



GOVERNMENT OF ASSAM
DIRECTORATE OF AGRICULTURE
KHANAPARA, GUWAHATI::22

No Agri /Plan/Infor/Misc_Corr/Pt-II/357/2023-24/28 /1662

Dated: 26/10/2023

From : Bhaskar Pegu, IAS.
Director of Agriculture,
Assam, Khanapara, Guwahati-22

To : Bipul Das
The Joint Secretary to the Govt. of Assam,
Agriculture Department, Dispur, Guwahati-6

Sub : Action Taken Reports on 1st & 2nd C.S. Conference.


Ref. : No. PDP.322295/6, Dtd.20/10/2023

Sir,

With reference to the subject cited above, I have the honour to submit herewith the updated Action Taken Reports on 1st & 2nd C.S. Conference for favour of your kind information and necessary action.

Enclosed: As stated above.


Yours faithfully,


Director of Agriculture, Assam,
Khanapara, Guwahati-22

Memo No Agri /Plan/Infor/Misc_Corr/Pt-II/357/2023-24/28 -A, /1663-64
Copy to:-

Dated: 26/10/2023

1. The P.S. to the Additional Chief Secretary to the Govt of Assam & APC, Agriculture Department, Dispur, Guwahati-6 for favour of his kind appraisal.
2. The Director (PC) T & D Department, to the Govt. of Assam for kind information.


Director of Agriculture, Assam,
Khanapara, Guwahati-22

o/c

Action Taken Report on Dharamshala Conference (1st CS Conference)

I. DISTRICT AND CROP WISE PLANS ON AGRO CLIMATIC ZONES

The State is divided into six agro climatic zones as follows

1. *North Bank Plains*: Lakhimpur, Dhemaji, Sonitpur & Darrang Districts
2. *Upper Brahmaputra Valley*: Golaghat, Jorhat, Sivasagar, Dibrugarh & Tinsukia Dists
3. *Central Brahmaputra Valley*: Nagaon & Morigaon Dists
4. *Lower Brahmaputra Valley*: Dhubri, Kokrajhar, Bongaigaon, Chirrang, Goalpara, Barpeta, Nalbari, Baksa and Kamrup Dists
5. *Barak Valley*: Cachar, Karimganj and Hailakandi Dists
6. *Hill Zone*: Karbi Anglong & North Cachar (Dima Hasao)

Currently, the farmers of the State follow a mixed cropping pattern. There are numbers of challenges associated with the cropping pattern in Assam. These relate to:

1. Large tracts of farmland under mono-cropping
2. Huge area under rice fallows (around 10 lakh ha)
3. Poor crop planning and delivery of extension services as per agro climatic zones

To address the above, Government of Assam (GoA) has taken a number of initiatives which are enumerated below:

1. Crop diversification:

- a) **Assam Millets Mission (AMM)**: In line with the adoption of India sponsored resolution, 2023 is being celebrated as international year of Millets by United Nations. The State Govt has already taken advance steps and set up Assam Millets Mission (AMM) for a period of seven years from 2022-23 to 2028-29 with total outlay of Rs 200 Cr. The key activities under the Mission include: (i) Market and nutrition supportive production (ii) post-harvest & value addition side aspects (iii) Market linkages (iv) Better nutrition, healthy & disease-free Assam through millets. This is being integrated with Poshan Abhiyan and the Mid day meal scheme to ensure adoption of these Nutri-cereals in the diet of school going and pre-school children as well as pregnant mothers. For the first four years, the target is to bring around 20,000 ha area under millets cultivation and increase productivity from 600 Kg per ha to 1200 Kg per ha.
- b) **Assam Fodder Mission**: The State Govt has set up Assam Fodder Mission (AFM) for a period of seven years from 2022-23 to 2028-29 with an outlay of Rs 120 Cr. The key activities under the Mission include: (i) Fodder seed production & distribution (ii) Fodder production demonstrations (iii) Post harvest management & mechanization (iv) Awareness generation, training & capacity building. The annual requirement of green fodder in the state is around 23 lakh metric ton but only 85,000 metric ton is produced in the state. Thus, there is a deficit of around 22 lakh metric tons. In the first four years i.e., upto 2026, the target is to bring around 22,000 ha under fodder cultivation.
- c) **Protected cultivation**: Protected cultivation of high value horticulture crops and exotic crops is another potential area towards exponential increase in farm income. Currently, the

area under protected cultivation is only 162 ha which will be scaled up to 350 ha by 2026.

- d) **Oil palm cultivation (NMEO-OP):** The GOI has identified 3.75 lakh ha area potential for oil palm cultivation and set a target of 2 lakh Ha area to be covered under oil palm cultivation till 2025-26.

The GOI has approved 18 districts for implementation of the scheme and accordingly the districts have been divided into six zones for oil palm cultivation. 2084 ha area has already been brought under oil palm cultivation.

Four Nurseries have been set up through four FPCs. Three zones have already been allotted to Four processors (Patanjali Foods, Godrej Agrovit, K E Cultivation Pvt Ltd and 3F Oil Palm Ltd).

19 Nurseries have been setup by the processor companies for production of Oil-palm seedlings.

20.65 Lakh sprouts have been sown, and these seedlings will be ready for plantation in farmers field from February 2024 onwards.

200 ha area have been planted under NMEO-OP till date.

Exposure visits for farmers to oil palm growing states are being carried out

Land acquired for one Processing unit at Dhing, Nagaon by Patanjali Foods Ltd

- e) **Natural farming :** NF inputs like Jivamrut, Ghana Jivamrut, Beejamrit, Acchadan, zero tillage etc. are gaining popularity among NF practitioners

- 2. **Utilization of rice fallow areas for other crops:** It is estimated that the State has around 10 lakh ha of rice fallow area which is left unutilized by farmers after taking up rice in Kharif/ Sali rice. It is also estimated that out of this 10-lakh ha area, around 6 lakh ha area has either irrigation availability or residual moisture availability. To utilize this area, the Govt is taking up the following initiatives:

- a. **Mustard area expansion:** Currently, the area under mustard cultivation is only 2.87 lakh ha and production are 1.85 lakh metric tons which is sufficient to meet 20% of the State's mustard edible oil requirement. Additional 4 lakh hectare area clubbed with high yielding varieties, scientific package of practices and technical support of ICAR-DRMR will be brought under mustard in next 4 years. This will produce around additional 6 lakh metric ton of mustard which can meet the remaining 80% of the State's edible oil requirement and help in achieving self-sufficiency in mustard oil.
- b. **Pulses area expansion:** Similarly, current pulses area is only about 1.42 lakh hectares and production is 1.09 lakh metric tons. To meet the State's demand, additional 3 lakh hectare area is planned to be brought under pulses cultivation in the next four years. Area expansion along with productivity enhancement through high yielding varieties and scientific package of practices, the total production is expected to go up to 3.5 lakh metric tons which can meet the State's requirement through in-house production.
- c. **Maize area expansion:** Maize is an ingredient of animal feed, poultry feed and also used in silage making. The current area under maize cultivation in the state is 45,000 hectares (and production is around 1 lakh metric ton) which is planned to be expanded to 2.7 lakh hectares in next four years. This will be supplemented by high yielding hybrids and technical support of Indian Institute of Maize Research (IIMR). The targeted production

after four years is about 7.3 lakh metric tons which will largely feed into State's silage making requirements and also ethanol production (new projects).

- d. **Potato area expansion:** Current potato area in the state is around one lakh hectare & production is around 7.50 lakh MT. Additional 3 lakh hectare area is planned to be brought under potato cultivation to be accommodated through introduction of short and medium duration rice varieties in Sali season. The targeted production is around 30 lakh metric ton after four years. These efforts are being supported by International Potato Center under APART for next two years.

II. DIGITAL AGRICULTURE-AGRISTACK

Interventions in digital agriculture under Agri stack comprises of the three basic building blocks:

- a) Farmers' database- dynamically linked to their plots and list of all farmers along with Aadhaar
- b) Geo referenced plots
- c) Real-time digital crop survey

Present Status of Digital Agriculture under Agri stack in Assam:

- The State Government has formed two committees, namely Steering and Implementation committee.
- The State of Assam has signed a MoU with Government of India on 'Digital Public Infrastructure (DPI) for Agriculture'-
 - i. in the initial phase of under this initiative, it will involve creation or upgradation of the three core registries namely, Farmer Registry, Geo-Referenced Village Maps and Crop Sown/Grown Registry at the State Level and the synchronization of selected data from the three State Registries to the Centre by following a strict data federation model between the Centre and the States.
 - ii. The States and its farmers would benefit from DPI and the use of ICT in Agriculture in many ways including the followings:
 1. Optimizing Agricultural Scheme budgets
 2. Getting better & quicker access to Central and State Govt. schemes.
 3. Enabling farmers to access agricultural services digitally.
- Assam has been selected as one of the 12 States for the Pilot Digital Crop Survey (DCS) towards creation of Crop Sown/Grown registry in India.
 - Presently Pilot DCS is underway in 11 selected Revenue Circles (RC) of 7 Districts: Morigaon (all 5 RC), Charaideo (Sapekhati), Nagaon (Nagaon Sadar), Karimganj (R.K. Nagar), Biswanath (Gohpur), Darrang (Pathorighat) & Bongaigaon (Boitamari).
 - GoI allocated fund for the Pilot DCS @ 1.43 Cr. Under NeGP-A in 90:10 pattern.
 - Pilot DCS started in Mid-September 2023 with an aim to complete by 31st October 2023, i.e., 15 days grace period added. However, DCS needs to be completed prior to harvesting of crops in the field.
 - Digital Crop Survey is being conducted by Local Village youth @ Rs, 20/- per survey no.
 - Delayed the start in many RCs due to time taken in resolving mismatches in Revenue Maps in its Geo-references and LGD mappings.

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- Completed @42% Crop Survey (i.e., 1,42,356 nos. of Survey / Dag Nos.) till 24th October 2023.
 - Various Stakeholders for smooth conduct of Pilot DCS:
 - State Revenue Department
 - State Agriculture Department
 - Directorate of Economics & Statistics
 - P&RD
 - Assam State Space Application Centre

III. TARGETTED EDIBLE OIL PRODUCTION

Two edible oil crops are grown in Assam i.e. (1) Mustard & Toria and (2) Oil palm. The Government of Assam is taking up a massive mustard area expansion program on rice fallows and so also extensive program on oil palm cultivation. The details are provided below:

1. **Massive mustard area expansion program:** The total edible oil requirement (largely mustard oil) of the State is around 2 lakh MT. But the State is highly deficit in edible oil. The current mustard and Toria production (2.87 lakh ha, 1.85 lakh MT production) can meet only 20% of the State's edible oil requirement (around 60,000 MT). Rest of the edible oil requirement is sourced from outside. To address this situation, the State has embarked on a massive mustard area expansion program over four years. The year-wise additional rice fallow area to be brought under mustard cultivation is provided below:

2022-23: 50,000 ha

2023-24: 1,50,000 ha

2024-25: 2,00,000 ha

Total: 4,00,000 ha

National Mission of Edible Oils- Oil Palm:

- a. GOI launched a Centrally sponsored scheme- National Mission on Edible Oils-Oil Palm (NMEO-OP) in September 2021 to minimize the import burdens.
- b. GOI has approved 18 districts of Assam for implementation of the scheme and set a target of covering 2 lakh ha under Oil Palm cultivation by 2025-26.
- c. Productive bearing of Oil Palm trees starts from 4th Year.
- d. Production of Fresh Fruit Bunch (FFB) - the raw material for extracting Palm Oil is 20-25 MT/Ha. Per ha production of Palm Oil is 4-5 MT.
- e. Experienced Oil Palm companies are being empaneled for the implementation of the scheme.
- f. There is a scarcity of seedlings, as the seeds (Sprouts) are to be imported from other countries like Malaysia, Thailand, etc.
- g. Empaneled companies have started establishment of Nurseries to ensure seedling availability.
- h. The GOI has approved establishment of 6 Oil palm Processing mills to ensure Buy back and sustainability.
- i. The year-wise target for Oil Palm area expansion is-
 - i. 2021-22: 1500 ha
 - ii. 2022-23: 2500 Ha

- iii. 2023-24: 86000 Ha
- iv. 2024-25: 100000 Ha
- v. 2025-26: 10000 Ha

IV. TARGETTED PULSES PRODUCTION

Current pulses area is only about 1.42 lakh hectares and production are 1.09 lakh metric tons. To meet the State's demand, additional 3 lakh hectare area is planned to be brought under pulses cultivation in the next four years. Area expansion along with productivity enhancement through high yielding varieties and scientific package of practices, the total production is expected to go up to 3.5 lakh metric tons which can meet the State's requirement through in-house production. The year wise targets for additional pulses area are provided below:

- i. 2022-23: 75,000 Ha
 - ii. 2023-24: 75,000 Ha
 - iii. 2024-25: 75,000 Ha
 - iv. 2025-26: 75,000 Ha
- Total: 3,00,000 ha**

For the year 2022-23 around 75,000 ha area has already been identified for cultivation of black gram and green gram (sowing in Feb 2023).

V. CREATION & UTILIZATION OF INFRASTRUCTURE FOR DISEASE FREE PLANTING MATERIAL

A Seed Vertical has been set up under the World Bank financed Assam Agribusiness and Rural Transformation Project (APART). The key activities in the seed vertical are foundation seed production on the seed farms of ASCL and Directorate of Agriculture (recently around 40 seed farms of Directorate of Agriculture have been handed over to ASCL through an agreement for better and focused utilization of these land resources), certified seed production with the Farmer Producer Companies, strengthening of ASCL, Assam Seed and Organic Certification Agency, Seed Science wing of Assam Agricultural University, training & capacity building etc.

Currently foundation seed production is going on in paddy (120 ha) (harvesting stage), Toria (42 ha), lentil (15 ha) and paddy certified seed production is ongoing with 15 FPCs covering an area of around 550 ha. Similarly, certified seed production in Black gram is ongoing with two FPCs in 40 ha area. Also mustard/ Toria is certified seed production ongoing with two FPCs in 75 ha area. These seeds will buy back by ASCL and supplied to farmers in various Govt schemes as per requirement placed by Directorate of Agriculture. This would meet a part of State's seed requirement through in house production.

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- 1. Increase production, processing and storage:** The expertise of international organizations (CGIAR institutes) & ICAR institutes being utilized for increasing production and productivity. Agreements have been signed with six international agencies, two ICAR institutes & one CSIR institute for the purpose. Contract of International Potato Centre (CIP) has concluded in April 2023.

Area Expansion (mainly in rice fallows): Mustard: 50,000 ha already sown in 2022, In 2023, around 1.5 lakh ha is planned & 2 lakh ha is planned in 2 lakh ha. Pulses: 20,500 ha black gram has been sown in 2023. For the year 2024, around 40,000 ha (black gram, green gram, lentil etc.) has been planned.

Crop Diversification: (i) Assam Millets Mission (ii) Assam Fodder Mission (iii) State Floriculture Mission.

Seed Vertical: A seed vertical has been set up under the World Bank financed Assam Agribusiness and Rural Transformation Project (APART) as a first step towards making the State self-sufficient in seed production of key basic crops important for food and nutritional security. The key activities under the Seed Vertical include: (i) Foundation seed production in the seed farms of Assam Seeds Corporation Limited (ASCL) (ii) Certified seed production with Farmer Producer Companies (FPCs) and individual growers (iii) Offering 7 seed farms to ICAR institutes for quality seed production (iv) Strengthening of select seed farms as model farms & general strengthening of farms (v) Work on selected planting materials (vi) Manpower support (vii) Seed policy (viii) Setting up of seed processing plants (ix) Training & capacity building.

- 2. Millets – need for value addition in branding, packaging in association with Research institutions:** Assam Millets Mission (AMM) launched on 16th Nov 2022 by HCM. Activities in progress. A State Project Management Unit (SPMU) has been set up. Millet Café inaugurated in Secretariat, Dispur. ICRISAT is being onboarded for technical support. Supply of millets is being planned in PM Poshan (earlier mid-day meal scheme) & Poshan Abhiyan. For technical support, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) is being onboarded (within May 2023). During the mission period, 50,000 ha is planned to be brought under millets cultivation. (25,000 ha with demos & 25,000 ha through adoption). Moreover, a millet basket has been provided to the delegates as a souvenir (total 450 nos). Moreover, everyday at least one millet item in one of the meals was served to the delegates (two events spanning over five days).
- 3. Reduce fertilizer usage à shift to Nano Urea:** A notification is being brought out that all FPCs supported by Govt shall use nano urea in order to avail Govt scheme benefits. Extensive awareness and sensitization programs are being conducted among the farming community for use of nano urea. Till date the following quantity has been used by the farmers:

2021- 22 = 4,16,092 Bottles,

2022-23 = 5,33,584 Bottles and 01.04.2023 till date 38,400 Bottles. (1 bottle= 500 ml). Meeting with tea gardens has been held regarding balanced use of fertilizers.

4. Sensitize KVKs to promote natural farming & Organic fertilizers: Assam Agricultural University has initiated work on establishment of natural farming units under Research and Development sponsored by State Government of Assam.

4.A 10days training Programme on natural farming had been organized during 13-22nd December by Department of Soil Science sponsored by ICAR at AAU, Jorhat. 23 Krishi Vigyan Kendras across Assam have taken up the task of motivating 10224 Nos. conventional farmers for natural farming. Out of that 255 farmers have adopted climate friendly natural farming and the process is on.

Awareness programs are being conducted by KVKs to sensitize farmers on natural farming. Around 1200 such programs have already been conducted, KVK Lakhimpur has organized a farmers meet cum crop seminar on natural farming with around 500 farmers. On Farm Trials (OFTs) and On Farm Demonstrations (OFDs) are being conducted by the KVKs in almost all-important crops of Assam. A mega event on natural farming i.e., Natural Farming Conclave is being organized on 19th May 2024.


5. Better utilization of fertilizers with strategic output: International Fertilizer

Development Centre (IFDC) has been onboarded for promotion and popularization of Fertilizer Deep Placement (FDP) technique which has higher efficiency and leads to lower emissions from crop fields. Nano urea is being promoted in a big way. Till date, 9.88 lakh bottles of nano urea have been used by the farming community.

6. Standardize approvals for EODB: Seeds & fertilizers licenses (retail, wholesale & manufacturing) are issued & renewed through EODB Portal. Pesticide licenses are issued through this Portal. Total 25 services in agricultural inputs are operated through EODB Portal.

Proposal for implementation under EODB Portal for seed, fertilizer and Plant Protection Chemicals are as follows: -

- 1) Standard Composite Application forms each for Seed, fertilizer, and Plant Protection Chemicals, to be incorporated.
- 2) Integration with Central Inspection System (CIS). Implementation of CIS in EODB portal under services in Agriculture department.
- 3) Categorization of Rejected application. Incorporating the rejection category while processing the application will help in better monitoring of the services.
- 4) Modified MIS Dashboard. A new MIS dashboard has been envisaged for monitoring purpose.


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