Ensuring equitable access to technology: Experiences from local to global[1]

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In many farming communities world-wide, quite simply, no seeds mean no food. To examine the factors for the equitable generation and access of technologies, with focus on women, the round table considered the following factors:

(1) Role of international and national agriculture research systems in facilitating the steady and constant supply of genetic materials (parent breeding lines) so that farming communities can select and develop their own seeds under their specific conditions, which are constantly changing
(2) Complementary role of the formal seed systems for the supply of finished varieties, which farmers can test and select from.
(3) Cooperation with research institutes for the use of biotechnologies (e.g. genomics, molecular assisted breeding) for the characterization and breeding of crops
(4) Market support to enable farmers to produce and sell their seeds and crops.
(5) Capacity building approaches to help farmers organize, manage their seeds and production systems and engage in corresponding plant genetic resources (PGR) policy development and governance
(6) Engaging women in the management of PGR.

This session looked at the stresses and resilience of farmer seeds systems through three regional case studies:

1. Introduction of Bt cotton in Colombia by Luz Amparo Fonseca and Patricia Zambrano (Colombian Cotton Growers Association, Oxfam America and IFPRI)
2. Up-scaling and mainstreaming of participatory plant breeding of rice in Asia by Ditdit Peligerina (South East Asia Regional Institute for Community Empowerment (SEARICE)
3. Ensuring farmers access and control of technology in Africa by Andrew Mushita (Community Technology and Development Trust (CTDT).

To ensuring equitable access to technology, including women, the round table identified and recommends the following points:

1. **The role of women**
   There is an imbalance, which needs to be corrected. On one hand, it is important to recognize the significant role of women in household food security and biodiversity management. On the other hand, we need to understand and address the current marginalization of women by research and innovation systems; where women generally receive less information and are unable to participate in agenda setting. Moreover, women need access to the provision of institutional services such as credit, education, and extension services.

2. **Visions of farmers and technologies**

[1] This is the summary report of the double parallel session organized by Oxfam International on the second day of the FAO international technical conference on Agricultural Biotechnologies in Developing Countries (ABDC-10) that took place in Guadalajara, Mexico on 1-4 March 2010 (http://www.fao.org/biotech/abdc/parallel/en).

We take a broader view of farmers and their multiple livelihoods. These include farmers, livestock producers, pastoralists, forest dwellers and fisher folks. Farmers are men, women, youth, and community elders. Farmers too are researchers; they observe experiment and develop and adapt technologies. They are not just consumers of, or end users of, technologies.

For farmers, technologies should be easy to use, adopt and adapt in continuously evolving farming systems and environment. Therefore, the technology needs to be continuously managed, own, controlled and reproduced by small-scale farmers.

3. **Farmers need to validation the technologies**; these cannot be imposed top-down. For the validation, accessibility of information is key.

   Characteristics of information:
   a. Accurate and timely
   b. Gender sensitive and relevant to farmers
   c. Complete: not only advertising but informing how to manage an innovation
   d. Makes the innovation visible.

4. Shared knowledge generation

- Multi-stakeholder involvement (farmers, researchers, extensionists…)
- Challenge the linear model of innovation (from vertical R&D to local hubs of innovation)
- Increase the capacity for mutual learning and for the cogeneration of innovation
- Address empowerment for indigenous capacities for innovation

5. Enabling Environments: Market

- Affordable price of seeds/technology
- Assure market access, where appropriate
- Create opportunities for farmers-researchers to develop their products and add value to them

5.2 Enabling environments: Policies

- Access to credit by small-scale farmers
- Regulatory systems that enhance exchange of seeds and other practices:
  - non-restrictive intellectual property rights (IPRs) for small-scale farmers
  - broaden scope of seed registration beyond yield
  - seed laws and marketing recognize farmers varieties
  - Crop insurance policies cover farmers' varieties.

5.3. Enabling environments: Institutions

- Ensure a rich multi-stakeholder environment
- Build solid institutions (credit, market, research)
- Enable the generation and access to a diversity of technologies, crop varieties
- Strengthen farmers organizations to access credit, demand research agenda, access credit