

## Capacity Needs of Extension and Advisory Services (EAS) in Odisha

### INTRODUCTION

Extension and Advisory Services (EAS) need new capacities at different levels to deal effectively with the evolving challenges faced by rural communities in Odisha (Box 1). This brief presents the findings based on a systematic Capacity Needs Assessment (AES 2016) organized jointly by the Centre for Research on Innovation and Science Policy (CRISP), the International Rice Research Institute (IRRI), and the ICAR-CIWA (Central Institute for Women in Agriculture) from 3-4 July 2018, at Bhubaneswar, Odisha, India.

### EAS IN ODISHA

Over the past two decades or so, the EAS provision in Odisha has become pluralistic. Beyond the public sector extension providers represented by the line departments of Agriculture, Horticulture, Animal Husbandry, and Fisheries, each district has a KVK (Krishi Vigyan Kendra) and an ATMA (Agricultural Technology Management Agency). Apart from these, a wide range of other agencies representing the private sector, Non-Governmental Organisations (NGOs), and producer organizations are also involved in EAS provision. Establishment of an Institute on Management of Agricultural Extension (IMAGE) in 1997 brought about a more systematic approach to training extension staff. The Odisha Livelihoods Mission (OLM) is currently involved in strengthening the organizational and technical capacities of rural women engaged in agriculture. OLM has trained hundreds of para extension workers/community knowledge workers.

In Odisha, the Forest and Environment Department and the agencies responsible for welfare of tribal communities (e.g., Odisha Tribal Empowerment and Livelihood Programme Plus under the SC and ST Development Department) are important players in EAS provision as a large section of the tribal population lives in forest areas where collection and sale of non-timber forest products (NTFPs) is a major livelihood option. Odisha has more than 100 Farmer Producer Organizations (FPOs) supported by Small Farmers' Agri-Business Consortium (SFAC) and the National Bank for Agriculture and Rural Development (NABARD) (as of March 2017). Media (print, radio and TV) too play an important role in spreading information about new agricultural technologies.

### Box 1: Odisha Agriculture

Agriculture plays a critical role in the overall development and transformation of Odisha. "Covering 35 percent of geographical area as the net cropped area and dependence of more than 60 percent of the State's workforce on it for their sustenance, agriculture in Odisha is the sector that is closely connected to the welfare of the citizens. The State Government is keen to increase agricultural production and raise productivity through improved land and water management, scientific rainfed agricultural techniques, well functioning (sic) agricultural markets, application of better technology, higher public and private investments and effective implementation of ongoing programmes in agriculture and allied sectors." (GoO 2018).

In Odisha, "the agriculture sector faces several challenges like low productivity, low investment, low returns, severe losses due to natural calamities, fluctuating supply of inputs like quality seeds, fertilizer, irrigation and credit, lack of reliable insurance cover, lack of facilities for post-harvest management and marketing, etc." (DoA 2016). The State Level Task Force on Agriculture Development of the Department of Agriculture, Odisha (2015) noted that "due to the changing face of agriculture, farmers have to make a number of complex decisions. Some of these are as follows:

- Strategy to change farming system (e.g. diversifying from crop production to mixed farming);
- Identification of products for which there is good demand in the market;
- Taking collective decisions on resource use and marketing; and
- Quick availability of relevant and reliable information."

The same report argued that "as the agricultural sector is gradually segregating into two different segments - commercial and subsistence, the extension system will have to adopt different working models and the extension machinery needs to be strengthened through retraining and retooling of existing extension personnel". The State Agriculture Policy (GoO 2013) also noted that "the extension system has to undergo a substantial change in its outlook".

Though several new approaches to strengthen extension (use of videos, mobile phone advisories, field schools and video conferencing) have been tried in Odisha, the range of services or the quality of service delivery hasn't shown any remarkable improvement. The State Agricultural Policy of Odisha noted that the "present system of input-supply oriented extension work, where emphasis is on supplying inputs like seeds, pesticides, etc., to the farmers, will need to be replaced with knowledge-supply oriented extension work, where focus will be on providing knowledge and information to the farmers about appropriate technology and appropriate agronomic practices" (GoO 2013). Many of these organizations also face shortage of human resources as several vacancies at the field level remain unfilled. Though several agencies are involved in EAS provision, there is very little coordination or knowledge flow among the different actors, including those in the public sector. There are several institutional and policy bottlenecks that constrain organizations from collaborating with each other.

The International Rice Research Institute (IRRI) has been working with Odisha's Department of Agriculture for almost one decade. The collaboration has resulted in the development and promotion of climate-resilient technologies and high-yielding modern rice varieties to improve and stabilize the productivity of the state's stress-prone areas. The IRRI-Odisha program is a landmark initiative with multiple objectives and multi-pronged approaches to enhancing farmers livelihoods including strengthening the seed system, nutrient management, capacity building, women's entrepreneurship development and use of geo-spatial tools and approaches for crop monitoring and developing crop insurance products. IRRI is working with the Government of Odisha in strengthening the capacities of EAS providers in the state so that they contribute more effectively to Odisha's agricultural transformation.

Keeping these in view, a workshop on capacity needs assessment for EAS in Odisha was organized with the following objectives:

1. Identify capacity gaps among EAS providers;
2. Develop a strategy for addressing these capacity gaps.

Thirty-three (33) participants representing over thirteen (13) organizations with diverse backgrounds and experience across sectors in EAS delivery participated in this workshop. The workshop identified the capacity needs of EAS providers at the individual and organizational level.

## CAPACITY NEEDS

A snapshot of the top priority capacity development areas identified for different levels is presented in Table 1.

**Table 1: Top priority capacity development areas at field, middle, senior and organizational level**

No.	Levels	Capacities
1.	Field Level	<ul style="list-style-type: none"> <li>▶ Technical knowledge and skills</li> <li>Communication skills</li> <li>Market linkage establishment</li> </ul>
2.	Middle Level	<ul style="list-style-type: none"> <li>▶ Team building, leadership, management and liaising</li> <li>Conceptualizing and Planning programmes, and undertaking Monitoring and Evaluation (M&amp;E)</li> <li>Convergence, networking, co-ordination and partnership development</li> </ul>
3.	Senior Level	<ul style="list-style-type: none"> <li>▶ Visioning, goal setting, decision making skills, team building, leadership and mentoring</li> <li>Monitoring and Evaluation</li> <li>Policy development and engaging in policy advocacy</li> </ul>
4.	Organizational Level	<ul style="list-style-type: none"> <li>▶ Human Resource Management</li> <li>Adequate infrastructure, logistics, and resources to support EAS</li> <li>Leadership and mentorship, team spirit and team building</li> </ul>

## Capacities Required by Field-Level EAS Functionaries

### As a technical advisor

As technical advisors, EAS functionaries should:

- have latest knowledge on life cycle of crops grown, animals/birds domesticated, and other livelihoods pursued by farmers in the specific block/district;
- support development of women and men master farmers in specific crops and enterprises in order to enhance farmer-to-farmer extension activities;
- have knowledge of field-level data collection techniques so as to generate and share reliable data from the field to those at the district and state levels, especially to those who need these for monitoring as well as for new programme development.
- be gender-responsive and have the skills to reach out effectively to women farmers

### As a communicator

EAS providers have to foster communication between relevant actors in the agricultural sector in order to enhance knowledge sharing, learning and ultimately innovation, around practices and technologies. They should be able to facilitate knowledge flows between relevant actors by deploying different methods and media. Communication here covers the wider spectrum of facilitation skills to promote community mobilization, networking and partnership development. Apart from these, EAS providers should be able to effectively apply Information and Communication Technologies (ICTs) in providing timely and relevant advice to different stakeholders. To do this effectively, they need access to different ICTs, and the resources to make use of these as well as knowledge of accessing ICTs in enhancing their effectiveness, and applying different ICTs to varied contexts.

### Market linkage establishment

EAS providers should help farmers to enhance farm productivity by using sustainable and climate-smart production methods, and support farmers in organizing themselves to identify and engage with appropriate markets so as to improve their levels and consistency of income. For executing this role, EAS providers must have a working knowledge of markets, agricultural marketing, agricultural value chains and their development.

## Capacities Required By Middle-Level EAS Functionaries

### Team building, leadership, management and liaising

Middle-level EAS functionaries work very closely with field-level EAS functionaries and supervise their activities.

Therefore they need capacities to build and lead teams, and enhance their capacities. They should also have the skills to organize Capacity Needs Assessment (CNA) of field-level functionaries and design appropriate capacity development interventions. They should possess soft skills for effective communication, facilitation, collaboration, and conflict management.

### Conceptualizing and Planning programmes and undertaking M&E (Monitoring and Evaluation)

Middle-level officials are often in charge of designing, implementing and evaluating EAS interventions. To deliver relevant, effective and inclusive programmes, they need expertise to design demand-led programmes using available evidence and learning and, a repertoire of participatory tools engaging various socio-economic groups. They should be able to apply more effective and gender-disaggregated M&E systems to monitor programmes, make mid-course corrections, and evaluate outputs and outcomes. Furthermore, they should be able to use ICT applications such as Geographical Information Systems (GIS), use relevant databases, collect and use field level data, and design micro-level studies to support planning.

### Convergence, networking, co-ordination and partnership development

Middle-level functionaries require networking, co-ordination and partnering skills and they need support in identifying the different actors working in their area. Ideally they should have access to a database on different EAS providers and their programmes. They also need support in identifying areas/interests for collaboration, developing Memorandums of Understanding (MoUs), access to guidelines on fund sharing and fund flows, and documents that showcase good practices on partnership management. They need practical lessons on how to build convergence (build synergies between inter-sectoral programmes dealing with similar issues and similar regions/communities).

## Capacities Required By Senior-Level EAS Functionaries

### Visioning, goal setting, decision making skills, team building, leadership and mentoring

Senior-level EAS functionaries require capacities for:

- visioning (the action of developing a plan, goal, or vision for the future) and should be able to plan according to the varied scenarios/situations that are likely to emerge;
- building teams, leading their staff, and enhancing capacities of subordinates, as well as financial management;
- identifying the Strengths, Weaknesses, Opportunities

- and Challenges (SWOC) of different scenarios/options, and design appropriate solutions.

### **Monitoring and Evaluation**

Senior officials should have the ability to:

- give direction and make decisions, formulate policies and plans and monitor/supervise the implementation of the policies and plans; and
- think through the input-output-outcome-impact pathways, and use tools such as logical frameworks and theories of change.

### **Policy development and engaging in policy advocacy**

Senior officials should be competent in influencing policy makers and be able to influence/shape the enabling environment around EAS based on evidence so that it can better contribute to the effectiveness of the Agricultural Innovation System (AIS), as well as shape gender-responsive policies for market development. They should facilitate generation of evidence that can inform appropriate policy change. They should also have effective communication (written, oral, presentational) skills to influence the policy process and to work as part of inter-departmental and inter-ministerial, multi-stakeholder platforms.

### **Capacities Required at the Organizational Level**

#### **Human Resource Management**

To attract and retain relevant staff and to enhance their capacities on a continuous basis, organizations need a strategic Human Resource Planning and Assessment system. Effective communication and coaching from the senior managers to their subordinates can promote knowledge sharing and effective leadership capacity building. Continuous feedback and performance appraisal by senior managers are important for the employees' performance enhancement and motivation. It is imperative that employee performance and accomplishment be assessed against set objectives that are pre-defined for each employee grade or phase.

#### **Adequate infrastructure, logistics, and resources to support EAS**

The infrastructure and logistics of the organization should be so designed as to get the right people to do the right things at the right time. It should be able to maximize the EAS provider's performance by creating the ability, willingness and opportunity to achieve the best performance.

#### **Leadership and mentorship, team spirit and team building**

The organization should have the capacity to engage

in consultations with its stakeholders. EAS should have regular/periodic consultations with women and men farmers, donors, investors, researchers, policy makers and other relevant actors in the AIS for this purpose. External consultants can add much value in organizing consultations, visioning exercises, and developing strategic documents that are critical for development and evaluation of vision, mission, and functions. Conducting such exercises away from the routine place of work (annual retreats for two days) can also enhance participation of all in such a process. At the organizational level EAS should possess capacities to build teams, lead the staff, and enhance the capacities of their subordinates. They need to assess the knowledge, skills, and experience of each member and what motivates them.

## **CURRENT MECHANISMS FOR CAPACITY DEVELOPMENT**

Odisha has several institutions involved in capacity development of extension personnel. These include: IMAGE, Bhubaneswar; Regional Institute of Training in Extension (RITEs) in three regions namely, Dhenkanal, Bolangir and Ganjam; Water and Land Management Institute (WALMI), Cuttack; Veterinary Officers Training Institute, Bhubaneswar; and Livestock Inspectors Training Institute (Bhanjanagar, Bolangir and Chiplima). IMAGE is also responsible for implementation of Central Sector Plan (under the XIIth Plan) Scheme – Diploma in Agricultural Extension for Input Dealers (DAESI), and Post Graduate Diploma in Agricultural Extension Management (PGDAEM) sponsored by the Department of Agriculture and Cooperation, Ministry of Agriculture & Farmers Welfare, Government of India.

ICAR institutions, SAUs and KVKs are also involved in training of extension personnel. Apart from these the Gopabandhu Academy of Administration, Bhubaneswar, under the Department of General Administration and Public Grievance organises training for senior officers on policy, finance, and administrative aspects. Extension personnel of Odisha also attend the training programmes organised by the Extension Education Institute (EEI), Hyderabad, and also those organised by MANAGE (The National Institute of Agricultural Extension Management), Hyderabad. The staff of OLM attend trainings at the State Institute of Rural Development (SIRD), Bhubaneswar, and the National Institute of Rural Development and Panchayat Raj (NIRD&PR), Hyderabad. Some of the bigger NGOs, such as PRADAN, FES, and MSSRF, have their own staff training mechanisms; and smaller NGOs often send their staff for training to many of the above mentioned organisations. IMAGE and RITES organise induction training for newly recruited extension staff. OLM also organises induction training.

Even with all these, significant gaps exist in capacities. To address these gaps, it would be useful to organise a review

of the existing training programmes offered by various organisations to primarily understand their strength and weaknesses with respect to organisation and delivery of training, and to suggest improvements on infrastructure, faculty recruitment and training, quality of different training interventions, human resource planning, developing and mentoring of master trainers as well as development of training modules. Though several extension activities, such as training, demonstrations, farm schools and exposure visits are organised by extension staff, there is no specific manual for guidance on how best to organise these.

## CAPACITY DEVELOPMENT: WAYS FORWARD

With the capacity gaps now identified, the next step is to find ways of addressing these gaps through appropriate interventions. These interventions must be appropriate to the level at which the staff are employed, with focus on organizational level capacity development at the same time. The workshop came up with a number of methods to strengthen capacities and these are discussed in detail below. It is important to note that every staff member is not expected to have all these capacities and so staff has to be selected carefully (depending on the tasks they are required to perform) for capacity development.

### Field level

- **Assess technical knowledge:** Conduct evaluation exercises for field-level EAS providers every year to assess their technical knowledge as well as their knowledge about the new schemes/programmes implemented in the field.
- **Enhance technical knowledge:** Organize regular programmes – training, workshops, exposure visits and so on – to enhance knowledge and skills related to technical aspects (production, post-harvest, marketing, standards, certification) through the existing research and training centres of OUAT, including the Directorate of Extension, the KVKs, ICAR Centres such as CRRRI, CIFA etc., and ICAR regional centres working on different crops/enterprises, WALMI, Training Veterinary/Livestock Training Institutes.
- **Incentivise best performance:** Provision for award of excellence to the best performing EAS provider at the field level by concerned departments.
- Enhance functional skills related to facilitation, communication (both written and oral), use of various ICTs and value chain analysis through development of appropriate learning modules and organising trainings.
- Develop guidelines on organising Farmer Interest Groups (FIGs) and Farmer Producer Organisations (FPOs) and enhance their capacities to manage these.

### Middle level

- **Organize Management Development Programmes (MDP)** for middle-level functionaries in order to develop/enhance their capacities in team building; provision of leadership; and undertake CNA of their staff;
- **Organize training programmes in planning and monitoring extension programmes**, including participatory approaches to programme design; undertake impact evaluation of different schemes and programmes implemented at the field level;
- **Organize monthly interface with senior officials of respective organizations** to explore and build joint/complementary activities around specific interventions, and with all the EAS providers at the field level (to familiarize the staff on new programmes, new guidelines, etc.);
- Develop good practices in convergence and collaboration and organise training on identifying and promoting convergence and collaboration.

### Senior Level

- **Identify agencies that can organise customised Executive Leadership Training for senior staff and fund their participation.** For instance, some of the IIMs (Indian Institutes of Management) might be interested to organise such training programmes; Organize international training for senior level managers so as to develop their perspectives on global developments in extension science, and gain experience of extension reforms in different countries;
- **Organize training programmes in planning and monitoring extension programmes**, including participatory approaches to programme design;
- **Engage experts/resource persons** who can review the organisational structure and practices and provide strategic advice on organisational restructuring in order to meet changing demands;
- Develop modules and organise training on **strengthening advocacy and influencing policy**;
- Organize training on **generating policy relevant evidence and strengthening policy-relevant communication**.

### Organizational Level

- **Develop standards** to undertake performance-based evaluation of key extension functionaries;
- **Review organisational performance:** Undertake external organisation and management review;

- **Ensure adequate financial support** for travel allowances/other mobility needs of the extension functionaries;
- **Consult with external organizations/experts** to assess the recruitment mechanisms and HRD (Human Resource Development) of EAS staff;
- **Develop an induction training module** that is appropriate for the newly recruited field staff;
- **Develop an extension manual** that provides guidance on how best to organise different extension approaches;
- **Develop appropriate guidelines for scheme implementation** and develop their capacities to use these.

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