Ethnobiology in Asia

Livelihood and potential conservation roles of wild edible herbs

Contributed by ISE member R.P. Harisha[1]

Traditional communal area resources are mostly described as open access resources and are frequently associated with over-utilization and poor management of the natural resources therein. Yet it is those' unproductive and impoverished lands' that support and supply diverse sources of important biological resources from which local people benefit. Over 80% of poor rural households are known to depend on Wild Edible Herbs (WEHs) in Indian forest fringe areas. As a result, the daily usage of WEHs is a significant, yet underestimated component of livelihoods, biodiversity, land use and land cover. This underestimation results from the lack of monetization of the consumption of these resources at the household level, and the lack of formal markets, and hence they are not captured in national level accounting. However, they may account for a considerable proportion of the total biodiversity in natural and subsistence ecosystems.

Of the over 15000 (33.1%) higher plant species in Indian tropical forest, a wide range of them are harvested for WEH purposes. In particular, dozens of plants are used as wild food plants; harvested from and around arable fields, scrub wood lands, wetlands, and homesteads. Several families of plants are used, with the genera *Amaranthus, Cleome, Solanum* and *Dioscoria* being

the most conspicuous. The amount of wild edible plants consumed in forest fringe areas of India are known to range from 12 to over 130 kg per household per year, with a single household using as many as 25 species. However, not much information exists on the cultivation and domestication of most of these wild edible plants. The socio-economic status of individual households (e.g., Wealth, gender of household head, location of community and culture) could potentially influence the use of wild edible plants. In the Malai Madeshwara Hills Reserve Forest of Southern India, the mean consumption frequency of wild edible plants per household and per capita was higher for poorer households than the richer households.

In spite of the importance of wild edible herbs in the complex livelihood network that involves extraction from marginal lands and agro-ecosystems, their economic and land restoration potentials are little known. Therefore, the assessment of the value of lesser-known but useful plant species must tally their contributions to biodiversity and conservation and the environment in which they occur. The biggest challenges facing the conservation of wild edible species, just as several other species, is cultivating them ex-situ, domestication, and the management practices associated with them. Conservation benefits of herbaceous species may be through their ability to adapt and provide ground cover with the potential to minimize soil erosion. They may also contribute to improving the humus content of the soil through their root systems, and be ploughed to provide green manure in organic viticulture. Regrettably, herbaceous species well adapted to their local environments are often classified as weeds; they face replacement with more costly non-endemic species to meet soil and water conservation needs, which has long term repercussions for local species diversity and endemism.

[1]R.P. Harisha is a Research Associate, Ashoka Trust for Research in Ecology and the Environment (ATREE). Royal Enclave, Sriramapura, Jakkur Post. Bangalore -560064 Karnataka State, India. Email: hari@atree.org; Contact No: 91-80-23635555; Fax: 91-80-23530070; Website: www.atree.org