheme for National Mission on Edible Oils- Oilseeds (NMEO-Oilseeds) attached.	111 to 160
7.	<b>ANNEXURE-VI</b>	

	Copy of the detailed guideline of scheme for National Food Security & Nutrition Mission (NFSNM) attached.	161 to 259
8.	<b>ANNEXURE-VII</b> Copy of the detailed guideline of scheme for Per Drop More Crop (PDMC) attached.	260 to 337
9.	<b>ANNEXURE-VIII</b> True Copy of Order dated 27.10.2025 attached.	338 to 340
10.	<b>Vakalatnama</b>	341

**Place: New Delhi**

**Through**

**Date: 22.01.2026**

  
**Gigi C George Advocate**  
**Standing counsel (UOI)**  
**NGT**

**Ch. No. 457, Lawyers Block, DHC**

**[Gigicgeorge.adv42@yahoo.in](mailto:Gigicgeorge.adv42@yahoo.in)**

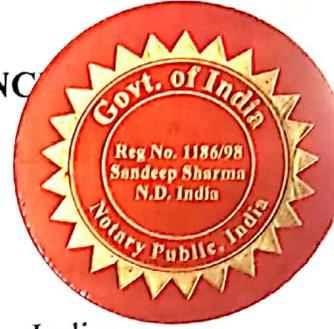
**M.9810625315**

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL PRINCIPAL  
BENCH, NEW DELHI

ORIGINAL APPLICATION NO. 1093 OF 2024

IN THE MATTER OF:

News Item titled "Study finds wide variety of nitrogen-use efficiency in Indian 'rice varieties'" appearing in the Hindu dated 11.08.2024



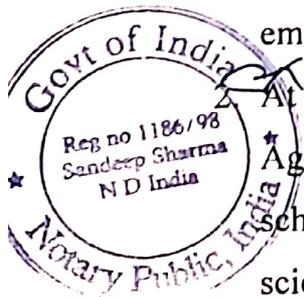
**REPLY BY WAY OF ADDITIONAL AFFIDAVIT ON BEHALF OF  
RESPONDENT NO. 2 /MINISTRY OF AGRICULTURE & FARMERS  
WELFARE**

I, Dr. Sourav Kumar Khan S/o. Nirmal Kumar Khan aged about 35 years, working as, Assistant Commissioner at Krishi Bhawan, New Delhi-110001, do hereby solemnly affirm and state as follows:

That, I am duly authorized to submit this Additional Reply affidavit on behalf of the Respondent No. 2 in the above captioned matter and as such I am well acquainted with the facts and circumstances of the case based on the records of the case and hence, competent to swear and the file this additional counter affidavit.

1. That this Additional Reply is being filed in compliance with the directions of the Hon'ble National Green Tribunal vide Order dated 27.10.2025 in the present Original Application, wherein Respondent No. 2 was directed to place on record details of the programmes/schemes being implemented and to reflect upon the six strategies for mitigation of nitrous oxide (N<sub>2</sub>O) emissions from rice paddy fields, as indicated by Respondent No. 1.

At the outset, it is respectfully submitted that the Department of Agriculture & Farmers Welfare (DA&FW) is implementing multiple schemes and interventions which, directly or indirectly, operationalize the scientifically recognised strategies for reducing N<sub>2</sub>O emissions from rice



*Sourav kumar Khan*

ecosystems, while simultaneously ensuring food security, soil health, and farmers' income.

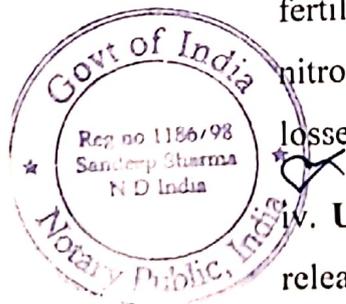
**3. That the Six strategies for mitigation of N<sub>2</sub>O emissions from rice paddy fields and programs/schemes being implemented by DA&FW are given below:**

**i. Matching nitrogen supply with crop demand:** Synchronizing nitrogen (N) application with crop growth stages through split application and real-time tools such as SPAD meter, Leaf Colour Chart (LCC), and Green Seeker/NDVI improves nitrogen-use efficiency and minimizes excess soil mineral nitrogen, which is a key driver of N<sub>2</sub>O emissions. Integration of organic manures like FYM and compost provides slow and sustained N release, complementing fertilizer N and reducing losses through leaching and gaseous emissions.

**ii. Minimizing fallow periods:** Avoidance of bare fallow after rice harvest through the introduction of short-duration pulses and oilseeds helps utilize residual soil nitrate, thereby preventing its accumulation and subsequent losses as N<sub>2</sub>O. Crop diversification and intensified rice-based systems enhance nitrogen capture, improve soil health, and reduce emission risks during post-harvest periods.

**iii. Optimizing split nitrogen application:** Application of nitrogen in 3–4 splits aligned with crop demand, guided by real-time tools (LCC/SPAD-based top dressing), improves nitrogen-use efficiency compared to blanket fertilizer recommendations. In dry direct-seeded rice (DSR), skipping basal nitrogen and emphasizing later applications reduces early-season nitrogen losses and associated N<sub>2</sub>O emissions.

**iv. Use of controlled and slow-release fertilizers:** Controlled or slow-release fertilizers such as urea super granules, sulfur-coated urea, polymer-coated urea, and micronutrient-coated urea ensure gradual nitrogen availability synchronized with crop uptake. These technologies



*Sourav Kumar*

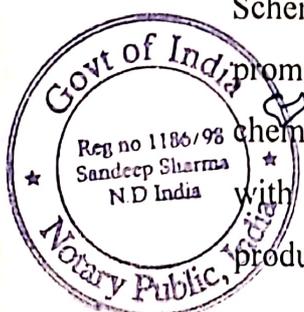
significantly reduce nitrification–denitrification losses and N<sub>2</sub>O emissions while improving grain yield and nutrient-use efficiency over conventional prilled urea.

v. **Use of nitrification and urease inhibitors:** Nitrification inhibitors such as dicyandiamide (DCD) and neem-coated urea slow the conversion of ammonium to nitrate, maintaining nitrogen in less loss-prone forms and reducing N<sub>2</sub>O emissions. When combined with urease inhibitors like nBTPT, ammonia volatilization and indirect N<sub>2</sub>O formation are further minimized.

vi **Optimization of tillage, irrigation, and drainage practices:** Adoption of Alternate Wetting and Drying (AWD), Direct Seeded Rice (DSR), and Conservation Agriculture practices (zero/reduced tillage, residue retention, and crop diversification) reduces anaerobic–aerobic soil transitions that favor N<sub>2</sub>O formation. These practices conserve water and energy, improve soil carbon, and substantially lower cumulative N<sub>2</sub>O emissions while sustaining or enhancing rice productivity. An integrated approach combining demand-driven nitrogen management, elimination of fallow periods, efficient fertilizer technologies, inhibitors, and conservation-based crop and water management provides a scientifically validated pathway to significantly reduce N<sub>2</sub>O emissions from rice paddy fields while maintaining productivity, profitability, and long-term soil health.

4. **Programs/Schemes of DA&FW where these strategies are being adopted one way or the other to ensure balanced use of fertilizer including nitrogen:**

i. **Soil Health Card (SHC) and Soil Health Management (SHM):** This Scheme is under implementation across the country since 2014-15 to promote 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.



Sourav Kumar Khan

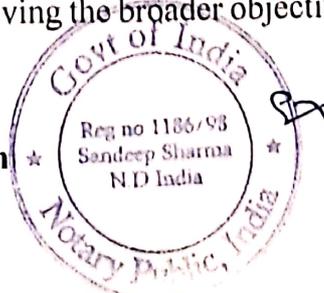
Under this Scheme, Soil Health Cards are issued to the farmers having information about the soil nutrient status, including nitrogen, phosphorus, potassium, and micronutrients and recommendations on site-specific and need-based fertilizer application. Since inception of the Scheme, 25.61 Crore cards have been issued covering. The Scheme also provides for setting up/ strengthening of Soil Testing, Fertilizers/Bio-fertilisers & Organic Fertilizers Quality Control Labs, promoting Micro-nutrients, and testing soil samples to issue Soil Health Cards. A copy of guidelines of the Scheme are attached as **Annexure-I**.

The impact of the scheme had been evaluated from time to time by various organisations. The study undertaken by National Productivity Council 2017 in 76 districts of 19 States found that as a result of application of fertilizer and micronutrients as per SHC recommendations, there has been decrease in use of chemical fertilizer application in the range of 8-10% and overall 5-6% increase in the yield of crops due to application of fertilizer and micronutrients as per SHC.

Another study was undertaken in 2017 by National Institute of Agricultural Extension Management (MANAGE), Hyderabad and the study found that 62.8% of the farmers use fertilizers according to the recommendations on the SHC, resulting in reduction of cost per acre by 4 to 10 % due to low fertilizer use. There was substantial decline in fertilizer use, especially urea and DAP in paddy and cotton resulting in decreased cost of cultivation per unit area.

The Scheme has recently been evaluated by NITI Aayog also in 2025, and the evaluation revealed that Soil Health Card (SHC) has contributed to correcting fertilizer imbalance (by reducing the excessive use of urea) and improving productivity, thus achieving the broader objectives of Integrated Nutrient Management (INM).

**ii. Crop Diversification Program**



*Sourav Kumar*

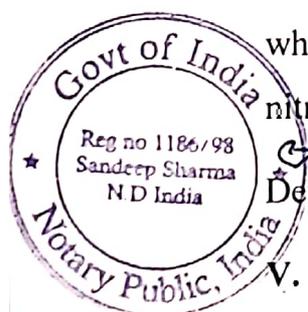
Department of Agriculture & Farmers Welfare (DA&FW) is promoting crop diversification through its Crop Diversification Program. The Programme (CDP) is being implemented in the Original Green Revolution States, viz., Punjab, Haryana and western Uttar Pradesh since 2013-14 to diversify paddy area to alternate crops like oilseeds, pulses, coarse cereals/nutri-cereals, cotton and agro-forestry. CDP has also been extended to tobacco growing states of Andhra Pradesh, Bihar, Gujarat, Karnataka, Maharashtra, Odisha, Tamil Nadu, Telangana, Uttar Pradesh and West Bengal to encourage tobacco growing farmers to shift to alternate crops/cropping system w.e.f. 2015-16. Crop diversification not only helps in nutrient Management as different crops have varying nutrient requirements and uptake patterns, but also reduces fallow periods. By rotating crops or planting diverse species together, nutrient depletion is reduced, and soil fertility is improved.

Detailed guidelines of the Scheme are attached as **Annexure-II.**

**iv. Paramparagat Krishi Vikas Yojana (PKVY):** Organic farming has been promoted through the Paramparagat Krishi Vikas Yojana (PKVY) in all States/UTs except North Eastern States since 2015-16. The scheme stresses end-to-end support to farmers engaged in organic farming, i.e., from production to processing, certification, and marketing. Since its inception, the PKVY scheme has covered an area of 16.90 lakh hectares, which aim at promoting organic farming to reduce excess use of nitrogenous fertilizers including urea.

Detailed guidelines of the Scheme are attached as **Annexure-III.**

**V. Mission Organic Value Chain Development for North Eastern Region (MOVCDNER):** In the North Eastern States, organic farming is promoted through the Mission Organic Value Chain Development for North Eastern Region (MOVCDNER) since 2015-16. The primary focus of schemes is the formation of organic clusters, with preference to small and marginal farmers, to create an integrated supply chain. The MOVCDNER scheme has covered 2.36 lakh hectares with the objective of



Sourav Kumar

promoting organic farming to reduce the excessive use of nitrogenous fertilizers, including urea.

Detailed guidelines of the Scheme are attached as Annexure-IV.

**iii. National Mission on Edible Oils – Oilseeds (NMEO–Oilseeds):**

National Mission on Edible Oils – Oilseeds (NMEO–Oilseeds) under implementation since 2024–25 promotes rice-fallow cultivation for oilseed crops, which helps in improving soil health. Detailed guidelines are attached as Annexure-V.

**iv. National Food Security & Nutrition Mission (NFSNM)**

promotes pulse production through utilization of rice fallows, rice bunds, and intercropping with commercial crops. Detailed guidelines are attached as Annexure-VI.

**v. Per Drop More Crop (PDMC):** Under per Drop More Crop (PDMC) scheme, apart from promotion of micro irrigation, fertigation is also promoted. Fertigation is the practice of delivering fertilizers to crops through irrigation water, combining irrigation and nutrition in a single, efficient system. By applying nutrients directly when and where crops need them, fertigation improves nutrient use efficiency and reduces waste compared with conventional fertilizer practices. Thus, fertigation helps in controlled and split use of fertilizers including nitrogen. Compared with conventional fertilizer practices, fertigation significantly lowers the risk of nitrous oxide (N<sub>2</sub>O) emissions. Detailed guidelines of the Scheme are attached as Annexure-VII

**vi. Adoption of DSR/SRI** practices are also being encouraged as it contributes to a substantial reduction of methane emissions. Over the past twelve years (2012-2024), 15.0 lakh ha area has been brought under SRI/DSR cultivation from traditional transplanted rice.

vii. DA&FW also assess the requirement of fertilizer before start of cropping season, i.e. Rabi and Kharif, based on agronomy, i.e. recommended doses crop-wise, and sale during the last three years and



*Souhar Kumar*

cropping area and provides the same to the Department of Fertilizers for supply to States. Soil Health Card provides information on crop wise dose of fertilizer required.

8. That the Answering Respondent reserves its right to add, amend and file the revised affidavit if so instructed or directed by this Hon'ble Tribunal.

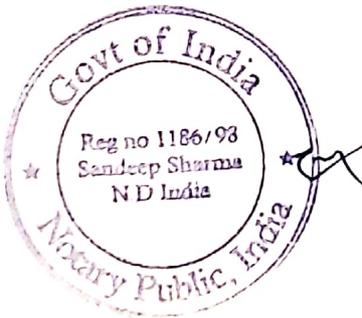
*Sourav Kumar Khan*  
DEPONENT

**VERIFICATION:**

Verified at New Delhi on 22<sup>nd</sup> day of Jan, 2026 that the contents of the above Additional Counter Affidavit are true and correct to the best of my knowledge as derived from the official records maintained by the Respondent No. 2 and nothing material has been concealed therefrom.

*Sourav Kumar Khan*  
DEPONENT

डॉ. सौरव कुमार खॉ/Dr. Sourav Kumar Khan  
सहायक आयुक्त/Assistant Commissioner  
भारत सरकार/Government of India  
कृषि एवं किसान कल्याण मंत्रालय/Min. Agriculture & Farmers Welfare  
कृषि एवं किसान कल्याण विभाग/Min. Agri. & Farmers Welfare  
शास्त्री भवन, नई दिल्ली/Shastry Bhawan, New Delhi-110001



**ATTESTED**

**NOTARY PUBLIC**  
Delhi (INDIA)

**SANDEEP SHARMA**  
Advocate  
**DELHI HIGH COURT**

NOTARY Entry/Dairy No. 1115/26

Book No: 02

Date: 22 JAN 2026

## ANNEXURE -1

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)

KrishiBhawan, New Delhi  
Dated the 22<sup>nd</sup> June, 2023

To

All States Principal Secretaries Agriculture  
/Director of Agriculture/Nodal Officers of Soil Health Card,  
States Government/UTs

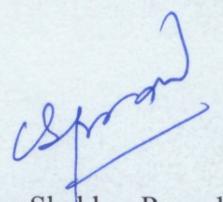
**Subject:** Implementation of Soil Health Card Scheme under "Soil Health & Fertility" of Rashtriya Krishi Vikas Yojana (RKVY) from the year 2023-24 -Reg.

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)

File No. 14-332022-Fer. Use  
Government of India  
Ministry of Agriculture & Farmers Welfare  
Department of Agriculture & Farmers Welfare  
(Fertilizer Use Cell / INM Division)

- 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](mailto:sandeep.kondaji@krishitantra.com).

All States Principal Secretaries Agriculture  
Director of Agriculture / Field Officers of Soil Health Card  
States Government/TS

Subject: Implementation of Soil Health Card Scheme under Soil Health & Fertility of  
Kashyap Krishi Vikas Yojana (KVKY) from the year 2022-23.

I am directed to refer to the Department's letter of even no. dated 27.02.2022 and to say  
that in supervision of all the existing guidelines/instructions following modifications in the  
scheme have been made:-

- i. The guidelines for setting up VILTSs have been revised and enclosed herewith for  
necessary action.
- ii. All VILTSs will be registered on the portal.
- iii. Tests to VILTS may be scheduled as per number of test specified in the enclosed  
guidelines.
- iv. States will ensure 100% test registration for State level District level and all the Soil  
Testing Labs (STL) Level and their Agents for the soil sample collection by  
30.06.2022.
- v. Proper protocol to be followed for Annual Maintenance of labs by state owned  
agencies or by ICAR/SAVY.
- vi. Timely validation of test and standard solutions. consumables items the used in soil  
testing lab may be ensured.

This issue with the approval of competent authority.

(Chandan Shekhar Prasad)  
Joint Secretary to the Govt. of India

Copy to:  
1. PPS to Secretary (AFW)  
2. PPS to Add. Secretary (INM)

## Guidelines for establishment of Village Level Soil Testing Lab under Soil Health and Fertility Scheme of RKVY from year 2023-24 onwards

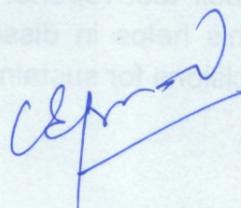
### 1. Introduction:

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 (RAWE) programme, Krishi Sakhis, 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:**

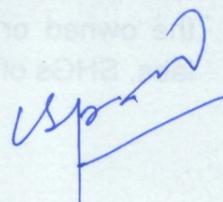
As village level soil testing labs are to be set up by local youth. This will increase employment in rural areas.

**(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 10<sup>th</sup> 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

*CS Prasad*

## 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 / RAWE, 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 (Rs. in Lakh)
1	Soil Testing Machinery with reagent & sample shaker machine and AMC for one year	1.50
2	Distilled Water, pH Meter, Conductivity meter, Electronic balance, Glassware, filter papers and other need based lab consumables	0.50
	Total	2.00

### 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-

## ANNEXURE-2



सत्यमेव जयते

**Crop Diversification Program in  
Haryana, Punjab & Western Uttar  
Pradesh**

Sustainable agriculture with increased  
productivity & profitability

2013-14

Government of India  
Ministry of Agriculture  
Department of Agriculture & Cooperation  
Crops Division  
Krishi Bhavan, New Delhi-110 011

## Guidelines for Crop Diversification in Original Green Revolution States

The Finance Minister in his budget speech for 2013-14, has provided an amount of Rs 500 crores for Crop Diversification in Original Green Revolution States to divert the area of water guzzling crop i.e. paddy to alternate crops from ensuing kharif season 2013-14 .

### Background:

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. In the instant case, crop diversification 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. Accordingly, these concerns were *interalia* examined in detail by the Committee of Secretaries (CoS) nine (9) major States comprising three (3) rice-wheat cropping systems States namely; Punjab, Haryana & Uttar Pradesh, two (2) rice dominant States namely; West Bengal & Bihar and four (4) other States namely; Andhra Pradesh, Karnataka, Maharashtra and Rajasthan. The Committee concluded that the Original Green Revolution States were facing problem of stagnancy in yield and over-exploitation of ground water resources which call for immediate diversification in crops through promotion of technological innovations in order to enable farmers to choose appropriate crop alternatives.

The continuous cultivation of water guzzling crops like paddy due to frequent flood irrigation has resulted into depletion of ground water in the original Green revolution States namely; Punjab, Haryana and Western Uttar Pradesh. The continuous cultivation of rice wheat cropping system has witnessed the stagnancy in crop yield, infestation of weeds, contamination of ground water, incidence of pests-diseases and deterioration of soil health. Therefore, it is essential to diversify the area from paddy to alternate crops not



only to improve soil fertility and arrest depletion of ground water but also to enhance the farm income.

The following objectives are expected to achieve through implementation of Crop Diversification Programme in the Original Green Revolution States namely; Punjab, Haryana and Western Uttar Pradesh.

1. To demonstrate and promote the improved production technologies of alternate crops for diversion of paddy cultivation;
2. To restore the soil fertility through cultivation of leguminous crops that generates, heavy biomass and consume lesser nutrient intake crops.

### 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 indentified blocks would be diverted towards alternate crops during 2013-14. State-wise normal area, % share in the total area and area of paddy to be diverted is given as under:

Sl.	CDP States/	Rice area ('000' ha) (QE:2011-12)	% 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
<b>Total</b>		<b>5490.4</b>	<b>100</b>	<b>280.00</b>

### 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.



### 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. An amount of Rs.500.00 crores is earmarked under the programme under RKVY funds for the year 2013-14. State-wise allocation of funds is based on the five year average total area of paddy in the state and % area of paddy to be diverted towards alternate crops. State-wise and Component-wise tentative allocation of funds is given as under:

Sl. No	State	% share of respective state to total rice area of all three states	Allocation of funds (Rs. In crores)					Total
			Alternate crops Demonstrations (60%)	Farm Mechanization & Value addition (23%)	Site specific activities (15%)	Contingency for awareness training, Implementation and Monitoring etc (2%)	Incentives for implementation of programme (10%)	
1	Punjab	50.25	134.70	51.63	33.67	4.50	0	224.50
2	Haryana	21.75	59.10	22.65	14.77	1.98	0	98.50
3	West UP	28.00	75.30	28.86	18.82	2.52	0	125.50
4	National level		0.00	0.00	0.00	1.50	0	1.50
<b>State Total</b>		<b>100.00</b>	<b>269.10</b>	<b>103.14</b>	<b>67.26</b>	<b>10.50</b>	<b>0</b>	<b>450.00</b>
<b>National level</b>		<b>0</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0</b>	<b>50.00*</b>	<b>50.00</b>
<b>Grand Total</b>		<b>100</b>	<b>269.10</b>	<b>103.14</b>	<b>67.26</b>	<b>10.50</b>	<b>50.00</b>	<b>500.00</b>

\* The amount is earmarked as incentive which will be disbursed to any state depending on the performance against the indicators developed by NCAP irrespective of their entitled allocation.

### Implementation of programme

#### 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-110 001. | Member           |
| 3 | Agriculture Commissioner, Department of Agriculture & Cooperation, Ministry of Agriculture, Krishi Bhavan, New Delhi-110 001.            | Member           |
| 5 | DDG (NRM), ICAR, Anusandhan Bhavan, New Pusa, New Delhi-110 012  | Member           |
| 6 | 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.

A national level team will also be constituted in Crops Division under the chairmanship of Joint Secretary (Crops) to deploy officers/ staff within the department and on contractual basis comprising of One Joint Director/Assistant Director, One Consultant, One Technical Assistant and One data Entry Operator and One MTS will be placed in the team to look after day to day work for monitoring and implementation of the programme.

#### 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.

#### District Level

The scheme is proposed to 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<br>State Agriculture University | Member           |
| 5. | 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.



### 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:**

(Rs./ha)

S.N.	Components	Crops	
		Maize , kharif pulses ( Arhar, mungbean, urd bean,) cluster bean, oilseeds and Bsamati (directed seeded)	Eucalyptus ( water logged conditions only ) Poplar/ based agro-forestry system for sole
A.	Cost of Critical inputs(seeds, micronutrients, seed treating chemical & P.P chemical etc	4500	9500
	Production technology & publicity materials	150	150
	Honorarium & mobility to group leader of cluster demonstration	200	200
	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
	<b>Grand -Total</b>	<b>10000</b>	<b>15000</b>

\* & \*\* 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.

**(iv) 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.

**(v) 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.

**(vi) 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.

**(vii) 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 program.



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.

**Submission of Action Plan**

Tentative allocation of funds for the year 2013-14 has been decided based on the number of districts and area proposed under crop diversification in each state. The state would prepare the action plan for implementation of CDP and submit to Ministry of Agriculture before implementation of the programme at field level.

**Release of funds**

Funds released mechanism would be on the same lines as being followed as under regular RKVY scheme.

\*\*\*



F.No.9-5/2020-Org.Fmg (81146)  
Government of India  
Ministry of Agriculture & Famers Welfare  
Department of Agriculture & Famers Welfare  
(Integrated Nutrient Management)

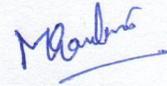
Krishi Bhawan, New Delhi  
Dated: 1<sup>st</sup> February, 2022.

**OFFICE MEMORANDUM**

**Subject: Revised** Guidelines of Paramparagat Krishi Vikash Yojana (PKVY) -reg.

The undersigned is directed to enclose herewith the revised guidelines of Paramparagat Krishi Vikash Yojana (PKVY) for implementation and further necessary action.

This issue with the approval of Competent Authority.



(M.G.Gautam)  
Section Officer (Manure)

**Encl as above**

**Distribution:**

1. Director NCOF, Ghaziabad, Hapur Road, Kamla Nehru Nagar, Ghaziabad – 201002.
2. Head of Officers, Regional Centre of Organic Farming, Ghaziabad/ Bangalore/ Bhubaneswar/ Panchkula/ Imphal/ Jabalpur/ Nagpur/ Patna.
3. Director, CFQCTI, Faridabad

**Copy to:**

1. PPS to Secretary (A & FW), Krishi Bhawan, New Delhi.
2. PS to AS & FA/DS (Finance)/ Budget & Accounts section, DA&FW, Krishi Bhawan, New Delhi.
3. PPS to Additional Secretary (INM), DA&FW, Krishi Bhawan, New Delhi.
4. PPS to Joint Secretary (INM), DA&FW, Krishi Bhawan, New Delhi.
5. Additional Commissioner (INM), DA&FW, Krishi Bhawan, New Delhi.



## **Paramparagat Krishi Vikas Yojana (PKVY)**

**National Mission for Sustainable  
Agriculture (NMSA)**

**Integrated Nutrient Management Division  
Department of Agriculture, Cooperation & Farmers Welfare  
Ministry of Agriculture & Farmers Welfare  
Krishi Bhavan, New Delhi**

## INTRODUCTION

### Paramparagat Krishi Vikas Yojana (PKVY)

“Paramparagat Krishi Vikas Yojana (PKVY)” a sub-component of Soil Health Management (SHM) scheme under National Mission of Sustainable Agriculture (NMSA) aims at development of sustainable models of organic farming through a mix of traditional wisdom and modern science to ensure long term soil fertility buildup, 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. PKVY also aims at empowering farmers through institutional development through 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 will be the key approach for quality assurance under the PKVY. The farmers will have option to adopt any form of organic farming in compliance of PGS-India standards. While adopting a system it must be ensured that the system adopted is compatible to the area and crop and assures optimum yield and provides adequate measures to manage nutrients, pests and diseases. Farmers will have the flexibility to use appropriate package of practice(s) best suited to their situations.

## 2

### OBJECTIVES

- 2.1. 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;

2.2 To reduce cost of agriculture to farmers through sustainable integrated organic farming systems thereby enhancing farmer's net income per unit of land

2.3 To sustainably produce chemical free and nutritious food for human consumption.

2.4 To protect environment from hazardous inorganic chemicals by adoption of ecofriendly low cost traditional techniques and farmer friendly technologies

2.5 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;

2.6 To make farmers entrepreneurs through direct market linkages with local and national markets

### **3 INSTITUTIONAL FRAMEWORK AT NATIONAL, STATE AND DISTRICT LEVEL**

#### **3.1. National Level**

##### **3.1.1 National Advisory Committee (NAC)**

The National Advisory Committee (NAC) under Chairmanship of Secretary (A&C) constituted under NMSA will be the policy-formulating body giving overall direction and guidance to the Mission and monitor and review its progress and performance. It is empowered to lay down and amend operational guidelines other than those affecting financial pattern and Cost Norms. The composition of the NAC is given below:

<b>Secretary, Agriculture, Cooperation &amp; Farmers Welfare (AC&amp;FW)</b>	<b>Chairman</b>
<b>Secretary, MOFPI</b>	<b>Member</b>

<b>Secretary, MSME</b>	<b>Member</b>
<b>Additional Secretary &amp; Financial Advisor, DAC&amp;FW</b>	<b>Member</b>
<b>Additional Secretary (INM), DAC&amp;FW</b>	<b>Member</b>
<b>Additional Secretary (Panchayati Raj)</b>	<b>Member</b>
<b>Additional Secretary (Rural Development)</b>	<b>Member</b>
<b>Representative from Department of Agriculture Research &amp; Education</b>	<b>Member</b>
<b>Joint Secretary (NHM)</b>	<b>Member</b>
<b>Joint Secretary (Crops)</b>	<b>Member</b>
<b>Joint Secretary (NRM &amp; RFS)</b>	<b>Member</b>
<b>Joint Secretary (DOF)</b>	<b>Member</b>
<b>Joint Secretary (INM)</b>	<b>Member Secretary</b>
<b>Representative of State Governments</b>	<b>Associate members on rotation basis</b>

**NAC will invite 3-4 states as associated members in each meeting on rotation basis. NAC will meet at least once in six months.**

### **3.1.2. Executive Committee (EC):**

**Executive committee will be headed by Additional Secretary (INM).**

**Executive Committee (EC) will comprise of the following Members:**

<b>Additional Secretary (INM), DAC&amp;FW</b>	<b>Chairman</b>
<b>Joint Secretary (Department of Fertilizers)</b>	<b>Member</b>
<b>Joint Secretary (INM)</b>	<b>Member Secretary</b>
<b>Joint Secretary (MOFPI)</b>	<b>Member</b>
<b>Joint Secretary (MSME)</b>	<b>Member</b>

<b>Joint Secretary (Panchayati Raj)</b>	<b>Member</b>
<b>Joint Secretary (Rural Development)</b>	<b>Member</b>
<b>DDG (NRM), ICAR, Agriculture Commissioner, Horticulture Commissioner, ADC (INM), Director, NCOF and Director, CFQC&amp;TI</b>	<b>Expert Members</b>
<b>During the Annual Action plan approval meetings , the State Secretary of Agriculture/ nodal department shall be co-opted as member of the E.C, when the State's Action plan is taken up for approval.</b>	

- 3.1.2.2 EC will oversee activities of the Scheme and approve Action Plans of various states in accordance with the prescribed norms.**
- 3.1.2.3 EC is empowered to reallocate resources across States and components and approve projects on the basis of approved financial assistance norms.**
- 3.1.2.4 EC will meet at least once every quarter.**

### **3.1.3 INM Division in DAC&FW:**

- 3.1.3.1 Indicate tentative provisions for each component at the beginning of Financial Year (March- April) to facilitate the States in preparing Annual Action Plan (AAP) as per the prescribed format.**
- 3.1.3.2 Oversee dissemination, implementation, monitoring and evaluation of various interventions in the mission and provide feedback reports to the NAC and EC.**
- 3.1.3.3 Ensure timely release of funds as per the annual action plans and monitor utilization status of funds.**
- 3.1.3.4 Provide overall policy guidelines for the scheme.**
- 3.1.3.5 Prepare the Agenda for the EC and NAC meetings.**
- 3.1.3.6 In order to cater to the diversified requirements of the scheme in an efficient and time bound manner, INM Division will engage a**

## **Project Management Team.**

### **3.1.4 National Centre of Organic Farming (NCOF)**

**3.1.4.1 NCOF 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 RCOFs**

**3.1.4.2 Technical trainings to state Government officers on organic crop and livestock management as per PGS standards**

**3.1.4.3 Monitoring of functioning of Support agencies.**

**3.1.4.4 Monitor implementation of the scheme in states**

**3.1.4.5 Management and maintenance of data, MIS development, report generation and digital surveillance on group activities on PGS certification**

**3.1.4.6 Any other monitoring and surveillance activity assigned by the DAC&FW**

**3.1.5 National Project Management Team: Project Management Team (PMT) constituted at the National level will function under the leadership of the 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 PMT. The functions of the PMT are as at Annexure I.**

## **3.2 State Level**

**3.2.1 State Department of Agriculture or agency nominated/authorised by the state government shall be the nodal Department for implementation of this scheme.**

**3.2.2 Functions of the State Department:**

- 3.2.2.1. Prepare annual State Level Action Plan by compiling District-wise Action Plan and submit to the State Level Executive Committee (SLEC) for approval and there after forward the same to EC**
- 3.2.2.2. Receive funds from DAC&FW for implementation and oversee its implementation, regular monitoring & review of programmes. Facilitate monitoring by INM Division/ NCOF/RCOFs**
- 3.2.2.3. Where the programme is implemented by the State Departments, it must be ensured that the aim of market linkages to clusters is properly implemented and farmers are linked to the market before the closure of the programme.**
- 3.2.2.4. Selection of support agencies (if not implementing on its own) through the state determined process in an open and transparent manner.**
- 3.2.2.5. Release of fund to support agencies as per work progress and release of funds to farmers/ accounts of farmers groups as DBT.**
- 3.2.2.6. Organize workshops, seminars and training programmes for all interest groups/stakeholders at State/District level.**
- 3.2.2.7. Operationalize Information Communication Technology (ICT) enabled management system up to grass-root level.**
- 3.2.2.8. Supervise all activites related to implementation of plan, monitoring etc.**
- 3.2.2.9. Conduct independent evaluation to assess the performance of scheme in their States.**
- 3.2.2.10. Two percent (2%) of total allocation to the State may be earmarked for administrative and other contingent expenses. Expenditure in excess of 2% limit will be met by the States from their own resources.**
- 3.2.2.11. The State Government and other designated implementing agencies, to the extent possible, will ensure active participation of the Panchayati Raj Institutions (PRIs) in the implementation of this scheme**

- 3.2.2.12. State Government may involve PRIs in publicising the demonstrations and training of farmers and in ensuring participation of farmers from nearby areas for widespread dissemination of technology.
- 3.2.2.13. States may prefer Women farmers / Women Self Help Groups formed under Ministry of Rural Development while choosing the organic farming areas.
- 3.2.2.14. States may also take the services of FPOs, SME(s) and convergence with other government schemes to create end-to-end value- chain based cluster models (of 500 to 1000 ha area each) with effective and functional marketing channels.

**3.2.3. The State Level Executive Committee (SLEC):**

<b>Agriculture Production Commissioner/Principal Secretary Government</b>	<b>Chairman</b>
<b>Commissioner (Agriculture)/ Director (Agriculture)</b>	<b>Member Secretary</b>
<b>Commissioner (Horticulture)/ Director (Horticulture)</b>	<b>Member</b>
<b>Commissioner (Panchayati Raj)</b>	<b>Member</b>
<b>Commissioner (Rural Development)</b>	<b>Member</b>
<b>Representatives of SAUs/ICAR//NCOF/other line Departments</b>	<b>Expert Members</b>
<b>Lead Farmers</b>	<b>Expert Members</b>

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 Gol.

- 3.2.3.1. 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.
- 3.2.3.2. State level Executive Committee shall approve the Annual Action Plan prepared by the State nodal Department/authorized agency. The SLEC will oversee the implementation of scheme components of the respective States through regular meetings with the nodal and other line Departments. The project prepared by state government must be duly approved by SLEC before submission to EC.**
- 3.2.3.3. 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% administrative costs provided to the States.**
- 3.2.4. Support Agencies: States can implement the programme through their own staff or can engage /outsource programme implementation through professional support agencies**
- 3.2.4.1. Support agencies shall be required for the following two fold functions:**
- 3.2.4.1.1. Implementation of Cluster formation, capacity building including exposure visits, trainings, deployment of manpower in the form of Lead Resource Persons (LRPs), management of entire programme implementation including data management, handholding to groups and clusters, facilitating value addition and marketing of PGS certified produce.**

3.2.4.1.2. PGS Certification endorsement, physical verification and issue of certificates including sample collection and analysis for residue analysis.

3.2.4.1.3. While any support agency fulfilling the prescribed criteria/qualifications can take up the functions as listed at (A), States shall engage already registered Regional Councils (RCs) for functions as listed at (B).

3.2.4.1.4. In order to implement organic integrity, in such clusters, where a RC is selected as the support agency for functions of Part (A), they will make sure that another RC shall have to undertake their certification or functions of Part (B).

3.2.4.1.5. Essential qualifications for support agency are at ANNEXURE II

3.2.4.1.6. Roles and responsibilities of Support agency in detail is at ANNEXURE III

3.2.4.1.7. Eligible criteria of Regional Councils is at ANNEXURE IV

3.2.5. Roles and Responsibilities of Regional Councils

- a. as supporting agency will be as specified at ANNEXURE III
- b. as agency endorsing PGS certification process is provided at ANNEXURE V
- c. Roles and Responsibilities of LRPs is at ANNEXURE VI

3.2.6. District Level

3.2.6.1. The indicative structure for District Level Executive Committee (DLEC) is as follows; states can choose their own setup under intimation to Gol

#### DISTRICT LEVEL EXECUTIVE COMMITTEE

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
---	----------------

**3.2.7. DISTRICT LEVEL PROJECT MANAGEMENT TEAM:** DPMT will be set up for implementation and monitoring of programme at District level.

### **3.3. CRITERIA**

#### **3.3.1. For selection of areas/ Farmers' groups:**

- 3.3.1.1. Organic farming under PKVY will be promoted preferably in hilly, tribal and rain-fed areas.**
- 3.3.1.2. Cluster approach will be adopted in large patches of up to 1000 ha area in plan areas and 500 ha area in hilly areas.**
- 3.3.1.3. 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).**
- 3.3.1.4. Formation of Gram Panchayat based Farmer Producer Organizations will be encouraged or already existing FPOs will be promoted under the scheme.**
- 3.3.1.5. In a cluster, there should be maximum number of small and marginal farmers. Women farmers/ SHGs should be given preference.**
- 3.3.1.6. 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.**

#### **3.3.2. For allocation of funds to States:**

- 3.3.2.1. Timely submission of quarterly reports on financial (fund utilization/submission of Utilization Certificates) and physical progress (area, crop details) reports.**
- 3.3.2.2. Effective use of existing FPOs convergence with other schemes,**

adoption of innovative value addition and marketing strategies will be considered while allocating the funds.

#### **4 PROCEDURE AND TIMELINES FOR SUBMISSION AND APPROVAL OF ANNUAL ACTION PLANS**

- 4.1. The tentative allocation for the states for the next financial year will be intimated by INM division by end of February every year.**
- 4.2. State Government will prepare cluster wise annual action plan on a project basis with details of area to be taken up in each cluster; organic farming system/ cropping systems to be adopted; sources of organic inputs (on-farm/off-farm); possible surplus produce for marketing; value addition requirement marketing strategy along with details of agencies involved, by first week of April every year.**
- 4.3. This Annual Action Plan (AAP) duly approved by SLEC along with the minutes of SLEC, shall reach DAC&FW for examination, deliberation and final approval by first week of April every year. Post facto approvals from SLSC can also be considered to facilitate the approvals of SLEC in time.**
- 4.4. INM Division in DAC&FW will examine AAP before it is placed before the EC for consideration and sanction of AAP. Action plans will be approved by EC by April and shall be intimated to States.**
- 4.5. Funds will be released to States by 1<sup>st</sup> week of May every year.**

#### **5 FUND FLOW MECHANISM**

- 5.1 Funds will be released to states after approval of annual action plan by national Executive Committee in May of each year.**
- 5.2 Incentives to farmers for organic conversion, organic inputs, on-farm input production infrastructure etc shall be provided as Direct Benefit Transfer (DBT) to their respective bank accounts of farmers/ group of farmers. States**

may define the policy guidelines for utilization of such funds, but it will be the choice of the farmers to select the input/ input production infrastructure.

**5.3 States/ Implementing agencies will furnish utilization certificate (UC) in the prescribed format (Form GFR 19-A) 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 instalment.**

**5.4 All implementing agencies are required to maintain subsidiary accounts of the grants-in-aid and get the same audited from a Chartered Accountant.**

**5.5. 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.**

**5.6. The project is to be executed over a period of 3 years, every year audited report (GFR 19-A) duly signed by Chartered 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.**

**5.7. As far as possible, all the activities should be funded through PKVY as per guidelines. Convergence with other schemes like RKVY, MIDH, NFSM etc. of the DAC&FW and schemes of other ministries like MSME, MOFPI for value addition, marketing can be done.**

**5.8 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. Funds for this component will be released from the funds available under the scheme under major Head 2401.**

**5.9 Funds for certification reimbursement for large contiguous traditional/default organic area will be released to the states on submission of annual action plan**

## **6 MODEL CLUSTER DEMONSTRATION**

**6.1.** For model cluster demonstration, proposals will be considered on case to case basis. Cooperatives/public sector organizations such as KVKs, ICAR institutions, SAUs, Central Agriculture Universities, Small Farmers Agri Consortium (SFAC), NSC, NCDC, and other public sector organizations of Central and State Governments will be eligible for conducting the model cluster demonstrations. Monitoring of the same will be done by INM division and /or NCOF through RCOFs. The funding pattern will be 100% grant from central government for central agencies. Upto 5% of PKVY fund will be allocated at DAC level for funding these demonstrations.

**6.2.** In case of private agencies/organizations, only those having experience in organic farming and registered with NCOF or Darpan of Niti Aayog will be considered on a case to case basis. However, at least 10% of the total project cost shall be contributed by them for the implementation of Model Organic Cluster Demonstration.

## **7 MONITORING AND EVALUATION**

**7.1.** At the national level regular monitoring of the scheme will be done by NCOF, RCOFs and National Project Management Team. Monitoring formats will be developed for the same.

**7.2.** At State and district levels also the Project Management Teams engaged will do regular monitoring of the implementation of the scheme.

**7.3.** Information and communication technology will be deployed extensively for ensuring transparency in the implementation process and effective monitoring of the programme.

**7.4.** A dedicated MIS will be developed to capture the information from planning of project, approval, execution to progress report.

**7.5.** States will send quarterly progress reports to MIS and in hard

copy also.

- 7.6. **Geo-tagging:** The clusters taken up under PKVY will be geo tagged for monitoring purpose as well as for facilitating marketing mechanism based as the crops grown.
- 7.7. **DAC&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.
- 7.8. States shall also take up third party based concurrent, midterm and final evaluations from time to time.

8

#### **JAIVIK KHETI PORTAL**

A dedicated portal for organic farming acting as both a knowledge platform as well as marketing platform will be 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.

9

#### **CONVERGENCE**

Convergence with other Central Sector Schemes like MIDH, NFSM and with schemes of other ministries like MOFPI, SMES, MoRD etc. for relevant components is highly encouraged.

10

#### **FORMATION OF GROUP AND CLUSTERS**

10.1. **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). 25-50 such groups covering 500-1000 ha area shall constitute one "Cluster".

**10.2. Formation of Clusters:** State Government shall identify the target PKVY/PG Groups between 500 or 1000 ha area for formation of clusters. The group of clusters should be identified preferably in the existing FPO areas. Creation of new FPOs can also be taken up provided such FPO formation is funded through convergence of resources of State Government, NABARD, SFAC, DAY-NRLM. Most importantly while selecting Group of clusters, contiguous area upto 1000 ha should be selected in nearby villages so as to generate marketable surplus for processing and marketing.

**10.3. 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.**

**10.4. 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.**

**10.5. 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 supporting agencies shall deploy**

#### **Local Resource Persons.**

- 10.6. 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 VII.**
- 10.7. 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. As a special case, besides traditional/default organic area, large contiguous area (whole state or districts) already certified may also be considered for grant of assistance under LAC scheme of PKVY on case to case basis, provided other requirements of LAC are fulfilled. State may choose the type of certification under LAC as per its requirement (NPOP or PGS), but the assistance will be limited to the ceiling prescribed in PKVY at component 14B (3 & 4). Methodology for providing certification assistance to such large contiguous clusters is given at Annexure VII.**

11

**CAPACITY BUILDING**

11.1. 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.

11.2. 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.

11.3. 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 Local Resource Persons (LRPs) shall be deployed.

11.4. 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.

12

**INCENTIVES TO FARMERS**

12.1. For organic conversion and on-farm and off-farm inputs

12.1.1. 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.

**12.1.2. On-farm inputs can be like composting, green manuring etc. and Off-farm inputs like organic seeds, manures, vermicomposts, biofertilizers, biopesticides, neem formulations, PROM, waste decomposer, botanical and physical and biological plant protection agents etc. can be considered.**

**12.1.3. 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.**

**12.2. For marketing, common packaging, branding, space rent, transport –**

**12.2.1. Financial assistance will be given for direct marketing by the groups and clusters including procuring common packing material, printing of packing material, brochures, leaflets, preparation of labels, holograms, transportation expenses to local markets, hiring spaces on rent for specific organic markets and branding of organic products.**

**12.2.2. PGS India Green logo may be used for area under conversion and PGS India Organic logo may be used for completely converted organic area. Regional Council/ service providers in consultation with the State Governments will design the label and branding for the clusters. The labeling must include name of cluster, district and unique product packing used for branding organic produce.**

**12.2.3. If required for marketing, States can adopt any mode of certification as required by the buyer within the allocated budget.**

**12.2. For Value addition infrastructure creation through FPC/FPO:**

**12.3.1. Clusters can develop their own post-harvest, value addition and processing facilities, preferably under their institutions such as FPOs/ FPCs for creation of facilities for following:**

- 12.3.2. **Creation of collection and aggregation/postharvest process center (one between every 5-10 groups)**
- 12.3.3. **Creation of storage facility**
- 12.3.4. **Transportation infrastructure/ costs**
- 12.3.5. **Cold store/ pack house**
- 12.3.6. **Processing unit for drying, grinding, milling, packaging etc.**
- 12.3.7. **Any other facility deemed necessary for completing value chain.**
- 12.3.8. **Financial assistance to meet the expenses for procuring processing units, storage, grading, packaging, branding, labeling, transportation, market linkage with FPO/ SME including the cost of organic fare to be provided on submission of appropriate proposal to the EC on case by case basis.**

**12.4. Brand building, trade fairs, exhibitions, local publicity, organic fairs/ melas, local marketing initiatives, participation in national trade fairs:**

**12.4.1. States in consultation with service providers shall draw a comprehensive marketing strategy and plan at state level for brand building of state specific organic products. Cluster leaders can also be exposed to national and international trade fairs within the country, running publicity campaign etc.**

**12.4.2. State Governments can also hire spaces in high end markets during weekends for promotion of PGS certified organic produce and can organize state level exhibitions, trade fairs and seminars/ conferences far facilitating direct market linkages with retail chains.**

**12.4.3. Setting up of Integrated Processing Unit is linked with the area already brought under organic farming or is proposed for conversion to organic. It must be ensured that adequate raw material is available from grower groups in close vicinity.**

**12.4.4. It also to be ensured that facilities are created in such a way that different commodity can be processed under single roof facility and the unit can run for at least 8- 10 months a year.**

12.4.5. These projects should be preferably Farmer institutions driven or under Private and farmer Institution partnership mode and are established mainly to cater the value addition requirement of the PKVY cluster produce.

12.4.6. Funds under this component will be provided on specific proposal on case by case basis by DAC&FW.

### 13 CONSULTATION WITH LEAD FARMERS

Consultations/Seminars with the lead farmers of different sustainable agriculture Systems will be organized at Regional Level and National level from time to time. 2% administrative costs available at national level will be utilised for this purpose.

## 14 FINANCIAL BREAK UP AND COMPONENT WISE ALLOCATION

S.No.	Component	Pattern of assistance/ ha			Total per ha area for 3 years	Total per group of 20 ha for 3 year	Total per cluster of 1000 ha each Rs in lakh
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year			
<b>A.</b>	<b>Programme implementation through Support Agencies</b>						
1.	Cluster formation and Capacity building including exposure visits, and trainings of field functionaries	1000	1000	1000	3000	60000	30.00
2.	Deployment of manpower and management cost for implementation of programme including data management and uploading	1500	1500	1500	4500	90000	45.00
<b>B.</b>	<b>PGS Certification through Regional Councils</b>						
3.	Service charges to RCs for physical verification, certification endorsement and certificate issue	700	700	700	2100	42000	21.00
4.	Residue analysis through Zonal councils/ state Departments in NABL accredited laboratories @ 3 samples/per 100 hec. (LRP area) from 2 <sup>nd</sup> year	0	300	300	600	12000	6.00
<b>C.</b>	<b>Incentive to farmers through DBT</b>					<b>0</b>	<b>0</b>
5.	Incentive to farmers for organic conversion, inputs, on-farm input infrastructure to be provided as DBT for direct farmers account	12000	10000	9000	31000	620000	310.00
<b>D.</b>	<b>Value addition, marketing and publicity</b>					<b>0</b>	<b>0</b>
6.	Support for marketing,	0	500	1000	1500	30000	15.00

S.No.	Component	Pattern of assistance/ ha			Total per ha area for 3 years	Total per group of 20 ha for 3 year	Total per cluster of 1000 ha each Rs in lakh
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year			
	common packaging, branding, space rent, transportetc						
7.	Value addition infrastructure creation through FPC/ FPO case to case basis*	0	1000	1000	2000	40000	20.00
8.	Brand building, trade fairs, exhibitions, local publicity, organic fairs/ melas, local marketing initiatives, participation in national trade fairs	1300	2000	2000	5300	106000	53.00
	Total	16500	17000	16500	50000	1000000	500.00

**Rs 500.00 lakh per cluster of 1000 ha each**

**\* Proposals regarding Value addition infrastructure creation through FPC/FPO would be considered separately on case to case basis**

**Inter component changes under prior intimation to Government of India on a case to case with full justification is allowed.**

**ANNEXURE I****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.

**ANNEXURE II****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.

**ANNEXURE III****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/ PANcard/ 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 donot have access to computer
- Ensure access of portal data to public to build trust and credibility in the system
- Capacity building of LRPs on implementation requirements and ensure implementation of all activities through LRPs
- Trainings to farmers on organic farming activites, assit 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.

**ANNEXURE IV****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.)

**ANNEXURE V****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

**ANNEXURE VI****Roles and Responsibilities of Lead Resource Persons (LRPs)**

- LRPs can be chosen from the local group of farmers
- LRPs 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

**Annexure VII****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 obtain scope certificate. Alternatively farmers/ groups can approach the state authorities for enrolment or can enrol 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**

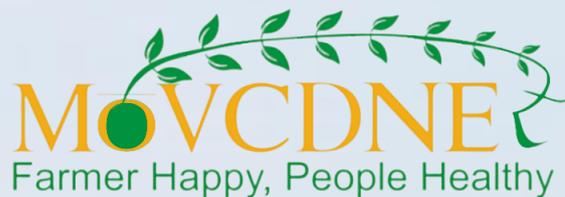
- a. Declaration of the defined area as chemical input usage and GMO free (at least no such input use history in last 5 years) by state Government and/or

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 ha/ year for three years, as per the provisions at component 14 B (3&4).

\*\*\*\*\*

## ANNEXURE-4



# OPERATIONAL GUIDELINES

**MISSION ORGANIC VALUE CHAIN  
DEVELOPMENT FOR NORTH EASTERN  
REGION (MOVCDNER)  
A Sub-scheme under  
Krishonnati Yojana**

**April 2024**

**Phase IV onwards**

**Integrated Nutrient Management Division,  
Department of Agriculture and Farmer's  
Welfare, Krishi Bhavan,  
New Delhi – 110 001**

## Mission Organic Value Chain Development for North Eastern Region (MOVCDNER)

### 1. Background

Realizing the potential of organic farming in the North Eastern Region of the country Ministry of Agriculture and Farmer Welfare launched a **Central Sector Scheme, now a Centrally Sponsored Scheme (with 100% GoI share)**, titled “**Mission Organic Value Chain Development for North Eastern Region (MOVCDNER)**” for implementation in the states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura, during the 12<sup>th</sup> plan period with an allocation of ₹ 400 crore. The scheme aimed at the development of certified organic production in value chain mode to link growers with consumers and to support the development of the entire value chain starting from inputs, seeds, and certification, to the creation of facilities for collection, aggregation, processing marketing, and brand building initiatives.

Since the scheme was in value chain mode, it has been able to create concentrated production clusters of specific commodities with necessary postharvest infrastructure and market linkages. All these clusters were targeted for export focus crops and certified under National Programme for Organic Production (NPOP) which is a third-party certification process.

Three phases of MOVCDNER have been concluded covering 1.79 lakh ha and 379 FPOs. The phase IV of the scheme will cover an additional 50,000 ha and 100 FPOs.

### 2. Objectives

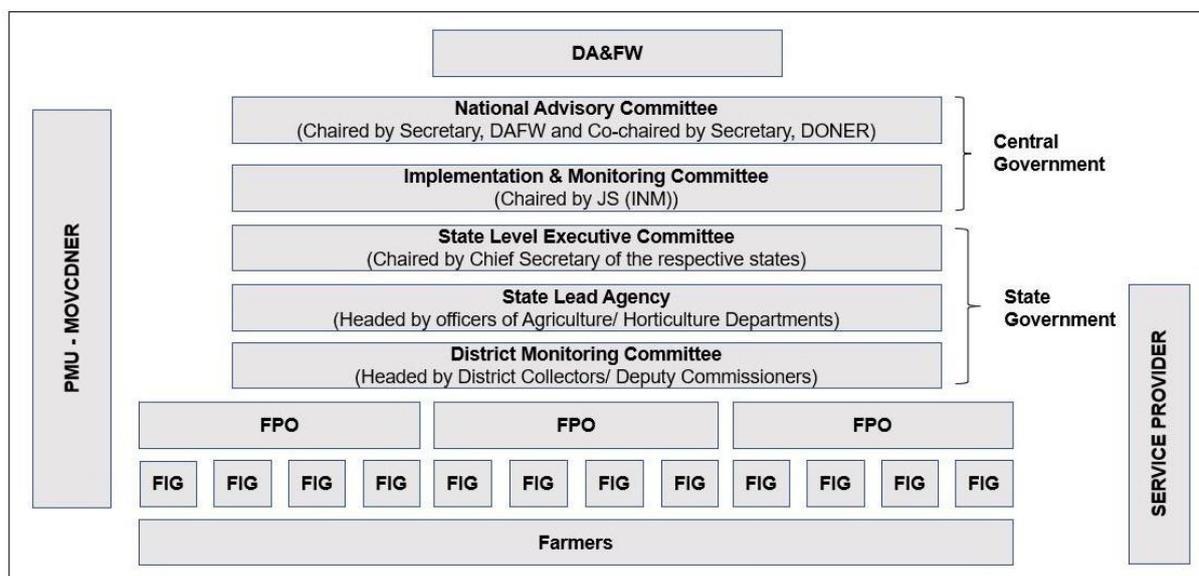
The mission aims at development of crop commodity specific organic value chain and address gaps in organic crop production, wild crop harvesting, organic livestock management and processing handling and marketing of organic agricultural products in north eastern states through:

- i. Developing crop specific organic production clusters with necessary infrastructural, technical and financial support.
- ii. Facilitating partnership between farmers and organic businesses: Local enterprises and / or Farmer Producer Companies based on back-to-back long-term trade relations with clients in domestic and export markets.
- iii. Providing enabling environment for project initiatives and development programs with necessary support for organic value chain development and create market access.

- iv. Empowering producers with program ownership by organizing them into FIGs with the final aim to federate into farmer producer organizations/ companies.
- v. Replacing conventional farming/subsistence farming system into local resource based, self-sustainable, high value commercial organic enterprise.
- vi. Providing training and consistent support to farmers on organic farming methods at farmer, FIG and FPO levels to enhance the quality and productivity while facilitating market access for improved price realisation.
- vii. Developing commodity specific commercial organic value chain under integrated and concentrated approach with end-to-end facilities for production, processing, storage and marketing.
- viii. Creating organic parks/zones that come equipped with facilities that support collection, aggregation, value addition, processing, storage, and market-linkages for specific commodities that require high-end technological investment.
- ix. Develop NER products as brands/labels through brand building and facilitating stronger marketing access under the ownership of growers' organizations/ companies.
- x. Creating state specific lead agency (Organic Commodity Board or Organic Mission) for coordinating, monitoring, supporting and financing the development and operationalization of entire value chain.

### 3. Institutional Framework at National, State and District level

The MOVCDNER will be implemented in a Mission mode. The Mission structure at the Government of India level will comprise of National Advisory Committee (NAC), Implementation & Monitoring Committee (IMC) and Mission Head Quarter at DA&FW, New Delhi.



### 3.1. National Advisory Committee (NAC)

The National Advisory Committee for Mission Organic Value Chain for North Eastern Region (NAC-MOVCDNER) shall be the overall policy-making body giving directions and guidance to the Mission and shall monitor and review its progress and performance. The NAC-MOVCDNER is empowered to:

- i. Formulate implementation policies, and operational guidelines.
- ii. Amend the operational guidelines.
- iii. Allow inter-component flexibility among various scheme components.
- iv. Approve new components within the overall budget ceiling of the Mission.
- v. The Chairperson NAC-MOVCDNER is empowered to decide on file subject to ratification by the NAC-MOVCDNER.
- vi. The NAC-MOVCDNER is also empowered to amend/ modify the decisions taken by the IMC.

The NAC-MOVCDNER shall meet at least once a year. The Chairperson NAC-MOVCDNER may nominate more members to the committee from time to time.

The composition of the NAC-MOVCDNER is as follows:

1	<b>Secretary, DA&amp;FW</b>	<b>Chairperson</b>
2	<b>Secretary, DoNER</b>	<b>Co-Chairperson</b>
3	Secretary, Ministry of Rural Development*	<i>Member</i>
4	Secretary, Ministry of Food Processing Industries*	<i>Member</i>
5	Secretary, Department of Commerce*	<i>Member</i>
6	Secretary, Department of Micro, Small and Medium Enterprises*	<i>Member</i>
7	Secretary, Department of Animal Husbandry, Dairying & Fisheries*	<i>Member</i>
8	Secretary, NEC	<i>Member</i>
9	Secretary, DARE and Director General, ICAR*	Member
10	Secretary, DSIR and Director General, Council of Scientific & Industrial Research*	<i>Member</i>
11	Additional Secretary and Financial Advisor, DA&FW	Member
12	Additional Secretary (INM), DA&FW	Member
13	Agriculture Commissioner, DA&FW	Member
14	Horticulture Commissioner, DA&FW	Member
16	Chairman and Managing Director, NABARD*	<i>Member</i>
17	Chairman, APEDA	<i>Member</i>
18	Joint Secretary (Extension), DA&FW	Member

19	Joint Secretary (Horticulture), DA&FW	Member
20	Joint Secretary (Marketing), DA&FW*	Member
21	Joint Secretary (RKVY), DA&FW *	<i>Member</i>
22	Dy. Director General (NRM), ICAR	Member
23	Secretary/ Commissioner of Agriculture/ Horticulture of two states in rotation	Member
24	Joint Secretary (INM)	Member Secretary

\* or their nominees

### 3.2. Implementation & Monitoring Committee (IMC)

The Implementation & Monitoring Committee (IMC) of the MOVCDNER headed by the Joint Secretary (INM) is responsible for the effective implementation of the Mission.

- i. IMC is empowered to consider the state action plan and approve proposals/projects as per approved norms, issue necessary clarification on the implementing issues and guidelines and approve the SLA for receiving the funds.
- ii. IMC shall also periodically review the progress and state of implementation and appraise the NAC from time to time.
- iii. The Chairperson of IMC may nominate more members to the committee as per requirement.
- iv. The Chairperson of the IMC is empowered to take decisions on file subject to ratification by the IMC.
- v. The IMC shall meet quarterly or more frequently as per the requirement to sanction and review the implementation.
- vi. IMC shall be assisted by technical experts for the implementation of the Mission, if required.
- vii. The IMC shall also have the responsibility to ensure collaboration among various line Departments at the centre/State to achieve the desired goals.
- viii. The IMC is empowered to constitute monitoring teams, constitute third party evaluations, review the progress and state of implementation and requisition the services of technical experts.

The Implementation & Monitoring Committee shall meet quarterly and comprise of following:

<b>1</b>	<b>Joint Secretary (INM), DA&amp;FW</b>	<b>Chairperson</b>
2	Director DONER	Member
3	Principal Coordinator NPOF, IIFSR, Modipuram	Member
4	Director, NCONF	Member
5	Director of Agriculture from NER States (2 Nos by rotation)	Member
6	Heads of State Lead Agency/ Mission (2 Nos by rotation)	Member

7	Head of Project Management Team	Member
8	Director/ Additional Commissioner (INM)	Member Secretary

### 3.3. Project Management Team (PMT)

The INM division should establish PMT consisting of administrative specialists to provide support towards monitoring and implementation of the scheme. The PMT should include:

S. No.	Resource	Count
1.	National Consultant/ Advisor	1
2.	Consultant	1
3.	Jr. Production Officer	1
4.	Jr Marketing Officer	1
5.	Office Manager	1
6.	Accounts Officer	1
7.	IT Professional	1

### 3.4. Project Management Unit (PMU)

Mission Monitoring Committee at its discretion shall deploy a Project Management Unit (PMU) comprised of professional experts from the field of FPO handholding, market linkage experts, logistics management experts, and capacity-building experts, IT, etc needed to support end-to-end value chain, to be stationed with DA&FW and in the NE states. The PMU shall have the following responsibilities:

- i. Evaluate the implementation of the scheme and report to JS (INM) regularly.
- ii. Support states as per performance in developing Annual Action Plans and its roll out by different stakeholders including SPs and DLMCs
- iii. Provide technical inputs and support for scheme implementation by stakeholders
- iv. Closely liaison with DLMCs for collecting feedback and support scheme implementation.

### 3.5. MISSION IMPLEMENTATION STRUCTURE AT STATE LEVEL

#### 3.5.1. State-Level Executive Committee (SLEC)

SLEC may be constituted by respective State Governments under the Chairpersonship of Chief Secretary and comprising of representatives from departments and stakeholders, including departments of Animal Husbandry, Dairy, Fisheries, Horticulture, Agriculture Marketing, Food Processing Industries, Rural Development, Skill Development, Micro, Small & Medium Enterprises as well as representatives from ICAR, CAU, SAUs and research institutions. The above structure is indicative and at the discretion of the state, any existing structure working as SLEC for other schemes headed by the *Additional Chief Secretary/ Principal Secretary/ Agriculture Production Commissioner* can also be considered.

SLEC shall be the sole responsible body for the effective implementation of the mission objectives, judicious utilization of sanctioned funds and ensuring necessary credit flow for infrastructure creation. SLEC shall also be responsible for the creation/ nomination of SLA and provide necessary authorization/ sanction for implementation and utilization of funds through SLA. The SLEC is also authorized to approve inter-componential changes in budgetary utilization, which needs to be intimated to DA&FW subsequently. The meeting of the SLEC should be held once in every six months and review performance of SLA, SP, FPOs. SLEC should also conduct monitoring & evaluation of the scheme within the state.

#### 3.5.2. SLA in the form of Organic Mission/ Organic Commodity Board

The SLA in the form of Organic Mission/ Organic Commodity Board shall be a dedicated agency for the implementation of the scheme within the state with its State Nodal Account in PFMS by 1.04.2024 to enable fund flow from DA&FW.

States can also name any of the existing state agencies as SLA, but the implementation of the mission will be managed through a dedicated nodal officer and hired manpower (on contract) specifically for the Mission management and implementation.

SLA will be the nodal agency for the implementation of mission components and for ensuring the effective realization of mission goals. Responsibilities include (but are not limited to):

- i. Developing Annual Action Plans, in coordination with District Level Monitoring Committees, and Organic Value Chain development strategy for the state.
- ii. Receiving the funds as per sanction and coordination with DA&FW.

- iii. Planning the implementation process and identification of commodities, clusters, areas etc.
- iv. The task involves coordinating the recruitment of facilitation agencies/service providers for FPO/FPC formation. The process should follow a clear and transparent procedure, ensuring only the best performers are selected. The committee responsible for selecting these facilitation agencies should be chaired by the Secretary/ Commissioner of Agriculture/Horticulture, while the role of Member-Convener of the Committee should be undertaken by the head of SLA.
- v. FPO handholding, training, Internal Control System (ICS) management, documentation and third-party certification of crop production, marketing of produce and infrastructure development. *The roles and responsibilities of SPs are indicated in **Annexure – 2**.*
- vi. Monitoring of activities of service providers towards scheme implementation and timely completion.
- vii. Monitoring the business performance of FPOs and handholding them towards sustainability and towards exporting their produce.
- viii. Facilitating tie-ups with commercial enterprises and entrepreneurs for setting up of value addition infrastructure and backward linkages with FPOs.
- ix. Facilitating credit linkages for FPOs and entrepreneurs to enable business operations and expansion.
- x. Engaging professional agencies for activities like branding, labelling, packaging, publicity, and certification of processing units
- xi. Organize seminars/ conferences, workshops, Buyer-seller meets, Auction meetings, festivals to promote organic products of the state and for capacity building of beneficiaries.
- xii. Facilitate consumer awareness and information dissemination through publicity, printed literature, films and local advertisements.
- xiii. Facilitate establishment of necessary enabling infrastructure viz., pesticide residue testing lab, common facility centres, input production units, etc.
- xiv. Facilitate marketing of organic produce through direct retail, farmer markets, online retail chains, tying up with domestic retail chains, exporters, etc.
- xv. Convergence with state and central government schemes such as SMAM, MIDH, PDMC, AIF, FSSAI etc. & programs of international development financing institutions for greater optimization.
- xvi. Coordinate with central and state research institutions to enhance productivity and product quality.

- xvii. Consolidate Annual Action Plans from DLMCs for submission for SLEC approval and coordinate with effective implementation of the scheme.

### **3.5.3. District Level Monitoring Committee (DLMC)**

Monitoring of the scheme at the district level and effective coordination among the stakeholders are critical for real success of the scheme and benefit to the farmer members as envisaged. Therefore, a District Level Monitoring Committee (DLMC) shall be constituted for overall coordination of implementation of scheme under the chairpersonship of District Collector/ Deputy Commissioner in the district including the cluster development and resolve challenges faced by FPOs. The members of the committee shall include District Agriculture/Horticulture Officers and other line departments as deemed fit by the Chairperson and should meet quarterly. *The key responsibilities of the DLMC shall be:*

- i. Review and handhold the scheme with LRPs, SPs, CEO and BODs of FPOs for effective coordination among the stakeholders every quarter
- ii. Convergence with Central and State Scheme such as NREGS, ATMA, PDMC, SRLM, AIF, ISAM, FSSAI etc. and extend support to FPOs by tapping funds and human resources from other line departments.
- iii. Facilitate regular field visit by District Officers for monitoring activities on ground and ensure these activities are compliant with the scheme guidelines.
- iv. The funds to Service Providers will be released by the SLA on approval of the Chairperson of DLMC after reviewing the self-appraisal report.
- v. Monitor progress of scheme implementation by using the reports on IT portal.
- vi. Facilitate regular training of farmers from funds under KVKs/ ATMA in addition to the training being undertaken under MOVCDNER.
- vii. Align SRLM/ KVK/ SAUs/ NCONF and other institutions to handhold nearby FPOs.
- viii. Ensure ATMA/ KVKs should regularly visit FIGs with LRPs and impart training through their Scientists.
- ix. Prepare Annual Action Plan in consultation with SLA.
- x. Propose projects under the Innovative Component in consultation with SLA and coordinate its implementation (subject to approval by SLEC).

### **4. Submission of Comprehensive Action Plan**

Districts should prepare the Annual Action Plan (AAP) in consultation with SLAs. States need to consolidate district plan & develop a comprehensive Action Plan for developing an end-to-end value chain from production to processing to marketing.

Convergence of other schemes and scheme components should be considered and highlighted in the Annual Action Plans wherever possible, keeping in view the other available schemes and funds for associating with this scheme. Important strategies to be considered while preparing an Action Plan include:

- i. Identify crops having market potential with the target area and quantity.
- ii. The targeted quantity of production should match the minimum capacity needed for postharvest handling and processing units up to a viable scale.
- iii. Emphasis should be on developing commercially viable production clusters in concentrated mode, where farmers/ growers are grouped into FIGs at the village level and groups are associated to form FPCs at the Block/ District and FPCs further federated at the state level or in NER.
- iv. Each FPO should be allocated one each of Seed Store/ Cold Room, Collection and Aggregation Centre, Custom Hiring Centre, and Transport Vehicles to make the FPO viable and enable business operations.
- v. Depending upon the need of the FPO, smaller facilities may be grounded subject to upper budgetary ceiling earmarked in the guidelines.
- vi. If additional components or units are required over and above the budget earmarked in the guidelines, depending upon the terrain, components of other schemes should be included in the Annual Action Plan and delivered through convergence.
- vii. Post-harvest management, value addition, and processing facilities should be developed through entrepreneurs or FPO/FPCs.
- viii. Activities for brand building, publicity, consumer awareness and marketing for identified value-added organic products should be taken up.

## **5. Sanction and Fund Flow Mechanism**

The proposal from districts should be consolidated by the SLA and then a comprehensive project proposal for making a commodity-specific end-to-end value chain duly approved by the SLEC will be submitted to the INM Division, DA&FW. After need assessment and evaluation, the proposals will be put up to the Implementation & Monitoring Committee for approval and submitted to Secretary/ Additional Secretary for final approval. On approval, year-wise funds will be released in four equal instalments. Funds will be provided through State's Treasury (SNA) post 1.04.2024, as per the authorization of the SLEC.

## **6. Fund Flow Mechanism**

- i. Funds will be released to states after approval of the annual action plan by the Implementation & Monitoring Committee in April of each year. The state

- shall be granted funds in four equal instalments within the limit of the annual action plan.
- ii. Incentives to farmers, i.e. financial assistance for on-farm and off-farm inputs, shall be provided as Direct Benefit Transfer (DBT) to their respective bank accounts (including postal accounts) through Aadhaar Enabled Payment System.
  - iii. The funds will be released to the state in four equal instalments. The instalments will be released after utilisation for at least 75% of the previous instalment of grants-in-aid. Conversely, the unutilized balance in the SNA account should be less than 25% of the previous instalment of grants-in-aid.
  - iv. Grants in aid will be released as per provisions regarding the release of funds contained in GFR 2017 and instructions issued in this regard by the Government of India from time to time.
  - v. All state implementing agencies are required to maintain a State Nodal Account of the grants-in-aid and get the same annually audited from a Chartered Accountant. The project is to be executed over 3 years. Every year audited report (GFR 19-A) duly signed by a Chartered Accountant along with a physical report is to be submitted to DA&FW, Ministry of Agriculture and Farmers Welfare, Govt. of India. States that require additional time to implement the project, beyond 3 years may seek prior permission before the end of the project period during the first year subject to the condition that they should not exceed the overall per hectare and farmer cost ceilings.
  - vi. States are suggested to explore further convergence with schemes like RKVY, MIDH, NFSM, Agriculture Infrastructure Fund etc. of the DA&FW and schemes of other ministries like MoRD (NRLM), MSME, MOFPI – PM Kisan Sampada Yojana, NREGS, etc.
  - vii. The funds to the SPs shall be released by the SLA on the approval of self-appraisal work done report by Chairperson of DLMC.

## 7. Monitoring and Evaluation

- i. At the national level, regular monitoring of the scheme will be done by PMT at DA&FW and PMU, using the checklist of activities provided in **Annexure – 4**.
- ii. The SLA shall hire dedicated staff for regular monitoring of FPOs/FPCs, SPs and the scheme implementation at field level.
- iii. The SLA shall share the half-yearly performance report of respective SPs and FPOs in the IMC and to DLMCs and SLEC.
- iv. The DMC shall monitor progress of scheme implementation in respective districts and share recommendations to SLAs every three months.
- v. A dedicated MIS has been developed by DA&FW to capture the information from the planning of the project, approval, and execution to the progress reports. SLAs shall ensure that all data management and reporting is done through this digital platform. *Funds to beneficiaries shall be released after their successful registration on Krishi Mapper, tagged to the MIS platform.*
- vi. All funds related to financial assistance for on-farm and off-farm inputs, i.e. Rs. 15,000/ ha should be transferred through direct beneficiary transfer (DBT) into the farmers' Aadhaar authenticated bank accounts (including Postal Accounts).
- vii. It is mandatory for all farmers registered in the scheme to have a Soil Health Card (SHC) and SLAs and Service Providers should ensure the same before releasing any funds to the farmers.
- viii. Geo-tagging: The assets of the FPOs/FPCs including the farmers' fields, storage and value-addition infrastructure under MOVCDNER shall be geo-tagged through Krishi Mapper.
- ix. DA&FW will evaluate the 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. Mid-term and end-term evaluations will be conducted by the third party for DA&FW to incorporate operational and policy changes. SLAs and SPs shall ensure full disclosure of documents required for these evaluations.
- x. States should take up third-party based concurrent, mid-term and final evaluations from time to time.

## 8. General Guidance

As MOVCDNER is a program where farmers are supported for the transformation of conventional agriculture to organic with quality assurance and market linkages alongside end-to-end value chain infrastructure, there is a need for a well-defined institutional network at the state level for effective implementation and continuous handholding. Farmers under such a strategy will be clubbed into clusters of FIGs of 20 ha each and then 25 FIGs in a block or district to be aggregated into FPOs. However, Chairperson of DLMCs may propose smaller FPOs by providing necessary justification and approval by SLEC. The following minimum requirements should be ensured:

- i. A dedicated MOVCDNER Mission office with devoted staff and an officer in charge is to be created for effective implementation, evaluation, and monitoring at the state level.
- ii. Clusters and groups of clusters to be developed in the concentrated mode as far as possible in the nearby and contiguous areas in a village or nearby group of villages.
- iii. Only willing farmers to be enrolled and efforts should be made to cover the entire landholding of participating farmers. Benefits under the scheme will be restricted to a maximum of 2 ha per farmer.
- iv. States should ensure the convergence of MOVCDNER with various other Government programmes from DA&FW and other ministries like NRLM and NREGS of the Ministry of Rural Development, PM Kisan Sampada Yojana of the Ministry of Food Processing and any other related schemes of GoI.
- v. The farmers should commit to sell their produce through the FPOs and register transactions in the FPOs accounts. This includes transactions with local middlemen. Frequent transactions in the FPOs account builds up a balance sheet which enables credit worthiness.
- vi. Hiring of SPs should be done by a committee chaired by Commissioner (Agriculture/Horticulture) or Secretary (Agriculture/Horticulture) of the respective states, with the Mission Director of SLA as convener. General procurement procedures prevailing in the state should be followed to select the credible SPs.
- vii. While selecting service providers, SLA should ensure that those potential SPs who are in the business of organic or chemical input manufacturing, distribution or sales should give an undertaking stating that their products will not be sold in the respective state. *It should also be ensured that no service provider should be given more than 50% of the total area/ FPOs allocated to the state in that phase.* Regular feedback and appraisal of SPs should be collected and SPs not performing satisfactorily should not be allowed to implement the scheme.

- viii.* All farmers mobilized/enrolled under the scheme should also be enrolled in Soil Health Card Scheme.

## **9. Components**

### **9.1 Value Chain Institutional Development**

#### **9.1.1. Formation of FPOs**

Crop/commodity-specific production clusters will be developed in a concentrated mode for ease in training, handholding, certification, and collection and aggregation. Farmers can be grouped into FIGs at the village level and transformed into FPOs/FPCs. The SLAs may empanel Service Providers for FPO formation, capacity building and handholding. The FPOs will be formed based on cost norms and activities described in earlier guidelines and local situations as decided by SLA.

If the SLAs assess that there are already adequate number of FPCs formed and decides not to have more FPO/FPCs, then in such case new farmers/ FIGs can be added to the existing FPO/FPCs.

Efforts should be made to create commodity-specific clusters, where a minimum of 60% area is cropped with targeted commodity. New FPCs may be made only when the clusters are developed in new areas where there are no FPCs. Even existing FPCs in that area may be approached to include FIGs under the scheme. The funding requirements will be examined in case to case basis based on the proposal from the states, as approved by SLEC.

FPOs formed under 10,000 FPOs scheme willing to adopt organic farming may also be supported for conversion into Organic and with necessary infrastructure (without funding for FPO formation). In such cases, the SLA should ensure that the area is contiguous and organized into clusters.

#### **9.1.2 Training, handholding, ICS management, documentation, and certification of crop production through SPs**

A budget provision of ₹ 10,000 per ha for three years has been made for hiring the services of competent SPs for providing training, handholding, ICS management, documentation and organic certification through the third-party system under NPOP. SPs must ensure that ICS personnel or Local Resource Persons (LRPs) are hired only from among the participating farmers/ local SRLM group/member FPO/FPCs so that the activity can continue even after the contract conclusion of service providing agency. It should also be ensured that for every 75 farmers, one LRP is deployed to coordinate trainings, meetings, data collection and monitoring. In FPOs, where lower number of FIGs are present, lesser number of LRPs may be deployed, subject to approval of DLMC.

LRPs will have the following roles and responsibilities:

- i. Visit each farm once every month to monitor farm activities and understand challenges faced by the farmers.
- ii. FIG level meetings every week to train farmers, interact and understand challenges faced by farmers, FPO functioning and marketing activities and maintain farmer diary. Each farmer should maintain at least 75% attendance in such meetings.
- iii. Weekly trainings/ farm demonstrations to farmers at FIG level and provide solutions for challenges faced by farmers, to build a strong connect of farmers to FIGs and ultimately to the FPO.
- iv. Register farmers on Krishi Mapper & provide regular updates on the MOVCDNER IT Portal.
- v. Facilitate collection of Aadhaar Authenticated Bank Accounts

The states may choose to engage services of ATMA, ICAR, KVKs, SAUs, CAUs, NCONF or any other government institution for the training of farmers on organic farming and on-farm and off-farm input application based on their competencies & divide the budget for training accordingly, between the SPs and these government agencies as per the guidelines.

All documents for ICS management, training, transactions and other FPO activities should be maintained at the office of the FPO. In addition, the coordinator of the Service Provider should also operate from the office of the FPO for effective coordination.

The SLAs may engage the support from Agricultural & Processed Food Products Export Development Authority (APEDA) to handhold FPOs towards compliance with exports.

## 9.2. Value Chain Production

**9.2.1. Incentive to farmers for on-farm and off-farm inputs** – A sum of ₹. 15,000 has been provided for assistance to farmers for on-farm input production infrastructure and off-farm inputs. The amount shall be provided to farmers as a Direct Benefit Transfer (DBT) in their Aadhaar Authenticated Bank Accounts through Aadhaar Enabled Payment System. The funds shall be released in two instalments each year for three years. The second instalment should be released to the farmer only after ascertaining that the farmer has become a member of the FPO and has deposited his/her share capital, as decided by the states. The funds provided as DBT should be used by the farmers for developing on-farm input production infrastructure, such as vermicompost beds, and for off-farm inputs such as neem oil, cakes, bio-fertilizers, waste decomposers, etc.

**9.2.2. Value Chain seed and planting material** – To ensure quality and varietal uniformity, registered farmers will be provided with quality seed/ planting

material. Assistance for quality seed/ planting material will be limited to 50% of planting material cost based on the prevailing cost norms in MIDH for horticulture crops and 50% on actuals for agricultural crops.

For effective implementation, SLA should engage with ICAR institutions (CAU, SAU, KVKs, etc.), SRLMs, PACS, government farms, FPOs formed in previous phases and empanelled/ accredited nurseries to source disease-free high-quality planting material. The states should also enable the FPOs developed in the current phase to produce their seeds through organised seed clusters. Sufficient planning to place orders by FPO should be done to ensure timely distribution of planting materials, preferably one year before the sowing or planting season.

**9.2.3. Custom Hiring Centres (CHC)** - To facilitate the creation of an input facilitation service centre and agri-machinery custom hiring centre at commodity cluster / FPC level a sum of ₹. 10.00 lakh per Custom Hiring Centre (or prevailing cost norms for Farm Machinery Bank for Custom Hiring in SMAM) is provisioned. States should allocate at least on CHC to each FPO being formed. These facilities shall provide need-based agriculture machinery, implements or any other equipment needed by the farmers under the ownership of each FPO/FPC. Facilities created may depend upon the crop and activities being undertaken. If there are requirements for additional CHCs, the SLA may facilitate the same through Sub-Mission for Agriculture Mechanisation and part of subsidy can be covered under MOVCDNER, as per the approved AAP by DA&FW.

### **9.3. Value Chain Primary Post-harvest**

Each FPO will be provided with the following basic minimum postharvest handling infrastructure to ensure that primary postharvest and handling facilities are available. FPOs formed in previous phases may also be supported under this component who have a "Excellent" performance record, ascertained using the FPO grading tool, issued from time to time. The facilities may also be extended to Cluster Level Federation (consisting of farmers and practicing organic farming), developed under SRLM, at par with FPOs so they can also play an active role in the value chain

**9.3.1. Seed stores/ warehouses/small cold store** – Each FPO will be supported in setting up a seed store/ warehouse/ cold store as per their requirement for storage and pre-shipment. Assistance will be capped @ 75%, maximum of ₹ 7.5 lakhs (75% assistance or ₹ 7.5 lakhs against TFO of ₹ 10 lakhs). Smaller units may also be sanctioned to the FPOs subject to the overall budget head in the guidelines.

**9.3.2. Collection and aggregation centre** - Each FPO will be supported in setting up a collection and aggregation centre with basic facilities for cleaning, grading and packing. Assistance will be capped @ 75%, maximum of ₹ 11.25 lakhs (75% assistance or ₹ 11.25 lakhs against TFO of ₹ 15.00 lakhs). Smaller units

may also be sanctioned to the FPOs subject to the overall budget head in the guidelines.

**9.3.3. Transport vehicle of 2 MT capacity** - Each FPO will be supported for procurement of a commercial transport vehicle of a two MT capacity. Assistance will be capped @ 75%, maximum of ₹ 7.5 lakhs (75% assistance or 7.50 lakh against TFO of ₹ 10.00 lakh). Smaller units may also be sanctioned to the FPOs subject to the overall budget head in the guidelines.

#### **9.4. Postharvest Value Addition and Processing Infrastructure Development**

North Eastern States being constrained by higher costs of transportation, the commercial produce must be subjected to some value addition and processing for reducing the bulk volume and for increasing the value. Therefore, provisions are being made in the scheme for financial assistance for setting up of necessary processing infrastructure. The value addition and processing infrastructure can be set up either by FPO/FPCs or by private entrepreneurs/ companies, Govt agencies, or Joint ventures with or without state Government as partners. Financial assistance will be provided @ 75% to FPO/FPCs and Cluster Level Federations and 50% to private entities/ Govt agencies or Joint Ventures. Any proposed unit that has already availed subsidy from any other state or central government department/ agency shall not be considered eligible under the scheme. FPOs formed in previous phases may also be supported under this component who have an 'excellent' performance record, ascertained using the FPO grading tool, issued from time to time. The process would be conducted and monitored through the MOVCDNER MIS.

##### **9.4.1. Primary mobile/ minimal processing unit/ pre-cooling/ cold store/ ripening chamber/ integrated pack house/ refrigerated transport vehicle components**

– Having facilities for cleaning, grading, postharvest processing, ripening, packaging, transport etc. Maximum assistance will be restricted to 75%, maximum of ₹ 37.5 lakhs (75% subsidy or 37.50 lakhs against TFO of ₹ 50.00 lakhs).

**9.4.2. Integrated processing unit** - Maximum assistance will be restricted to 75% of TFO for FPOs or 50% of TFO for private entrepreneurs, with both restricted to a maximum assistance of ₹ 6 Crores.

*Note: It is recommended that the project components of warehouse /seed store/small cold store; collection and aggregation centers and Primary/Mobile/Minimal processing including packhouse and cold chain components should be developed together for optimizing civil infrastructure sparing more funds for procurement of equipment/ machinery.*

##### **9.4.3. Procedure for grant and release of subsidy component for postharvest infrastructure**

##### **Role of key stakeholders for post-harvest infrastructure**

**a) SLEC**– Sanctions for all the components covered under Postharvest value addition and processing will be done by the SLEC. Primary Processing Units are meant for FPOs and CLFs of SRLMs while Integrated Processing Units should preferably be granted to entrepreneurs who have credit linkages. The SLEC should ensure that proposals by entrepreneurs and FPOs are considered for approval within three months from the date of submission. Investment decisions by entrepreneurs and FPOs are based on predictable timelines. Delays could result in cost escalations, missed opportunities, and impact on business sentiments.

**b) SLA:** The SLA shall be responsible for the selection of eligible proposals under the scheme through an open invitation for Expression of Interest on an annual basis. The beneficiary will be required to submit the project proposal including an application for subsidy. SLAs should ensure that all documents required for claiming subsidy are provided by the applicant before consideration by SLEC. The SLA will also be responsible for due diligence of projects under component 9.3.1. and utilise the support of engineers, specialists from other line departments for expertise.

DLMCs should play an active role in supporting FPOs and entrepreneurs in their respective districts to submit their applications.

**9.4.4. Sanction/Grant of Subsidy for Primary/Mobile/Minimal processing including packhouse and cold chain components (Maximum TFO of Rs. 50 lakhs)**

- i. The subsidy will be available for the creation of postharvest value addition and processing infrastructure as per the list and details given in earlier.
- ii. The rate of subsidy will be up to 75% of the Total Financial outlay (TFO) limited to the ceiling prescribed for that component for FPO/FPCs created under MOVCDNER.
- iii. SLA/ DLMC shall be responsible for inviting applications (including DPRs and necessary documents) and sanctioning of subsidy after explicit approval by SLEC.
- iv. The SLA may form a technical committee consisting of specialists from other line departments to evaluate the applications and DPRs submitted by FPOs, as per the prevailing norms of the state.
- v. The front-ended subsidy shall be released in three instalments with each instalment linked to the achievement of pre-defined project milestones, in the DPR, including utilization of beneficiary contribution, validation of which will be done by SLA/ DLMC.

**9.4.5. Sanction/Grant of Subsidy for Integrated Processing Unit**

- i. The State Lead Agency shall partner with a scheduled commercial bank which will be responsible for maintaining the subsidy funds and extending credit to entrepreneurs, FPOs and other eligible beneficiaries.
- ii. States will invite applications through an open EOI from FPOs, entrepreneurs, CLFs of SRLMs, government agencies and public-private joint ventures every year based on allocations. Proposals may also be forwarded by DLMCs.
- iii. SLA shall ensure that all documents for subsidy claim, including term loan sanction letter from the scheduled commercial bank are submitted by the applicant. The partnered scheduled commercial bank will conduct a project appraisal for granting the loan which has to be leveraged by the SLA for techno-commercial feasibility assessment of the project.
- iv. The SLA shall seek approval from SLEC for eligible applications. The SLEC shall select and approve the applications within three months from the date of submission.
- v. The guidelines of the lending bank will be followed in addition to the following:
  - o A joint pre-sanction site inspection will be done by the Subsidy Sanctioning Committee, consisting of officials from SLA and the lending bank. Based on the assessment of the physical progress/status of the project compared to pre-defined milestones in the DPR, the subsidy amount will be sanctioned and released on a pro-rata basis depending on the utilization of the beneficiary contributions. The subsidy is expected to be released in three (3) instalments, before which a site visit by the Subsidy Sanctioning Committee is mandatory.
- vi. FPO/FPCs will be exempted from the requirement of credit-link, provided it arranges its share through member contribution on a prorated basis of the instalments of subsidy release and route project development expenditure through bank transactions. For due diligence on such projects, SLA may take assistance from relevant experts, the cost for which (as per prevailing norms in the state) can be part of project cost.
- vii. Only the entrepreneurs/ companies, Govt agencies or joint ventures with or without state Govt as partners willing to process the commodities produced by FPOs under MOVCDNER, should be considered for grant of subsidy. Interested entrepreneurs/companies, Govt agencies or Joint ventures need to ensure that at least 50% of the installed capacity will be used for processing the produce from MOVCDNER FPOs. The applicant must enter into agreements with MOVCDNER FPOs to procure this produce. The banking partner shall monitor the same by seeking an annual report (including documentary proof) from the beneficiary and associated FPO.

- viii. SLAs shall ensure that at least 10% of the TFO is based on credit from a scheduled commercial bank to ensure financial due diligence. This loan shall be released along with subsidy instalments.
- ix. The value of land for the proposed unit will be considered while calculating the beneficiary/promoter contribution. However, while calculating the beneficiary contribution, the cost of land should not exceed 10% of the total project cost.
- x. Financial institutions/banks shall sanction the loan as per their procedure and issue the necessary sanction letter for submission to the SLA of the state Government.
- xi. Promoter shall submit the bank loan sanction letter along with DPR and copy of agreements with FPO/FPC (in cases of promoter being agency other than the MOVCDNER FPO/FPC) to SLA for the sanction of SLEC.
- xii. On receipt of the sanction of subsidy from SLEC, the bank shall release the loan and subsidy as per the guidelines of the scheme and/ or as per guidelines set in the sanction letter issued by the SLEC.

#### **9.4.6. Insurance Coverage**

The assets created by beneficiaries under the scheme shall be covered under the loan insurance protection plan during the credit period. The cost of insurance coverage should be included as part of the project cost, which is also eligible under capital subsidy.

#### **9.4.7. Screening of Loan applications**

Screening of loan applications will be done as per the loan financing norms of Commercial Banks/Financial Institutions. Detailed appraisal and sanctioning will also be made as per the loan financing norms of Commercial Banks/Financial Institutions. Once the proposal is accepted for financial assistance, detailed scrutiny of all the aspects of the project like managerial competence, technical feasibility, market prospects, commercial viability and financial soundness along with other compliance issues indicated in the Operation Guidelines will be assessed while obtaining necessary sanction for the loan proposal. The loan sanction information by Commercial Banks/Financial Institutions shall be communicated to SLA/ DLMC for onward approval by the SLEC and release of subsidy. The loan component is expected to be released in three instalments.

The loan sanctioned to the beneficiaries should have a minimum repayment period of five years and the bank should monitor the adherence of the established processing unit to the requirements stated in this guideline, especially procurement and processing of organic produce. If the beneficiary fails to comply, SLA should necessary action to recover the subsidy amount disbursed under the scheme.

#### **9.5. Value chain Marketing:**

### **9.5.1. Branding, brand promotion, Seminars/ conferences, workshops, Buyer-seller meets, Auction meetings, festivals and hiring spaces in prime markets**

North Eastern states collectively and independently need to build their brand identity to visually propagate values, narratives and quality parameters. Marketing and advertising agencies can be engaged to create this unique identity. Communication and outreach to the potential markets are key to success in changing the perception of organic as a luxury purchase to an affordable and accessible commodity for the good of soil, environment and human health. Brand building/ brand promotion also requires programs to train farmers and FPOs in inculcating branding principles in their packaging and their handling of the products. Programs are also needed to train logistics providers, marketers and other value chain partners in upholding the brand value from time to time. SLA/ DLMC shall draw a comprehensive plan in consultation with the Project Management Unit to have synergistic efforts by all states to realize the goals. SLA/ DLMC can assist farmers and FPCs in developing common packaging and labelling, common literature and common brand promotion material as a part of branding and market initiatives.

To create awareness in the market and trading fraternity, SLA/ DLMC shall organize seminars/ conferences, workshops, buyer-seller meets in their state or at places of market importance in other states. Participation in exhibitions, trade fairs and organic festivals can also be facilitated.

SLA/ DLMC shall draw a comprehensive plan for the systematic launching of campaigns for consumer awareness and product information through print and electronic and social media publicity, distribution of quality literature, video films, and local advertisements.

SLA/ DLMC shall facilitate effective marketing launch of their value-added organic products through periodic market campaigns in selected cities of the country by hiring spaces in prime locations (within and outside the state) and malls to create awareness and demonstrate the quality and uniqueness of their products.

If additional funds are made available, the SLA/ DLMC may develop a revolving fund with their respective banking partners to help FPOs have a common pool of working capital as and when required. Guidelines for the revolving fund will be provided by DA&FW in this regard. This would enable the states to monitor the marketing activities and also enable FPOs to have effective aggregation and linkages with institutional buyers.

### **9.5.2. Innovative components not covered in any other schemes:**

The objective of the scheme is to develop an ecosystem for promotion of organic value chain. To achieve this, the SLA/ DLMC may propose innovative projects which are not covered in any other scheme and may be examined and sanctioned by IMC.

## **9.6. PROJECT MANAGEMENT AT THE STATE AND NATIONAL LEVEL**

**9.6.1. Project management at the State level** – 2.66% of funds of total plan allocation to the state under the scheme will be earmarked for project management, resource hiring (staff on contract (including for IT), Office infrastructure, hiring of professional agency) at the state level, publicity etc.

**9.6.2. Project management through mission management Cell, surveillance, evaluation, and professional support services at the National level** – 2.66% of the total plan budget of the overall scheme will be earmarked for the Project Management Unit, Professional support services at the National Level including hiring of professional agencies.

DA&FW may also deploy professional firms with technical experts as Project management Units in consultation with states for market linkages, capacity building, handholding and assistance in professional service/ technology facilitation. Capacity building, exposure visits and market outreach activities including participation in national and international exhibitions, B2B meets etc. at the national level for the project management team will also be taken up under this component.

## Annexure 1

## Cost Norms for MOVCDNER

S. No.	Component	Unit Cost
<b>1</b>	<b>Value Chain Institutional Development</b>	
1.1.	Formation and handholding of FPOs	₹ 20.375 lakhs for 3 years as per existing guidelines for FPO of 500 farmers
1.2.	ICS management, training and certification (NPOP)	₹ 10,000 per ha for three years
<b>2</b>	<b>Value Chain Production</b>	
2.1.	Assistance for on-farm input production infrastructure (@ ₹ 2500/ha/ year) and off-farm inputs (@ ₹ 2500/ha/ year) for three years (DBT)	₹ 15,000/ ha for three years
2.2.	Assistance for quality seed and planting material (@50% of applicable cost norms)	<ul style="list-style-type: none"> <li>• As per MIDH for Horticulture crops</li> <li>• As per actuals for Agriculture crops (up to a maximum of ₹35,000/ha)</li> </ul>
2.3.	Custom Hiring Centre	₹ 10 lakhs (or prevailing cost norms for Farm Machinery Bank for Custom Hiring in SMAM)
<b>3</b>	<b>Value Chain Post Harvest</b>	
3.1.	Seed stores/warehouses/ small cold store @ ₹ 10 lakhs (75% subsidy)	₹ 7.5 lakhs
3.2.	Collection and Aggregation centre @ ₹ 15.00 lakh (75% subsidy)	₹ 11.25 lakhs
3.3.	Transport vehicle, @ ₹. 10.00 lakh for a minimum of 2 tonnes capacity (75% subsidy)	₹ 7.5 lakhs
<b>4</b>	<b>Value Chain Processing</b>	
4.1.	Primary mobile/ minimal processing unit/ pre-cooling/ cold store/ ripening chamber/ integrated pack house/ refrigerated transport vehicle/ @ ₹ 50 lakhs (75% subsidy)	₹ 37.5 lakhs
4.2.	Integrated processing unit (50% subsidy for entrepreneurs and 75% for FPOs)	₹ 600 lakhs
<b>5</b>	<b>Value Chain Marketing</b>	
5.1.	Value chain marketing at the state level	₹ 4,000/ ha
5.2.	Innovative activities not covered in any other scheme*	Need based
<b>6</b>	<b>Implementation support</b>	

6.1.	Support for hiring resources, publicity and management including IT support for SLA	2.66% of overall cost
6.2.	Administrative cost for mission management at the national level including hiring of manpower and PMU	2.66% of overall cost

\* DLMC may propose subject to approval of SLEC

## Roles and responsibilities of Service Providers

The broad roles & responsibilities to be performed by SPs are described below. These can be divided among multiple players such as KVK/ SAU/ SRLM/ RCONF/ PACS/ established FPOs as decided by SLEC.

### 1. Formation and handholding of FPOs:

- i. Generating awareness among all farmers, SHGs, Village Council/ Gram Panchayat Functionaries, etc. in the allocated area of MOVCDNER and conduct trainings on organic farming and value chain development.
  - Sensitization on the scheme guidelines and benefits that can be availed from the scheme.
  - Purpose of FPOs and collective benefits
  - Purpose of organic farming and business opportunities
  - Development of value addition and market linkage through FPOs
  - Display posters of entitlement of farmers and FPOs and roles and responsibilities of Service Providers, LRPs in Village Council/Gram Panchayat/FPO offices.
- ii. Registration of FPOs and training of BODs on roles, responsibilities.
- iii. Mobilize equity/ share capital from farmers and handhold FPOs in necessary compliances.
- iv. Conduct meetings with farmers and FIGs for ensuring cohesiveness using LRPs
  - Visit each farm once every month to monitor farm activities and understand challenges faced by the farmers.
  - FIG level meetings every week to train farmers, interact and understand challenges faced by farmers, FPO functioning and marketing activities and maintain farmer diary. Each farmer should maintain at least 75% attendance in such meetings.
  - Weekly trainings/ farm demonstrations to farmers at FIG level and provide solutions for challenges faced by farmers, to build a strong connect of farmers to FIGs and ultimately to the FPO.
  - Register farmers on Krishi Mapper & provide regular updates on the MOVCDNER IT Portal.
  - Facilitate collection of Aadhaar Authenticated Bank Accounts

- v. Handholding business operations of FPOs through following activities:
  - Training of BoDs, CEO, accountant, etc. every 15 days on various activities related to business.
  - Documentation: Preparation of Business Plans and support in acquiring land and permissions with proper documents in favour of FPOs
  - Finance: Mobilisation of equity funds and facilitate credit linkage and subsidies from Financial Institutions and Government Schemes
  - Human Resources: Facilitate recruitment of CEOs, LRPs, Accountant and other staff for operationalising the FPOs. Conduct training of resources for their roles and provide linkages for specialist training with Research and Development Institutions, State Agriculture Universities, KVK, CAU, etc.
  - Logistics: Facilitate infrastructure development and handhold FPOs in end-to-end supply chain development
  - Operations: Facilitate aggregation and processing of produce, ensure standard and quality packaging, and dissemination of market information to farmers and FPOs
  - Marketing: Develop brand for the FPO and support the FPOs in marketing their produce to institutional buyers, while developing sustainable business partnerships
  - Quality: Handhold FPOs in laboratory testing of produce, quality management and assaying.
- vi. Support the FPOs in developing necessary infrastructure by accessing scheme components.
  - Handhold FPOs in preparation of DPRs and applications of credit linkages to financial institutions
- vii. Handhold BODs & CEOs in maintaining statutory compliances and weekly bookkeeping of FPOs through training, leaflets, brochure, etc and facilitate accounting and timely submission of tax returns and statutory filings.
- viii. Ensure regular (quarterly) General Body Meetings and Annual General Meetings are conducted and no fines are imposed on the FPO.
- ix. Collection of data and information related to the implementation, management, and monitoring of the project and submission of information on MIS, Krishi Mapper or any other system, as directed by DA&FW , SLA and DLMC.
- x. Support FPOs in preparation and filling applications for necessary licences such as FSSAI, Import - Export, input distribution, etc.
- xi. Attend review meeting at DLMC, whenever called by District Collectors, for better implementation of program.
- xii. Enrol all Farmers/FPOs for Soil Health Card Scheme.

## 2. Training of farmers

*\*The training schedule can be changed depending on the crop sowing patterns. These should be provided to farmers during the weekly FIG level meetings.*

<b>Sensitization of farmers</b>
<ul style="list-style-type: none"> <li>• Sensitization of farmers on MOVCDNER Scheme</li> </ul>
<ul style="list-style-type: none"> <li>• Awareness on scheme guidelines and benefits that can be availed from the scheme</li> </ul>
<ul style="list-style-type: none"> <li>• Purpose for formation of FPOs</li> </ul>
<ul style="list-style-type: none"> <li>• Purpose of organic farming, advantage, and its business opportunities</li> </ul>
<ul style="list-style-type: none"> <li>• Purpose of value chain development and market linkage through FPOs</li> </ul>
<b>Preparation for cultivation</b>
<ul style="list-style-type: none"> <li>• Land Preparation</li> </ul>
<ul style="list-style-type: none"> <li>• Sowing Techniques</li> </ul>
<ul style="list-style-type: none"> <li>• Soil sample collection</li> </ul>
<ul style="list-style-type: none"> <li>• Soil health management</li> </ul>
<ul style="list-style-type: none"> <li>• Integrated farming practices</li> </ul>
<ul style="list-style-type: none"> <li>• Preparation of various organic spray and compost</li> </ul>
<ul style="list-style-type: none"> <li>• Traditional botanical-based pesticides</li> </ul>
<ul style="list-style-type: none"> <li>• Production of On-farm Inputs (Vermicompost and Berkely Composting)</li> </ul>
<b>Crop management and ICS management</b>
<ul style="list-style-type: none"> <li>• Demonstration on using biofertilizers</li> </ul>
<ul style="list-style-type: none"> <li>• Demonstration on using of biopesticides</li> </ul>
<ul style="list-style-type: none"> <li>• Use of Organic sprays and compost</li> </ul>
<ul style="list-style-type: none"> <li>• Farmers' Diary and daily activity</li> </ul>
<ul style="list-style-type: none"> <li>• GPS coordinates</li> </ul>
<ul style="list-style-type: none"> <li>• NPOP Guidelines</li> </ul>
<ul style="list-style-type: none"> <li>• Yield estimation and crop plan</li> </ul>
<b>Harvest, Marketing and Branding</b>
<ul style="list-style-type: none"> <li>• Harvesting techniques</li> </ul>
<ul style="list-style-type: none"> <li>• Storage</li> </ul>
<ul style="list-style-type: none"> <li>• Packaging</li> </ul>
<ul style="list-style-type: none"> <li>• Transportation</li> </ul>
<ul style="list-style-type: none"> <li>• Processing and value addition of produce/products</li> </ul>
<ul style="list-style-type: none"> <li>• Packaging material and standards</li> </ul>
<ul style="list-style-type: none"> <li>• Marketing strategies, branding &amp; linkages</li> </ul>

### 3. Training for FPOs (Staff and office bearers)

*\*The training schedule can be changed depending on the crop sowing patterns and scheme implementation schedule. These trainings should be given to the FPO office bearers every 15 days.*

<b>Sensitization</b>
<ul style="list-style-type: none"> <li>• Lead farmers for Board of Directors (BODs)</li> <li>• Role and responsibilities of CEO, LRPs and BODs in operation of FPO</li> </ul>
<b>ICS Management</b>
<ul style="list-style-type: none"> <li>• Internal Inspection (CEO, LRPs and BoDs)</li> <li>• Risk Assessment (CEO, LRPs and BoDs)</li> <li>• Farmers' Diary and daily activity (CEO, LRPs and BoDs)</li> <li>• GPS coordinates (CEO, LRPs and BoDs)</li> <li>• NPOP Guidelines (CEO, LRPs and BoDs)</li> <li>• Yield estimation and crop plan (CEO, LRPs and BoDs)</li> </ul>
<b>FPO management and compliances (BoDs, CEO and Accountant)</b>
<ul style="list-style-type: none"> <li>• Statutory compliances and filings (GST, ROC and others)</li> <li>• Business licensing</li> <li>• Accounting, books-keeping and record keeping</li> <li>• Business planning and execution</li> <li>• Financial management and credit linkages</li> <li>• Convergence with government schemes</li> </ul>
<b>Infrastructure Development and marketing</b>
<ul style="list-style-type: none"> <li>• Establishment and operationalising Custom Hiring Centres (CEO, LRPs and BoDs)</li> <li>• Establishment and operationalising processing unit/ pack house (CEO and BoDs)</li> <li>• Agriculture marketing, packaging and brand building (CEO and BoDs)</li> <li>• Food processing and value addition (CEO and BoDs)</li> </ul>

### 4. Internal Control System (ICS) Management:

- Collect and maintain necessary data of farmers for organic certification.
- Enter ICS data in TraceNet and share the same data with SLA/ DLMC and PMU.
- Facilitate internal inspection of ICS by LRPs/ fellow farmers and maintain necessary documentation.
- Handover TraceNet credentials to FPOs and train them by the third year for continuation of organic certification.

### 5. Documentation and reporting

- Monthly progress report of consolidated activities

- i. Training conducted – Training calendar and activities have to be shared with FIGs, FPOs, LRP, District Monitoring Committee, State Lead Agency, etc
  - ii. Marketing
  - iii. Transaction certificates on TraceNet
  - iv. Operational expenditure and revenue of FPOs.
- b. SPs need to enter data on their activities into the MIS and also capture data on Krishi Mapper (or any other tool as advised by DA&FW).
  - c. Facilitate District Monitoring Committee to review progress of activities performed by of SPs, and LRPs in their respective district.

**6. Outcomes at the end of engagement period:**

- a. NPOP Organic Certificate for the allocated FPO
- b. DBT for on-farm and off-farm inputs to all farmers in Aadhaar Authenticated Bank Accounts
- c. All farmers and physical assets registered on Krishi Mapper
- d. Brand developed for the FPO
- e. FPO rated as 'Excellent' as per prevailing rating tool
- f. All farmers have maintained at least 75% attendance in weekly FIG meetings.

<b>Allocation of Area/ FPOs to SP</b>				
<b>S. No.</b>	<b>District</b>	<b>Block</b>	<b>No. of FPO</b>	<b>Area</b>
<b>Total</b>				

### Deliverables milestones (to be modified by state based on responsibilities given to SPs)

Timeline	Activities	Deliverables	Means of verification
1 month	<ol style="list-style-type: none"> <li>1. Baseline survey including the following:               <ol style="list-style-type: none"> <li>a) Community profile</li> <li>b) Product profile</li> <li>c) Market profile</li> <li>d) Training needs assessment</li> </ol> </li> <li>2. Project implementation plan</li> </ol>	<ol style="list-style-type: none"> <li>1. Baseline report</li> <li>2. Training modules in local languages</li> </ol>	<ol style="list-style-type: none"> <li>1. Geotagged photographs of meetings with stakeholders</li> </ol>
6 months	<ol style="list-style-type: none"> <li>1. Training of farmers, BoDs, LRPs and CEO as per roles &amp; responsibilities (2 &amp; 3)</li> <li>2. Recruitment and deployment of LRPs (1:75 ratio of farmers)</li> <li>3. Mobilization and registration of farmers in Krishi Mapper and forming FIGs and collection of Aadhaar Authenticated Bank Account details</li> <li>4. Identification of lead farmers as Directors</li> <li>5. Registration of ICS on TraceNet for NPOP certification</li> <li>6. Registration of FPO and BoDs in MIS</li> <li>7. Establishment of FPO office</li> <li>8. Hiring and deployment of CEOs &amp; accountant.</li> <li>9. Training on roles and responsibilities of CEO and BODs.</li> </ol>	<ol style="list-style-type: none"> <li>1. Database of farmers in Krishi Mapper</li> <li>2. List of BoDs in MIS</li> <li>3. ICS data and farm diaries</li> <li>4. Certificate of incorporation</li> <li>5. Database of LRPs</li> <li>6. DSC of Directors</li> <li>7. Training reports in MIS.</li> <li>8. CV of CEO &amp; accountant</li> <li>9. Progress report</li> </ol>	<ol style="list-style-type: none"> <li>1. Geotagged photographs of awareness generation workshops in MIS</li> <li>2. Participation of District Officers</li> <li>3. Registration of farmers in Krishi Mapper</li> <li>4. ICS Number from TraceNet in MIS</li> <li>5. Validation by Registrar of Companies/ Societies</li> <li>6. Rent agreement for office, its geotagged photograph and entry in Krishi Mapper</li> <li>7. Registration of CEO in MIS</li> <li>8. Training reports in MIS</li> <li>9. Updated Farm diary.</li> <li>10. Updated FIG record book</li> </ol>
12 months	<ol style="list-style-type: none"> <li>1. Training of farmers, BoDs, LRPs and CEO as per roles &amp; responsibilities (2 &amp; 3)</li> <li>2. Collection of equity share from farmers</li> <li>3. Facilitate AGM of FPO#</li> <li>4. Facilitate audits for organic certification</li> <li>5. Support establishment of Custom Hiring Centre</li> </ol>	<ol style="list-style-type: none"> <li>1. Progress report</li> <li>2. Report on equity share collection</li> <li>3. Minutes of AGM</li> <li>4. Business plan of FPO</li> <li>5. Training reports in MIS</li> <li>6. CHC in Krishi Mapper</li> </ol>	<ol style="list-style-type: none"> <li>1. Geotagged photographs of trainings in MIS</li> <li>2. Training register maintained by FPO</li> <li>3. Data of trainings entered in MIS</li> <li>4. Geotagged photo of CHC in Krishi Mapper</li> <li>5. Bank statement indicating equity share collection</li> <li>6. Updated FIG record book.</li> </ol>

Timeline	Activities	Deliverables	Means of verification
18 months	<ol style="list-style-type: none"> <li>1. Training of farmers, BoDs, LRPs and CEO as per roles &amp; responsibilities (2 &amp; 3)</li> <li>2. Hand over C1 Certification to FPO</li> <li>3. Handhold FPO in developing post-harvest infrastructure</li> <li>4. Develop marketing plan</li> <li>5. Exposure visit of BoDs and CEOs</li> <li>6. Strengthening FPOs management systems (HR &amp; finance)</li> <li>7. TraceNet entry for C2 certification</li> <li>8. Facilitate audit for C2 certification</li> </ol>	<ol style="list-style-type: none"> <li>1. Progress report</li> <li>2. C1 Certification</li> <li>3. Marketing plan for FPO</li> <li>4. Training reports in MIS</li> </ol>	<ol style="list-style-type: none"> <li>1. Geotagged photographs of trainings in MIS</li> <li>2. Email of handover of C1 certification and uploaded on MIS</li> <li>3. Copy of land documents and geotagged photographs of infrastructure created in Krishi Mapper</li> <li>4. Geotagged photographs of exposure visits</li> <li>5. Books of business</li> <li>6. Updated FIG record book</li> </ol>
24 months	<ol style="list-style-type: none"> <li>1. Training of farmers, BoDs, LRPs and CEO as per roles &amp; responsibilities (2 &amp; 3)</li> <li>2. Facilitate AGM of FPO</li> <li>3. Training of FPO in post-harvest infrastructure development</li> <li>4. Marketing of products from FPOs</li> <li>5. Statutory compliances</li> </ol>	<ol style="list-style-type: none"> <li>1. Progress report in MIS</li> <li>2. Minutes of AGM in MIS</li> <li>3. ICS data and farm diaries (to FPO)</li> <li>4. Audited balance sheet in MIS</li> <li>5. Training reports in MIS</li> </ol>	<ol style="list-style-type: none"> <li>1. Geotagged photographs of trainings in MIS</li> <li>2. Data of trainings entered in MIS</li> <li>3. Statutory filings.</li> <li>4. Updated FIG record book</li> </ol>
30 months	<ol style="list-style-type: none"> <li>1. Training of farmers, BoDs, LRPs and CEO as per roles &amp; responsibilities (2 &amp; 3)</li> <li>2. Hand over C2 Certification to FPO</li> <li>3. Marketing of products from FPOs</li> <li>4. Statutory compliances</li> <li>5. Handholding FPO in management systems</li> <li>6. Facilitate participation in buyer seller meets</li> <li>7. TraceNet entry for C3 certification</li> <li>8. Facilitate audit for C3 certification</li> </ol>	<ol style="list-style-type: none"> <li>1. Progress report</li> <li>2. ICS data and farm diaries (to FPO)</li> <li>3. Handover of TraceNet login credentials to FPO</li> <li>4. Training reports in MIS</li> </ol>	<ol style="list-style-type: none"> <li>1. Email of handover of C2 certification and upload it on MIS</li> <li>2. GST return filings</li> <li>3. Geotagged photographs in buyer seller meets</li> <li>4. Email handing over of TraceNet login credentials to FPO</li> <li>5. Updated FIG record book</li> </ol>
36 months	<ol style="list-style-type: none"> <li>1. Training of farmers, BoDs, LRPs and CEO as per roles &amp; responsibilities (2 &amp; 3)</li> <li>2. AGM of FPO</li> <li>3. Handhold FPOs in post-harvest infrastructure development</li> <li>4. Marketing of products from FPOs</li> <li>5. Statutory compliances</li> </ol>	<ol style="list-style-type: none"> <li>1. Progress report in MIS</li> <li>2. Minutes of AGM in MIS</li> <li>3. ICS data and farm diaries (to FPO) in MIS</li> <li>4. Audited balance sheet in MIS</li> <li>5. Training reports in MIS</li> </ol>	<ol style="list-style-type: none"> <li>1. Geotagged photographs of trainings in MIS</li> <li>2. Feedback forms from trainees</li> <li>3. Training register maintained by FPO</li> <li>4. Statutory filings</li> <li>5. Geotagging infrastructure developed in Krishi Mapper.</li> <li>6. Updated FIG record book</li> </ol>

Timeline	Activities	Deliverables	Means of verification
42 months	<ol style="list-style-type: none"> <li>1. Hand over C3 Certification to FPO</li> <li>2. Marketing of products from FPOs</li> <li>3. Any initiatives from SP</li> </ol>	<ol style="list-style-type: none"> <li>1. Progress report</li> <li>2. Organic certification</li> </ol>	<ol style="list-style-type: none"> <li>1. Email of handover of C3 certification.</li> <li>2. Books of business.</li> </ol>

\*The DLMC shall assess the self-appraisal report submitted by the SP, verify the work done through visits and approve the payment against each milestone. The SLA shall release the payment to the SP within 30 days of approval by DLMC, subject to transfer of funds from DA&FW.

#Board of Directors of the FPO should be changed every two years and a phase wise rotation should be created to enable change while also retaining institutional knowledge.

## Annexure 4

Cost norms for FPO formation, ICS management, Certification, and trainings (all figures in Rs.)						
S. No.	Activity	Nature of expense	Monthly	Yearly	Total ( 3 Years)	Remarks
<b>Data entry and operations</b>						
1	Mobilisation of farmers through sensitization workshops of farmers, SHGs, VCs and other community organisations	Rs. 20,000 per workshop - 5 Nos			1,00,000	SLA to SP
2	Registration of Company				<b>40,000</b>	SLA to SP
2.1	Cost of Digital Signature Certificate (Rs. 2299 X 5 Directors/ year)	Recurring - Annual		11,495	34,485	
2.2	Government fee	LS			3,000	
2.3	Profession fee of Chartered Accountant	LS			2,515	
3	Matching Equity Grant	LS			2,50,000	SLA to FPO
4	Office equipment (One computer, Printer, 1 Desk, 8 Chairs, 1 Cupboard)	LS			75,000	DLMC to FPO
5	FPC office Rent and utilities (Electricity, Internet and Water)	Recurring - Monthly	3,000	36,000	1,08,000	DLMC to FPO
<b>Salaries and travel expenses (FPO and ICS Management)</b>						
6	Salaries- CEO cum ICS Manager	Recurring - Monthly	24,000	2,88,000	8,64,000	DLMC to FPO
7	Travel expenses for CEO cum ICS Manager	Recurring - Monthly	2,000	24,000	72,000	DLMC to FPO
8	Salaries-LRP (Rs. 4,500 per LRP per month X LRPs)	Recurring - Monthly	31,500	3,78,000	11,34,000	SLA to SP
9	Travel expenses of LRPs (500 per LRP X 7 LRPs)	Recurring - Monthly	3,500	42,000	1,26,000	SLA to SP
10	Salaries - Accountant cum data entry operator for ICS	Recurring - Monthly	12,000	1,44,000	4,32,000	SLA to SP
<b>Certification</b>						
9	Certification & External Inspection (Rs. 500 per ha)	Recurring - Annual	-	2,50,000	7,50,000	SLA to SP
<b>Trainings</b>						
11	Refreshments expenses for FIG meetings/ trainings (Rs. 200/ FIG/ Meeting)	Recurring - Weekly	17,000	2,04,000	6,12,000	SLA to SP

<b>Cost norms for FPO formation, ICS management, Certification, and trainings (all figures in Rs.)</b>						
<b>S. No.</b>	<b>Activity</b>	<b>Nature of expense</b>	<b>Monthly</b>	<b>Yearly</b>	<b>Total ( 3 Years)</b>	<b>Remarks</b>
12	Printing and stationary (Farm diaries, flexes, posters, training materials)			50,000	<b>1,50,000</b>	
12.1	Farm diaries (Rs. 40/ farmer/ year)	Recurring - Annual		20,000	60,000	
12.2	Banners/ flex boards	LS		5,000	15,000	
12.3	Training materials (Rs. 50/ farmer/ year)	Recurring - Annual		25,000	75,000	SLA to SP
13	Trainings at state and district level (including AGM) and exposure visits outside the state	Recurring - Annual		1,37,000	4,11,000	For SLA and DLMC
	<b>Sub-total</b>				<b>51,24,000</b>	
<b>Management Resources of SP for Project Management and Training of CEOs, LRPs, BoDs</b>						
14	District Project Coordinator (For all SPs)					
15	State Project Coordinator (If more than 2 FPOs are allocated to the SP)					
16	Marketing Specialist (If more than 5 FPOs are allocated to the SP)	Recurring - Bi-annual		NA	19,13,500	SLA to SP
	<b>Grand total</b>				<b>70,37,500</b>	

**SPs should have empanelled DPR Specialist and Company Secretary for consultations and support to FPOs**

## Annexure - 5

## Checklist of activities for FPOs

This is an exhaustive list of activities to be completed during the implementation phase. The states need to fill the sheet for each FPO by clearly stating the responsible entity (SLA, service provider, ATMA, KVK, etc) and submit to DA&FW to ensure accountability. Subsequently, the activities of the states will be monitored by DA&FW every quarter based on this checklist.

S. No	Activities	Frequency	Responsible Entity	Year 1	Year 2	Year 3	Remarks
<b>Formation of FPOs</b>							
1.	Sensitization program of MOVCNDR to farmers and other stakeholders (farmers, SHGs, Village Councils, etc)	Once in a year					
2.	Baseline survey of farmers and feasibility analysis	One time					
3.	Identification of farmers and registration in Krishi Mapper	Every cropping season (for Krishi Mapper)					
4.	Identification of BODs and recruitment of CEO	One time					
5.	Obtaining Digital Signature Certificate (DSC) and Director Identification Number (DIN) for Directors	Every year (for rotation)*					
6.	Naming of a Producer Company/ Society	One time					
7.	Submission of Memorandum & Articles of Association	One time					
8.	Submission of all required documents to the Register of Companies/ Societies for the Incorporation of Producer Company/ Society	One time					
9.	Establishing the FPO Office and necessary	One time					
10.	Training of BoDs and CEOs	Every 15 days					
11.	Collection of Share equity from farmers and issuance of Share certificate	Once in a year					
12.	Formulation of business plan	Once in a year					
13.	Maintenance of bank account and book of accounts	Regular activity					
14.	Ensure statutory compliances of FPO including audits and ROC filings	Once in a year					

S. No	Activities	Frequency	Responsible Entity	Year 1	Year 2	Year 3	Remarks
15.	Conduct BOD meeting	Quarterly every year					
16.	FIG meetings and trainings for farmers	Every week					
17.	Annual General Meeting (AGM)	Once in a year					
18.	Preparation of Annual Progress Report	Once in a year					
19.	Avail relevant benefits of Central and State Schemes	Regular					
20.	Assess FPOs using rating tools in terms of level of activity, economic viability and sustainability, etc.	Every quarter					
21.	Training and facilitate convergence of FPOs with other schemes such as MIDH, PDMC, etc	Every quarter					
22.	Registration on the MIS platform, tagging on Krishi Mapper and regular updation	Regularly					
<b>ICS Management and certification</b>							
23.	Sensitization workshop on ICS Management, Documentation and Organic Certification of Crop Production at Farm Level	Once in a year					
24.	Conduct Risk Assessment on organic farming	Every cropping season					
25.	Handholding FPO in uploading of data such as GPS Coordinates, Daily Activity, Yield Estimation and Crop Plan in Farm Dairy	Regularly					
26.	Handholding FPO in uploading of data in Tracenet and availing on the process of transactional certificate	Once a year					
27.	Internal auditing of FPO for organic farming	Every quarter					
28.	External auditing of FPO for organic farming	Once in a year					
29.	Monitor and revise the ICS Management of FPO	Quarterly every year					
30.	Certification of processing units	Once a year					
<b>Value Chain Production</b>							
31.	Distribution of planting material to farmers	One time					
32.	Direct Benefit Transfer of on-farm/off-farm input in Aadhaar Authenticated Bank Accounts	Once a year					

S. No	Activities	Frequency	Responsible Entity	Year 1	Year 2	Year 3	Remarks
33.	Exposure visits for Lead farmers, BoDs, CEOs and LRPs	<i>Once in a year</i>					
34.	Establishment of Custom Hiring Centres	<i>One time</i>					
<b>Post Harvest Infrastructures</b>							
35.	Developing Collection & Aggregation Centre, Seed Store and accessing transport vehicles	<i>One time</i>					
36.	Conduct trainings of FPOs in food processing and food safety	<i>Quarterly every year</i>					
37.	Conduct trainings on preparation of DPRs and developing integrated processing units	<i>Once a year</i>					
38.	Inviting applications for Processing Units	<i>Once a year</i>					
<b>Value Chain Marketing</b>							
39.	Assist in communication and dissemination of market information to farmers	<i>On regular basis</i>					
40.	Chemical residue testing in the produce	<i>Once a year</i>					
41.	Creation of Import Export Code (IEC) Licence and regular update on DGFT Portal	<i>Once a year</i>					
42.	Register, obtain and maintain licenses/certificates such as FSSAI, etc	<i>Once a year</i>					
43.	Ensure organic certification for processing units	<i>Once in a year</i>					
44.	Develop FPO wise brands and packaging material	<i>Once a year</i>					
45.	Marketing of value-added products in local markets/outlets	<i>Once in a year</i>					
46.	Organise workshops, Buyer Seller Meet, Exhibitions, etc at state level	<i>Once in a year</i>					
47.	Ensure participation of BODs, CEOs and Farmers at seminars/ conferences, Buyer-seller meets, etc and hiring spaces in prime markets	<i>Once in a year</i>					
48.	Launch of campaigns for consumer awareness and product information through print and electronic media publicity, video films, local advertisements, etc	<i>Once in a year</i>					

S. No	Activities	Frequency	Responsible Entity	Year 1	Year 2	Year 3	Remarks
<b>Monitoring and review</b>							
49.	Field visit by district officials	<i>Quarterly</i>					
50.	Review the progress of SP and FPOs by DLMC	<i>Quarterly</i>					
51.	Review of SPs and FPOs by SLA	<i>Quarterly</i>					

\*Board of Directors of the FPO should be changed every two years and a phase wise rotation should be created to enable change while also retaining institutional knowledge.

## Cost norms for promotional and training events

Annexure-6

S. No.	Components	Rate (₹)	Remark
1	State level workshop	₹. 5.0 lakhs per event	100 % assistance subject to a maximum of ₹. 5.0 Lakhs per event – 2 days
2	Exposure Visits (Outside the State)	₹. 30,000 per person	100 % assistance for a maximum 10 persons in a batch, in compliance with prevailing state government norms.
3	District level workshops*	₹. 50,000 per event	100 % assistance subject to a maximum of ₹. 50,000 per event – 1 day
4	Buyer-seller meets/ auction	₹. 2.0 lakhs per buyer-seller meet/ auction meets	100 % assistance subject to a maximum of ₹. 2 Lakh /-per event – 1 day
5	Festivals/exhibitions at state/ national level	₹. 5.0 lakhs per participation in the national exhibition	100 % assistance subject to a maximum of ₹. 5 Lakhs /-per event – 2 days
6	Participation in national level Fairs/ Exhibition	₹. 2.0 lakhs per event	100 % assistance subject to a maximum 2 days per event

\*20% of the funds under Component 5, i.e. marketing at state level should be passed on to districts to organise District Level events.

## Annexure-6

S. No.	Postharvest infrastructure	Eligible component
A	1. Setting up of functional infrastructure for collection, aggregation and grading units. 2. Integrated processing unit 3. Integrated Pack House 4. Pre-cooling/ Cold Stores/ Ripening Chambers 5. NE Organic Bazaar	<ul style="list-style-type: none"> <li>• The cost of civil construction includes factory building costs of allied facilities like boundary walls, internal walls, internal roads, platforms and internal drainage systems.</li> <li>• Equipment directly used for Weighing, grading and packaging.</li> <li>• Cost of Industrial Plant and Machinery including taxes and duties i.e. cost of mother production equipment directly used for processing activities.</li> <li>• Cost of other productive equipment directly used in processing unit along with insurance premium, taxes &amp; and duties.</li> <li>• Electrical components necessary for plant operation on the plant site from where the meter is twoed up to the point where finished goods are to be dispatched (i.e., H.T. Motors, L.T. Motors, Switch Boards, Panels, Capacitors, Relay, Circuit Breakers, Panel Board, Switch gears) and the cost of a standby generator installed as per the requirement of the unit.</li> <li>• Freight charges are paid for bringing Plant machinery and equipment from the supplier's premises to the location of the unit.</li> </ul>

S. No.	Postharvest infrastructure	Eligible component
		<ul style="list-style-type: none"> <li>• Transit Insurance premium paid.               <ul style="list-style-type: none"> <li>• The amount invested in goods carries to the extent they are utilized for the transport of raw materials and marketing of the finished products.</li> </ul> </li> </ul> <p>Erection and installation charges will be payable on an actual basis and will be restricted to the cost indicated in the Appraisal Note of the Financial Institutions which provided the loan to the processing unit.</p> <ul style="list-style-type: none"> <li>• Registration and annual renewal fee of CGTMSE coverage (as applicable) for the entire loan tenure.</li> <li>• Insurance Coverage cost of the assets created under the scheme during the currency of the loan.</li> </ul>
<b>B</b>	<ol style="list-style-type: none"> <li>1. Transportation/ 4 Wheeler</li> <li>2. Refrigerated Transport Vehicle</li> </ol>	<ul style="list-style-type: none"> <li>• The capital cost of the vehicle including taxes and duties.</li> <li>• Insurance Coverage cost during the currency of the loan.</li> <li>• Registration and annual renewal fee of CGTMSE coverage for the entire loan tenure.</li> </ul>
	<b>Additional support provision</b>	<ul style="list-style-type: none"> <li>• The cost of the Capacity-building component specific to the projects taken up under MOVDNER by the target group/ beneficiaries will</li> </ul>

S. No.	Postharvest infrastructure	Eligible component
		included as part of the total project cost. This cost shall not exceed 2% of the total project cost.

## Annexure-7

**PROJECT PROFILE CUM CLAIM FORM FOR CLAIMING CAPITAL  
INVESTMENT SUBSIDY UNDER VALUE CHAIN PROCESSING:  
MOVCDNER**

(To be Submitted by Beneficiary to Banking Partner through State Lead Agency)

To,

The State Lead

Agency, Name &

Address

**POST-HARVEST INFRASTRUCTURE**

(For use by Beneficiary)

	Name & full address of unit location including Tehsil/ Taluka/ District with telephone number and Email ID	
	(i) Name & full address of the promoter including Tehsil/ Taluka/ District with telephone no. and Email ID	
	(ii) Whether the promoter belongs to a Registered FPC or Private Enterprise under MOVCDNER (pls. enclosed the copy of Registration Certificate)	
	(iii) If Private Enterprise, whether Proprietorship/ Partnership. Please specify (enclosed the relevant document including partnership deed)	
	Date of submission of the proposal by Beneficiary at SLA	
	Date of registration of the proposal with SLA (please specify the reference and this has to be provided by SLA)	
	Component under which subsidy is recommended ( <b>tick mark the eligible component/s</b> )	a) Setting up of functional infrastructure for collection/ aggregation and grading unit b) Integrated processing unit c) Integrated pack house d) Transportation/ Four wheeler

		e) Refrigerated Transport Vehicle f) Pre-cooling/ Cold-stores/ Ripening Chambers. g) NE Organic Bazaar
	Rate of entitlement of subsidy for projects (50% or 75% or eligible maximum amount)	

<b>7. Item-wise Financial projections</b>	<b>As per the project report (in ₹.)</b>	<b>As recommended by SLA (to be filled by SLA) (in ₹.)</b>
i) Cost of Civil Construction		
ii) Cost of allied facilities/ infrastructure		
a)		
b)		
c)		
iii) Cost of Industrial Plant and Machinery		
a)		
b)		
iv) Cost of Electrical components		
a)		
b)		

(Please refer to eligible components indicated in Annexure B)

<b>8. Means of Finance</b>	<b>As per project report (in ₹.)</b>	<b>As recommended by SLA(to be filled by SLA) (in ₹.)</b>
i) Promoter's/ Beneficiary's contribution		
ii) Term Loan		
iii) Subsidy		
<b>Total Outlay:</b>		

9.	Subsidy			
	i) Total subsidy claimed (in ₹.)	:		
	ii) Subsidy from any other agency	:		
	a) State Govt.			
	b) Central Govt. (for other components, if any)			
10.	A brief account of the infrastructure to be created under the project (description of components)	:		
	i) Post-harvest value chain Infrastructure Capacity		<b>No.</b>	<b>Size</b> (L x B x H in Meters)
				<b>Capacity</b> (in MT per day)
	a) New unit to be created/ purchased			
	b) Existing unit, if any			
	c) Renovation/ construction of storage infrastructure of the proposed unit			
11	i) Account No. and IFSC code of FI			
	ii) AADHAR no. of Promoter			
	Brief coverage on technical feasibility and financial viability ( <i>Enclose along with project report</i> )			
12	Other relevant information			

I/ we .....hereby solemnly declare that the information in this application for claiming subsidy under MOVCDNER-Value Chain Processing Component is correct and true to the best of my/our knowledge and belief.

Place:

Date:

**(Signature of the Applicant with Seal)**

.....  
.....

## Annexure-8

## Certificate of the State Lead Agency

1. The project has been appraised and found to be technically feasible and financially viable.
2. SLA will note that a time limit of 12/18 months is stipulated for the completion of the project and submission of relevant documents from the date of disbursement of the first installment of the loan & and subsidy. Further, if the completion of the project is delayed, a maximum extended period of six months is permissible. SLA also notes that the already disbursed subsidy has to be refunded forthwith if the project is not completed and the relevant documents are not submitted within the above stipulated period. It is also certified that no subsidy has been or will be availed for the project from any other State or Central Government Department/Agency.
3. Financial institution/ SLA/ Subsidy Sanction Committee will monitor the progress of the execution of the project to ensure that the project is completed as per the technical specifications envisaged in the guidelines of the sub-scheme and project proposal without any variation and within the stipulated time as per the broad parameters of the sub-scheme.
4. It is certified by SLA that the promoter will not alienate the land and the project for a minimum period of term loan for any purpose other than the purpose for which the subsidy is extended.
5. An amount of ₹. (Rupees \_\_\_\_\_) being (50% & 75% or maximum eligible amount) of the eligible amount of subsidy may be recommended for processing of subsidy proposal.

Place: \_\_\_\_\_

**(Signature of the Authorised Officer from SLA  
with Seal)**

Date: \_\_\_\_\_

**Encl:** As per the requirement of SLA and documents submitted to the Commercial Banks/ Financial Institutions.

**Note:** Forward a copy of the document by SLA to Banking Partner with signature & seal.

## Annexure-9

## Check the List of Documents to be submitted along with the Subsidy claim

Document No.	Particulars of document	Remarks ( )
A - 1	<ul style="list-style-type: none"> <li>Forwarding letter of the beneficiary.</li> <li>The complete address of the beneficiary with telephone/ fax numbers/email.</li> </ul>	
A - 2	<ul style="list-style-type: none"> <li>Copy of project report (DPR) with item-wise details of costs, total outlay, loan and margin submitted by the promoter.</li> </ul>	
A - 3	<ul style="list-style-type: none"> <li>Copy of the approved plan/ map and civil drawings clearly indicating the dimensions and capacity of the infrastructure project.</li> </ul>	
A - 4	<ul style="list-style-type: none"> <li>Copy of the loan sanction letter</li> </ul>	
A - 5	<ul style="list-style-type: none"> <li>Copy of land documents where the project is going to be established.</li> </ul>	
A - 6	<ul style="list-style-type: none"> <li>Notarized Affidavit in Original executed by the promoter on a non-judicial stamp paper as suggested by SLA.</li> </ul>	
A - 7	<ul style="list-style-type: none"> <li>Copy of duly registered partnership deed, if it is a partnership firm, Memorandum &amp; Articles of Association and certificate of incorporation, in case of Private Limited Company etc.</li> <li>In case of FPC: registration certificate as per Producer Company under Section 581(C) of Indian Companies Act, 1956, as amended in 2013.</li> <li>In case of FPO: Cooperative Societies Act/ Autonomous or Mutually Aided Cooperative Societies Act of the respective State.</li> <li>In case of FIG: Recommendation from SLA.</li> </ul>	

### List of Abbreviations

1.	AIF	Agriculture Infrastructure Fund
2.	CAU	Central Agricultural University
3.	DA&FW	Department of Agriculture and Farmers Welfare
4.	DARE	Department of Agricultural Research and Education
5.	DLMC	District level monitoring Committee
6.	DPR	Detailed Project Report
7.	DSIR	Department of Scientific and Industrial Research
8.	IMC	Implementation & Monitoring Committee
9.	FIG	Farmer Interest Group
10.	FPC	Farmer Producer Company
11.	FPO	Farmers Producer Organization
12.	FSSAI	Food Safety and Standards Authority of India
13.	ICAR	Indian Council of Agricultural Research
14.	ICS	Internal Control System
15.	INM	Integrated Nutrient Management
16.	ISAM	Integrated Scheme for Agricultural Marketing
17.	IT	Information Technology
18.	KVK	Krishi Vigyan Kendra
19.	LRP	Local Resource Person
20.	LS	Lump Sum
21.	MIDH	Mission for Integrated Development of Horticulture
22.	MOFPI	Ministry of Food Processing Industries
23.	MSME	Micro, Small, and Medium Enterprises
24.	NAC	National Advisory Committee
25.	NERAMAC	North Eastern Regional Agricultural Marketing Corporation Ltd.
26.	NPOP	National Programme for Organic Production
27.	NREGS	National Rural Employment Guarantee Scheme
28.	NRLM	National Rural Livelihoods Mission
29.	NRM	Natural Resource Management
30.	PDMC	Per Drop More Crop
31.	PMT	Project Management Team
32.	RKVY	Rashtriya Krishi Vikash Yojana
33.	SAU	State Agricultural University
34.	SLA	State Lead Agency
35.	SLEC	State Level Executive Committee
36.	SMAM	Sub-Mission on Agricultural Mechanization
37.	SRLM	State Rural Livelihoods Mission
38.	TFO	Total Financial Outlay

\*\*\*\*\* Page has been left intentionally Blank \*\*\*\*\*

**MOVCDNE**  
Farmer Happy, People Healthy





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



सत्यमेव जयते

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)

Agriculture & Farmers' Welfare Minister's Office : 120, Krishi Bhawan, New Delhi-110 001

Tel. : 011-23383370, 23782594, 23073789, 23782691

Residence : 12, Safdarjung Road, New Delhi-110 001

Tel. : 011-21411095, 21411096



**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



## Contents

1. National Mission on Edible Oils – Oilseeds (NMEO-OS) .....	1
1.1. Introduction:.....	1
1.2. Objective:.....	1
1.3. Key Activities: .....	1
2. Structure of the Mission.....	2
2.1. National Level.....	2
2.2. State Level .....	4
2.3. District Level .....	7
3. Funding Pattern & Fund Flow .....	9
4. Value Chain Clusters .....	9
4.1. Cluster Formation: .....	9
4.2. Eligibility criteria for VCPs .....	10
4.3. Eligibility criteria for Public or Private Corporations.....	11
4.4. Role of Value Chain Partners (VCPs).....	11
4.5. Procedure to be followed in Value Chain Clusters .....	13
4.6. Technical Support Agencies (TSAs).....	14
4.7. Advisory support:.....	14
4.8. Handholding support to VCPs: .....	15
4.9. Performance Monitoring of VCPs: .....	15
5. Seed Related Interventions: .....	15
5.1. Breeder Seed Support: .....	15
5.2. Identification and Distribution of Certified Seed (CS)/Truthfully Labeled (TL) Seeds in the Value Chain Cluster:.....	17
5.3. Seed Hubs .....	17
5.4. Specialized Seed Storage Units.....	18
6. Post-harvest Value Chain Support .....	18
7. Demonstrations: .....	18
7.1. Frontline Demonstrations (FLDs) by ICAR: .....	18
7.2. Cluster Front Line Demonstrations (CFLDs): .....	18
7.3. Block Demonstrations by States: .....	19
7.4. Other General Norms for conducting FLD/CFLD/Block Demonstrations:.....	19
8. Area Expansion through Targeting Fallow Areas- Oilseeds and Intercropping: .....	20
9. Sub Mission on Minor Vegetable Oil: .....	20
9.1. Project Based Assistance for Secondary Sources including Tree Borne Oilseeds (TBOs) .....	21
10. Farmer Field School (FFS) .....	21
10.1. Farmers' Training .....	22
11. Soil Health Testing .....	23
12. Digital Monitoring of the Mission .....	24
13. Flexi Fund .....	24

13.1. Information, Education and Communication (IEC).....	24
Annexure 1.....	26
Annexure 2.....	27
Annexure 3.....	28
Annexure 4.....	30
Annexure 5.....	35
Annexure 6.....	36
Annexure 7.....	37

## 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 NRGK 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, NRGK 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)	<b>Chairman</b>
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)	<b>Member Secretary</b>

\*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	<b>Chairman</b>
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)	<b>Member Secretary</b>

\*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:

- i. 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	<b>Chairman</b>
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-Samridhi 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:

- i. Frontline Demonstrations (FLDs) on oilseeds under NMEO-Oilseeds shall be conducted by National Agricultural Research System (NARS) under the supervision of ICAR.
- ii. 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.
- iii. 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):

- i. Cluster Front Line Demonstrations (CFLDs) shall be organized through the KVKs working in the respective districts, in consultation with DOSM.
- ii. 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.
- iii. 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
	<b>Total expenditure for conducting one FFS</b>	<b>35000.00</b>

### 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 <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
<b>TOTAL</b>		<b>30000.00</b>

### 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 6<sup>th</sup> 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

## Annexure 2

## 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%	<p><b>Seed hubs:</b></p> <ul style="list-style-type: none"> <li>- ₹ 50 lakhs for infrastructure</li> <li>- ₹ 100 lakhs in revolving funds</li> </ul> <p><b>Storage units:</b></p> <ul style="list-style-type: none"> <li>- Project specific as per CPWD norms @ Rs. 1.00 crore per unit.</li> </ul>
6	Farmer Trainings and Farmer Field Schools	60:40 / 90:10 / 100:0	<ul style="list-style-type: none"> <li>- ₹ 30,000 per batch of 30 farmers,</li> <li>- 1 FFS per 1000 ha @ ₹ 35,000 per FFS</li> </ul>
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

## 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
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 singhbum, 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.**

<b>S.no</b>	<b>Parameter</b>	<b>Weightage (%)</b>
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.**

<b>S.no</b>	<b>Parameter</b>	<b>Weightage (%)</b>
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

## Annexure 7

**Guidelines for Flexi Fund**

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

New Delhi, dated 6<sup>th</sup> September, 2016

**Office Memorandum**

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

Reference is invited to this Department OM of even no. dated 6<sup>th</sup> 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 17<sup>th</sup> 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 6<sup>th</sup> 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.

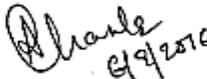
#### **Monitoring, Evaluation & Audit**

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.

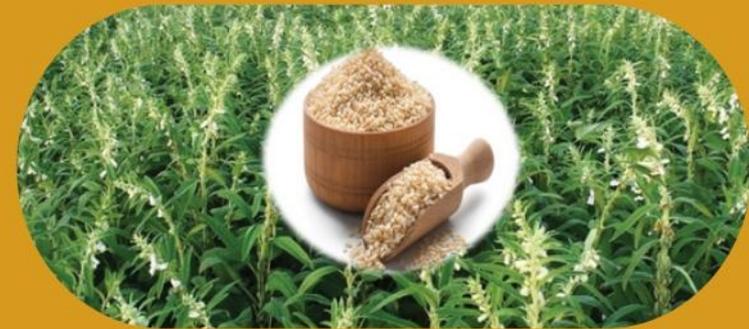
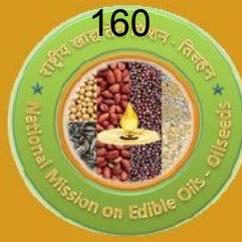
13. *These guidelines issue with the approval of the Finance Minister and come into force with immediate effect.*

  
(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**

# OPERATIONAL GUIDELINES

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

**TABLE OF CONTENTS**

BACKGROUND.....	5
OBJECTIVES .....	6
STRATEGY .....	6
STRUCTURE.....	7
ROLE OF PANCHAYATI RAJ INSTITUTIONS.....	11
AREA OF OPERATION OF NFSNM.....	11
MECHANISM OF FUND FLOW & FUNDING PATTERN.....	11
ADMINISTRATIVE EXPENSES .....	12
PROCEDURE FOR APPROVAL AND IMPLEMENTATION.....	12
MONITORING MECHANISM.....	12
REPORTING SYSTEM.....	13
EVALUATION.....	13
CRITERIA FOR IDENTIFICATION OF AREAS & BENEFICIARIES.....	13
Interventions under NFSNM: Rice, Wheat, Pulses & Coarse Cereals (Maize & Barley).....	15
1. DEMONSTRATIONS.....	16
2. NEED BASED INPUTS (SEED, INM & IPM) .....	24
3. CROPPING SYSTEM TRAININGS.....	30
4. FLEXI INTERVENTIONS.....	30
5. SEED HUBS .....	31
6. STRATEGIC ADAPTIVE RESEARCH SUPPORT .....	31
7. EXPOSURE VISIT TO INTERNATIONAL ORGANIZATIONS.....	32
Interventions under NFSNM: Sub-Mission on Nutri-Cereals (Shree-Anna).....	34
1. DEMONSTRATIONS.....	34
2. NEED BASED INPUTS (SEED, INM & IPM) .....	34
3. CROPPING SYSTEM TRAININGS.....	35
4. FLEXI INTERVENTIONS.....	35
5. SEED HUBS .....	35
6. STRATEGIC ADAPTIVE RESEARCH SUPPORT .....	35
7. EXTENDING FINANCIAL SUPPORT FOR EXISTING CENTRE OF EXCELLENCE (CoE) .....	35
8. AWARENESS, PUBLICITY AND PROMOTION.....	36
Interventions under NFSNM: Commercial Crops.....	40
1. COTTON BASED CROPPING SYSTEMS .....	42
2. JUTE & ALLIED FIBRES BASED CROPPING SYSTEMS .....	45
3. SUGARCANE BASED CROPPING SYSTEMS .....	49
Interventions under NFSNM: Seed Components.....	52
1. FREIGHT CHARGES FOR SEED TRANSPORTATION.....	52
2. ASSISTANCE FOR FOSTERING SEEDS OF NEW VARIETIES.....	54
3. CREATION & MODERNIZATION OF SEED INFRASTRUCTURE .....	59

4.	BOOSTING SEED PRODUCTION OF TRADITIONAL VARIETIES.....	62
5.	STRENGTHENING OF SEED PRODUCTION INFRASTRUCTURE IN POTATO .....	65
6.	SEED PROCESSING AND SEED STORAGE UNIT AT GRAM PANCHAYAT LEVEL.....	67
7.	STRENGTHENING OF SEED QUALITY CONTROL COMPONENTS .....	69
8.	NATIONAL SEED RESERVE.....	76
9.	ASSISTANCE FOR BOOSTING SEED PRODUCTION IN PRIVATE SECTOR.....	79
<b>I.</b>	<b>ANNEXURE: DUTIES OF PMT/PMU AT NATIONAL, STATE &amp; DISTRICT LEVEL .....</b>	<b>81</b>
<b>II.</b>	<b>ANNEXURE: ASSISTANCE UNDER DIFFERENT COMPONENTS OF NFSNM .....</b>	<b>83</b>
<b>III.</b>	<b>ANNEXURE: CAFETERIA OF INTERVENTIONS FOR DEMONSTRATIONS .....</b>	<b>85</b>
<b>IV.</b>	<b>ANNEXURE: CROPPING SYSTEM FOR COMMERCIAL CROPS.....</b>	<b>88</b>
<b>V.</b>	<b>ANNEXURE: ASSISTANCE IN DIFFERENT COMPONENTS NFSNM COMMERCIAL CROPS.....</b>	<b>89</b>
<b>VI.</b>	<b>ANNEXURE: EQUIPMENT FOR SEED TESTING LAB.....</b>	<b>92</b>
<b>VII.</b>	<b>ANNEXURE: EQUIPMENT FOR DNA FINGER PRINTING LAB .....</b>	<b>94</b>
<b>VIII.</b>	<b>ANNEXURE: SPECIFICATIONS OF GROW OUT TEST FARM .....</b>	<b>95</b>
<b>IX.</b>	<b>ANNEXURE: SPECIFICATIONS OF GREEN HOUSE FACILITIES .....</b>	<b>96</b>
<b>X.</b>	<b>ANNEXURES: EQUIPMENT FOR SEED HEALTH TESTING LAB.....</b>	<b>97</b>

# Overview

## BACKGROUND

The National Development Council (NDC) in its 53<sup>rd</sup> meeting held on 29<sup>th</sup> 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 12<sup>th</sup> 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 XII<sup>th</sup> 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.	<ul style="list-style-type: none"> <li>- Director, ICAR-IIWBR, Karnal</li> <li>- Director, ICAR-NRRI, Cuttack</li> <li>- Director, ICAR-IIPR, Kanpur</li> <li>- Director, ICAR-IIMR, Ludhiana</li> <li>- Director, ICAR-IIMR, Hyderabad</li> </ul>	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.

- 242**
- 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, Gol, 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, Gol 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, Gol 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

**244** 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 keep 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)**

## 246 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.

- 248
- 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
<b>Total</b>	<b>Rs. 800/Hectare</b>

- 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.

**250** 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
<b>Total</b>	<b>Rs. 800/Hectare</b>

**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
<b>Total</b>	<b>Rs. 800/Hectare</b>

## 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, Gol. 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: -

<ol style="list-style-type: none"> <li>1. <b>Title of the Project</b></li> <li>2. <b>Abstract</b></li> <li>3. <b>Introduction</b> <ol style="list-style-type: none"> <li>a. Background of the Study</li> <li>b. Problem Statement</li> <li>c. Objectives of the Research</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>6. <b>Expected Outcomes and Benefits</b></li> <li>7. <b>Work Plan &amp; Timeline</b></li> <li>8. <b>Budget &amp; Funding Requirements</b> (recurring and non-recurring)</li> <li>9. <b>Ethical Considerations</b></li> </ol>
---	---

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

- 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)**

## 264 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 Rathes (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 12<sup>th</sup> 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
<b>Honorarium to Resource Person: -</b>	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
<b>Boarding &amp; Lodging for Trainees: -</b>	45000	20000
➤ @ Rs. 600/-per head per day for National Level		
➤ @ Rs.500/- per head per day for State Level		
<b>Training Kit including Publication: -</b>	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
<b>Total</b>	<b>80000</b>	<b>40000</b>

#### 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.

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/qtl will be provided to production of foundation seed & Rs. 5500/qtl 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.

- 278** 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.

## 280 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
<b>Honorarium to Resource Person: -</b>	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
<b>TOTAL</b>	<b>50000</b>	<b>40000</b>

### 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 be 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% Gol):** 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% Gol Share) decided by Seed Division, DA&FW, Gol, is available for distribution of Breeder Seed of newly released

varieties/hybrids which are  $\leq 5$  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  $\leq 8$  years old (from the date of notification).
- ii. Notified varieties/hybrids of Cereals, Coarse Cereals, Pulses, Fibres and Fodder Crops is 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  $\leq 10$  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 1/3<sup>rd</sup> 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.

<b>Table-A: Assistance for Capacity Building of Seed Growers</b>			
<b>S. No.</b>	<b>Details</b>	<b>Rate (in Rs)</b>	<b>Amount Available (in Rs)</b>
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/-
<b>Total</b>			<b>50,000/-</b>

- 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			
4.	Maize/Sorghum/Bajra		3300	3000
5.	Ragi/Foxtail/Little/Kodo Millets			
6.	Arhar			
7.	Black-gram			
8.	Green-gram			
9.	Cowpea			
10.	Gram			
11.	Lentil		5500	5000
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 Gol 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% Gol 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 (Gol). 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 &amp; Assistance Pattern

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.				

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

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

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
<b>Total</b>			<b>200,000.00</b>

#### 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.

<b>Table-G: Assistance for “Establishing Hi-tech Centre for Potato Seed Production”</b>			
<b>Heads</b>	<b>Description</b>	<b>Total Amount (in lakhs)</b>	<b>Pattern of Assistance (100% GoI)</b>
<b>Non-Recurring</b>	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.
<b>Recurring</b>	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.
<b>TOTAL</b>		<b>1000.00</b>	

## 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.

- 298**
- 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

<b>Table-H: Assistance for SPP-cum-SSG at Gram Panchayat Level (capacity of 500 MT)</b>					
<b>Details</b>	<b>Minimum Annual Capacity (in MT)</b>	<b>Minimum Capacity (in TPH)</b>	<b>Dimension (in meters)</b>	<b>Total Area (in sqm)</b>	<b>Assistance (in Lakh)</b>
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		
<ol style="list-style-type: none"> <li>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.</li> <li>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.</li> </ol>					

## 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.

- 300** 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:

<b>Table-I: Assistance for Training and Workshops</b>		
<b>S. No.</b>	<b>Training and workshop</b>	<b>Maximum Amount Eligible (Rs. in lakh)</b>
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
<b>Note:</b>		
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:

<b>Table-J: Assistance available for participation in Events, Membership and other Initiatives</b>	
<b>S. No.</b>	<b>Details</b>
1	<ul style="list-style-type: none"> <li>For organization of one Seed Congress per year an assistance upto Rs. 50 lakh or actual (whichever is less) is available.</li> </ul>
2*	<ul style="list-style-type: none"> <li>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.</li> <li>For purchase of books and computers upto Rs. 10.00 lakh or actual (whichever is less) is available.</li> <li>For technical staff upto Rs. 10.00 lakh or actual (whichever is less) is available.</li> <li>Payment of consultancy service for OECD consultants upto Rs. 50.00 lakh or actual (whichever is less) is available (including OECD Seeds Certification Tag).</li> </ul>
3	<ul style="list-style-type: none"> <li>For exchange of germplasm upto Rs. 200.00 lakh or actual (whichever is less) is available.</li> </ul>
4	<ul style="list-style-type: none"> <li>For International Seed Testing Association (ISTA) Membership &amp; 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.</li> <li>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).</li> </ul>

- |   |   |
|---|---|
|   | <ul style="list-style-type: none"> <li>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.</li> </ul> |
| * 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:

-

- i. The Department of Agriculture of States/UTs will be eligible for financial assistance for reimbursement 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.

- 308**
- 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**

<b>NATIONAL PMU/PMT</b>	<ul style="list-style-type: none"> <li>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</li> <li>b. To assist State in planning, formulation of NFSNM action plans, whenever required.</li> <li>c. To provide technical assistance to NFSNM staff in scrutinizing the action plans received from the States.</li> <li>d. To Establish timelines and indicators for completion of each activity</li> <li>e. To supervise the quality of implementation of various interventions proposed in the Mission for improving the production of rice, wheat and pulses.</li> <li>f. To assist Mission Director and other senior officers in synchronizing and synergizing with other divisions of DA&amp;FW; State Governments; State Agriculture Universities; ICAR research institutions and other stake holders on technical front.</li> <li>g. To constitute teams for monitoring the progress of works in the States and provide technical guidance to them in conducting Monitoring and evaluation.</li> <li>h. To coordinate the work of State and District PMU/PMT.</li> <li>i. To visit the States periodically to provide technical guidance and impart knowledge about best practices.</li> <li>j. To assist in the conduction of specific central and regional workshops.</li> <li>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.</li> <li>l. Documentation and dissemination of contribution of various interventions of cluster demonstration and success stories.</li> <li>m. To render overall help to the technical staff working in the cell.</li> <li>n. To perform other tasks specified by the Mission Director.</li> <li>o. To procure, compile and analyse the State wise data relating to the proposed interventions of the Mission activities.</li> <li>p. To maintain relevant records/ file and data of the various Mission activities.</li> <li>q. To assist in developing uniform formats for submission of action plans; monitoring and evaluation formats.</li> <li>r. To scrutinize the action plans for the interventions proposed.</li> <li>s. To undertake field visits to assess the progress of the Mission activities.</li> <li>t. To assist senior officers of the NFSNM cell on all technical matters.</li> <li>u. To undertake other works assigned by the Mission director from time to time.</li> </ul>
<b>STATE PMU/PMT</b>	<ul style="list-style-type: none"> <li>a. Liaising with SAUs, ICAR Institutes &amp; Commodity Directorates.</li> <li>b. Identification and delineation of acid/alkali soils in the State.</li> <li>c. Updating of package of practices of mandated crops and making the same available to the State/ districts.</li> <li>d. Assessment of requirement of inputs for the State based on targets approved by GOI.</li> <li>e. Development of training material and activity schedule for Cropping System based Training.</li> <li>f. Planning of field demonstrations and supervision of the same.</li> <li>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.</li> </ul>

	<ul style="list-style-type: none"> <li>h. Training of field staff engaged in NFSNM work.</li> <li>i. Identification of promising crop varieties/hybrids of the mandated crops for the State.</li> <li>j. Development of seed rolling plan for NFSNM districts in consultation with SAUs, State Seed Corporation &amp; State Department of Agriculture.</li> <li>k. Making available technical information required by National Level Monitoring team during its visit to the State.</li> <li>l. Development of technical literature/ extension materials for farmers.</li> <li>m. Compilation and documentation of contribution of various interventions under cluster</li> <li>n. Demonstrations, lessons learnt and success stories from NFSNM districts.</li> <li>o. To procure, compile and analyse the district wise data relating to the proposed interventions of the Mission activities.</li> <li>p. To maintain relevant records/ file and data of the various Mission activities.</li> <li>q. To undertake field visits to assess the progress of the Mission activities.</li> <li>r. To undertake other works assigned by the State Mission director from time to time.</li> </ul>
<p><b>DISTRICT PMU/PMT</b></p>	<ul style="list-style-type: none"> <li>a. Liaisoning with KVK and other Agricultural Research Organizations located in the districts.</li> <li>b. Collection and maintenance of basic Agricultural and allied statistics of the district.</li> <li>c. Planning and supervising conduction of field demonstration and FFS and reporting yield, weather data to the State Mission Director/State Consultant.</li> <li>d. Development of technical/extension material for farmers in consultation with District Agricultural Officer and the State Consultant.</li> <li>e. Assessing input requirement of the district for NFSNM programme.</li> <li>f. Training of district extension staff in improved crop production practices with emphasis on mandated crops.</li> <li>g. Analyse and documentation of the contribution of various interventions under cluster demonstrations and success stories.</li> <li>h. Conduction of field demonstrations with the help of Panchayat level field extension functionaries.</li> <li>i. Assisting Consultants in performance of duties assigned to them at State/Districts level.</li> <li>j. Monitoring of crop condition, major incidence of insect/pest, nutrient deficiency and reporting to the District Officers.</li> </ul>

S. No.	Interventions	Assistance
<b>A. DEMONSTRATIONS</b>		
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>B. SEED DISTRIBUTION</b>		
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)
<b>C. SEED PRODUCTION</b>		
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.
<b>D. PLANT AND SOIL PROTECTION MANAGEMENT</b>		
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)
<b>E. CROPPING SYSTEM TRAININGS</b>		
44.	Trainings	Rs. 30,000 per four-session training, in alignment with ATMA cost norms of Rs. 250 per farmer per day
<p><b>Note:</b> Additional assistance of Rs. 500/qttl will be provided for distribution of bio-fortified varieties of rice &amp; wheat, over and above the assistance being given for latest varieties (less than 10 years old).</p> <p>* The allocation for seed distribution for varieties older than 10 years of age, having special characters, in case of Rice, Wheat, Pulses, Coarse Cereals &amp; Nutri cereals should not be more than 20% of the total allocation for seed distribution.</p>		

CROPS	INTERVENTIONS
<b>RICE</b>	<ul style="list-style-type: none"> <li>• Demonstration of potential of High Yielding varieties of rice (Transplanted and Direct Seeded)</li> </ul>
	<ul style="list-style-type: none"> <li>• Demonstration of SRI Technique with HYV</li> </ul>
	<ul style="list-style-type: none"> <li>• Demonstration of potential of Hybrids of Rice</li> </ul>
	<ul style="list-style-type: none"> <li>• Demonstration of SRI Technique with Hybrid Rice</li> </ul>
	<ul style="list-style-type: none"> <li>• Demonstration on newly released and notified high-yielding, climate-resilient, bio-fortified varieties, resistant to insect, pest and diseases varieties</li> </ul>
	<ul style="list-style-type: none"> <li>• Seed Treatment</li> </ul>
	<ul style="list-style-type: none"> <li>• Promotion of use of Micronutrients and bio-fertilizers</li> </ul>
	<ul style="list-style-type: none"> <li>• Zinc Sulphate</li> </ul>
	<ul style="list-style-type: none"> <li>• Boron (Borax deca hydrate, Borax penta hydrate)</li> </ul>
	<ul style="list-style-type: none"> <li>• Iron (Ferrous sulphate)</li> </ul>
	<ul style="list-style-type: none"> <li>• Bio-fertilizers (such as Azospirillum, Azotobactor, PSB, Potash mobilizing and zinc solubilizing bacteria)</li> </ul>
	<ul style="list-style-type: none"> <li>• Demonstration on use of lime/liming material to correct soil acidity</li> </ul>
	<ul style="list-style-type: none"> <li>• Demonstration on effectiveness of Weedicides</li> </ul>
	<ul style="list-style-type: none"> <li>• IPM in Rice (including Mechanical Devices)</li> </ul>
	<ul style="list-style-type: none"> <li>• Promotion of Mechanical Transplanting</li> </ul>
<ul style="list-style-type: none"> <li>• Moisture Stress Management Chemicals like PPFM bacteria</li> </ul>	
<ul style="list-style-type: none"> <li>• Green Manuring</li> </ul>	
<ul style="list-style-type: none"> <li>• Cropping System Based Demonstrations</li> </ul>	
<b>WHEAT</b>	<ul style="list-style-type: none"> <li>• Demonstration on newly released and notified high-yielding, climate-resilient, bio-fortified varieties, resistant to insect, pest and diseases varieties</li> </ul>
	<ul style="list-style-type: none"> <li>• Lime &amp; Liming Material for acidic soils</li> </ul>
	<ul style="list-style-type: none"> <li>• Use of Gypsum/Phospho-Gypsum in Moderately Alkaline Soils</li> </ul>
	<ul style="list-style-type: none"> <li>• Promotion of use of Micronutrients and Bio-fertilizers</li> </ul>
	<ul style="list-style-type: none"> <li>• Zinc Sulphate</li> </ul>
	<ul style="list-style-type: none"> <li>• Boron (Borax deca hydrate, Borax penta hydrate)</li> </ul>
	<ul style="list-style-type: none"> <li>• Iron (Ferrous sulphate)</li> </ul>
	<ul style="list-style-type: none"> <li>• Bio-fertilizers such as Azospirillum, Azotobactor, PSB, Potash mobilizing and zinc solubilizing bacteria</li> </ul>
<ul style="list-style-type: none"> <li>• Demonstration on use of Sulphur as a Nutrient</li> </ul>	
<ul style="list-style-type: none"> <li>• Seed Treatment</li> </ul>	

<b>316</b>	<ul style="list-style-type: none"> <li>• Soil treatment for Termite control</li> <li>• Promotion of levelling using Laser land leveller</li> <li>• Promotion of Line Sowing using Seed Drills</li> <li>• Demonstration on use of Chemical Weedicides</li> <li>• Moisture Stress chemicals Potassium Chloride or Hydrogel</li> <li>• Green Manuring</li> <li>• Cropping System Based Demonstrations</li> </ul>
	<b>PULSES</b>
	<ul style="list-style-type: none"> <li>• Demonstration on newly released and notified high-yielding, climate-resilient, bio-fortified varieties, resistant to insect, pest and diseases varieties</li> <li>• Seed Treatment</li> <li>• Demonstration on Intercropping</li> <li>• Promotion of summer moong</li> <li>• Planting of Pulses in Rice Fallows and Rice Bunds</li> <li>• Demonstration on Planting of <i>Kharif</i> Pulses on Ridges (Urd, Moong, Arhar)</li> <li>• Demonstration on utera cropping</li> <li>• Promotion of use of Micronutrients and bio-fertilizers</li> <li>• Zinc Sulphate</li> <li>• Boron (Borax deca hydrate, Borax penta hydrate)</li> <li>• Iron (Ferrous sulphate)</li> <li>• Molybdenum</li> <li>• Rhizobium and PSB, Potash mobilizing bacteria and zinc solubilizing bacteria</li> <li>• Demonstration on use of Sulphur as a Nutrient</li> <li>• Demonstration on use of Weedicide</li> <li>• Demonstration on IPM (including Mechanical Devices)</li> <li>• Foliar Spray of Nutrients</li> <li>• Cropping System Based Demonstrations</li> </ul>
	<b>COARSE CEREALS</b>
	<ul style="list-style-type: none"> <li>• Demonstration on newly released and notified high-yielding, climate-resilient, bio-fortified varieties, resistant to insect, pest and diseases Varieties/Hybrids</li> <li>• Seed Treatment</li> <li>• Demonstration on Ridge Furrow Planting</li> <li>• Zinc sulphate (21%)</li> <li>• Weedicide</li> <li>• Pesticide</li> <li>• Bio-fertilizers (Azotobacter, PSB, Potash Mobilizing Bacteria and Zinc Solubilizing Bacteria)</li> </ul>

<b>NUTRI CEREALS</b>	<ul style="list-style-type: none"> <li>• Demonstration on IPM (including mechanical devices)</li> <li>• Demonstration on newly released and notified high-yielding, climate-resilient, bio-fortified varieties, resistant to insect, pest and diseases Varieties/Hybrids</li> </ul>
	• 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)
<b>Note:</b> Interventions and inputs are illustrative and may be selected by the States in consultation with their SAUs/CAUs/ICAR-Institutes.	

CROP	STATE	CROPPING SYSTEMS
<b>COTTON</b>	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.
<b>CROP</b>	<b>GROWING CONDITIONS</b>	<b>CROPPING SYSTEM</b>
<b>JUTE</b>	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
<b>CROP</b>	<b>SUB-TROPICAL REGION</b>	<b>TROPICAL REGION</b>
<b>SUGARCANE</b>	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.

<b>COTTON BASED CROPPING SYSTEM</b>			
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 <ul style="list-style-type: none"> <li>• Production of Foundation Seed</li> <li>• Production of Certified Seed</li> </ul>	<ul style="list-style-type: none"> <li>• Rs. 12000/qtl</li> <li>• Rs. 5500/qtl</li> </ul>	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**

<b>S. No.</b>	<b>Component</b>	<b>Unit Cost</b>	<b>Implementing Agency</b>
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/UPCR/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 x 13" W x 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
<b>Total Expenditure</b>				<b>12000000</b>

**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
<b>Total</b>			<b>200.00</b>

**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
<b>Total</b>		<b>50.00</b>	<b>100.00</b>

**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
<b>Total</b>		<b>15.00</b>

**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
			<b>Total</b>	<b>70.00</b>

**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.

**F. No. 2-33/2024-NFSNM**

भारत सरकार/ Government of India

कृषि एवं किसान कल्याण मंत्रालय/ Ministry of Agriculture and Farmers Welfare  
कृषि एवं किसान कल्याण विभाग / Department of Agriculture and Farmers Welfare  
फसलें एवं पीएचएमएफ प्रभाग/ Crops & PHMF Division

Krishi Bhawan, New Delhi  
Dated: 16.04.2025

To,

**The APC/Principal Secretary/Secretary (Agriculture),**  
All States/Union Territories

**Subject:** Revised guidelines of National Food Security & Nutrition Mission (NFSNM) from FY 2025-26-reg.

Respected Sir/Madam,

The undersigned is directed to inform that Cabinet has approved continuation of Centrally Sponsored Schemes namely Pradhan Mantri Rashtriya Krishi Vikas Yojana (RKVY) and Krishonnatti Yojana (KY) from 01.04.2021 to 31.03.2026. The National Food Security Mission (NFSM) has been renamed as **National Food Security & Nutrition Mission (NFSNM)** and has been brought under Krishonnatti Yojana (KY). Also, the erstwhile Sub-Mission on Seed & Planting Material (SMSP) is subsumed under NFSNM as NFSNM: Seed Components.

2. Accordingly, the guidelines have been revised and the revised guidelines of NFSNM is enclosed herewith for kind information and necessary action. The guidelines will be effective from 01.04.2025.

3. It is requested to circulate the revised guidelines to all concerned stakeholders. The copy of the revised guidelines of NFSNM will also be made available on the website of this Department.

**Enclosure:** Revised NFSNM guidelines

  
**(Rabindra Prasad)**  
Director (Crops)  
011-23386681

**Copy to:**

1. PS to Hon'ble Minister for Agriculture & Farmers Welfare, Krishi Bhawan, New Delhi.
2. PS to Hon'ble MoS (Shri Ramnath Thakur), Krishi Bhawan, New Delhi.
3. PS to Hon'ble MoS (Shri Bhagirath Choudhary), Krishi Bhawan, New Delhi.
4. PPS to Secretary (A&FW), Krishi Bhawan, New Delhi.
5. PPS to Secretary (DARE) & DG (ICAR), Krishi Bhawan, New Delhi.

6. PPS to all Additional Secretaries, DA&FW, Krishi Bhawan, New Delhi.
7. PPS to Agriculture Commissioner, DA&FW, Krishi Bhawan, New Delhi.
8. DDG (Crop Science), ICAR, DARE, Krishi Bhawan, New Delhi.
9. DDG (Agri. Extension), ICAR, DARE, Pusa Campus, New Delhi.
10. PPS to all Joint Secretaries/Advisors, DA&FW, Krishi Bhawan, New Delhi.
11. ADG (O&P)/ADG (Seed), ICAR, Krishi Bhawan, New Delhi.
12. Commissioner/Director (Agriculture), Department of Agriculture of all States/UTs.
13. Director (RKVY), DA&FW, Krishi Bhawan, New Delhi.
14. Director of all Crop Development Directorates, DA&FW.
15. DC (Seeds)/DC(QC)/DS(Seeds), DA&FW, Shastri Bhawan, New Delhi.
16. Under Secretary (Seeds), DA&FW, Krishi Bhawan, New Delhi.
17. Under Secretary (KY), DA&FW, Krishi Bhawan, New Delhi.
18. Under Secretary (CA-V) DA&FW, Krishi Bhawan, New Delhi.
19. AC (Crops and Seeds)/CU-I Section/CU-II Section/CU-IV Section/NFSNM Section, DA&FW, Krishi Bhawan, New Delhi.

**Operational Guidelines**  
**of**  
**Per Drop More Crop**



**2025**

**Government of India**  
**Ministry of Agriculture & Farmers Welfare**  
**Department of Agriculture & Farmers Welfare**

### Contents

Sl. No	Particulars	Page No.
	Salient Features of the Scheme	1
1	Introduction	2
2	Per Drop More Crop	3
3	Scheme Architecture	3
4	Nodal Department	4
5	District and State Irrigation Plans (DIPs & SIPs)	4
6	Objectives of Per Drop More Crop	4
7	Scheme Strategies	5
8	Operational Aspects	15
9	Drip Irrigation System for states where it has been well accepted by farmers and good infrastructure is available	17
10	Drip Irrigation System in states with low penetration	19
11	Drip Irrigation System for North Eastern and Himalayan States	20
12	Sprinkler Irrigation	21
	Portable Sprinkler Irrigation System	22
	Micro Sprinklers (up to 3 m radius of throw)	22
	Mini Sprinklers (more than 3 m up-to 10 m radius of throw)	23
	Semi-Permanent Sprinkler Irrigation System	23
	Large Volume Sprinkler Irrigation System (Raingun)	24
13	Optional Components	25
14	Key Administrative requirements	25
15	Registration of manufacturing companies	28
16	After sales services & campaigns	30
17	Violations & Penalties	31
18	Quality Control	32
19	Human Resource Development and Media	34
20	Pattern of Assistance & funding pattern	35
21	Monitoring and Evaluation	35
22	Release of Funds	37
23	Administrative Expenses and Contingencies	37

### Annexures

Annexure I	Recommended norms for use of treated sewage quality for specific activities at point of use
Annexure II	Format for Annual Action Plan– Per Drop More Crop (PDMC)
Annexure III a	Format for Physical Progress Monitoring Report for Per Drop More Crop (Micro Irrigation)
Annexure III b	Format for Financial Progress Monitoring Report for Per Drop More Crop (Micro Irrigation)
Annexure IV a	Drip Irrigation Technology-Indicative Bill of Quantities 0.2 ha
Annexure IV b	Drip Irrigation Technology-Indicative Bill of Quantities 0.4 ha
Annexure IV c	Drip Irrigation Technology-Indicative Bill of Quantities 1.0 ha
Annexure IV d	Drip Irrigation Technology-Indicative Bill of Quantities 2.0 ha
Annexure IV e	Drip Irrigation Technology-Indicative Bill of Quantities 3.0 ha
Annexure IV f	Drip Irrigation Technology-Indicative Bill of Quantities 4.0 ha
Annexure IV g	Drip Irrigation Technology-Indicative Bill of Quantities 5.0 ha
Annexure IV h	NEH States -Drip Irrigation Technology-Indicative Bill of Quantities 0.2 ha
Annexure IV i	NEH States -Drip Irrigation Technology-Indicative Bill of Quantities 0.4 ha
Annexure IV j	NEH States -Drip Irrigation Technology-Indicative Bill of Quantities 1.0 ha
Annexure IV k	NEH States -Drip Irrigation Technology-Indicative Bill of Quantities 2.0 ha
Annexure IV l	NEH States -Drip Irrigation Technology-Indicative Bill of Quantities 3.0 ha
Annexure IV m	NEH States -Drip Irrigation Technology-Indicative Bill of Quantities 4.0ha
Annexure IV n	NEH States -Drip Irrigation Technology-Indicative Bill of Quantities 5.0ha
Annexure V	Indicative Bill of Quantities (BoQ) for Portable Sprinkler Irrigation System
Annexure VI	Indicative Bill of Quantities (BoQ) for Micro Sprinkler Irrigation System
Annexure VII	Indicative Bill of Quantities (BoQ) for Mini Sprinkler Irrigation System
Annexure VIII	Indicative Bill of Quantities (BoQ) for Semi Permanent Sprinkler Irrigation System
Annexure IX	Indicative Bill of Quantities (BoQ) for Rain-gun Sprinkler Irrigation System
Annexure X	Water Quality Criteria In Relation To Clogging
Annexure XI	Guidelines for Selection of Filter
Annexure XII	Indicative Price of Optional Components
Annexure XIII	Other Interventions to be provided as optional, if and only if a farmer opted to install micro-irrigation System in his/her field
Annexure XIV	Gazette Notification
Annexure XV	List of BIS Standards

Abbreviations	
<b>AC&amp;FW</b>	Agriculture Cooperation & Farmers Welfare
<b>AIBP</b>	Accelerated Irrigation Benefit Programme
<b>ATMA</b>	Agriculture Technology Management Agency
<b>BIS</b>	Bureau of Indian Standards
<b>CIPET</b>	Central Institute of Plastics Engineering and Technology
<b>CST</b>	Central Sales Tax
<b>DAC&amp;FW</b>	Department of Agriculture, Cooperation & Farmers Welfare
<b>DBT</b>	Direct Benefit Transfer
<b>DIP</b>	District Irrigation Plan
<b>DLIC</b>	District Level Implementation Committee
<b>DoLR</b>	Department of Land Resources
<b>DONER</b>	Development of North Eastern Region
<b>DPR</b>	Detailed Project Report
<b>DRDA</b>	District Rural Development Agency
<b>GoI</b>	Government of India
<b>HDPE</b>	High Density Polyethylene
<b>HP</b>	Horse Power
<b>HRD</b>	Human Resource Development
<b>ICAR</b>	Indian Council of Agricultural Research
<b>ICT</b>	Information Communication Technology
<b>IDWG</b>	Inter Departmental Working Group
<b>IMD</b>	Indian Meteorological Department
<b>IPPE</b>	Intensive Participatory Planning Exercise
<b>ISRO</b>	Indian Space Research Organisation
<b>IWMP</b>	Integrated Watershed Management Programme
<b>KVK</b>	Krishi Vigyan Kendra
<b>MGNREGA</b>	Mahatma Gandhi National Rural Employment Guarantee Act
<b>Mha</b>	Million Hectare
<b>MI</b>	Micro Irrigation
<b>MIS</b>	Micro Irrigation System/Management Information System
<b>MLALAD</b>	Member of Legislative Assembly Local Area Development
<b>MoA</b>	Ministry of Agriculture
<b>MoRD</b>	Ministry of Rural Development
<b>MoJS</b>	Ministry of Jal Shakti
<b>MPLAD</b>	Member of Parliament Local Area Development
<b>NABARD</b>	National Bank for Agriculture & Rural Development
<b>NABCONS</b>	NABARD Consultancy Services
<b>NCPAH</b>	National Committee on Precision Agriculture and Horticulture
<b>NEC</b>	National Executive Committee
<b>NEH</b>	North Eastern & Himalayan States
<b>NGO</b>	Non-Governmental Organisation
<b>NRAA</b>	National Rain-fed Area Authority
<b>NRM</b>	Natural Resource Management
<b>NSC</b>	National Stewardship Council

<b>PFDCs</b>	Precision Farming Development Centres
<b>PMKSY</b>	Pradhan Mantri Krishi Sinchayee Yojana
<b>PRI</b>	Panchayati Raj Institutions
<b>PVC</b>	Poly Vinyl Chloride
<b>RIDF</b>	Rural Infrastructure Development Fund
<b>RKVY</b>	Rashtriya Krishi Vikas Yojana
<b>SAC</b>	Space Application Centre
<b>SAGY</b>	Sansad Adarsh Gram Yojana
<b>SAU</b>	State Agricultural university
<b>SC</b>	Schedule Caste
<b>SCP</b>	Special Component Plan
<b>SIP</b>	State Irrigation Plan
<b>SLNA</b>	State Level Nodal Agency
<b>SLSC</b>	State Level Sanctioning Committee
<b>S&amp;MF</b>	Small & Marginal Farmers
<b>ST</b>	Schedule Tribe
<b>GSTIN</b>	Goods & Service Tax Identification Number
<b>TSP</b>	Tribal Sub – Plan
<b>UC</b>	Utilization Certificate

### Salient Features of the Scheme

- 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. At the State level, PDMC has a three-tier structure with State Level Sanctioning Committee (SLSC) of RKVY under the Chairmanship of Chief Secretary, Inter-departmental Working Group (IDWG) under the Chairmanship of Secretary, Deptt. of Agriculture/Agriculture Production Commissioner (APC)/Development Commissioner; and District Level Implementation Committee (DLIC) under the Chairmanship of District Collector/Magistrate.
- iii. 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.
- iv. The Annual Action plans is to be drawn from District Irrigation Plans
- v. State irrigation plan focuses on cluster based approach and integrated development of different components in the irrigation chain.
- vi. 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.
- vii. The scheme will be monitored through web-portal of PDMC. Physical and Financial progress achieved during the preceding month is required to be uploaded by states on the web-portal of PDMC.
- viii. More focus be given on promotion of micro irrigation in rainfed areas and also for water intensive/guzzling crops to minimize water requirement.
- ix. 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 which will be met by both Central Government and State Government in the ratio of 60:40 for all states except the North Eastern and Himalayan States. In the case of these states, ratio of sharing is 90:10. For the Union Territories, funding pattern is 100% grant by the Central Government.

- x. 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.
- xi. 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.
- xii. Only BIS marked systems/components can be supplied under the scheme.
- xiii. 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.
- xiv. 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.
- xv. 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.
- xvi. 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.
- xvii. The general framework of the Guidelines of the RKVY shall also be applicable for PDMC.

### **1. Introduction:**

Water is becoming scarce commodity these days due to competitive demand and also due to the change in climatic behaviour, particularly the erratic nature of rainfall. More than 80% of the available water resource in the country is used in Agricultural sector for the purpose of irrigation. The country has been able to cover just 50% of the net sown area under irrigation. Hence, promoting efficient use of the available water through technological interventions is one of the priorities in agriculture. Micro irrigation is one such initiative for enhancing water use efficiency in Agriculture Sector. The Government of India has been implementing Centrally Sponsored Scheme on Micro Irrigation with the objective to

enhance water use efficiency in the agriculture sector by promoting appropriate technological interventions like drip & sprinkler irrigation technologies and encourage the farmers to use water saving and conservation technologies. The Ministry is making efforts to bring two million ha area under micro irrigation per year.

## 2. 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.

## 3. Scheme Architecture

Per Drop More Crop will adopt the following institutional set up and architecture of overall RKVY framework as given in the General Guidelines of RKVY.

3.1 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;

- i. Secretary, Department of Agriculture &Farmers Welfare: Chairman
- ii. Additional Secretary & Financial Advisor: Member
- iii. Additional Secretary, DA&FW: Member
- iv. Representative from Ministry of Water Resources: Member
- v. Representative from Ministry Rural Development: Member
- vi. Representative from Department of Agricultural Research & Education: Member
- vii. Representative from Department of Land Resources: Member
- viii. Joint Secretary (INM): Member
- ix. Joint Secretary (Crops): Member
- x. Joint Secretary(RKVY): Member
- xi. Technical Expert of National Rainfed Area Authority (NRAA): Member
- xii. Director, Water TechnologyCenter (WTC), ICAR: Member
- xiii. 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.

3.2 At the State level, an Inter Departmental Working Group (IDWG) under the Chairmanship of Agriculture Production Commissioner/ Development Commissioner with Secretaries of line departments as members to be constituted to coordinate at the State level, 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.

- 3.3 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

#### **4. Nodal Department**

PDMC focuses on enhancing water use efficiency at farm level and thereby enhancing agricultural production & productivity. Therefore, State Agriculture/Horticulture Department may be the Nodal Department for implementation of Per Drop More Crop scheme. However, States are free to identify the nodal Department based on the established institutional set up and mandate of the Department. All communication between Department of Agriculture & Farmers Welfare, GoI and State Government would be preferably with and through the Nodal Department.

#### **5. District and State Irrigation Plans (DIPs & SIPs)**

- 5.1 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.
- 5.2 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.
- 5.3 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.

#### **6. Objectives of Per Drop More Crop**

The main objectives of Per Drop More Crop are as under:

- 6.1 Increase the area under Micro Irrigation technologies in agriculture to enhance water use efficiency.
- 6.2 Increase productivity of crops and income of farmers through precision water management.
- 6.3 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.

- 6.4 Make potential use of micro irrigation systems for promoting fertigation.
- 6.5 Promote micro irrigation technologies in water scarce, water stressed and critical ground water blocks/districts
- 6.6 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.
- 6.7 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.
- 6.8 Promote, develop and disseminate micro irrigation technology for agriculture and horticulture development with modern scientific knowledge.
- 6.9 Support the initiatives of reuse of waste water in Agriculture/peri-urban Horticulture through micro irrigation systems.
- 6.10 Create employment opportunities for skilled and unskilled persons, especially unemployed youth for installation and maintenance of micro irrigation systems.

## **7. Scheme Strategies**

- 7.1 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.
- 7.2 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.
- 7.3 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.
- 7.4 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.
- 7.5 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.

- 7.6 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.
- 7.7 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.
- 7.8 Activities under "Other Interventions (OI)" shall be restricted to 20% of the fund allocation made to each State/UT and 40% of the funds allocation to each North East State, Himalayan State & UTs of Jammu Kashmir and Ladakh. However, flexibility is given to States/UTs to exceed this limit depending on their specific requirement. This would be allowed subject to the condition that the overall expenditure on these activities by the States/UTs and North East States, Himalayan States & UTs of Jammu Kashmir and Ladakh would not exceed 20% and 40% respectively of the overall allocation for OI Activities under the Scheme. Therefore, the Annual Action Plans to be submitted should separately indicate the activities to be undertaken under OI and the amount proposed to be spent.
- 7.9 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.
- 7.10 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.

- 7.11 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.
- 7.12 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).
- 7.13 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.
- 7.14 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.
- 7.15 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.
- 7.16 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.
- 7.17 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. Also, States/UTs must ensure Vibrant Villages identified by the Government should be included in the State AAP so that more beneficiaries of Vibrant Villages are covered in the scheme. 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.
- 7.18 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.

- 7.19 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.
- 7.20 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.
- 7.21 Preference for installation of micro irrigation will be given to farmers adopting crop diversification to enhance the production and their income substantially.
- 7.22 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 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.
- 7.23 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.
- 7.24 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.
- 7.25 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.

7.26 Soil Health Card scheme was launched in 2015 to provide Soil Health Cards to all the farmers in the country. 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. Further, the Ministry is promoting Kisan Credit Card (KCC) scheme with a view to provide easy access to concessional institutional credit to farmers. While implementing PDMC scheme, States/UTs should facilitate the beneficiary of PDMC scheme to avail Soil Health Card and Kisan Credit Card under the respective programs.

#### 7.27 **Cluster Approach:**

7.27.1 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.

7.27.2 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.

7.27.3 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).

#### 7.28 **Public Private Partnership (PPP-MI) approach:**

States/UTs may take up projects with PPP mode of implementation. The

framework for PPP-MI would be as follows:

7.28.1 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.

7.28.2 Objectives:

- a. Implementation of Micro-Irrigation in an aggregated manner achieving better coverage, efficiency in water and fertilizer use.
- b. Convergence of various ongoing Central and State Government schemes and programs to deliver better outcomes.
- c. Availability of private capital and technology partnership;
- d. Access to functional and technical efficiency of private entities.
- e. Active involvement of farmer groups through participatory approach.
- f. Creating employment opportunities for skilled/unskilled persons, especially unemployed youth.
- g. Achieve better products and market linkage.

7.28.3 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.

7.28.4 Strategy of PPP- Micro Irrigation:

- a) 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.
- b) 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.
  - c) Various Agri retail business companies may be involved for facilitating market linkages of farm produce in the project area.
  - d) 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.
  - e) The PDMC scheme would be dovetailed with such PPP projects.
  - f) Project document will have clearly marked out convergence of other Centrally Sponsored Schemes of Ministries as well as State Schemes.
  - g) Transparency of complementary investments of non-Government entities and visibility of public-domain infrastructure created shall be ensured.
  - h) 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.
  - i) PPP projects should explore carbon market potential which will deliver additional income to farmers.

#### 7.28.5 Procedure for Approval and Implementation:

- a) 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.

- b) 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.
- c) 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.
- d) 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.
- e) 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 approved by the SLSC.
- f) Project should be implemented after approval of SLSC.

#### 7.28.6 Monitoring of the Projects:

In order to ensure transparency & accountability, robust technology based monitoring system must be ensured. Assets created under the project will be geo tagged and land area also be geo referenced. Payment to the beneficiary should be through DBT. Information related to the Project, cluster, funds provided etc. will be available in the public domain. An independent monitoring agency will be appointed by the State Government to closely track the performance of the projects including the quality aspects as well as benefits accruing to the farmers.

#### **7.29 Pilot Projects on Micro Irrigation in Irrigation Command Areas.**

Agriculture consumes the largest share of groundwater in India-the biggest user of ground water in the world. The past few decades have witnessed an alarming depletion of groundwater resources in the Country. It is observed that the water source for Micro Irrigation under PDMC Scheme is mostly ground water. Micro irrigation systems has not been sufficiently linked to surface water. On the other hand, the conventional flooding method of Irrigation is still largely used by farmers under command area which is highly inefficient. It is important to encourage the use surface water for Micro Irrigation for enhancing water use efficiency. Ministry of Jal Shakti has been given the goal of increasing the water

use efficiency in India by 20%. For efficient use of surface water available under command area, Ministry of Jal Shakti and MA&FW have decided to promote network of Pressurized Piped Irrigation Command (PPIC) with assured supply of water at outlet provided at the farm gate in a cluster. This outlet will be linked to micro irrigation systems for use by the farmers. The initiative will be supported under PDMC Scheme of Ministry of Agriculture. The Water User Society of the cluster will be strengthened with other schemes of the MoAFW to convert into an Economic Entity. The Economic Entity will sustain the created infrastructure on their own, relieving the Governments of burden of subsequent maintenance and subsidy.

As a joint effort, Ministry of Jal Shakti and MoAFW have decided to jointly work on a pilot project under PDMC funds. The PPIC will be created along with the micro irrigation systems (drip/sprinkler) in a pilot project. The pilot projects will cover an area of about 500 hectare or more with close proximity to achieve visible impact of the program and encourage local participation and market linkage of produce. The pilot project will emphasize on adoption/promotion on latest technologies in MI, such as sensor based MI, use of AI, IoT etc. Water User Societies/FOPs/SHGs/ Farmers Cooperatives should be actively involved in such pilot projects and shall be given the responsibility of managing/maintenance of the MI systems. NABARD may assist in mobilizing FPOs in providing market support to the farmers. Further, convergence with flagship schemes/Missions like, RKVY, Marketing, NFSM, MIDH, Mahatma Gandhi National Rural Employment Guarantee Scheme MGNREGS, Integrated Watershed Management Programme (IWMP) etc. will be emphasized which will enable better implementation outcome. These projects will help in training, capacity building and demonstrations on adoption of Micro Irrigation technologies to farmers and for future replication of the model in larger areas.

All the State/UTs/ICAR/Central Agencies are eligible to implement the pilot projects under PDMC. The proposals of pilot projects will be come through Ministry of Jal Shakti by the implementing agencies for funding under Head Quarter Budget of PDMC scheme within the budget limits. The total approved cost of the project will be provided to implementing agency as a 100% assistance during the project period. Assistance will be extended for adopting activities such as Pressurized Piped Irrigation Command (PPIC), Solar Power, Micro Irrigation systems and Water Use Efficiency applications for efficient delivery, distribution and monitoring of water. Efforts will be made for development of the cluster Water User Society into an FPC, once the project is handed over to Water User Society. The projects will be monitored by Ministry of Jal Shakti as per their standard operating Procedures. An MoU may be executed between Commissioner CADWM, MOJS, JS (NRM), MoAFW, State level Implementing Agency and the Water User Society for successful implementation of the Pilot Projects.

### 7.30 Micro Irrigation Demonstration plots in KVKs/ICAR Centers.

Micro irrigation is generally perceived as technology intensive; hence, its acceptance by farmers needs much persuasion as well as capacity building. Extension services/on field demonstration of MI systems for the farmers/farmers groups is important to achieve the desired results. Demonstration plots for micro irrigation may be set up in KVKs and ICAR institutes across the country where demonstration of MI systems shall be conducted with underlying objectives of collating, creating and imparting knowledge useful for the farmers to address the issues like administration processes and practices adopted, effectiveness, crops wise impact, effect of water/ energy, labour saving, income and employment generation etc. Such plots will also carry out demonstration of new technologies such as automation, solar based MI systems, AI/IoT based MI systems etc. and develop database. KVKs will coordinate with the State Implementing agencies/Agriculture/Horticulture Departments for training farmers/farmers groups on MI technology through these demonstration plots. The information and experience gain will also be an important asset for future research purposes.

Low MI penetration States/UTs, Vibrant Villages, Aspirational Districts shall be given priority for developing such water smart plots. The proposals for developing such plots will be submitted by the concerned/implementing ICAR/KVKs to the Ministry for funding under Head Quarter Budget of PDMC scheme within the budget limits. The total approved cost of the proposal will be provided to the ICAR/KVK as a 100% central assistance.

### 7.31 Dharti Aaba Janjatiya Gram Utkarsh Abhiyan:

Ministry of Tribal Affairs has launched Dharti Aaba Janjatiya Gram Utkarsh Abhiyan 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 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. Individual beneficiaries (FRA Patta Holders) shall be provided 90% financial assistance for the scheme components.

7.31.1 Accordingly, while implementing PDMC scheme, priority should be given by the States/UTs to such villages identified for Dharti Aaba Janjatiya Gram Utkarsh Abhiyan and inclusion of FRA patta holders should be ensured while selecting beneficiaries. **The pattern of Financial Assistance payable to the FRA Patta Holder under PDMC will be 90% while the remaining 10% would be borne by the beneficiary (FRA Patta Holders).**

## 8. Operational Aspects:

- 8.1 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.
- 8.2 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.
- 8.3 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.
- 8.4 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.
- 8.5 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 Aadhar eKYC. 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

- 8.6 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.
- 8.7 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.
- 8.8 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.
- 8.9 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.
- 8.10 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.
- 8.11 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.
- 8.12 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.
- 8.13 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.

- 8.14 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).
- 8.15 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.
- 8.16 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.
- 8.17 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.

### **9. Drip Irrigation System for states where it has been well accepted by farmers and good infrastructure is available**

- 9.1 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.
- 9.2 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.
- 9.3 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.
- 9.4 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-IV 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

9.5 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)].

9.6 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** as per specific requirement of the field in which micro-irrigation system is to be installed.

- 9.7 Assistance under the scheme is available for all types of drip irrigation systems such as on-line & in-line drip irrigation systems.
- 9.8 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.
- 9.9 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.
- 9.10 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.

## **10. Drip Irrigation System in states with low penetration**

- 10.1 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-IV a to g**.

**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

- 10.2 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.
- 10.3 The assistance will be available for all types of drip irrigation systems; on-line and in-line drip irrigation systems.
- 10.4 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.

## 11. Drip Irrigation System for North Eastern and Himalayan States

11.1 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:

- 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.
- The undulating and vertical slopes would lead to comparatively larger

length of pipes.

- 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.

11.2 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-IV h to n**.

**Table 3: Unit cost for NE&H states**

*(Cost in Rs.)*

<b>Spacing (mxm)</b>	<b>0.2 ha</b>	<b>0.4 ha</b>	<b>1 ha</b>	<b>2 ha</b>	<b>3 ha</b>	<b>4 ha</b>	<b>5 ha</b>
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

11.3 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.

## **12. Sprinkler Irrigation**

12.1 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.

12.2 Financial assistance would be restricted as per the cost of High Density Poly

Ethylene(HDPE)pipesusedinsprinklerirrigationsystems,eventhough,thebeneficiaries may use aluminium 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.

### 12.3 Portable Sprinkler Irrigation System

- 12.3.1 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.
- 12.3.2 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-V** 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
Upto 0.4 ha	13211	NA	NA
1 ha	21588	24194	0
2 ha	31167	34657	0
3 ha	NA	NA	46779
4 ha	NA	NA	58995
5 ha	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.

### 12.4 Micro Sprinklers

- 12.4.1 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.
- 12.4.2 An indicative list of system components required for installing a micro sprinkler system is at **Annexure-VI**. The indicative cost of Micro Sprinkler

irrigation system at different lateral spacing & area is given in **Table 5**:

**Table 5: Indicative cost of Micro Sprinkler Irrigation System**

(Cost in Rs)

Area(ha)	Spacing (mxm)	
	5 x 5	3 x 3
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.

## 12.5 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 VII**. 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)	
	10 x 10	8 x 8
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.

## 12.6 Semi-Permanent Sprinkler Irrigation System

12.6.1 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.

12.6.2 The indicative number of components required for various area ranges of semi-permanent sprinkler irrigation systems is enclosed at **Annexure VIII**

12.6.3 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.

## 12.7 Large Volume Sprinkler Irrigation System (Raingun)

12.7.1 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 IX**.

12.7.2 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 Sprinklers(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.

### 13. Optional Components

13.1 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.

13.2 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 XIII**.

13.3 The detailed guideline for water quality & filters selection is provided at **Annexure X&XI** respectively. The indicative cost of optional components such as sand filters, hydro cyclone filters and fertilizer tanks is annexed at **Annexure XII**

13.4 Optional items if any other than above may be allowed. However, cost of these items will be borne by the beneficiary.

### 14. Key Administrative requirements

14.1 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.
- 14.2 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.
- 14.3 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-XIV**
- 14.4 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.
- 14.5 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.

- 14.6 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.

14.6.1 Pre-installation activities

- i. The Implementing Agency need to widely publicize the scheme at the block and village levels through its existing networks.
- ii. Appoint a nodal officer who is responsible for coordination of the scheme implementation with the Districts.
- iii. Disseminate the list of suppliers and rate list approved by SLSC to the farmers.
- iv. Organize at least one District Level Seminar/Workshop with the participation of Industry.
- v. 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.
- vi. 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.
- vii. The beneficiary shall be free to purchase MI equipment from any MI manufacture out of the approved list of registered manufacturers.

14.6.2 The manufacturer/company will do/provide the following:

- i. Assess the crop water requirement as per the crop for which the system is to be provided.
- ii. Design the system as per the crop water requirement.
- iii. 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.
- iv. The Implementing agency will approve the estimate, issue work order and ensure installation
- v. 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.

14.6.3 The Company will install the system and commission it to the satisfaction of the beneficiary duly ensuring that:

- i. 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.
- ii. The date of manufacturing should be printed on the components as per

- prevailing statutory norms.
- iii. Implementing agency will ensure that MI system installed in each field bears separate QR code.
  - iv. The installed system should match the water requirement of the crop.
  - v. Necessary orientation and training is given to the beneficiary on the system maintenance & irrigating the crop with drip/sprinkler irrigation.
  - vi. 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.
  - vii. A certificate towards successful installation/commissioning of the system is obtained from the beneficiary.

#### 14.6.4 Disbursement of assistance post installation.

- i. 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.
- ii. 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.
- iii. 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.

14.7 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.

## 15 Registration of manufacturing companies

15.1 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.

- 15.2 The companies willing to participate in the scheme should be manufacturing below mentioned components and own BIS in their name:
- 15.3 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.
- 15.4 In the case of portable sprinkler irrigation system the company should manufacture coupled HDPE pipes or sprinklers and should possess respective BIS.
- 15.5 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.
- 15.6 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.
- 15.7 The company must provide guarantee of quality assurance of other components which are not manufactured by them in various technologies covered under the scheme.
- 15.8 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.
- 15.9 The registration under the scheme should be open throughout the year to enable maximum flexibility and open participation.
- 15.10 The company will supply only BIS marked material. The list of relevant BIS components is given at **Annexure XV**.
- 15.11 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.

- 15.12 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.
- 15.13 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.

## **16 After sales services & campaigns**

- 16.1 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.
- 16.2 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.
- 16.3 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.
- 16.4 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.
- 16.5 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.

- 16.6 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.
- 16.7 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.
- 16.8 The State agencies ensure the campaigns by companies should cover all beneficiaries under warranty period & could be asunder:
- |  |             |
|--|-------------|
| 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 |
- 16.9 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.

## **17 Violations & Penalties**

- 17.1 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.
- 17.2 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.

- 17.3 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:
- i. First time in a year, a warning letter may be issued to the manufacturer instructing to rectify the short coming immediately.
  - ii. 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.
  - iii. Third time in same year, a penalty of 25% of invoice value may be charged.
  - iv. 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.
- 17.4 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.
- 17.5 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.

## **18 Quality Control**

- 18.1 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.
- 18.2 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.

- 18.3 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.
- 18.4 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.
- 18.5 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.
- 18.6 The quantity of material required for conducting the test is as detailed below:

Sl. No.	Test	Test samples required
<b>Laterals as per IS : 12786 &amp; Emitting Pipes as per IS : 13488</b>		
1	Identification & composition analysis	15 meters for laterals. 50 meters for emitting pipe.
2	Thickness	
3	Pressure Test	
4	Dimensions	
<b>HDPE Pipes IS: 17425:2020</b>		
1	Identification & composition analysis	1 mts
2	Thickness	
3	Pressure Test	
4	Dimensions	
<b>UPVC Pipes IS: 4985</b>		
1	Identification & composition analysis	1 mts
2	Thickness	
3	Pressure Test	
4	Dimensions	
<b>Emitters / drippers as per IS : 13487</b>		
1	Identification & composition analysis	50 Nos
2	Flow Rate	

- 18.7 The expenditure towards the testing charges shall be met from the administrative charges under the scheme.
- 18.8 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.

## 19 Human Resource Development and Media

- 19.1 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.
- 19.2 The financial provisions for the same would be as under:

<b>a) Training of stake holders</b>		
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>b) Exposure visit of stake holders</b>		
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
<b>c) Study tour of technical staff/ field functionaries</b>		
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 per participant	100% of air/rail travel and course fee cost to be funded under Mission Management

- 19.3 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.

- 19.4 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.
- 19.5 The expenses for above Human Resource Development activities and awareness programmes etc. will be met from the administrative expenses earmarked under the scheme.

## 20 Pattern of Assistance & funding pattern

- 20.1 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. IV to IX**. For the purpose of calculating subsidy the unit cost shall include the applicable GST.
- 20.2 Funding of financial assistance - under PDMC the subsidy amount payable to the beneficiary will be shared in the ratio of 60:40 between the Central & State Governments for all states except North Eastern & Himalayan states, where the sharing will be in the ratio of 90:10. In the case of Union Territories, the scheme will be funded 100% by the Central Government.

## 21 Monitoring and Evaluation

- 21.1 Government of India has been emphasizing the use of IT such as online monitoring and information system. All Implementing Agencies/ SPVs of the States/UTs should develop a dedicated portal for the implementation of the scheme. States should ensure transparency and information should be accessible to all the stake holders as well as the public. The State portals should be integrated with the National portal or information to be made accessible through API for seamless flow of information. The State portal should be operational round the year for acceptance of farmers applications and also enabling registration facility at remote places. The State Portal should have online work flow mapping all levels of implementation to ensure effective

monitoring. The State portal should also have information like scheme guidelines, application forms, procedures, policies etc. for easy access and facilitation to beneficiary and other stakeholders

- 21.2 Periodic review meeting of the scheme would be conducted under Chairmanship of Additional Secretary/ Joint Secretary of DA&FW with all the States. The physical & financial progress must be uploaded on web-portal on monthly basis by 5<sup>th</sup> of every month for the preceding month.
- 21.3 It may also be ensured that each micro irrigation installation will be given a unique digital QR code and the same will appear on the web portal of the scheme. The physical/ financial progress report is to be submitted by 5<sup>th</sup> of next month as per the format at Annexure-III-a and III-b. Biometric registration of beneficiary & geo tagging/referencing should be made compulsory. 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.
- 21.4 Geo-tagged photograph of the installation and the beneficiary acknowledgement will be mandatory for every installation covered under the scheme and shall be made available in the State Portal.
- 21.5 National Committee on Precision Agriculture and Horticulture (NCPAH) will be involved in monitoring and reviewing the progress of scheme at the National level. NCPAH secretariat will provide necessary logistic support to the Ministry for this purpose and maintain statistical data base/information on various aspects of the Micro Irrigation.
- 21.6 DA&FW will evolve suitable mechanism for concurrent evaluation of implementation of PDMC. DA&FW may also engage suitable agency for conducting state specific/pan-India/ implementation monitoring and/or mid-term/end-term evaluation of the scheme. Defined number of projects/cases selected on scientific sampling basis shall have to be compulsorily taken up for third party monitoring and evaluation by the implementing States. Such study should be carried by establishing accurate baseline data. In general parameters such as water use efficiency, change in use of fertilizer, soil health, change in income of farmers etc. shall be evaluated.
- 21.7 Action plan for monitoring and evaluation will be decided by SLSC at the beginning of every year based on project cost, importance of the project and other parameters, preferably covering all sectors. 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 provision of administrative expenses of the scheme. The performance of the states will be reflected in the Outcome Budget document of the respective

Ministry/Department.

- 21.8 In order to have cross learnings, the entire thematic activities and outcomes may be documented with the help of ICAR, SAUs for the benefit of stakeholders. Best practices if any, be documented which can be showcased across the States/UTs.

## **22 Release of Funds**

- 22.1 60% of fund will be released as first installment to the States/UTs upon receipt of proposal in the prescribed format along with specified documents including Annual Action Plan approved by State Level Sanctioning Committee (SLSC) along with minutes of SLSC meeting approving the Annual Action Plan of the State. Suggestive formats for Annual Action Plan are enclosed at **Annexure-II**. The State will submit the utilisation certificate, corresponding physical and financial progress report along with requisite information to the DA&FW regularly.
- 22.2 The guidelines issued by the Ministry of Finance, Government of India regarding procedure for release of funds under Centrally Sponsored Schemes shall be followed for release of installments during the financial year.
- 22.3 If a State fails to submit proposal for release of funds with specified documents within reasonable period of time, the balance funds may be re-allocated to better performing States.

## **23 Administrative Expenses and Contingencies**

Administrative expenses may be met on pro-rata basis from the programme following the general guidelines of RKVY at each level to strengthen coordination, scientific planning and technical support for effective implementation. Administrative expenditure for functioning of coordinating agency/Institutions responsible for implementing the scheme, engagement of contractual staff for monitoring and operating the MI System, payments to consultants, outsourcing of specific activities, recurring expenses of various kinds, procurement of android driven smart phones/tablets for uploading of App for geo tagging, staff costs etc. are admissible. However, no permanent employment can be created, nor vehicles can be purchased. States may supplement any administrative expenditure in excess of the provisions of RKVY Guidelines from their own resources.

## 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		
							Non edible 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	6.5 to 8.3							
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 Coliform in 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 not septic 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 (Ensure 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												

374

(ii) State Summary (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	

376

State Summary (OI):

Rs. in Lakh

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
<b>Total A</b>										
<b>Administrative cost- B</b>										
<b>Total A+B</b>										
<b>% OI cost to total AAP</b>										.....%





## 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
<b>Control Unit</b>																	
1	Screen filter 10 m <sup>3</sup> /hr/ Disc filter	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
2	Ventury& manifold (1 1/2")	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
<b>Field Unit</b>																	
6	PVC Pipe 50 mm, class-III; 6 kg/cm <sup>2</sup>	m	-	-	-	-	-	-	-	-	-	48	48	48	48	48	48
7	Lateral 12 mm, Class II ; 2.5 kg/ cm <sup>2</sup>	m	-	-	-	-	-	-	-	-	-	1010	1347	20	27	32	40
8	Emitting Pipe 12 mm; Class II: (0.6 m x 1 to 4lph)	m	-	-	-	-	-	-	-	-	-	0	0	808	1122	1347	1683
9	Emitter/ Dripper 4/ 8 lph	No.	-	-	-	-	-	-	-	-	-	1020	907	0	0	0	0
10	Control Valve 50 mm	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
11	Flush Valve 50 mm	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.

## 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 X 12	10 X 10	9 x 9	8 X 8	6 X 6	5 X 5	4 X 4	3 X3	2.5 X 2.5	2 X 2	1.5 X 1.5	2.5 X 0.6	1.8 X 0.6	1.5 X 0.6	1.2 X 0.6
<b>Control Unit</b>																	
1	Screen filter 10 m <sup>3</sup> /hr/ Disc filter	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Ventury& manifold (1 1/2")	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
<b>Field Unit</b>																	
6	PVC Pipe 63 mm, class-II; 4 kg/ cm <sup>2</sup>	m	0	0	0	0	0	0	0	0	30	30	30	0	0	0	0
7	PVC Pipe 50 mm, class-III; 6 kg/ cm <sup>2</sup>	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 <sup>2</sup>	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 4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	1616	2245	2693	3367
10	Lateral 12 mm, Class II ; 2.5 kg/ cm <sup>2</sup>	m	339	406	452	508	677	813	1016	1355	0	0	0	0	0	0	0
11	Emitter/ Dripper 4/ 8 lph	No.	113	163	201	255	453	653	510	907	1293	2010	1796	0	0	0	0
12	Control Valve 63 mm	No.	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
13	Control Valve 50 mm	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	Flush Valve 63 mm	No.	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
15	Flush Valve 50 mm	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	12 X 12	10 X 10	9 x 9	8 X 8	6 X 6	5 X 5	4 X 4	3 X 3	2.5 X 2.5	2 X 2	1.5 X 1.5	2.5 X 0.6	1.8 X 0.6	1.5 X 0.6	1.2 X 0.6	
<b>Control Unit</b>																		
1	Screen filter 20 / 25 m <sup>3</sup> / hr/ Disc filter	No.	1	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	1
3	Air release Valve 1"	No.	1	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	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	1
<b>Field Unit</b>																		
6	PVC Pipe 75 mm, class-II; 4 kg/ cm <sup>2</sup>	m	0	0	0	0	0	0	0	54	54	54	54	54	54	54	54	54
7	PVC Pipe 63 mm, class-II; 4 kg/ cm <sup>2</sup>	m	0	0	0	0	54	156	156	102	102	102	102	102	102	102	102	102
8	PVC Pipe 50 mm, class-III; 6 kg/ cm <sup>2</sup>	m	156	156	156	156	102	0	0	0	0	0	0	0	0	0	0	0
9	Lateral 16 mm, Class II; 2.5 kg/ cm <sup>2</sup>	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 x 1 to 4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	4040	5611	6733	8417	
11	Emitter/ Dripper 4/ 8 lph	No.	278	400	494	625	1111	1600	1275	2267	3232	5050	4489	0	0	0	0	0
12	Control Valve 75 mm	No.	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0
13	Control Valve 63 mm	No.	0	0	0	0	1	1	1	0	0	0	0	1	1	1	1	1
14	Control Valve 50 mm	No.	1	1	1	1	0	0	0	0	1	1	1	1	1	2	2	2
15	Flush Valve 63 mm	No.	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2
16	Flush Valve 50 mm	No.	1	1	1	1	0	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	1
18	Fittings/Instalation& Accessories @5%	set	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.

## 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	12 X 12	10 X 10	9 x 9	8 X 8	6 X 6	5 X 5	4 X 4	3 X3	2.5 X 2.5	2 X 2	1.5 X 1.5	2.5 X 0.6	1.8 X 0.6	1.5 X 0.6	1.2 X 0.6
<b>Control Unit</b>																	
1	Screen filter 20 / 25 m <sup>3</sup> / 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	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
<b>Field Unit</b>																	
6	PVC Pipe 75 mm, class-II; 4 kg/ cm <sup>2</sup>	m	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
7	PVC Pipe 63 mm, class-II; 4 kg/ cm <sup>2</sup>	m	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
8	Lateral 16 mm, Class II; 2.5 kg/ cm <sup>2</sup>	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 m x 1 to 4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	8200	11500	13600	17000
10	Emitter/ Dripper 4/ 8 lph	No.	600	800	1000	1300	2300	3300	2600	4800	6600	10400	9000	0	0	0	0
11	Control Valve 75 mm	No.	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1
12	Control Valve 63 mm	No.	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2
13	Flush Valve 63 mm	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	12 X 12	10 X 10	9 x 9	8 X 8	6 X 6	5 X 5	4 X 4	3 X 3	2.5 X 2.5	2 X 2	1.5 X 1.5	2.5 X 0.6	1.8 X 0.6	1.5 X 0.6	1.2 X 0.6	
<b>Control Unit</b>																		
1	Screen filter 30 m <sup>3</sup> / hr/ Disc filter	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	
2	Screen filter 20 / 25 m <sup>3</sup> / 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 Valve 1"	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.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
<b>Field Unit</b>																		
8	PVC Pipe 90 mm, class-II; 4 kg/ cm <sup>2</sup>	m	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	
9	PVC Pipe 75 mm, class-II; 4 kg/ cm <sup>2</sup>	m	0	0	0	0	216	216	216	216	132	132	132	132	132	132	132	
10	PVC Pipe 63 mm, class-II; 4 kg/ cm <sup>2</sup>	m	216	216	216	216	336	336	336	174	174	174	174	174	174	174	174	
11	PVC Pipe 50 mm, class-III; 6 kg/ cm <sup>2</sup>	m	336	336	336	336	0	0	0	0	0	0	0	0	0	0	0	
12	Lateral 16 mm, Class II; 2.5 kg/ cm <sup>2</sup>	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 m x 1 to 4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	12120	16833	20200	25250	
14	Emitter/ Dripper 4/ 8 lph	No.	833	1200	1481	1875	3333	2400	3750	6667	9696	15150	13467	0	0	0	0	
15	Control Valve 90 mm	No	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	
16	Control Valve 75 mm	No.	0	0	0	0	1	1	1	1	2	2	2	2	2	2	2	
17	Control Valve 63 mm	No.	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4	
18	Control Valve 50 mm	No	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0	
19	Flush Valve 75 mm	No	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	
20	Flush Valve 63 mm	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	12 X 12	10 X 10	9 x 9	8 X 8	6 X 6	5 X 5	4 X 4	3 X 3	2.5 X 2.5	2 X 2	1.5 X 1.5	2.5 X 0.6	1.8 X 0.6	1.5 X 0.6	1.2 X 0.6	
<b>Control Unit</b>																		
1	Screen filter 30 m <sup>3</sup> /hr/ Disc filter	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	
2	Screen filter 20/ 25 m <sup>3</sup> /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 Valve 1.5"	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	
<b>Field Unit</b>																		
9	PVC Pipe 90 mm, class-II; 4 kg/ cm <sup>2</sup>	m	0	0	0	0	0	0	0	0	138	138	138	138	138	138	138	
10	PVC Pipe 75 mm, class-II; 4 kg/ cm <sup>2</sup>	m	222	222	222	222	222	222	222	222	276	276	276	276	276	276	276	
11	PVC Pipe 63 mm, class-II; 4 kg/ cm <sup>2</sup>	m	402	402	402	402	402	402	402	402	402	402	402	402	402	402	402	
12	Lateral 16 mm, Class II; 2.5 kg/ cm <sup>2</sup>	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 m x 1 to 4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	16000	22000	26950	33100	
15	Emitter/ Dripper 4/ 8 lph	No.	1133	1632	2015	2550	4533	4896	7700	9244	12800	20000	17800	0	0	0	0	
16	Control Valve 90 mm	No	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	
17	Control Valve 75 mm	No.	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	
18	Control Valve 63 mm	No.	2	2	2	2	2	2	2	2	4	4	4	4	4	4	4	
19	Flush Valve 75 mm	No	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
20	Flush Valve 63 mm	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	12 X 12	10 X 10	9 x 9	8 X 8	6 X 6	5 X 5	4 X 4	3 X3	2.5 X 2.5	2 X 2	1.5 X 1.5	2.5 X 0.6	1.8 X0.6	1.5 X 0.6	1.2 X 0.6	
<b>Control Unit</b>																		
1	Screen filter 30 m <sup>3</sup> / hr/ Disc filter	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	
2	Screen filter 20/ 25 m <sup>3</sup> /hr/ Disc filter	No	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	
3	Ventury& manifold (2 1/2")	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	
<b>Field Unit</b>																		
10	PVC Pipe 90 mm, class-II; 4 kg/cm <sup>2</sup>	m	114	114	114	114	114	114	114	114	168	168	168	168	168	168	168	
11	PVC Pipe 75 mm, class-II; 4 kg/cm <sup>2</sup>	m	168	168	168	168	168	168	168	168	342	342	342	342	342	342	342	
12	PVC Pipe 63 mm, class-II; 4 kg/cm <sup>2</sup>	m	450	450	450	450	450	450	450	450	456	456	456	456	456	456	456	
13	Lateral 16 mm, Class II; 2.5 kg/cm <sup>2</sup>	m	4250	5100	5667	6375	8500	10200	12750	17000	20200	25250	33667	268	373	447	559	
14	Emitting Pipe 16 mm; Class II: (0.6 m x 1 to 4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	20200	28056	33667	42083	
15	Emitter/ Dripper 4/ 8 lph	No.	1417	2040	2519	3188	5667	8160	6500	11556	16160	25250	22444	0	0	0	0	
16	Control Valve 90 mm	No	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	
17	Control Valve 75 mm	No.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
18	Control Valve 63 mm	No.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
19	Flush Valve 75 mm	No	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
20	Flush Valve 63 mm	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
	<b>Control Unit</b>																
1	Screen filter 10 m <sup>3</sup> /hr/ Disc filter	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
2	Ventury& manifold (1 1/2")	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
6	<b>Field Unit</b>																
7	HDPE Pipe 50 mm; 4 kg/cm <sup>2</sup>	m	-	-	-	-	-	-	-	-	-	54	54	54	54	54	54
8	Lateral 12 mm, Class II ; 2.5 kg/cm <sup>2</sup>	m	-	-	-	-	-	-	-	-	-	1010	1347	20	27	32	40
9	Emitting Pipe 12 mm; Class II:(0.2-0.3 m x 1 to 2-4 lph)	m	-	-	-	-	-	-	-	-	-	0	0	808	1122	1347	1683
10	Pressure regulating Emitter/ Dripper 2/ 4/ 8 lph	No.	-	-	-	-	-	-	-	-	-	1020	907	0	0	0	0
11	Control Valve 50 mm	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
12	Control Valve 63 mm	No.	-	-	-	-	-	-	-	-	-	1	1	0	0	0	0
13	Flush Valve 50 mm	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- IV 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 X 12	10 X 10	9x9	8X8	6 X 6	5 X 5	4 X 4	3 X 3	2.5 X 2.5	2 X 2	1.5 X 1.5	2.5 X 0.6	1.8 X 0.6	1.5 X 0.6	1.2 X 0.6
	<b>Control Unit</b>																
1	HDPE Pipe 50 mm; 4 kg/cm <sup>2</sup>	m	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
2	HDPE Pipe 63 mm; 4 kg/cm <sup>2</sup>	m	0	0	0	0	0	0	0	0	30	30	30	0	0	0	0
3	Lateral 12 mm, Class II ; 2.5 kg/cm <sup>2</sup>	m	339	406	452	508	677	813	1016	1355	0	0	0	0	0	0	0
4	Lateral 16 mm, Class II; 2.5 kg/cm <sup>2</sup>	m	0	0	0	0	0	0	0	0	1616	2020	2693	38	53	64	79
5	Emitting Pipe 16 mm; Class II: (0.2-0.3 m x 1 to 2-4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	1616	2245	2693	3367
6	Pressure regulating Emitter/ Dripper 2/ 4/ 8 lph	No.	113	163	201	255	453	490	765	1360	1306	2010	3627	0	0	0	0
7	Control Valve 50 mm	No.	6	6	6	6	6	6	6	6	6	6	6	4	4	4	4
8	Control Valve 63 mm	No.	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
9	Flush Valve 50 mm	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 10 m <sup>3</sup> / 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.

## 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	12 X 12	10 X 10	9x9	8X8	6 X 6	5 X 5	4 X 4	3 X 3	2.5 X 2.5	2 X 2	1.5X 1.5	2.5X0.6	1.8X0.6	1.5 X 0.6	1.2X0.6
	<b>Control Unit</b>																
1	HDPE Pipe 40 mm; 6 kg/cm <sup>2</sup>	m	172	172	172	172	112	0	0	0	0	0	0	0	0	0	0
2	HDPE Pipe 50 mm; 4 kg/cm <sup>2</sup>	m	0	0	0	0	60	172	172	172	172	172	172	0	0	0	0
3	HDPE Pipe 63 mm; 4 kg/cm <sup>2</sup>	m	0	0	0	0	0	0	0	60	60	60	60	118	118	118	118
4	HDPE Pipe 75 mm; 4 kg/cm <sup>2</sup>	M	0	0	0	0	0	0	0	0	0	0	0	62	62	62	62
5	Lateral 12 mm, Class II ; 2.5 kg/cm <sup>2</sup>	m	980	1150	1300	1400	1800	2000	2500	3333	0	0	0	0	0	0	0
6	Lateral 16 mm, Class II; 2.5 kg/cm <sup>2</sup>	m	0	0	0	0	0	0	0	0	4040	5050	6733	60	83	100	125
7	Emitting Pipe 16 mm; Class II: (0.2-0.3 m x 1 to 2-4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	4040	5611	6733	8717
8	Pressure regulating Emitter/ Dripper 2/ 4/ 8 lph	No.	350	440	540	650	1150	1224	1913	3400	3232	5050	9067	0	0	0	0
9	Control Valve 40 mm	No.	10	10	10	10	0	0	0	0	7	7	7	0	0	0	0
10	Control Valve 50 mm	No.	0	0	0	0	10	10	10	0	3	3	3	4	4	4	4
11	Control Valve 63 mm	No.	0	0	0	0	0	0	0	10	0	0	0	1	1	1	1
12	Control Valve 75 mm	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
13	Flush Valve 50 mm	No.	1	1	1	1	1	0	0	0	1	1	1	4	4	4	4
14	Flush Valve 63 mm	No.	0	0	0	0	0	1	1	1	0	0	0	1	1	1	1
15	Air release Valve 1"	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 10 m <sup>3</sup> / 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%

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 2.0 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	1.5 X 0.6	1.2x0.6
1	HDPE Pipe 50 mm; 4 kg/cm <sup>2</sup>	m	165	165	165	165	165	165	165	165	165	165	165	120	120	120	120
2	HDPE Pipe 63mm; 4 kg/cm <sup>2</sup>	m	88	88	88	88	88	88	88	88	88	88	88	80	80	80	80
3	HDPE Pipe 75mm; 4 kg/cm <sup>2</sup>	m	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90
4	Lateral 12 mm, Class II ; 2.5 kg/cm <sup>2</sup>	m	1850	2130	2350	2600	3500	4200	5200	6900	0	0	0	0	0	0	0
5	Lateral 16 mm Class II, 2.5 kg/cm <sup>2</sup>	m	0	0	0	0	0	0	0	0	8400	11400	14600	120	150	170	200
6	Emitting Pipe 16 mm; Class II: (0.2-0.3 m x 1 to 2-4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	8200	11500	13600	17000
7	Pressure regulating Emitter/ Dripper 2/ 4/ 8 lph	No.	600	800	1000	1300	2300	2448	3825	6800	6600	10400	18133	0	0	0	0
8	Control Valve 50 mm	No.	12	12	12	12	12	12	12	12	12	12	12	8	8	8	8
9	Control Valve 63 mm	No.	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4
10	Control Valve 75 mm	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
11	Flush Valve 50 mm	No.	3	3	3	3	3	3	3	3	3	3	3	8	8	8	8
12	Flush Valve 63 mm	No.	1	1	1	1	1	1	1	1	1	1	1	4	4	4	4
13	Air Release Valve 1"	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 10 m <sup>3</sup> /hr/ Disc filter	No.	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
18	Screen Filter 30 m <sup>3</sup> /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 & 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.

## NEH States- Drip Irrigation Technology- Indicative Bill of Quantities 3.0 ha at farmer's field

SN	Component Lateral to Lateral x Dripper spacing ( m x m)	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 Pipe 90mm; 4 kg/cm <sup>2</sup>	m	0	0	0	0	0	0	0	0	105	105	105	0	0	0	0
2	HDPE Pipe 75mm; 4 kg/cm <sup>2</sup>	m	0	0	0	0	240	240	240	240	144	144	144	105	105	105	105
3	HDPE Pipe 63mm; 4 kg/cm <sup>2</sup>	m	240	240	240	240	380	380	380	380	190	190	190	150	150	150	150
4	HDPE Pipe 50 mm; 4 kg/cm <sup>2</sup>	m	380	380	380	380	0	0	0	0	0	0	0	200	200	200	200
5	Lateral 16 mm Class II, 2.5 kg/cm <sup>2</sup>	m	0	0	0	0	0	0	0	0	12120	15150	20200	156	217	260	325
6	Lateral 12 mm, Class II ; 2.5 kg/cm <sup>2</sup>	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 m x 1 to 2-4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	12120	16833	20200	25250
8	Pressure regulating Emitter/ Dripper 2/ 4/ 8 lph	No.	833	1200	1481	1875	3333	3672	5738	10200	9696	15150	26933	0	0	0	0
9	Control Valve 90 mm	No	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
10	Control Valve 75 mm	No	3	3	3	3	3	3	3	3	5	5	5	1	1	1	1
11	Control Valve 63 mm	No.	8	8	8	8	8	8	8	8	8	8	8	2	2	2	2
12	Control Valve 50 mm	No.	0	0	0	0	0	0	0	0	0	0	0	8	8	8	8
13	Flush Valve 75mm	No.	3	3	3	3	3	3	3	3	5	5	5	0	0	0	0
14	Flush Valve 63mm	No.	8	8	8	8	8	8	8	8	8	8	8	1	1	1	1
15	Flush Valve 50mm	No.	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4
16	Air Release Valve 1"	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 Valve 1.5"	No.	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
20	Throttle Valve 2"	No.	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
21	Screen Filter 30 m <sup>3</sup> /hr/ Disc filter	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
22	Screen Filter 20/25 m <sup>3</sup> /hr/ Disc filter	No.	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0
23	Screen Filter 10 m <sup>3</sup> /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 & Manifold 2 "	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	1.5 X 0.6	1.2x0.6
1	HDPE Pipe 90mm; 4 kg/cm <sup>2</sup>	m	0	0	0	0	0	0	0	0	160	160	160	150	150	150	150
2	HDPE Pipe 75mm; 4 kg/cm <sup>2</sup>	m	245	245	245	245	245	245	245	245	300	300	300	300	300	300	300
3	HDPE Pipe 63mm; 4 kg/cm <sup>2</sup>	m	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275
4	HDPE Pipe 50 mm; 4 kg/cm <sup>2</sup>	m	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
5	Lateral 16 mm Class II, 2.5 kg/cm <sup>2</sup>	m	0	0	0	0	0	0	0	0	16160	20200	26933	180	250	300	375
6	Emitting Pipe 16 mm; Class II: (0.2-0.3 m x 1 to 2-4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	16000	22000	26670	33100
7	Lateral 12 mm, Class II ; 2.5 kg/cm <sup>2</sup>	m	3400	4080	4533	5100	6800	8160	10200	13600	0	0	0	0	0	0	0
8	Pressure regulating Emitter/ Dripper 2/ 4/ 8 lph	No.	1133	1632	2015	2550	4533	4896	7700	13600	12800	20000	35911	0	0	0	0
9	Control Valve 90 mm	No.	0	2	0	0	0	0	0	0	2	2	2	2	2	2	2
10	Control Valve 75 mm	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 30 m <sup>3</sup> /hr/ Disc filter	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
24	Screen Filter 20/25 m <sup>3</sup> /hr/ Disc filter	No.	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0
25	Screen Filter 10 m <sup>3</sup> /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.

## NEH States- 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	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 Pipe 90mm; 4 kg/cm <sup>2</sup>	m	124	124	124	124	124	124	124	124	180	180	180	180	180	180	180
2	HDPE Pipe 75mm; 4 kg/cm <sup>2</sup>	m	180	180	180	180	180	180	180	180	372	372	372	375	375	375	375
3	HDPE Pipe 63mm; 4 kg/cm <sup>2</sup>	m	300	300	300	300	300	300	300	300	300	300	300	310	310	310	310
4	HDPE Pipe 50 mm; 4 kg/cm <sup>2</sup>	m	212	212	212	212	212	212	212	212	212	212	212	200	200	200	200
5	Lateral 16 mm Class II, 2.5 kg/cm <sup>2</sup>	m	0	0	0	0	0	0	0	0	20200	25250	33667	268	373	447	559
6	Emitting Pipe 16 mm; Class II; (0.2-0.3 m x 1 to 2-4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	20200	28056	33667	42083
7	Lateral 12 mm, Class II ; 2.5 kg/cm <sup>2</sup>	m	4250	5100	5667	6375	8500	10200	12750	17000	0	0	0	0	0	0	0
8	Pressure regulating Emitter/ Dripper 2/ 4/ 8 lph	No.	1417	2040	2519	3188	5667	6120	9563	17000	16610	25250	44889	0	0	0	0
9	Control Valve 90 mm	No.	2	2	2	0	0	0	0	0	0	0	0	2	2	2	2
10	Control Valve 75 mm	No.	4	4	4	4	4	4	4	4	4	4	4	2	2	2	2
11	Control Valve 63 mm	No.	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
12	Control Valve 50 mm	No.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
13	Flush Valve 75 mm	No.	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1
14	Flush Valve 63 mm	No.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
15	Flush Valve 50 mm	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 <sup>3</sup> /hr/ Disc filter	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
23	Screen Filter 20/25 m <sup>3</sup> /hr/ Disc filter	No.	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0
24	Screen Filter 10 m <sup>3</sup> /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.

## Annexure-V

## 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; 3.2 kg/cm <sup>2</sup> 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 75 cm long	No	3	5	9	NA	NA	NA
4	Sprinkler Nozzles (1.7 to 2.8 kg/cm <sup>2</sup> ) ;IS 12232 Part I Brass/Plastic	No	3	5	9	NA	NA	NA
5	Quick coupled HDPE Bend with Coupler 90 <sup>0</sup> (63/50 mm) ;	No	1	1	1	NA	NA	NA
6	Quick coupled HDPE Pump Connecting Nipple 63 mm;	No	1	1	1	NA	NA	NA
7	Quick coupled HDPE End Plug (63 mm) ;	No	1	2	2	NA	NA	NA
8	Quick coupled HDPE Tee with Coupler (63mm) ;	No	1	1	1	NA	NA	NA
Using 75 mm coupler								
SN	Components/ Area (Ha)	Unit	0.4	1	2	3	4	5
1	HDPE Pipes with Quick coupled (Pipe of Class I; 2.5 kg/cm <sup>2</sup> IS:17425:2020, 75 mm 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 75 cm long	No	NA	5	9	NA	NA	NA
4	Sprinkler Nozzles (1.7 to 2.8 kg/cm <sup>2</sup> ) ;IS 12232 Part I Brass/Plastic	No	NA	5	9	NA	NA	NA
5	Quick coupled HDPE Bend with Coupler 90 <sup>0</sup> (75 mm) ;	No	NA	1	1	NA	NA	NA
6	Quick coupled HDPE Pump Connecting Nipple , 75 mm;	No	NA	1	1	NA	NA	NA
7	Quick coupled HDPE End Plug (75 mm) ;	No	NA	2	2	NA	NA	NA
8	Quick coupled HDPE Tee with Coupler (75 mm);	No	NA	1	1	NA	NA	NA
Using 90 mm coupler								
SN	Components/ Area (Ha)	Unit	0.4	1	2	3	4	5
1	HDPE Pipes with Quick coupled (Pipe of Class I; 2.5 kg/cm <sup>2</sup> ; IS:17425:2020, 90 mm 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 75 cm long	No	NA	NA	NA	11	14	16
4	Sprinkler Nozzles (1.7 to 2.8 kg/cm <sup>2</sup> ) ;IS 12232 Part I Brass/Plastic	No	NA	NA	NA	11	14	16
5	Quick coupled HDPE Bend with Coupler 90 <sup>0</sup> (90 mm) ;	No	NA	NA	NA	2	2	4
6	Quick coupled HDPE Pump Connecting Nipple, 90 mm;	No	NA	NA	NA	1	1	1
7	Quick coupled HDPE End Plug (90 mm) ;	No	NA	NA	NA	2	2	2
8	Quick coupled HDPE Tee with Coupler (90 mm);	No	NA	NA	NA	1	1	2

Note: In the cases of area up to 2 ha, 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.

## Indicative Bill of Quantities (BoQ) for Micro Sprinkler Irrigation System

SN	Components/ Area (Ha)	5mx5m						3m x 3m						
		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	PVC Pipe 90 mm, class-II; 4 kg/cm <sup>2</sup>	m	0	0	0	0	0	160	0	0	0	0	0	150
2	PVC Pipe 75 mm, class-II; 4 kg/cm <sup>2</sup>	m	30	54	80	100	252	600	30	54	100	140	220	520
3	PVC Pipe 63 mm, class-II; 4 kg/cm <sup>2</sup>	m	66	102	150	180	402	0	66	102	150	180	380	0
4	20 mm LLDPE plain laterals, Class II; 2.5 kg/cm <sup>2</sup>	m	0	2000	4000	6000	8000	10000	0	3350	6660	10000	13330	16600
5	Lateral 16 mm, Class II; 2.5 kg/cm <sup>2</sup>	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	Control Valve 90 mm	No.	0	0	0	0	2	2	0	0	0	0	0	1
8	Control Valve 75 mm	No.	1	1	1	1	4	4	1	1	1	1	4	4
9	Control Valve 63 mm	No.	1	1	4	4	0	0	1	1	4	4	0	0
10	Flush Valve 75 mm	No.	0	0	0	0	4	6	0	0	0	0	4	4
11	Flush Valve 63 mm	No.	1	1	1	1	0	0	1	1	1	1	0	0
12	Flush Valve 50 mm	No.	2	0	0	0	0	0	0	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"	No.	1	1	0	0	0	0	1	1	1	1	1	1
15	Non Return Valve - 2.5"	No.	0	0	1	1	1	1	0	0	0	0	0	0
16	Throttle Valve - 2"	No.	1	1	0	0	0	0	1	1	1	1	1	1
17	Throttle Valve - 2.5"	No.	0	0	1	1	1	1	0	0	0	0	0	0
18	Screen filter 30 m <sup>3</sup> / hr	No.	0	1	1	1	1	1	0	1	1	1	1	1
19	Screen filter 20/25 m <sup>3</sup> / hr	No.	1	0	0	0	0	0	1	0	0	0	0	0
20	By-pass Assembly - 2.5"x2"	No.	0	0	1	0	0	0	0	0	0	0	0	0
21	By-pass Assembly - 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.

## Annexure-VII

## 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 90 mm, class-II; 4 kg/cm <sup>2</sup>	m	0	0	80	210	235	310	0	0	80	210	235	310
2	PVC Pipe 75 mm, class-II; 4 kg/cm <sup>2</sup>	m	30	60	150	320	420	480	30	60	150	320	420	480
3	PVC Pipe 63 mm, class-II; 4 kg/cm <sup>2</sup>	m	66	110	0	0	0	0	66	110	0	0	0	0
4	25/32 mm LLDPE plain laterals, 2.5 kg/cm <sup>2</sup> - 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 90 mm	No.	0	0	0	0	2	2	0	0	0	0	2	2
8	Control Valve 75 mm	No.	0	1	1	1	4	4	0	1	2	4	4	4
9	Control Valve 63 mm	No.	1	1	2	0	0	0	1	1	2	0	0	0
10	Control Valve 32 mm	No.	0	20	34	52	68	84	0	24	36	54	72	90
11	Flush Valve 75 mm	No.	0	0	1	4	4	4	0	1	2	4	4	4
12	Flush Valve 63 mm	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 30 m <sup>3</sup> / hr	No.	0	0	1	1	1	1	0	0	1	1	1	1
20	Screen filter 20/25 m <sup>3</sup> /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 Pipe 90 mm, class-II; 4 kg/cm <sup>2</sup>	0	0	0	0	0	173
2	PVC Pipe 75 mm, class-II; 4 kg/cm <sup>2</sup>	0	0	110	135	156	0
3	PVC Pipe 63 mm, class-II; 4 kg/cm <sup>2</sup>	96	154	273	340	395	440
4	PVC Pipe 25 mm Class-V; 10 Kg/cm <sup>2</sup>	350	950	1904	0	0	0
5	32 mm LLDPE plain laterals, 2.5 kg/cm <sup>2</sup> - Class II	0	0	0	3006	4000	5014
6	Control Valve 63 mm	1	1	2	2	2	2
7	By-pass Assembly - 2 .5" x 2"	1	1	1	1	1	1
8	Control Valve 25 mm	12	20	42	51	80	88
9	Sprinkler Nozzles (1.7 to 2.8 kg/cm <sup>2</sup> ) ;IS 12232 Part I Brass/Plastic	12	12	12	12	12	12
10	Screen filter 20/25 m <sup>3</sup> /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.

## Annexure-IX

## 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; 4 kg/cm <sup>2</sup> IS:17425:2020 63 mm diameter & 6m long)	30	NA	NA	NA	NA
2	Raingun Sprinkler 1.25" female threaded connection	1	N.A	N.A	N.A	N.A
3	Tripod Stand with adapter to feeder line 1.25"x1.5 m	1	N.A	N.A	N.A	N.A
4	Quick coupled HDPE Bend with Coupler 90 <sup>0</sup> (63/50 mm) ;	1	N.A	N.A	N.A	N.A
5	Quick coupled HDPE Pump Connecting Nipple 63 mm;	1	N.A	N.A	N.A	N.A
6	Quick coupled HDPE End Plug (63 mm) ;	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	Screen filter 20/25 m3/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
Using 75 mm coupler						
SN	Components/ Area (ha)	1	2	3	4	5
1	HDPE Pipes with Quick coupled (Pipe of Class 3; 4 kg/cm <sup>2</sup> IS:17425:2020 75 mm diameter & 6m long)	30	42	NA	NA	NA
2	Raingun Sprinkler 1.25" female threaded connection	1	1	N.A	N.A	N.A
3	Tripod Stand with adapter to feeder line 1.25"x1.5 m	1	1	N.A	N.A	N.A
4	Quick coupled HDPE Bend with Coupler 90 <sup>0</sup> (75 mm) ;	1	1	N.A	N.A	N.A
5	Quick coupled HDPE Pump Connecting Nipple , 75 mm;	1	1	N.A	N.A	N.A
6	Quick coupled HDPE End Plug (75 mm) ;	1	1	N.A	N.A	N.A
7	Quick coupled HDPE Tee with Coupler (75 mm);	1	1	N.A	N.A	N.A
8	Screen filter 20/25 m3/hr	1	1	N.A	N.A	N.A
9	By-pass Assembly - 2"x1,5"	1	1	N.A	N.A	N.A
Using 90 mm coupler						
SN	Components/ Area (ha)	1	2	3	4	5
1	HDPE Pipes with Quick coupled (Pipe of Class 3; 4 kg/cm <sup>2</sup> IS:17425:2020 90 mm diameter & 6m long)	NA	NA	45	52	60
2	Raingun Sprinkler 1.5" female threaded connection	N.A	N.A	1	1	1
3	Tripod Stand with adapter to feeder line 1.5"x1.5 m	N.A	N.A	1	1	1
4	Quick coupled HDPE Bend with Coupler 90 <sup>0</sup> (90 mm);	N.A	N.A	1	1	1
5	Quick coupled HDPE Pump Connecting Nipple, 90 mm;	N.A	N.A	1	1	1
6	Quick coupled HDPE End Plug (90 mm) ;	N.A	N.A	1	1	1
7	Quick coupled HDPE Tee with Coupler (90 mm);	N.A	N.A	1	1	1
8	Screen filter 30 m3/ hr	N.A	N.A	0	1	1
9	Screen filter 20/25 m3/hr	N.A	N.A	1	0	0
10	By-pass Assembly - 2"x1,5"	N.A	N.A	1	0	0
11	By-pass Assembly - 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.

**Annexure X****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*

## Annexure XI

## Guidelines for Selection of Filter

Water Quality	Type of Filter	Remarks
Good without any physical and biological impurities.	Screen	Screen filters 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

<b>SN</b>	<b>Optional Component</b>	<b>Appr. Price (Rs)</b>
<b>1</b>	<b>Sand Filter with back wash assembly IS 14606</b>	
a	10 m <sup>3</sup> /hr x 1.5"	9775
b	20 m <sup>3</sup> /hr x 2"	13225
c	25 m <sup>3</sup> /hr x 2"	16100
d	30 m <sup>3</sup> /hr x 2.5"	18400
<b>2</b>	<b>Hydro cyclone Filter IS 14743</b>	
a	20 m <sup>3</sup> /hr x 2"	4025
b	25 m <sup>3</sup> /hr x 2"	4600
c	30 m <sup>3</sup> /hr x 2.5"	6325
<b>3</b>	<b>Fertilizer Tank with Assembly IS 14483 - Part III</b>	
a	30 litres	3220
b	60 litres	5750
<b>4</b>	<b>Winder</b>	
	Drip Line Winder	2000

## Annexure- XIII

**Other Interventions to be provided as optional, if and only if a farmer opted to install micro-irrigation System in his/her field**

<b>SN</b>	<b>Activities</b>	<b>Cost Norms</b>
1	Water harvesting system ,Diggi for individuals/community	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 pro rata 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.	<b>50% of the total cost</b> of installation limited to Rs. 25,000 / - per unit
3	Restoration / Renovation of small tank	<b>50% of the cost</b> of renovation limited to Rs. 15,000 / - per unit
4	Recharge of defunct bore well	<b>50% of the cost</b> of recharging limited to Rs. 5000 / - per unit
5	Pipe/pre-cast distribution system	<b>50% of the cost</b> of system limited to Rs. 10,000 / - per ha
6	Water Lifting Devices (Electric, Diesel, wind / Solar)	<b>50% of the cost</b> of installation limited to Rs. 15,000/ - per electric / diesel unit and Rs. 50,000/- per solar / wind unit
7	Petrol Irrigation Pumps- up to 15 hp	<b>Rs. 10000/unit or 50% of the cost</b> of the system (including installation) whichever is less.

रजिस्ट्री सं० डी० एल०-33004/99

REGD. NO. D. L.-33004/99



# भारत का राजपत्र The Gazette of India

असाधारण

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)

PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित

PUBLISHED BY AUTHORITY

सं. 803]

नई दिल्ली, मंगलवार, मार्च 21, 2017/फाल्गुन 30, 1938

No. 803]

NEW DELHI, TUESDAY, MARCH 21, 2017/PHALGUNA 30, 1938

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 मीथे प्राप्त करने में समर्थ बनाता है और आधार किसी व्यक्ति की पहचान को साबित करने के लिए बहुल 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) अनुसूचित 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 सूक्ष्म 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 मंचित निधि से उपगत पूर्ण अथवा आंशिक आवर्ती व्यय अंतर्द्वित 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 हैं, 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](http://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 संबद्ध 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 हैड 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](http://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](http://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](http://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]

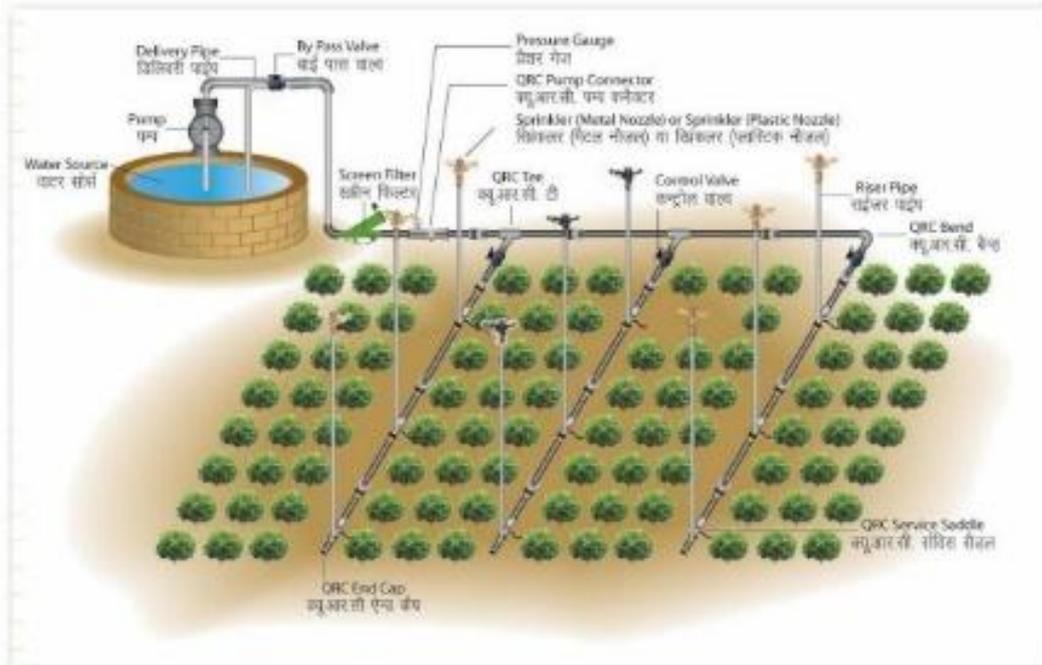
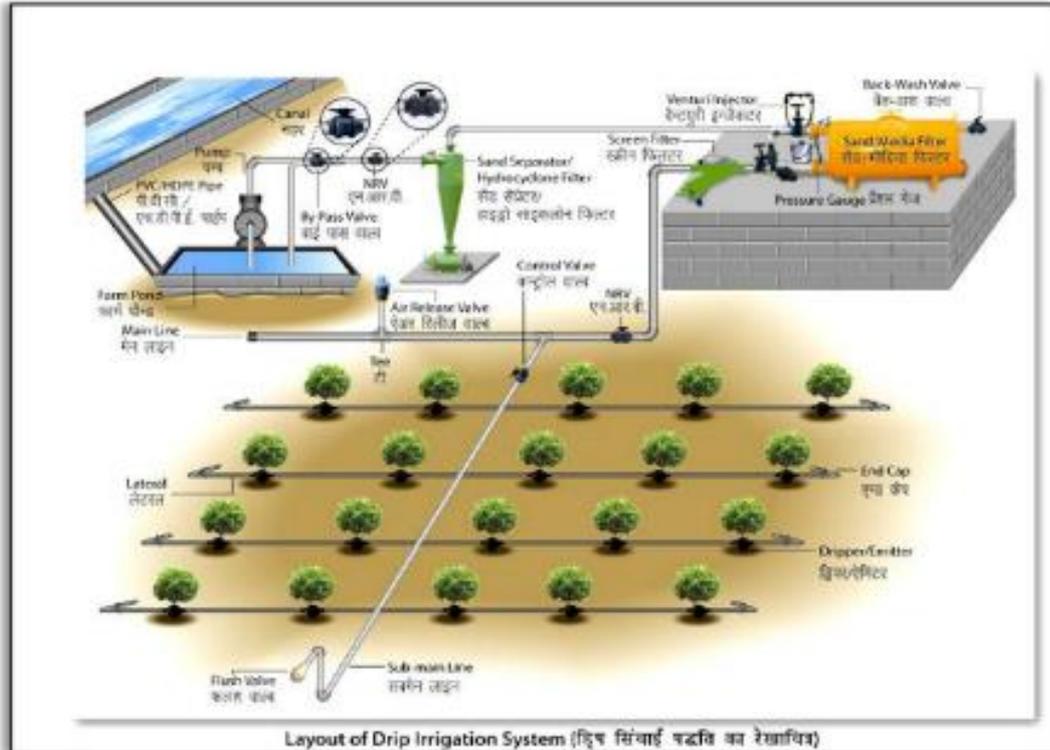
R. B. SINHA, Jt. Secy.

## List of BIS Standards

SN	Component Description	BIS
1	Polyethylene pipes for Irrigation- Laterals with amendment number 6	IS 12786: 1989 (reaffirmed 2009)
2	Irrigation Equipment-Emitters- Specification	IS 13487: 1992 (reaffirmed 2009)
3	Irrigation Equipment-Emitting pipes system- Specification (first revision)	IS 13488: 2008 (reaffirmed 2014)
4	Irrigation Equipment-Strainer type filters Specification (first revision)	IS 12785: 1994 (reaffirmed 2011)
5	Irrigation equipment rotating sprinkler Part I, Design and Operational requirements (1st revision)	IS 12232 (Part I) -1996 (reaffirmed 2011)
6	Irrigation equipment rotating sprinkler Part 2, Test method for uniformity of distribution (1st revision)	IS 12232 (Part 2) -1995 (reaffirmed 2011)
7	Fertilizer and Chemicals Injection system Part I Venturi Injector	IS 14483 (Part 1) 1997 (reaffirmed 2009)
8	Irrigation Equipment-Media Filters- Specification	IS 14606: 2022
9	Irrigation Equipment-Hydro cyclone filter-Specification	IS 14743: 1999 (reaffirmed 2009)
10	Unplasticized PVC pipes for agriculture - Specifications	IS 4985 – 2021 TYPE B
11	Irrigation Equipment –Quick Coupled Polyethylene Pipes and Fittings for Sprinkler Irrigation Systems.	IS 17425:2020
12	High Density Polyethylene Pipes for water supply- Specification (fourth revision)	IS 4984 : 2016
13	Fertilizer & Chemical Injector System- Part 2 Water Driven Chemical Injector Pump	IS:14483 Part 2 – 2002
14	Fertilizer & Chemical Injector System- Part 3 Fertilizer Tank	IS:14483 Part 3 – 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 (Part1 to Part7)
18	Fabricated PVC-U fittings	IS:10124:2009 (Part1 to Part13)
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**



Item No. 16

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 1093/2024

News Item titled "Study finds wide variety of nitrogen-use efficiency in Indian rice varieties" appearing in The Hindu dated 11.08.2024

Date of hearing: 27.10.2025

**CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON  
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER**

Respondents: Mr. Ashish Tiwari, Adv. for R - 1  
Mr. Gigi. C. George & Mr. Sunil Kumar, Advs. for R - 2  
Mr. Mohit Singhal, Adv. for CPCB

**ORDER**

1. In this Original Application, registered *suo-motu*, Tribunal is considering the issue of nitrogen-use efficiency in Indian rice varieties. This issue is being considered in the background of the fact that N-fertilizers are the main source of nitrous oxide and ammonia pollution of air and nitrate/ammonium pollution of water, affecting health, biodiversity and climate change.

2. The replies on behalf of respondents have been filed. Learned Counsel appearing for respondent no. 1 has referred to the strategies to reduce N<sub>2</sub>O emissions from the rice paddy fields as disclosed in paragraph 12 of the reply of respondent no. 1 dated 24.03.2025.

3. Respondent no. 2 has filed the reply dated 13.10.2025 but it has not reflected upon 06 strategies as suggested by respondent no. 1 in paragraph 12 of its reply. Respondent no. 2 in the reply dated 13.10.2025 has stated about the steps taken by the said respondent as under:

“7. Further the Ministry of Agriculture is promoting improved rice cultivation practices such as System of Rice Intensification (SRI) and Direct Seeded Rice (DSR) to boost the productivity, conserve resources, and reduce environmental impact. As per the research findings of ICAR-NRRI, Cuttack (2024), Direct Seeded Rice (DSR) has emerged as a promising alternative to traditional puddled transplanting methods. DSR offers numerous advantages, including reduced water usage, lower labour requirements, and enhanced profitability. Further, ICAR-NRRI (2016) reported that the System of Rice Intensification (SRI) is perhaps the best current example of options available to farmers and nations to promote community-led agricultural growth, while managing soil and water resources more sustainably and even enhancing their future productive capacity.

8. It is submitted that the agriculture is a State subject. Government of India is supporting the efforts of State governments to ensure balanced use of fertilizers and to improve soil health through its various schemes which include the following:

i. *Soil Health Card (SHC) / Soil Health Management (SHM):* Under this Scheme, Soil Health Cards are issued to farmers. These cards contain an advisory based on the soil nutrient status of a farmer’s holding and recommendations on dosage of different nutrients needed.

ii. *Crop Diversification Programme:* this program is being implemented in traditional green revolution states of Punjab, Haryana, and Western UP to encourage a shift from water-intensive paddy to pulses, oilseeds, nutri-cereals, cotton, and agroforestry to conserve soil fertility and groundwater.

iii. *Paramparagat Krishi Vikas Yojana (PKVY) and Mission Organic Value Chain Development for North Eastern Region (MOVCDNER)* which aim at promoting organic farming to reduce excess use of nitrogenous fertilizers including urea.”

4. Learned Counsel for respondent no. 2 seeks time to place on record the details of the programmes/schemes along with a copy thereof which have been mentioned in paragraphs 7 and 8 above. He also seeks time to file further affidavit reflecting upon the strategies suggested in paragraph 12 by respondent no. 1.

5. Let the same be filed within six weeks.
6. List on 27.01.2026.

Prakash Shrivastava, CP

Dr. A. Senthil Vel, EM

October 27, 2025  
Original Application No. 1093/2024  
R

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI  
ORIGINAL APPLICATION NO. 1093 OF 2024**

**IN THE MATTER OF:**

News Item titled "Study finds wide variety of nitrogen-use efficiency in India rice varieties" appearing in the Hindu dated 11.08.2024

**VAKALATNAMA**

I/We, Dr. Sourav Kumar Khan working as Assistant Commissioner (NRM), at DA&FW, Krishi Bhavan, New Delhi, Aged 35 years, the above named Respondent No 2 (MoAFW) in the above applications/Suit Appeal/Reference do hereby appoint and retain GIGI.C.GEORGE, Advocate for National Green Tribunal, to act and appear for me/us in the above application/Suit/appeal/Reference and on my/Our behalf to conduct and prosecute or (defend) the same and all proceedings that may be taken in respect of any application connected with the same or any decree or order passed therein, including proceedings in taxation and applications for Review, to file and obtain return of documents, and to deposit and receive money on my /our behalf in the application/suit/appeal/Petition/Reference and in applications of Review and to represent me/us and take all necessary steps on my behalf in the above matter. I/we agree to ratify all acts done by the aforesaid advocate in pursuance of this authority.

Date this the.....<sup>15<sup>th</sup></sup>.....day of January.....of 2026

IDENTIFIED SATISFIED AND ACCEPTED:

  
(GIGI.C.GEORGE, Advocate)

.....<sup>Sourav Kumar Khan</sup>.....

PETITIONER(S)/ RESPONDENTS(S)  
APPELLANT(S)

The address for service of the said advocate is office

**GIGI.C.GEORGE  
ADVOCATE  
STANDING COUNSEL (UOI)  
NGT  
M-9810625315**