

# Chapter 1

## Introduction

### Introduction

The classical approach to ethnobotanical studies has been oriented to building up inventories with a special focus on documentation of the local uses of various plants and their parts. The wider issues related to the utility of research processes and the findings to local populations have been ignored for the most part.

With the inception of participatory approaches and recognition of local knowledge systems in community-level development and conservation programmes, progressive change has taken place in the way applied ethnobotanical research is conducted. Ethnobotany has assumed the status of a distinct branch of natural science, and there has been a proliferation of terms to describe the specialised subdivisions of study; for example, ethnobiology, ethnoecology, ethnomedicine, ethnomycology, socioethnobotany, and so on (Schultes 1995). The nature and scope of the field has thus expanded and diversified.

*The scope of inquiry is reflected in the questions asked by its researchers. Specific questions asked by ethnobotanists include the following: what plants are available? what plants are recognised as resources? what social, political, biological, economic and ecological factors cause particular plants to be perceived as resources? how does the use of certain resources influence the use/availability of others? how is ethnobotanical knowledge distributed among the human population? what do people think about plants? how do they differentiate and classify elements of their natural environment? from what resource zones are plant products harvested? how are they used? What are the economic and financial benefits derived from plants? how are plant resources maintained? what effect does their management have upon the structure of local vegetation? what effect does their management have upon the structure and functioning of local institutions? how have the human activities and their consequences influenced the evolution of local plant populations? for what purposes are resources needed? to what stresses are human populations adapting? are human choices of particular resources adaptive? if so, to what are they adaptive? how are human adaptive strategies affected by change? what changes are presently occurring, and what changes have taken place in the past? (Alcorn 1995).*

As can be seen from these questions, modern ethnobotany is concerned with the totality of the place of plants in a culture (Ford 1978). It is the study of plant human interrelationships embedded in dynamic ecosystems of natural and social components. Put another way, ethnobotany is the study of contextualised plant use. Plant use and plant human interrelationships are shaped by history, by physical and social environments, and by the inherent qualities of the plants themselves'.

This reflects the breadth and depth of ethnobotanical studies. However, limitations of time, technical and financial resources, and sometimes lack of confidence in the researcher by the local community and restricted access to indigenous knowledge pose practical constraints in getting the answers to many of these questions. In order to facilitate improvement in the quality of ethnobotanical information in the HKH region, ICIMOD carried out a project, 'Promotion of Sustainable and Equitable Use of Plant Resources by the Application of Ethnobotany.'

This project was launched in partnership with the 'People and Plant Initiative' of the World Wide Fund for Nature (WWF), United Nations Educational, Scientific and Cultural Organization (UNESCO), and the Royal Botanical Gardens, Kew. The foundations for this partnership are founded on the recognition that traditional use of biologically diverse resources in the mountain region of the Himalayas not only reflects a diverse resource-use pattern, but also the methods of maintaining biological diversity in mountain ecosystems by mountain people.

Many people in rural communities have detailed and profound knowledge of ecological properties of locally occurring plants and rely on them for their foods, medicines, fuel, building materials, and other products. These resources are often governed and regulated by localised natural resource management systems that form the basis for decision-making. Since the majority of land-based production systems in the Himalayan region operate under indigenous knowledge systems, they are not only of value to the cultures from which they evolve, but also to scientists and planners who strive to improve conditions in rural societies. ICIMOD, with its strong commitment to sustainable development in the region, has founded the project on the following public policy principles.

- The principle that all development projects addressing issues related to agriculture, livestock and pasture, agroforestry, forestry, land-use planning, watershed management, and other natural resource management fields should take into account the traditional wisdom and expertise of the local inhabitants.
- The principle that the interface between people and nature must be addressed in conservation projects that propose setting aside productive lands as protected areas for the conservation of biodiversity. They should take into account the perspectives, uses, and traditional methods of management of natural resources by local inhabitants.
- The principle that the intellectual property rights of people with indigenous knowledge, including special ethnobotanical knowledge, should be respected.

In recognition of a programme approach that emphasises the application of ethnobotany in community development and conservation, many interrelated activities were considered to be important. These activities were identified in a planning meeting attended by specialists from six HKH regional member countries: Bangladesh, Bhutan, China, India, Nepal, and Pakistan and by associates of the 'People and Plants Initiative' from WWF, UNESCO, and the Royal Botanical Gardens, Kew. Training for young ethnobotanists was considered a key ingredient. Two principal activities were undertaken in this respect: field training workshops and financial assistance to enable them to carry out field research.

Four national and one subregional field-training workshops on applied ethnobotany were held in partnership with national institutions. The National Agricultural Research Council of



Pakistan organized the national workshop jointly with WWF Pakistan in Islamabad; Kunming Institute of Botany organized the national workshop for China in Kunming; King Mahendra Trust for Nature Conservation and Tribhuvan University together organized the national workshop for Nepal in Chitwan; the Applied Environmental Research Foundation together with the NEPED (Nagaland Environmental Protection and Economic Development) Project of the Government of Nagaland organized the national workshop for India in Kohima; and the Bangladesh Forest Research Institute organized the subregional workshop for Bhutan and Bangladesh in Chittagong.

Each of these workshops ran for an average duration of six days with participants and resource persons totalling about 25 in each workshop. The participants came from a variety of national, regional, and local institutions representing governments, autonomous scientific and educational bodies, and voluntary sector agencies. Nearly half of the time in each workshop was devoted to theoretical orientation and to teaching useful methods of ethnobotanical research. It was followed by visits to the nearby community villages and forest areas for practical exercises and trial of different methods. The proceedings for each of these workshops have been published separately as resource material and full references are provided in Annex 1.

Case studies and study grant proposals were invited from workshop participants and others. A total of fifteen such studies was selected for support: five in Nepal, four in China, and two each in Pakistan, India, and Bangladesh. These studies had a duration of one year and were largely undertaken by young researchers. Some of them did field research work for dissertations as part of regular degree programmes, while others came from various non-government organizations to strengthen their ongoing work in conservation and community development by improving their expertise in ethnobotany. The second chapter presents a brief overview of the research methods used by the investigators. This is an effort to provide the benefits of experiential learning to all those who are associated with applied ethnobotanical research, particularly in the Hindu Kush-Himalayan region. This overview is followed by a third chapter describing the important methods that have proved useful in initiating and conducting applied ethnobotanical studies on a variety of themes.

Issues associated with the ethics of community-based research, in general, and those dealing with indigenous knowledge and technologies are of prime significance. Experience shows that research in rural areas has been extractive in many ways and has contributed little to the well-being and empowerment of local communities. More recently, biological prospecting has become a big threat. It causes the loss of the potential economic interests of the custodians of indigenous knowledge. It is perceived to offer considerable potential for expanding our knowledge of biological resources and for providing sustainable commercial opportunities and positive local incentives for conservation. It has therefore attracted considerable attention from governments in developing countries that perceive in them a valuable opportunity to generate economic benefits from biodiversity conservation (Wells 1997). However, there are many slips between the cup and the lip in this matter, and both conservation and development practitioners feel that there is every chance that these benefits might not reach the local communities and might actually leave them much poorer than at present. The fourth and final chapter of this paper looks at some of these issues and discusses recent and ongoing efforts to safeguard the interests of the custodians and users of indigenous knowledge and technology.