

What can be achieved by strengthening farmers as seed system actors?

- Farmers' knowledge and expertise on seed and varieties can be widely recognized.
- Farmers can take better informed decisions and thereby reduce risks associated with seed purchase and new varieties.
- Linkages and trust between different seed system actors can be strengthened and enhanced, thus contributing to the overall functioning of the seed system.
- Women's specific skills for seed management and needs for varietal diversity can be addressed.
- Joint learning by farmers and researchers about ways to increase seed system dynamics can contribute to food system transformation.
- More diverse varieties used by farmers can contribute to production system diversification and resilience.
- Seed of preferred quality can become available and accessible to different types of farmers, improving seed security.
- Farmer-managed seed enterprises can become forces for local innovation and income generation in rural areas.
- Stronger farmer organizations, representing social diversity, can become participants in translating political goals into concrete research and development programs.

Further information on strengthening farmers as seed system actors

Christinck, A., M. Diarra & G. Horneber (2014). Innovations in Seed Systems – Lessons from the CCRP-funded project “Sustaining Farmer-Managed Seed Initiatives in Mali, Niger, and Burkina Faso”. The McKnight Foundation, Minneapolis.

Available at:
<https://www.ccrp.org/resources/innovations-in-seed-systems/>

Reference

Christinck, A., F. Rattunde, A. Kergna, W. Mulinge & E. Weltzien (2018). Identifying Options for the Development of Sustainable Seed Systems - Insights from Kenya and Mali. Center for Development Research (ZEF), Bonn. Available at:
<https://research4agrinnovation.org/publication/zef-wp-165/>

Imprint

© Bischöfliches Hilfswerk MISEREOR e.V., Aachen, 2022.
 Bischöfliches Hilfswerk MISEREOR e.V.
 Mozartstraße 9
 52064 Aachen, Germany
www.misereor.de

Contact:

Sabine Dorlöchter-Sulser, Rural Development, Department Africa/Middle East
sabine.dorloechter-sulser@misereor.de

Text and editing:

Anja Christinck/Fred Rattunde/Eva Weltzien

Graphics and layout:

Stephan von Borstel, Kassel

Printing and production:

Lokay, Reinheim

Photo credits:

Eva Weltzien, Fred Rattunde

Strengthening farmers' roles as seed system actors

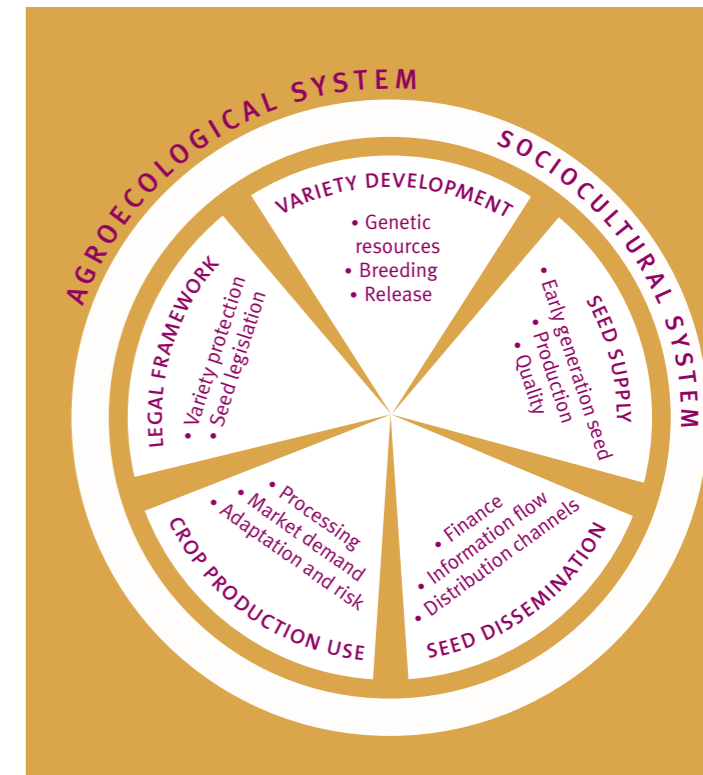
This practice guide is meant to:

- Promote awareness of farmers' multiple roles as seed system actors
- Explain how farmers can strengthen seed system functioning in practice
- Enhance understanding of what can be achieved by focusing on farmers as seed system actors

Farmers as seed system actors

Seed systems evolve and are always embedded in their specific sociocultural and agroecological contexts. Therefore, considering the values and expertise in a particular social context is necessary when organizing seed system activities. Seed systems, to be effective, must fulfill various interdependent functions such as variety development, seed supply and seed dissemination. Each function has different components; for example variety development may include the management of genetic resources, the breeding work itself and the release of new varieties. However, for the system to work, attention to each function individually isn't sufficient as each impacts on other functions and the system as a whole (see figure). For example, variety development must clearly focus on benefits for crop production and use, and legal frameworks should support all other functions within the sociocultural context. Different actors, such as local traders, women processors, plant breeders or extension agents, can contribute to each seed system function. Farmers in West

▼ Customized seed bags of a farmer seed-cooperative in Mali.



Functions of the seed system as part of larger agroecological and sociocultural systems (based on Christinck et al., 2018).

Africa have prominent roles in every seed system function; they are not only 'users' of seed but contribute substantially to variety development, seed production and seed dissemination. They also tend to have their own rules for managing seed security in their communities.

Recognizing farmer's diverse roles, skills, experiences, deep-rooted knowledge and local institutions is thus central for strengthening and enhancing seed systems in the context of climate change and agro-ecological food-system transformation.

Strengthening farmers' roles as seed-system actors in practice

Entry points for strengthening farmers' roles as seed-system actors can be identified in each of the different seed-system functions:

1 | Strengthening farmers' role in variety development

- **Support farmer-to-farmer sharing of knowledge and seeds.** Organizing seed fairs, farmer-to-farmer radio programs or exchange visits among farmer organizations can help farmers access new varieties to test. Sharing seed and knowledge about varieties with farmers in other areas may be useful where the climate, cropping intensity or market opportunities are expected to change in a similar way.
- **Introduce new varieties for farmers to observe and use in breeding.** Farmer participatory evaluations of new varietal diversity for specific uses, and possibly for breeding, require the organization of group activities. Farmer organizations, NGOs and researchers from universities, national research organizations or genebanks can support such evaluations and assessments.
- **Explore ways with farmers to evaluate and select for traits that can't be observed on single plants.** Selection of single plants for grain yield, resistance to striga, tolerance to drought and other complex traits is ineffective since individual plants poorly reflect a variety's performance at the field level. By sowing seed from individual panicles in separate 'progeny rows', farmers can more effectively observe and select based on the performance of an entire row.



- **Support long-term collaboration between national breeding programs and farmer groups.** Long-term collaboration facilitates joint learning by farmers and breeders about new opportunities for effective management of the whole variety development process. This learning enables farmers to take on new roles and responsibilities for variety development.
- ### 2 | Strengthening farmers' role as seed producers
- **Explore options with farmers to improve their seed storage methods and infrastructure to reduce losses of seed quality.** New options for controlling storage pests or diseases can be tested. Farmers or cooperatives may require infrastructure and approaches for safely handling, storing and processing seed at scale when starting to produce seed for larger scale dissemination.
 - **Identify new opportunities for seed production and local marketing.** Initiating cowpea seed production in areas with residual moisture or irrigation during the dry season to reduce insect attacks and shorten seed storage is one example. Dry season production of seed may be profitable and an important public service after seasons with extreme stresses and poor seed harvests.
 - **Facilitate organization of farmers to produce seed of new or more diverse varieties.** Organized seed-producer groups enable farmers to pursue individual objectives while, as a group, generating benefits for their community and catering to its diverse interests. Organized groups of farmers can engage with other actors and attract outside support.
 - **Provide opportunities to farmers to acquire new skills for producing seed of new crops or new types of varieties.** Fodder, legume or vegetable crops for which farmers don't traditionally produce their own seed may present interesting opportunities. Likewise, training farmers to produce seed of new open-pollinated varieties or hybrids of pearl millet or sorghum could open new opportunities.

◀ Women's group discussing new groundnut varieties.



▲ Preparing small seed packets in a village in Mali.

3 | Strengthening farmers' roles in seed dissemination

- **Facilitate organization of farmer seed producer groups for marketing seed of farmer-recognized quality.** Villages or groups of farmers respected for the quality of their seed could form seed-producer cooperatives to make their seed more widely available at scale.
- **Support forums for exchanging seed-related information in culturally acceptable ways beyond the farmers' existing network of family and friends.** Rural radios, Farmer Field Schools, women's savings and credit groups, or youth groups could facilitate wider sharing of seed-management and variety information. Such fora can be especially helpful for learning about complex topics, like how varieties can improve food and nutrition security.
- **Support innovative ways for farmer organizations or local financial institutions to facilitate farmers' access to new and diverse seeds.** Possibilities include multiple seed dissemination points organized by a local farmer seed cooperative, establishing saving or credit schemes, or options for non-monetary exchange (e.g. seed for grain) to facilitate seed access.

4 | Strengthening farmers' role as users of seed

- **Facilitate farmers' access to information and farmer-to-farmer learning about uses of specific varieties.** Examples include learning about varieties for increasing soil fertility, reducing pest damage, feeding livestock, improving child nutrition, etc.
- **Recognize and support farmers' roles in maintaining and enhancing biodiversity through their varietal choices.** Supporting farmer groups and associations to use diverse varieties can contribute to diversity at field, village and landscape levels by, for example, maintaining or diversifying intercropping systems, integrating crop and livestock organic-matter cycling, etc.
- **Improve or create market linkages.** Increasing farmers' market access for, and advantages from, sale of grain or stover/hay from varieties offering superior qualities.
- **Foster linkages with health and nutrition services to encourage women's use of grain of varieties that offer nutritional or health advantages.** Health centers can encourage mothers of young children to realize nutritional benefits of specific varieties and crops to prevent malnutrition.

5 | Strengthening farmers' role in developing supportive legal frameworks

- **Recognizing farmers' experiences and skills in the creation and conservation of varietal diversity.** Acknowledge farmers as key actors in all legislation and regulations relating to biodiversity conservation, variety protection and seed.
- **Identifying concrete areas of conflict between local practice, farmers' expectations and seed regulations.** Monitoring possible areas of conflict during implementation of new seed regulations by NGOs, government actors and others is important. Convening workshops or consultations may be useful for finding ways to address them.
- **Building farmers' capacities to participate in political processes.** Government agencies could create platforms or roundtables for farmers to raise issues concerning seed system functioning and the relationships between different actors; national genebanks and breeding programs could establish advisory platforms to provide opportunities for farmers to contribute to designing programs.