

Indigenous land and food systems in Uttarakhand: A case study on traditional knowledge and use of wild foods in agricultural systems

I S Bisht

ICAR-National Bureau of Plant Genetic Resources Regional Station,
Bhowali (Nainital)-263 132, Uttarakhand

Food security has come to depend on a small handful of widely cultivated species; 12 species contribute 80 per cent of total dietary intake. By contrast, wild foods provide a greater dietary diversity to those who rely on them. The mean use of 90-100 wild species by agricultural and forager communities per location has been reported from 36 studies in 22 countries of Asia and Africa. Ethnobotanical surveys of wild plants indicate that more than 7000 species have been used for human food at some stage in human history. Wild plants and animals, historically the sole dietary components for hunter-gatherer and forager cultures, remain the key to many agricultural communities even today.

In Uttarakhand hills, rural farming communities under different farming situations still gather and consume many edible wild harvested plant resources. The wild harvested food resources supplement their diets which often are based on a narrow range of rainfed staples in traditional hill farming. Consumption of these plants is particularly vital at times of food shortage because they enhance livelihoods, survival strategies and support household economies. Their importance is exemplified by free and easy accessibility and nutritional richness especially vitamins and micronutrients. Therefore, they play a significant role in the livelihoods of rural communities in Uttarakhand hills through improved household incomes, and food and nutritional security.

The present case study documents a total of about 335 plant species, wild gathered as leaves, fruits, flowers, tubers, seeds, twigs, etc. under different farming situations that form minor but important food components of the rural communities. However, provision of and access to these sources of food is declining as natural habitats come under increasing pressure from different sources including developmental activities, poor management of CPRs, the climate change and recurrent droughts, nutrition transition and inflow of purchased foods, forces of globalization, etc.



Important wild harvested food species of mid-hills in crop-livestock small-scale farming situations

The case study revealed that wild harvested foods form a significant portion of the total food basket for farmer households of Uttarakhand hills. However, the focus on the contribution of wild harvested foods to total food and nutritional security is undervalued. It has been well recognized that wild harvested food

species provide more than just food and income to hill communities. The continued contribution of wild species to food and nutritional security is threatened by some of the processes that seek to increase agricultural production and enhance economic development. The sustainable harvesting of wild economic species requires a strong policy support by ensuring its continued availability for livelihood security of local communities.

The decline of traditional ways of life and decreased wild food use are interlinked. Research needs are twofold: (i) standardized, accessible and comparable studies on the nutritional and toxicological properties of currently used/underused wild species on a broad scale; (ii) the identification of priority areas for conservation of wild food species and the recording of food-relevant TEK. Policies on conservation, food-security and agriculture need to be integrated to recognize and preserve the importance of wild foods. Traditional food revitalization projects aimed at increasing the consumption of wild foods; in order to provide health and cultural benefits to traditional communities otherwise subject to the nutrition transition is a necessity for hill communities. The case study clearly demonstrates that efforts to conserving biodiversity and preserving traditional food systems and farming practices need to be combined and enhanced