

8 Sustainability

*Pitambar Shrestha, Bhuwon Sthapit
and Ronnie Vernooy*

In previous chapters, we discussed key aspects of the operations and performance of community seed banks. All of those factors influence what we could call organizational viability. However, sustainability, or long-term organizational viability, is the greatest challenge facing community seed banks. As the case studies in this book indicate, there is considerable variability in the performance of community seed banks in terms of technical and operational capacities, such as adherence to phytosanitary standards, quality seed production, technical rigour in monitoring germination and ensuring viability of stored seed, management of information about stored varieties and growing conditions, governance and operational management. Technical and operational challenges are compounded by lack of legal recognition (although, in some countries, improvements are underway in this regard) and scarce financial resources. Past experience has shown that community seed bank initiatives are usually quite effective during their initial years, but with the withdrawal of external support, many cut back on activities or stop altogether. As in other organizational efforts, when community seed banks are established without proper foundations, long-term survival is difficult.

The variation among our case studies, along with the recent growth in the number of community seed banks, raises the question: What capacities must community seed banks have to be and remain effective in the long run? Our case studies suggest that a number of conditions must be met: legal recognition and protection, options for financial viability, members with adequate technical knowledge and effective operational mechanisms. Careful and systematic planning right from the start is another important factor. In this chapter, we elaborate on some aspects of sustainability of community seed banks, namely, human and social capital, economic empowerment, policy and legal environment and operational modality.

Building human and social capital

Community seed banks function on the principles of participation, collective decision-making and shared responsibility for resources, risks and benefits. The process of farmers working together and participating in activities strengthens

their capacity for collective action and builds human and social capital. The technical aspects of community seed bank management are a crucial part of this process. The effective operation and survival of seed banks depend on providing access to quality seeds, and this can only be realized with committed, trained and capable human resources.

Community seed banks usually follow traditional knowledge-based practices that are relatively simple and low cost, but some use modern equipment and the latest technologies. In addition to the physical facilities of the banks, the technical knowledge acquired and used by members plays a significant role in maintaining the quality of seeds. When members are fully equipped with the technical knowledge they need to conserve and produce genetically and physically pure seed (as discussed in detail in Chapter 5), chances of long-term functioning of the seed bank are good.

Another important aspect of building human capital – and ensuring sustainability – is the transfer of leadership roles, knowledge and expertise of senior members to second-generation leadership and young members. This is partly determined by the governance mechanism (Chapter 4). Networking of community seed banks in a country or state creates a platform for learning and sharing of experiences, but it can also contribute to developing human and social capital. In Brazil, Mali, Mexico and Nepal, various types of networks have been set up, both as a result of strengthened capacities and as vehicles for further strengthening of community seed banks. In other cases, community seed banks are networking with national gene banks (e.g. China, Zimbabwe and planned in Nepal). Such collaboration is another way to strengthen the capacity of community seed bank members, particularly in the technical aspects of seed handling, including disease and pest management and, to a lesser degree, operational aspects.

The community seed banks in the case study countries are functioning at various levels of technical capacity. Some are highly professional, while others are beginners; some are receiving technical support from public research or extension agencies and nongovernmental organizations (NGOs), while others are functioning on their own after receiving support from external agencies for a number of years. Community seed banks in Bhutan, Bolivia, China, Costa Rica, Mexico and Trinidad receive technical support from public research institutions. In Zimbabwe, both the government extension agency and the Community Technology Development Trust provide guidance in technical and management aspects of community seed banks.

Economic empowerment

Community seed bank members commonly volunteer their time and labour to carry out the work of the facility. They attend meetings and discussions; search for and collect seeds; maintain records; clean, dry and store seeds; distribute seeds for production and regeneration; monitor and supervise; build and maintain physical assets – all at no cost to the seed bank. Many of them

also contribute small amounts of seeds and planting material to be stored and distributed through the seed bank free of charge.

But how long will members be able to continue this work? For how many generations? How many members? What economic incentives are there for being part of a community seed bank? Answers to these questions are not easily found in the case studies. Depending on the types of seeds and volume of annual transactions, proper seed management requires regular involvement of one or more people throughout the year to ensure that day-to-day functions are carried out smoothly. To be financially viable and not completely dependent on voluntary labour, a community seed bank should be designed in such a way that it generates economic incentives at two levels: for its members (in particular those playing key roles) and for the organization as a whole. One important reason why community seed banks become less functional when external support is withdrawn is the lack of economic incentives to support the livelihoods of member families.

Overall, the case studies are characterized by lack of attention to economic empowerment and financial sustainability, except for production and marketing of farmer-preferred varieties of local and improved seeds. In cases where this strategy is successful, it has generated economic benefits at both levels: seed producer members and the seed bank. It has also gone hand in hand with making seeds available to needy members and others, usually at a lower price than other sources. Community seed banks in Costa Rica, Nepal and Zimbabwe are producing and selling seeds in large volumes and doing well financially. Some are in the process of developing community seed banks as seed enterprises, e.g. Uganda (Chapter 30).

A unique approach, developed in Nepal and now disseminated elsewhere, is the establishment of a community biodiversity management fund (Shrestha et al., 2013; Chapter 34). These funds (approximately US\$5,000–10,000 per community seed bank) were created using donor funds (through projects) and contributions from the community (ranging from 10 per cent to 25 per cent). They are set up as revolving funds available to seed bank members to finance income-generating activities. They provide easy access to small amounts of credit (without collateral or complex procedures) to the members as well as generating some income for the community seed bank in the form of interest (12 per cent a year). The interest is used to cover staff salaries, the regeneration of rare local varieties and other operational expenses. Exploring opportunities for further dissemination of this mechanism and similar ones could provide immense support to many community seed banks around the world. However, successful implementation of a community biodiversity management fund will require social and human capital building from the outset.

Policy and legal provisions

Despite the growing number of community seed banks over the last three decades, to date very few countries have developed relevant policies, laws, acts

or guidelines for implementing or supporting them. Without legal recognition, community seed banks are less likely to be sustainable in the long run. Most community seed banks have been established with support from NGOs through project funds, usually of short duration. For seed banks to find their own funding, they require legal recognition and registration in most countries; many funding agencies also often hesitate to provide support to an organization that is not a legal entity. On the positive side, obtaining legal recognition contributes to building confidence among community seed bank members by requiring them to speak on equal terms with public, private and civil society organizations.

Among the case studies in this book, Brazil seems far ahead in terms of bringing community seed banks into the legal framework, as three states have already approved community seed bank laws and four are discussing such laws (Chapter 39). These laws have allowed state governments to buy and distribute seeds of local varieties produced by community seed banks; previously, only certified, formal-sector seeds could be used. Mexico has integrated community seed banks into its National System of Plant Genetic Resources for Food and Agriculture (SINAREFI) coordinated by the National Seed Inspection and Certification Services, a public institution. This represents strong institutional recognition, and community seed banks receive financial and technical support from SINAREFI projects.

Because of the absence of a policy and legal framework in most of the countries covered in this book, some community seed banks have been registered as cooperatives or local NGOs or societies, while many others are still functioning as informal community-based, self-help institutions based on mutual trust and cooperation. Registering a community seed bank as a cooperative or a local NGO requires some legal procedures, which can be a burden for members. However, it also creates opportunities to obtain funding and programme support and, thus, allows the bank to continue its activities when other resources are unavailable.

Another strategy is for community seed banks to become part of a network connected to the national level gene bank. The Nepalese national gene bank has proposed such a plan to promote collecting and regenerating locally adapted materials in their natural habitats and to create ex-situ-in-situ links. However, there is yet no adequate policy or legal framework to carry this plan forward.

Operational modality

The methods adopted by community seed banks for participation and decision-making by members relate to the key tasks to be carried out. The case studies indicate that rules and regulations are usually established by the members themselves and efforts are usually made to respect them. In most cases, both women and men farmers are active participants.

The operational dimension is important in terms of sustainability, because it is through the practices related to seed circulation among members and non-members that a community seed bank comes to life and remains active. Clear

roles and responsibilities of the management team are features of well-governed community seed banks. As the cases demonstrate, there is room for further strengthening of the contributions of women and custodian farmers.

The modus operandi of a community seed bank may vary – and we consider this a strength – depending on farmers’ own organizational processes, who participates in which activities and decision-making (e.g. not every member has to invest the same amount of time and effort in all the tasks at hand), levels of knowledge and skills that members gain through interactions and the amount of training available. Usually, an executive committee of elected or selected farmers is responsible for overall management, both technical and financial, but some community seed banks form separate committees for the various tasks.

In Bangladesh, for example, the community seed bank has two committees. The Natural Resource Audit Committee with seven members is responsible for regenerating seeds and recording and maintaining data. The Specialized Women Seed Network with 11 members carries out the tasks of seed handling, safe storage, distribution and exchange (Chapter 9). The Kiziba community gene bank in Uganda has divided major tasks among a general manager, a records manager, a distribution manager, a quality control manager and mobilizers (Chapter 30). In Costa Rica, a technical committee looks after seed delivery, quality analysis and seed storage (Chapter 16).

A unique operational modality is used by the Toronto Seed Library in Canada and is being adopted in many other parts of North America and Europe. Its name alone shows that the library is not functioning as a community seed bank, but as a free-to-all public space for the exchange and use of seeds rather than collection and conservation. The public, retail stores and seed companies are all invited to donate seeds, which are then distributed through the library’s branches to gardeners and seed savers (Chapter 14). Such an approach functions well in areas where the public has a strong interest in and commitment to environmental issues.

The case studies in this book illustrate how difficult it is to combine these four dimensions of sustainability. Some community seed banks have made progress on the policy and legal sides, some have developed promising options for financial viability, some are working hard to improve technical knowledge and skills and many are paying attention to developing more effective operational mechanisms. Our assessment is that much remains to be done. Learning from each other could be one mechanism, and we hope this book will facilitate such learning.

Reference

- Shrestha, P., Sthapit, S., Subedi, A. and Sthapit, B. (2013) ‘Community biodiversity management fund: promoting conservation through livelihood development in Nepal,’ in W. S. de Boef, A. Subedi, N. Peroni, M. H. Thijssen and E. O’Keeffe (eds) *Community Biodiversity Management: Promoting Resilience and the Conservation of Plant Genetic Resources*, Earthscan from Routledge, London, UK, pp118–122