13 Site description for Bara, Nepal

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13.1 Context

This site is characterized as having high production potential. About 97% of households in the Bara site regard agriculture as their main occupation and 27% of these are actively involved in CBM activities. The farmers are exposed to technologies and have ample access to agricultural inputs due to its proximity to the Indian border. However, owing to the nature of the soil and the scarcity of irrigation water, early maturing varieties of rice are preferred in the high lying areas. Farmers grow predominantly rice, wheat, potato, maize, lentil and pigeon pea. Other sources of income in Bara are wage labouring and small businesses.

13.2 Institutional and project setting

The lead organization for the study sites in Nepal is LI-BIRD. Other partners and collaborators are involved through two different projects in the region. These are outlined below.

The first project is the Promoting Innovative Mechanisms for Implementing Farmers' Rights through Fair Access to Genetic Resources and Benefit Sharing Regime in Nepal (ABS). Implementation of the project ended in 2010, having commenced in 2007. The main objectives are: assessing the appropriateness of policy and legal instruments to implement farmers' rights relevant to the access to genetic resources and benefit sharing, and to the conservation and utilization of genetic resources; strengthening multi-stakeholder arrangements for effective implementation; identifying and supporting institutional arrangements appropriate to farming communities' rights and sustainable management of their genetic resources; supporting innovative practices serving implementation of farmers' rights and other project mechanisms; and conserving biodiversity for livelihood security. The donor is the Canadian International Development Research Centre (IDRC) in partnership with South Asia Watch on Trade, Economics and Environments (SAWTEE). Collaborators include: Bioversity International; the Nepalese Ministries of Agriculture and Cooperatives, and Forest and Soil Conservation; Nepal Agricultural Research Council; and district development committees, farming communities and community institutions within the project sites.

The second project that is currently underway, ending 2011, is Community Based Biodiversity Management (CBM) in Nepal, supported by The Development Fund, Norway, in partnership with: Department of Agriculture, Nepal; Bioversity International; the Nepalese Ministries of Agriculture and Cooperatives, and Forest and Soil Conservation; Nepal Agricultural Research Council; and district development committees, farming communities and community institutions within the project sites. Implementation began in 2008 with the main objective to enable farming communities to asses, conserve, utilize and secure access to and control over their genetic resources through local capacity building and by influencing favourable policy changes.

13.3 Key project activities

Key activities in the above-mentioned ABS and CBM in Nepal projects are, for the former, advocacy for policy and practice, assessment, capacity development, awareness raising and inspiring innovation practices aligned with *in-situ* conservation of plant genetic resources, value addition and participatory plant breeding and variety selection. Activities of the latter include capacity building, influencing policy changes, documenting genetic resources and associated traditional knowledge, empowering communities to develop and implement CBM plans, and exploring opportunities for conservation through the utilization of local genetic resources. Both projects involve similar approaches to conservation and empowering communities to conserve and sustainably manage genetic resources. These are enumerated in the *CBM practices* section below.

13.4 Social and institutional organization

The presence of active and functional community-based institutions is a prerequisite for the effective implementation of community based biodiversity management programmes. The establishment and work of the Agriculture Development and Conservation Society (ADCS) in this community, is an example of such local institutions. Farmers, who were more motivated and oriented towards conservation, formed the ADCS and established a community seed bank. The ADCS also mobilizes women's groups, manages the community seed bank, promotes participatory plant breeding products, mobilizes the CBM fund and conducts community-based seed production and marketing activities. The ADCS initiates different activities to enhance community awareness about biodiversity, especially agrobiodiversity. The CBM fund is used to support conservation and income-generating activities, and as a revolving fund scheme under which community members receive credit for conservation-oriented activities. The community holds a monthly meeting to plan and review progress and discuss problems and constraints. Day-to-day activities are planned by the ADCS during these monthly meetings. An annual general assembly is held where progress made during the year, and plans for the following year, are presented and agreed upon. Through these processes, individuals realized that it is easier to work as a group. The CBM fund brought the community together. An important conclusion made by the community during general assembly is that when it works in a collective way, members have more opportunities and better access to resources.

13.5 Plant genetic resources

The genetic erosion of traditional varieties has been taking place in Kachorwa due to technological interventions, the provision of easy access to inputs and frequent natural disasters, like floods and drought. The farmers are faced with the erosion of rice landraces at an alarming rate and have consequently internalised the importance of conservation.

As mentioned previously, owing to the nature of the soil and the scarce availability of irrigation water, early maturing varieties of rice are planted in the high lands. Thus far, farmers together with breeders have developed 13 improved rice varieties, which exhibit farmer-favoured traits of their earlier generation landraces.

A number of other major and minor food crops are cultivated in the site but these unfortunately have poor market orientation. For example, commodities such as sponge gourd, cucumber and finger millet are predominantly cultivated for home consumption with only a limited number of households selling to the market.

13.6 CBM practices

This list serves to enumerate all the different activities taking place in the study site which pertain to community-based conservation and sustainable utilization of agrobiodiversity.

1. Generating awareness and an understanding of local diversity:
   - generating awareness through village workshops, field visits, social and resource mapping, folk song competitions, diversity blocks;
   - establishing diversity blocks and distributing diversity kits;
   - identifying common, unique and rare plant genetic resources through participatory tools such as four-cell analysis (de Boef & Thijssen, 2007);
   - conducting a network analysis to identify nodal farmers and their potential to exchange genetic resources with others;
   - assessing the status of plant genetic resources through the community biodiversity register and diversity fairs.
2. Establishing community institutions, developing their capacities and consolidating CBM in their working modalities:
   - formation of the ADCS to enhance community awareness about agrobiodiversity;
   - formation of women's groups;
   - setting the agenda to meet and discuss day-to-day activities, review progress, identify constraints and plan for the future;
   - constructing conservation strategies for community plant genetic resources;
   - integrating a conservation theme into the school programme;
   - coordinating different needs-based trainings on value addition and nursery management and organizing farmer exchange visits to increase capacity;
   - contributing to organizational development and facilitating linkage and coordination between stakeholders;
   - internalizing CBM practices in the community action plan in the study site;
   - designing a Sustainable Agriculture Saving and Credit Cooperative in the district.
3. Developing conservation practices (including entrepreneurship and marketing of agrobiodiversity), monitoring and evaluating practices, promoting social learning and scaling-up:
   - conducting SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis on the different community organizations to identify capacity development priorities;
   - establishment and maintenance of the community seed bank;
   - mobilization of community contributions to the CBM fund;
   - crediting conservation-orientated farming activities;
   - promoting participatory approaches to plant breeding and variety selection;
   - facilitating community-based seed production and marketing activities.