

SATNET electronic discussion no. 4

Role of the Private Sector and Civil Society in Strengthening Research-Extension Linkages

13 to 27 September 2013

Background and Summary

As part of SATNET Asia, CAPSA will be organizing an Expert Consultation on 'Strengthening Linkages between Research and Extension to Promote Food and Nutrition Security' in partnership with the Food and Agriculture Organization (FAO) in December 2013. The event is expected to gather heads of research and extension from various countries in the Asia-Pacific region as well as other stakeholders. The objective is to assess existing research-extension linkages in the region, identify gaps, and explore how the system's capacity can be further enhanced. Non-government players, including private and civil society organizations, are already playing an important role in research-extension linkages in some countries. However, the modalities to incorporate them further into the national systems are still mostly vague and the attempts undertaken so far largely represent a trial and error approach. Sharing successful examples of private sector and/or civil society-led research-extension systems, ways for these non-government actors to strengthen research-extension linkages, and their unique strengths and limitations, were among the topics discussed in SATNET's fourth electronic discussion that took place from 13-27 September 2013. Twelve network participants from Bangladesh, India, Kenya, Nepal, Pakistan and Taiwan, participated in the discussion.

Many examples of successful private sector and/or civil society-led research-extension systems in the Asia-Pacific region were shared. They mostly related to the following areas: (i) research to develop improved seeds conducted by public and non-governmental organizations (NGOs), and their distribution and marketing by the private sector; (ii) development of local rural service providers whereas private companies can access farmers' produce and receive feedback, while enabling smallholder farmers to access inputs and services from these companies; and (iii) capacity building of farmers conducted by NGOs and farmer service providers in the use of new and cost-effective farming and post-harvest technologies that have been developed by NGOs and/or the private sector.

Participants suggested various ways in which the private sector and civil society can strengthen research-extension linkages. Some common ones included: (i) farmers-led experiments with technologies generated by the private sector; (ii) participatory variety selection between government and local organizations for technology generation and extension; (iii) large-scale participatory demonstrations of technologies generated by civil society; and (iv) farmer field schools generating farmer-led organizations through alumni networks.

Some key strengths of the private sector in research-extension systems include: (i) having the necessary resources to contribute to research and extension on a long-term basis; (ii) focus on results and efficiency in producing new technologies; and (iii) strong management, marketing and communication skills that help disseminate technology. However, the major constraints of the private sector in research-extension system related to its limited research capacity, hence 'free riding' on the public sector; lack of strong field presence, and putting business interests first.

The unique strengths of civil society organizations in research-extension systems vary from the private sector. These organizations often work closely with farmers and hence better understand farmers' technology needs, better facilitate participation in technology generation and its adoption, provide field support and facilitate an open discussion and feedback. However, their major limitation

relates to: (i) their limited capacities for technology development, use and dissemination; (ii) lack of effective engagement with governments, hence lack of the necessary level of mutual trust; (iii) lack of entrepreneurial spirit, hence dependence on external resources impeding them from scaling up their interventions; and (iv) different interest and philosophy among NGOs that prevents them from learning from each other and leads to duplication of efforts.

Various ways were suggested to further enhance the role of the private sector and civil society in strengthening research-extension linkages. For example, the private sector can strengthen these linkages by changing their practices of excessive confidentiality and expectations towards 'free riding' on the public sector. Different incentives for researchers and extensionists (recognition and remuneration), and private companies (profitability) as well as participatory extension approaches, effective cost-sharing mechanisms, capacity building, information and knowledge sharing, and access to networks, can motivate the private sector and civil society to build on their unique strengths and contribute more effectively to this research-extension partnership.

Examples of successful private sector and/or civil society-led research-extension systems in countries of the Asia-Pacific region

Bangladesh

- **BRAC's Agriculture and Food Security Programme** works with governments to ensure food security by addressing the scarcity of quality seeds in the market. This is done through research to develop improved seeds and environmentally-friendly practices; by building systems of production, distribution and marketing at fair prices; by offering credit support to poor farmers; and by promoting the use of efficient farming techniques and proven technologies. For example, it is promoting hybrid rice in unfavourable environments that can resist high temperatures, survive under submerged conditions, and mature faster. The BRAC partnership evolved from high quality seed distribution among its members (1980s), to an enterprise using seed production and marketing strategy (1990s), to dual approach of seed marketing including professional dealers and distributors along with members of village organizations (2000s), and finally moving entirely to dealers to support its distribution system and policy across the country (2005). Concrete projects include ADB/GoB Northwest Crop Diversification Project (ADB), USAID/CIP/AVRDC Horticulture Project.
- **Concern Universal's** cross-border project in Bangladesh-India and Helvetas' SAMRIDDHI project are addressing the lack of provision of public agricultural extension as well as quality technical, business and financial services to small farmers. This is by focusing on the development of local service providers, comprising mostly of smallholder farmers themselves and their associations, which can promote improved farm production and marketing. In particular, the SAMRIDDHI project has examples of large companies working with rural service providers, which enables them to access farmers' produce and receive feedback. On the other hand, it enables small farmers to access inputs and services from these companies. The role of civil society here is not to work with farmers on technologies, but to facilitate linkages between the service providers and their associations, and private companies and public agencies (e.g. research stations and line departments) to build capacity, support formation and strengthening of service provider associations, and to develop a system of provision of quality services to small farmers.
- Through its **Livelihood Enhancement Programme, Friends in Village Development Bangladesh (FIVDB)** facilitates economic development and food security for disadvantaged communities, through training in Community Learning Centres, technical assistance, input and marketing. It has been conducting Participatory Action Research (PAR) with farmers to identify their local priorities, and has been regularly organizing workshops and advocacy programmes to disseminate technologies. Its sister organization – Charima – has been producing quality rice seeds with contract growers. It provides technical support and credit to the growers and buys quality seeds from them. Labeled as 'Charima rice seed', the seeds are packaged and sold to various seed traders for marketing.

India

- (i) **Pan Himalayan Grassroots Development Foundation.**
- (ii) **Institute of Himalayan Environmental Research and Education (INHERE)** makes new varieties of seeds developed by public institutions available to farmers in mountainous areas, and organizes interactions between scientists and farmers. It also explores use of improved tools and drudgery-reducing equipment appropriate for small-scale mountain farming that are available with private and public research institutions. Appropriate tools are selected for trials by farmer groups, their feedback is obtained and orders are placed collectively. Farmers' innovations are shared with both farmers and researchers to get feedback and promote further development. Various platforms bring together interested parties – producers, processors, marketers, retailers - that could benefit from value chain development.
- (iii) An initiative of the **Catholic Relief Services (CRS)** and **DCM Shriram Consolidated Ltd** called **Haryali Kisan Baazar** (HKB – a Corporate Social Responsibility effort) supports capacity building of farmers in the use of new farming technologies, soil and water testing and post-harvest management, and offers services such as quality production inputs, agronomic and financial services, consumer goods, access to output markets and information.
- (iv) **Stress-Tolerant Rice for Africa and South Asia (STRASA)** project of the **International Rice Research Institute (IRRI)**, working closely with **CRS** and its associates, is developing improved rice varieties for stress-prone ecosystems, released to farmers through an existing network of local government agencies, NGOs and private players, and allowing for feedback.

Kenya

- (i) **Gadam sorghum** variety developed through research is being used by SMART Logistics Solutions Ltd based in Kenya which is now bulking the new variety, undertaking packaging and training of farmers.
- (ii) **Dairy goat association** is formed by farmer service providers called 'dairy goat assistants' (having over 40,000 members to date) and is helping researchers define areas of study and then disseminate research findings to farmers through training.

Nepal

- (i) **Nepalese Farming Institute (NFI)** is involved in the development and dissemination of cost-effective, eco-friendly farming technologies in SAARC countries in collaboration with governments, farmers' co-operatives/groups, NGOs and donors. For example: (i) sustainable, eco-friendly and cost-effective organic farming technology in Nepal and elsewhere; (ii) zero energy cold storage technology funded by SAARC Development Fund; and (iii) city waste management by Jeevatu-based eco-friendly and cost-effective technology.
- (ii) **Sustainable Soil Management Programme (SSMP)** is involved in developing cost-effective cattle shed improvement technology and cattle urine-based bio-pesticides – technologies generated by the private sector and disseminated by public and civil society institutions.

Pakistan

- Since 2002, the private sector has taken up most of the seed industry along with fertilizer and pesticides supply that used to be provided by the government. While this helped improve agricultural productivity, the monopolistic attitude violated the basic rights of the farming community because of adulteration, recommendations for injudicious use of inputs, and sale- and profit-centered attitude. This led to re-thinking of research-extension partnership with a more productive involvement of farmers.

Regional

- **AVRDC – The World Vegetable Center's** partnership with private seed companies plays a key role in providing effective extension linkages in vegetable horticulture.

Ways in which the private sector and civil society can strengthen research-extension linkages

- Through Farmers-Led Experiment the private sector is generating and testing technologies, and capitalizing on the experience of farmers as researchers. Stakeholders pay for the services of researchers (farmers supported by scientists from the National Agricultural Research Council and the Government of Nepal especially for verification and registration of the technology), and civil society then pays for technology development, extension and dissemination.
- Participatory Variety Selection (PVS) technique (SSMP, Nepal) is an example of an NGO working with government and local organizations for the generation and extension of new technology. This system is highly popular in Nepal as a means of women empowerment by involving them in the process of selection of crop varieties.
- To strengthen the research-extension linkages, BRAC's Research and Evaluation Division (RED) is working closely with its Agricultural Extension Unit (AEU) to promote proven innovations to farmers with ensured farmer's participation and credit support. E.g. RED produces high quality seeds of hybrid rice, maize and different vegetables on its own farms as well as through contract growers. AEU brings the technologies to farmers through large-scale participatory block demonstration (BRAC, Bangladesh).
- Agricultural technologies, such as tools and machinery, suitable for mountain farming that are available with both the private and public sector could be explored. This would enable selecting appropriate technologies for farmer trials, facilitating farmers' feedback, making modifications and placing orders (INHERE, India).
- Through farmer field schools (FFS), the National IPM Programme under the Pakistan Agricultural Research Council (PARC) introduced the "Science by farmers and farmer to farmer extension/education approach". The role of farmers in screening of best cultivars was tested and farmer-led organizations were established after graduating from FFS. Many of these organizations including: (i) Kissan welfare Association, Bahawalpur district, Punjab (est. 2004); (ii) Farmers integrated development organizations, Vehari, Punjab (est. 2005); (iii) Kissan foundation, Rahim Yar Khan district, Punjab (est. 2006); and (iv) Society of facilitators and trainers, Islamabad (est. 2004) are now working with the public and private sector along with international partners for agriculture research and extension in Pakistan.

Unique strengths and limitations of the private sector and civil society in research-extension systems

Strengths:

- Civil society organizations often work closely with farmers and hence better understand farmers' technology needs, better facilitate technology adoption, provide field support and facilitate an open discussion on effectiveness and efficacy of technologies.
- Private organizations such as TATA have the necessary resources to contribute to research and extension on a long-term basis. They are results-oriented and efficient in producing new technologies. Their networking with government enables them to facilitate exchange of ideas and experiences among various stakeholders such as farmers, small traders and dealers. Their strong marketing and communication skills help them develop effective communication strategies for technology dissemination.
- Under the 'farmer to farmer research and extension approach' in Pakistan, the partnership between farmers, public and private sector organizations: (i) strengthens the ownership and adoption of technologies; (ii) contributes to both research and extension process; (iii) makes it easier to understand and use local technology; (iv) allows designing a suitable technology according to farmers' available resources, knowledge and needs; (v) enables economic research through participation of workforce on volunteer basis; and (vi) mutually benefits the public and private sector as well as the farmers.

Other strengths include:

- Focus on demand-driven research (Gadam sorghum and Dairy Goat Association, Kenya).
- Remuneration of service providers (Dairy goat assistants, Kenya).
- People's participation in technology-generation process, hence easy acceptance.
- Strong team and organizational leadership, good governance and management practices, as well as the philosophy of growth from within (BRAC, Bangladesh).
- Better feedback mechanism (farmer-to-farmer and farmer to research institution that leads to further development).
- Opportunities for value chain development as other interested parties such as producers, processors, marketers and retailers are brought into the process.

Limitations:

- The private sector has a limited capacity to undertake comprehensive pre-breeding programmes to ensure the selection of suitable parental material to create pest- and disease-resistant hybrids, hence relies on the public sector.
- There is an excessive level of confidentiality when the public sector is involved; private companies may claim exclusive plant breeder's rights over the new hybrid when successful ("free riding" on the public sector), resulting in public organizations, such as AVRDC, having difficulties to demonstrate specific impact and retain donor funding.
- Private organizations lack strong field presence and interaction, which is needed for sound technology transfer. They have limited penetration in states/provinces (e.g. Jharkhand) with high number of small farmers, or where demand for high-end agriculture inputs/services is low because such geographies are less profitable.
- The private sector puts its business interest first and information/inputs are conditional to meeting its business needs. As such, input manufacturers and traders are willing to link up with NGOs to provide extension for farmers whenever it will lead to increased profits. This may or may not work for smallholders whose primary interest is to secure food and nutrition for their families and communities. Grassroots NGOs on the other hand emphasize and explore farm inputs, which are low cost and affordable for smallholder farmers.
- Small NGOs have limited capacities for agricultural technology development and dissemination, limited awareness of how to create effective demand-pull on government services, as well as lack expertise and entrepreneurial zeal to provide an effective linkage between research and farmers.
- Civil society has been unable to develop a replicable and sustainable revenue model of extension services to farmers, hence often depends on external resources. This dependence limits NGOs to scale up and replicate their interventions.
- There is often lack of the necessary level of trust between governmental and non-governmental organizations that affects their partnership.
- The size factor, gross external dependency and differences in philosophical orientation may preclude many small NGOs from learning from each other's experience. Lack of knowledge-sharing opportunities among civil society organizations also leads to duplication of efforts.
- Donor pressure to achieve short-term impacts combined with lack of cross-learning in some cases has led to promotion of inappropriate technology.
- Short project-based interventions affect the commitment of civil society to provide long-term support in technology transfer to farmers.
- NGO staff often lack necessary skills and need training before starting to work with farmers.
- Bureaucracy and delays in decision making in governments may lead to unclear dissemination policies, thus affecting the research-extension work of the private sector and NGOs.
- Under the 'farmer to farmer research and extension approach' in Pakistan, some limitations of the partnership between farmers, public and private sector organizations include: (i) occasional differences in personal interest of partners; (ii) the public sector is reluctant to adopt the partnership due to extensive field work; (iii) private companies have shifted towards

sales-oriented approach and have limited their research and training activities due to their focus on competition.

Ways to further enhance the role of the private sector and civil society in strengthening research-extension linkages

- Incentives such as recognition and remuneration of researchers for their innovations and extensionists for technology adoption would motivate the private sector to supply specific inputs.
- Establishment of decentralized and participatory extension approach supported by cost-sharing mechanisms could make the public-private-people partnership more effective.
- A balanced approach to information sharing would help public organizations receive continuous funding for R&D, which will benefit all stakeholders in the medium and long term as new varieties need to be constantly emerging to help farmers cope with challenges.
- The private sector can strengthen research-extension linkages by amending their current practices of excessive confidentiality and their expectation of “continued free-riding” on the public sector.
- A strong profitability incentive and a broad geographic network are required for the partnership between private and public organizations to work i.e. to maintain seed quality and large outreach to farmers through sales.
- Prior informal contact of small NGOs with private and public organizations is the pre-condition for successful research-extension collaboration in order to build up mutual trust.
- Governments need to realize the important role NGOs are playing in developing local capacities for experimentation which builds on farmers' indigenous knowledge and relevant "outside" ideas.
- A formal forum could bring together key players such as government, private and civil society organizations for certain types of interaction e.g. training, joint planning of research and extension agenda, and securing joint agreements for natural resource management. It is important to develop these interactions in ways that are neither threatening nor irritating to the stakeholders involved.
- The private sector, civil society and public extension services can work together in a mutually-rewarding partnership by leveraging one another's unique strengths. While the private sector can contribute financial and technical resources, civil society can keep working closely with farmers in disseminating technologies, facilitating their feedback and feeding it back to research for further improvements. Public agencies can contribute technical skills and facilities they have available.
- Capacities of small input sellers and traders (first source of extension information for majority of farmers) need to be built on varieties, management practices and right dose of inputs.
- There is a need to develop systems and processes which can make extension services cheaper, to enable private and civil society organizations to provide quality extension services on a long-term sustainable basis. For example, CRS is working with IRRI to develop a web-based and locality-specific crop management solution system to be used by service providers such as input dealers, microfinance institutions and NGOs working in agriculture to provide extension information to farmers.
- While many private organizations lack strong field level presence and interaction, which is needed for sound technology transfer, they would be interested to work with smaller farmers to get access to their produce if there is a way.
- Establishment of farmers' alumni networks at the national level can help promote farmers' innovations and technologies as well as strengthen linkages with public and private organizations. For example, in Pakistan, FAO and PARC have launched a national network of FAO-Alumni Associations Network representing all five provinces of Pakistan with participation of more than 300 farmer organizations.

