



Reforming Agricultural Extension Systems in Tripura

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Agricultural Development in Tripura

Agriculture is a major source of livelihood for the people (42 per cent of the population directly depend on agriculture and 33 per cent of the GDP is contributed by agriculture sector) from the state of Tripura. Third smallest state in India in terms of area, Tripura is surrounded by 856 kms of international border (Bangladesh). The total cultivable land in the state is 0.28 million ha with an irrigation potential of 0.12 million ha. Eighty two per cent of the farmers are marginal (land holding less than 1 ha). Rice is the major agricultural crop, while the focus is more towards pulses, especially in non-irrigated areas. Fishery is another important sector for the state, as fish is almost a staple food in the state. Thirty one per cent of the total geographical area of the state (10,49,169 ha) is under fish production and plays a very important role in meeting the nutrition security of the state's population. Horticulture is an emerging sector in the state, with greater importance being given to commercial cultivation of exotic flowers and fruits and increasing their export potential. Livestock is a part of the rural households and though mostly the sector is unorganized, the importance is high as livestock is the only liquid asset for many rural tribal households and so is held with high economic importance. Efforts are being increased at the Govt. level to organize the milk producers into cooperatives, so as to increase their income. Also, scientific and improved ways of raising livestock are being popularized in the state.

Agricultural extension is the only active link between research & development, and the farmers. In an agrarian economy like Tripura, where a majority of the farmers are either marginal or small land holders, extension become the most important component in agriculture and allied sector. And for that reason, MANAGE has taken the initiative to work with the state level extension stakeholders, to transform the extension systems. In this regard, a scoping study was conducted in the state to understand the working of the extension stakeholders of the state and decide further interventions required in reforming agricultural extension systems. A follow up Multi-Stakeholder Consultative Workshop on Agricultural Extension Systems in Tripura at Agartala on May 30-31, 2017 provided a set of recommendations.

Agricultural Extension Systems in Tripura

The major stakeholders in agricultural extension and allied sector are the Department of Agriculture; College of Agriculture, Tripura; Department of Horticulture; Department of Fisheries; College of Fisheries, Central Agricultural University (CAU), Lembucherra; Animal Resource Development Department (ARDD); Department of Forestry; Rubber Board Regional Office, Tripura; Tripura Forest Development and Plantation Corporation Ltd. (TFDPC); Tripura Bamboo Mission (TBM); Indian Council of Agricultural Research (ICAR), Tripura Centre; Krishi Vigyan Kendra (KVK); Tripura State Agriculture Management and

Extension Training Institute (T-SAMETI); Agricultural Technology Management Agency (ATMA); National Bank For Agriculture and Rural Development (NABARD); media (radio, TV, newspapers); input dealers; NGOs and Panchayat Sameti.

Every stakeholder has some unique feature in the extension system. While the Department of Agriculture, Horticulture, Fisheries and ARDD was more production oriented, forestry and plantation sector was market oriented. Community extension was the important feature of forestry and plantation sector, whereas it is non-existent in other sectors. Capacity development was limited to a few training, demonstrations and exposure visits. Market led extension is yet to come up in a big way in the state.

Challenges

The state being agrarian without much development in agriculture and allied sector, faces many challenges. Convergence of stakeholders as well as schemes and programmes is a major hurdle in development. Private sector extension is non-existent, thus over-burdening the public extension system and decreasing its efficiency. Quality technical manpower in extension is limited and most are engaged in other administrative activities. Documentation in extension is also minimal, thus limiting the recording and dissemination of good practices and farmer innovations. Community based initiatives have also been very limited. Organizing farmers/producers into groups for capitalizing on the existing market potential is also yet to be taken up.

Policy Recommendations

Based on the discussions during scoping study conducted in the state as well as the Multi-Stakeholder Consultative Workshop,

recommendations were vetted and drafts were sent to officials, administrators and policy makers at Tripura. Further refinement of the same led to the following policy recommendations:

A. Market Led and Value Chain Extension

1. Emphasis needs to be shifted from rice and monocropping to economically remunerative crops like jackfruit, litchi, wood apple and pineapple in suitable areas and Recognition of Forest Rights (RoFR) lands, establish post-harvest processing plants in collaboration with the Ministry of Food Processing Industry and Ministry of Commerce, Agricultural and Processed Food Products Export Development Authority (APEDA), and create state organic brands for selling in the national as well as international markets. In the fishery sector, very good market exists in the state for fishes like *Pabda* and *Hilsa* and fresh water prawn and so, developing scientific methods of cultivating them in the state needs organized research and development efforts.
2. Floriculture potential of the state is high, for high value flowers like Anthurium, Gerbera, Dendrobium orchids for which exploring markets in Kolkata, Delhi and Bangladesh requires to be initiated. As the sector is still unorganized, special emphasis is required on this aspect.
3. Processing facilities in fishery sector is required, keeping in mind the high demand for fresh, fermented and processed fish in the whole North Eastern Region.
4. Trade negotiations with the Bangladesh Government, through the Ministry of External Affairs (MoEA), needs to be initiated to increase bi-lateral ties as well take advantage of the existing market potential and the expanding railways in the state.

B. Skill and Capacity Development

1. Technical (subject matter expertise-For eg. Hybrid paddy cultivation, promoting crop diversification (Pulses & Oilseeds), low cost poly house cultivation of vegetables, post harvest, processing and value addition in horticulture produce, drip irrigation, promoting integrated farming systems (Piggery, Fisheries, Poultry), introducing new and high yielding breeds in poultry and live stock sector, farm mechanization, small scale enterprises, agricultural policy awareness, and cultural competency, exposure visits for advanced technological awareness) and functional (communication skills, analytical skills, systematic understanding and professional competence) skill development of extension professionals in collaboration with T-SAMETI, EEI, ICAR institutions and MANAGE. While ICAR, CAU, Agricultural College and select KVKs can engage in technical skill enhancement, EEI, and T-SAMETI can develop capacity of extension professionals in functional skills. MANAGE can conduct trainers training for the EEI and T-SAMETI.
2. Digitization of the extension system activities are needed along with capacity development of extension professionals in the use of ICT tools like computer and mobile phones to increase the use of social media tools. Online monitoring can reduce the heavy workload of field officials as well as make the system more transparent. Collaboration with NIC/IT firms and private sector players (like TATA Consultancy Services (TCS) and others) can be useful to create online monitoring systems and databases. Beneficiary selection and monitoring based on online database information will increase transparency in the system.
3. Improving the communication (verbal as well as print and online documentation) skills of the extension professionals for better

records of good practices, success stories and case studies, for better dissemination and replication.

4. Focusing on community based extension by skilling educated youth as para-extension workers in rural areas in collaboration with national and state based training institutes with increased financial support from Central Government may be taken up.

C. Structural and Organizational Reforms

1. A dedicated extension mechanism needs to be developed in the state, parallel to the existing system in convergence mode with each sector, engaging community extension/para-extension professionals for higher effectiveness.
2. Increased focus on extension research needed, as it is non-existent in the state. KVKs and ICAR can take strong initiatives in partnering with suitable stakeholders and take up projects in the state for an in-depth analysis and come up with pertinent recommendations.
3. Recruitments under Agricultural Technology Management Agency (ATMA) can be taken up by NGOs in partnership with the State Government under the convergence fund to avoid issues related to permanent employment or salary.
4. T-SAMETI can play an active role in brokering strong linkages among the actors in the state, increase partnership with NABARD for increasing financial and credit linkage, increase interaction with ICAR to get easy access to recent technological developments, partner with Panchayati Raj Institutions (PRIs) at the grassroots level for efficient delivery of extension services, encouraging entry of private sector (with required rules and regulations to protect farmers' rights), convergence of schemes like MGNREGA,

RKVY, IWMP and programmes like ATMA to create infrastructure at community level.

D. Group Based Activities and Entrepreneurship Development

1. Tapping into the huge economic potential of high value crops in the state, organizing farmers into Farmer Producer Organizations (FPOs) in collaboration with NABARD will transform farming to a commercial business and increase their income manifolds.
2. Agripreneurship and agricultural start-ups needs to be encouraged by the Govt. and as T-SAMETI is already recognized as a Nodal Training Institute under Agri Clinics & Agri Business Centres (AC&ABC) Scheme of Government of India implemented by MANAGE, it can take an active role in mobilizing the people, especially the youth.
3. The scope of entrepreneurship in livestock (poultry, piggery, goater, dairy) sector is huge and untapped in the state and requires more directed efforts.
4. Increased involvement of SHGs, especially women SHGs and encouraging backyard poultry/piggery will help in increasing household income and give rural women a steady income source.
5. Development of Dairy Cooperative Societies for better leveraging of the demand of milk and milk products in the state.
6. Large scale farms (by consolidation of fragmented land holdings) at community level are needed to be established to provide employment to the rural youth and increase production from the sector.

Complete report on 'Agricultural Extension Systems in Tripura' is available at www.manage.gov.in

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Disclaimer: The views expressed in the document are not necessarily those of MANAGE or officials with whom the authors interacted but are of the authors' own based on the interactions and observations during the field study conducted in Tripura and the recommendations emerged during Multi-Stakeholder Consultative Workshop on 'Agricultural Extension Systems in Tripura' held at Agartala, Tripura, India.



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