5.4.2 Role of community seed banks in the management of PGRFA on-farm

Pitambar Shrestha, Local Initiatives for Biodiversity, Research and Development, Nepal (LI-BIRD), Nepal

Though Nepal occupies only 0.03 and 0.3 percent of land area in the world and Asia respectively, it is globally known for its rich and unique diversity of both wild and domestic animal and plants including plant genetic resources for food and agriculture (PGRFA). However, the rich diversity of PGRFA is shrinking from its natural habitat and farmers' fields due to various reasons. Realizing the importance of PGRFA for current and future food security, nutrition, climate change adaptation, etc., LI-BIRD mobilizes and empowers local communities and collaborates with government entities within the country and international agencies for on-farm management of PGRFA. The community seed bank is one of the initiatives of LI-BIRD promoted for on-farm management of PGRFA since 2003. It is a holistic approach that educates and empowers the local community to identify, conserve, promote, add value and use local crop diversity for the benefit of the local community and society.

Community seed banks (CSBs) provide easy access to quality seeds and planting materials of diverse crops and varieties, strengthen the local seed supply system and contribute to increasing food production, the income of the people and help realize farmers' rights on seed and food sovereignty. So far, LI-BIRD has facilitated establishing 23 CSBs in Nepal. These CSBs have conserved 1 407 local varieties (with some duplications) of 75 crops species. They produce, sell and distribute more than 16 tonnes of seed of local varieties annually. More than 2 500 farmers receive local varieties of seed from CSBs each year. This is done by preparing small pockets of local varieties of seed and distributing them to the farmers. CSBs establish diversity blocks of local crop diversity for regenerating seeds that are not in high demand, and produce and market seeds in higher quantities that have higher demand in the area.

The majority of the CSBs supported by LI-BIRD deal with seed but some also procure local variety-based produce and market it for enhancing the income of the farmers. Some CSBs are also involved in participatory plant breeding and grassroots breeding as part of the enhancement of local varieties. This type of work is more closely supported by LI-BIRD and some other relevant organizations. The promising local varieties are

registered in the National Seed Board as per the schedule 'D' of the Seed Regulation (2013). This allows CSBs to produce and market seeds of the local varieties in a branded form. To date, 12 local varieties of six crop species have been registered under the leadership of six CSBs following the Schedule 'D'.

Facilitated by the Community Seedbank Association of Nepal, local seed exchange festivals are organized among the member CSBs. In an event organized in June 2019, ten terai-based CSBs brought 381 different local varieties of seeds and planting materials of 43 crop species for exchange. Of these, 353 samples of 27 crop species (cereal, vegetable and other crops) were exchanged.

Despite several benefits, contributions and positive impact on several aspects, the sustainability of community seed banks has been an issue around the world. But LI-BIRD has developed some mechanisms that are working well and CSBs supported by LI-BIRD are functioning well without external support after some years of establishment. A farmers' organization overseeing CSBs has a central role in effectively managing them. While establishing community seed banks, LI-BIRD not only provides technical, financial and facilitation support to the farmers' organization but also works on empowerment of farmers' organizations on legal, social, technical, financial and governance aspects. All these aspects are equally important for sustaining CSBs but regular income or a financial resources generation mechanism has been seen as a critical area.

LI-BIRD facilitates the establishment of a Community Biodiversity Management (CBM) Fund and seed fund at each community seed bank. The CBM fund consists of approximately one million Nepalese Rupees (USD 1=120 NPR) and the seed fund of approximately NPR 500 000. The CBM fund is mobilized as a loan among the community seed bank members for production activities such as rearing livestock, seed production, honey, mushroom, vegetable, etc. while the seed fund is used by the farmer's organization for conducting seed business activities (buying seed from the seed producer farmers, storing it until next season at the CSBs and selling it at the appropriate time). Both funds directly contribute to increasing the income of the farmers and the farmers' organization managing the CSBs. In Nepal's context, this mechanism has worked well and CSBs are functioning well without external support after some years of their establishment.

Some challenges of Nepalese community seed banks include a lack of legal framework, financial resources, technical capacity, and governance and management. The Agrobiodiversity Policy (2007, first amended in 2014) and the National Seed Vision 2013–2025 have praised the CSBs. There are also a few guidelines concerning implementing CSBs, but there is no 'Act' that talks about them. There is no legal provision for registering a "community seed bank" as such. It is operated by a cooperative or by an organization registered as a non-governmental organization. This sometimes creates confusion, and the purpose of the community seed bank is also diluted. Similarly, the

community seed bank is managed by farmers, and the quality seed production, handling, storage and marketing are too technical for some community seed bank members and staff. Poor governance of the farmers' organization managing the CSBs also becomes a challenge for their smooth functioning.

To conclude this abstract, the rich diversity of local crops and associated traditional knowledge in Nepal is unrecognized, underutilized and under pressure of erosion from the farmers' field and natural habitat. The community seed bank is a solution not only to promote on-farm conservation of PGRFA but also to increase access to quality seeds and planting materials to farmers that contributes to food security, food sovereignty, nutrition and farmers' rights. Many local varieties can be registered/released through a simple selection/enhancement process so that the quality seeds of the local varieties can be legally produced, sold/distributed. This can easily be done through CSBs; the empowerment of the farmers' organization (legal, social, financial, technical and governance aspects) and development of a self-financing mechanism are key to sustain them.