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"Utilisation of diversity in land use systems: Sustainable and organic approaches to meet human needs"

## Traditional, Neglected Vegetables of Nepal: Their Sustainable Utilisation for Meeting Human Needs

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## Abstract

Nepal's biodiversity is associated with the country's breadth topographic, climatic, and agroecological conditions, ranging from tropical to alpine regions. About 1,500 of the occurring 6,500 plant species are considered useful. However, most of them, including many traditional vegetables, are regarded as underutilised/neglected. Vegetables gathered from the wild or cultivated in homegardens play an important role in food and nutritional security of rural households particularly in remote areas. This study aimed to document the occurrence and utilisation of traditional vegetables in Nepal, and assess their plant genetic resources conservation status.

Traditional vegetable species were collected from natural habitats, homegardens, and farmers' fields during field surveys in five Nepalese districts, covering elevations from 200 to 4,200 m asl. Information on local names, utilisation and seasonal availability was gathered by farmers' interviews, personal observations, market surveys, and literature review.

In total, 184 traditional vegetable species were recorded in the field survey. Species composition and numbers differed along the elevation gradient. About 50 traditional vegetable species were documented in the market surveys. Thus, traditional vegetables not only contributed to subsistence production and nutritional security of the farmers' families, but also to their income generation. As women were particularly involved in gathering, cultivating, and trading traditional vegetables, their economic status within the families was strengthened. Both wild and cultivated traditional vegetables were reported to play an important role as emergency food during times of scarcity.

A wide range of traditional vegetables is commonly used in Nepal, but the importance of these species decreases, particularly in easily accessible regions. This is due to regional development, such as the promotion of the use of exotic vegetables. To avoid or at least minimise the impending genetic and cultural erosion of traditional germplasm, the respective indigenous knowledge of germplasm should be documented and collected. The utilisation and cultivation of these vegetables should be promoted to maintain the dietary needs of the households in rural Nepal.

Keywords: Conservation, genetic erosion, homegardens, nutritional security, plant genetic resources

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