

Integrating Traditional Crop Genetic Diversity into Technology: Using a Biodiversity Portfolio Approach to Buffer against Unpredictable Environmental Change in the Nepal Himalayas

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Project description

- Nepal Himalaya is the center of diversity for globally important traditional mountain crop biodiversity. However, recently unique diversity of traditional crops in Nepal Himalayas are threatened with *ad hoc* commercialization, cultural change and climate change impact.
- The **project development goal** is to contribute to the conservation of globally important crop biodiversity, which forms the basis for food security in areas of high environmental instability and variability.
- The **project objective** is to mainstream the conservation and use of agrobiodiversity in the mountain agricultural production landscapes of Nepal to improve ecosystem resilience, ecosystem services and access and benefits sharing capacity in mountain ecosystems.
- The project is in operation since 2014 to conserve and promote agrobiodiversity in remote and high mountain agroecosystems of Nepal.

Project's Contribution Towards SDGs

- SDG 1:** End poverty in all its form through use of agrobiodiversity for local and national development.
- SDG 2:** End hunger, achieve food security and improved nutrition and promote sustainable agriculture using traditional mountain crop biodiversity.
- SDG 3:** Ensure healthy lives and promote well-being by promoting nutrient dense and climate resilient traditional crops.
- SDG 13:** Adopt and promote climate resilient diverse crops, varieties and agroecological practices for adaptation to changing climate.
- SDG 15:** Halt local crop biodiversity loss and protect agroecosystems for ensuring livelihoods.

Project's Contribution Towards Aichi Targets

- Target 7** Sustainable management of crop diversity mainstreamed through participatory approaches for sustainable conservation and wise use.
- Target 13** Crop genetic diversity maintained on farm and mainstreamed through value addition, targeted markets, improved local seed systems and community seed banks.
- Target 14** Traditional crops and their varieties adapted to low inputs and less use of chemicals for ecosystem services.
- Target 18** Traditional knowledge and innovation from the use of local crop biodiversity respected, documented and protected for the benefits of communities and country.

Project results to-date

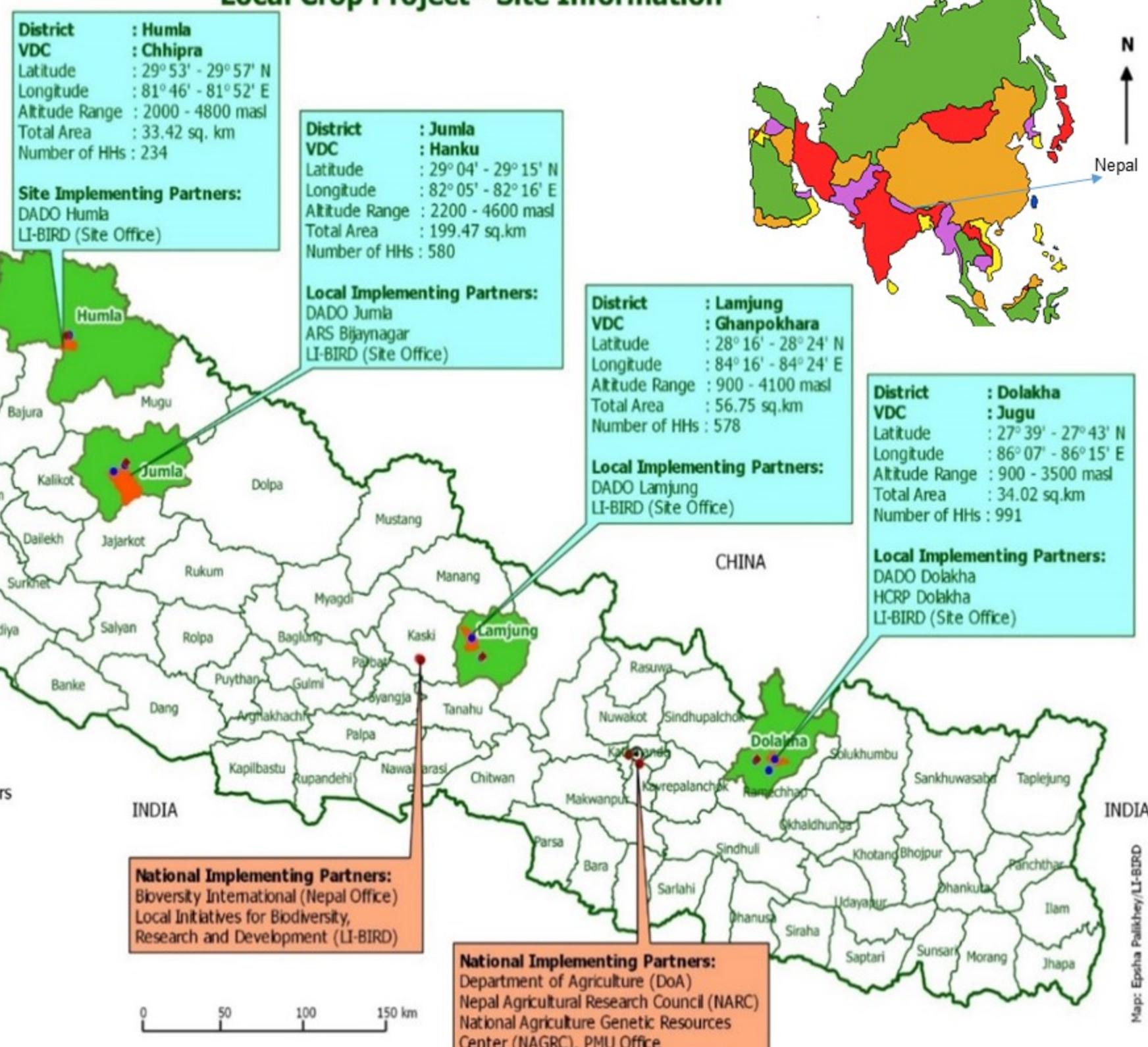
- A total of 300 local varieties of 8 underutilized mountain crops are evaluated on-farm in partnership with local communities in mountain agroecosystems, out of which 60 superior and locally adapted ones are identified and promoted them to reach 16,000 farmers in 2018.
- Four community seed banks are established in four mountain agroecosystems to strengthen local seed system, conserve and use agrobiodiversity by mobilizing local communities, employing Diversity Field Schools (DFS) and linking with national Gene bank of Nepal.
- Seven locally adapted varieties of amaranth, beans, finger millet, foxtail millet and proso millet are identified and selected through participatory variety selection and grass-roots breeding which are in the process of national listing and registration for enhancing access and benefit sharing.
- Project has piloted electric finger millet thresher cum pearler and modified processing equipment for minor millets (proso millet pearler/ dehusker) to enhance efficiency in processing, reduce drudgery of women and minimize cost of production in mountain landscapes.
- Capacity of local communities and stakeholders are built in conservation and use of agrobiodiversity, improving ecosystem services and supporting livelihoods through production, processing and promotion of traditional underutilized mountain crop biodiversity.



Photo credits: UNEP GEF Local Crop Project (S. Pant, R. Yadav) and GR Bhandari, AED NARC & B. Dhewaju, LIBIRD, Nepal

Map of the project area

Integrating Traditional Crop Genetic Diversity for Mountain Food Security Local Crop Project - Site Information



Links to websites for further information:

www.himalayancrops.org

(Nepal UNEP GEF Local Crop Project executed by Bioversity International in partnership with NARC, Department of Agriculture and LI-BIRD in Nepal).

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