ICIMOD

Agrobiodiversity in the Hindu Kush Himalayan region

Agrobiodiversity for well being

Agrobiodiversity – a product of thousands of years of interactions between people and their environments and a legacy of indigenous knowledge and practices – is vital to sustain our food systems.

In the Hindu Kush Himalaya (HKH), one-third of the population is food insecure. The erosion of agrobiodiversity and traditional practices here has deep implications for long-term agro-ecosystems health and food and nutrition security.

Resilient systems in the HKH

Some traditional mountain food and agricultural systems still play an important role in sustaining food production, managing local seeds and livestock breeds, and maintaining dietary diversity and food security.

Indigenous and local production systems

The Apatani Plateau in Arunachal Pradesh, India, is well known for its unique paddy–fish farming systems.

Designed for nature, culture, and people to mutually support each other, this system has timeless universal value.



Adaptive varieties, landraces, and breeds

Dulong cattle – the only kind of cattle domesticated by Dulong communities in Nujiang, China – shows how local and adaptive breeds fit into harsh mountain ecological and sociocultural environments.



Knowledge around ethnic and local cuisine

Ethnic cuisines across the HKH are composed of diverse ingredients sourced from a wide range of ecosystems. They reflect local knowledge on food use and nutrition and are largely sourced from sustainable agricultural practices.



Species evolution and diversification

Nagaland, a small Indian Himalayan state, is home to more than 800 diversified rice landraces with unique grain quality, cooking quality, taste, aroma, and stress tolerance.

Knowledge on use of diverse species

Local markets and community fairs in Nepal and Myanmar host a wide diversity of wild and cultivated vegetables, crop wild relatives, and neglected and underutilised species, highlighting the extent of local knowledge on their use.

Organic culture and women engagement

Traditional agroecosystems in
Meghalaya, organic agro-eosystems
in Sikkim, and integrated mixed
agroecosystems in Bhutan adopt
practices that are nature-friendly
and highlight the role of women as
custodians of our agrobiodiversity.

Preserving agrobiodiversity-rich landscapes

Global communities must invest in integrated approaches:

- Revive and promote in digenous and traditional agroecosystems
- Scale up good practices of traditional integrated farming systems
- Invest in soil health
- Reorient public policies and investments to meet farming communities' needs and aspirations
- Codevelop knowledge on wild edibles and nutritious and underutilised species
- Build digital sequence information for indigenous crops and livestock
- Document the nutritional value of ethnic cuisines
- Make traditional agroecosystems economically lucrative through green enterprise development and value-chain interventions















