Innovation systems for food security and nutrition: capacity needs and policy recommendations

Background

Food security and nutrition play a key role in the efforts to achieve the Sustainable Development Goals (SDGs). Recognizing that, and in line with its mission to support capacity development for agricultural innovation, the Tropical Agriculture Platform (TAP) organized an e-conference and an international symposium titled "Innovation systems for food security and nutrition: understanding the capacities needed". Both the e-conference, that took place between 19 April and 13 May 2016, and the international symposium (21 June 2016) were supported by the United States in the framework of the USA-Brazil agreement to promote, via TAP, the implementation of the Agenda 2030 for Sustainable Development. The agreement pays particular attention to food security, nutrition, and sustainable agriculture.

E-conference and symposium

The topic of both events focused on developing the capacities for food security and nutrition-sensitive Agricultural Innovation Systems (AIS). Participants in the e-conference were asked to answer seven questions elicited by the TAP Common Framework on Capacity Development (CD) for AIS. The topics ranged from the implementation of CD activities and the maintenance of capacities, to the identification of effective CD indicators and the processes to enable the participation of all actors, especially the voiceless and marginalized ones, in the AIS. Issues related to the so-called "enabling environment" and the role of research and extension in support of food security and nutrition-sensitive AIS were also addressed. Based on the e-conference findings, the symposium further analysed the topic of CD interventions in food security and nutrition sensitive-AIS. The e-conference received 293 registrations from 48 countries and generated 99 responses to the seven questions. Some 50 people attended the symposium at FAO in Rome (Italy), and at least 75 participated via web streaming. Participants came from different backgrounds, including specialists on innovation systems, capacity development, nutrition, and policy formulation.

Key recommendations for donors, policy makers and development agencies:

- Pay attention to rural households as key actors of food security and nutrition-sensitive AIS.
- Increase and sustain the level of assistance and national investments devoted to CD for AIS interventions.
- Achieve better coherence and coordination at country level between CD for AIS interventions from different organizations.
- Design and implement CD for AIS initiatives with national and local stakeholders in an integrated manner, considering all dimensions of CD (individual, organizational and enabling environment), and functional capacities.
- Ensure flexibility of CD interventions so that they are responsive to evolving needs of actors in the AIS.
- Promote an enabling environment conductive to innovation.
- Create the space and incentives for the actors in the system to interact, collaborate and learn together to bring about the changes needed.

Key findings from e-conference and international symposium

How to strengthen food security and nutrition-sensitive AIS?

CD interventions on education and training should:

- Inform rural households and consumers about the benefits of diversified agriculture and diets.
- Strengthen the capacity of policy makers (including donors) and university professors to understand the complexity of food security and nutrition-sensitive AIS.
- Encourage a revision of academic and training curricula to better teach issues related to innovation, nutrition and food security.

CD interventions on research and extension should:

- Enhance the understanding of researchers and research managers of the implications of the innovation systems framework for food security and nutrition.
- Encourage research activities to focus on food security and nutrition.
- Encourage researchers to work with an innovation systems perspective.
- Make sure rural advisory services include food security and nutrition in their activities.

CD interventions on the enabling environment should:

- Build mutual trust and foster interactions among public and private actors, rural households, development and research organizations.
- Promote effective coordination among actors that shape policies.
- Address gaps in the capacities of governing, regulatory and policy-making structures affecting the AIS.
- Promote interventions and programs that address jointly agriculture and nutrition, especially in developing countries.

How to maintain capacities?

When a project ends, the capacities are often eroded in the absence of a plan to sustain them and make them relevant to meet emerging and new needs. To maintain capacities, it is suggested to ensure a continuity in the management team. CD interventions should also nurture a culture of learning and teamwork within the organizations. In addition, capacities can be kept by codifying and making explicit the so-called “tacit knowledge” of organizations.

How to monitor CD interventions?

The following are the **indicators** proposed to monitor CD interventions in food security and nutrition-sensitive AIS.

Input indicators: Expenditures on agricultural research and education (emphasizing food and nutritional security) and the number of agricultural researchers and educators with background on food and nutritional security issues.

Outcome indicators: Evidence of experimentation and behavioural change; learning abilities; vegetable and fruit consumption; reduction of sugar, salt and fat consumption. Qualitative and mixed methods have been used to monitor these changes.

Impact indicators: A framework to monitor sustainable nutrition security with seven food system’s metrics (*food nutrient adequacy*; *ecosystem stability*; *food affordability and availability*; *sociocultural wellbeing*; *food safety*; *resilience*; and *waste and loss reduction*), as proposed by the ILSI Research Foundation.

Food and Agriculture Organization of the United Nations

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