Medicinal plants use in India

Medicinal plants constitute a resource, which has been used traditionally by Indians for the last two millennia. It is reported that in India, 4,635 ethnic communities, including over one million folk healers, use around 8,000 species of medicinal plants. They are also increasingly becoming economically important due to the growing demand for herbal products in the domestic and global market.

„Healing power“ in danger

Over 90% of the medicinal plants traded in India are harvested from the wild, most of them in an unsustainable manner. Due to an increasing demand for medicinal plants and a loss and fragmentation of natural habitats, close to 300 species of Indian medicinal plants have been so far assessed as under threat in the wild (based on International Union for Conservation of Nature (IUCN) Red List Criteria). Around 1,000 species are estimated to be facing various degrees of threat across different biogeographic regions in the country. In addition to the threat to medicinal plants, gradual erosion of traditional knowledge and health practices is leading to loss of conservation concern on the part of local communities. With the large number of India's medicinal plant species known to be distributed across diverse ecosystems, there is urgent need to initiate multifaceted action to achieve conservation, in all bio-geographic regions of the country.

Initiatives to stop the loss

A pioneering medicinal plant conservation programme has been implemented by five state Forest Departments of peninsular India¹. This conservation initiative has resulted in the setting up of a network of 55 Medicinal Plant Conservation Areas (MPCA) across different forest types and altitude zones, conservation-with-community-participation being a significant feature. The most important purpose of this network of MPCAs is to conserve the plant resources in their natural environment. Especially, areas traditionally well known for medicinal plant wealth and with known high level of endemism were chosen. During the last four years The Foundation for the Revitalisation of Local Health Traditions India FRLHT has also implemented a project to establish a sustainable collection methodology by blending biometric information with the traditional knowledge of the local people (supported by DFID UK and coordinated by the Oxford University UK). Through series of multi seasonal surveys a comprehensive documentation of the wild medicinal diversity has been prepared along with supporting computer-based databases. The efforts related to assimilation of sustainable wild collection methods and standards into the preparation of micro-plans and the forest working plans are planned to be replicated. Results of these studies shall be incorporated into the general forest management in the country.

Local participation is essential

Local communities and their knowledge related to natural resources are being increasingly recognized globally. Participatory approach integrates people of different socio-economic and cultural status and helps to establish a need based and ob-

¹ Tamil Nadu, Kerala and Karnataka since 1993, and Andhra Pradesh and Maharashtra since 1999
Background Information
Sustainable harvest of medicinal plants in India

Objective oriented local institution. Such an institution is aimed to facilitate coherent action and help the stakeholders to contribute in designing, implementation and appraisal of any methodology. It also helps the resource managers (in the case of India they are the forest departments) to decentralize and broaden the conservation of valuable medicinal plants and other Non-Timber Forest Products NTFPs, which provide livelihood support to many people.

### Resource Assessments: Experiences from the field

Capacity building through constituting a local institution called Task Team was attempted in Agumbe of Karnataka state in India, providing opportunities to all stakeholders to apply traditional and scientific knowledge at village level for resource accounting and developing an adaptive management methodology for sustainable harvesting. Documentation of traditional knowledge and practices related to selected medicinal plants and NTFPs was undertaken to characterise and assign roles to the different stakeholders. The specific objective was to evaluate the community’s resource assessment potential under different harvest regimes. The Task Team members’ capacity to estimate the resources was enhanced through training, whenever physical measurements were involved. The Lauraceae species *Cinnamomum macrocarpum* Hook.f. (Kadu dalchini), leaves of which are harvested for their high medicinal value, was selected for the resource assessment. Different site, plot and tree related parameters were assessed by the community. Resource quantification (leaf yield) was done using visual estimation and actual harvesting under two harvest regimes such as BAU (Business as Usual) and test harvest (selective harvest). The tree leaf yield was assessed visually by the Task Team members based on their experience prior to the actual harvest in two harvest regimes. The results were compared and variations between estimated and actual yield were recorded to calculate the accuracy in community’s resource estimation. The labour costs involved in undertaking these two assessment exercises were also juxtaposed. The results justify that a strategically constituted stakeholders’ team can set objectives for resource management, assess resource potential, and efficiently estimate possible harvest with high accuracy. Such an enabled and equipped team can also help evolve an adaptive management process for different species and own up the responsibility for sustainable harvest of such resources.

Experiences made until now have been very encouraging. Not only that the methodology has been very efficiently applied by the task team but also that they were helpful in imparting training to other user groups e.g. joint forest management committees and state forest department staff elsewhere in the state through a “Community to Community Training” (CTCT) programme.

### ISSC-MAP implementation

These results are very promising first steps in planning for the implementation of The International Standard for Sustainable Wild Collection of Medicinal and Aromatic Plants ISSC-MAP in community based medicinal plant projects. Cost efficient methods to assess the sustainable yield through collection from the wild are some of the basic requirements. FRLHT is currently involved, in disseminating these experiences into other states in the country and through practice influence the policy formulation in the country leading to sustainable harvest of NTFPs and medicinal plants. (ISSC-MAP) provides a useful tool and will be tested in a project site located in the Western Ghats in the Shimoga district. This study site comprises an area of rainforest of approximately 800 to 1,000 ha. More than 15-20 medicinal plant species are harvested in the project area, e.g. *Garcinia gummi-gutta*, *Cinnamomum macrocarpum*, *Vateria indica*.

### Further information:

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- [www.floraweb.de/map-pro](http://www.floraweb.de/map-pro)
- [www.frlht.org](http://www.frlht.org), and Factsheet *Cinnamomum*
- [www.wwf.de](http://www.wwf.de) or [www.traffic.org](http://www.traffic.org)