

# **TRADITIONAL ECOLOGICAL KNOWLEDGE AND COMMUNITY-BASED SUSTAINABLE NATURAL RESOURCE MANAGEMENT IN THE EASTERN HIMALAYAS – A CASE STUDY OF THE APATANI TRIBE**

**KAMINI KUSUM BARUA**

Centre for Nature Conservation,  
Georg-August University,  
Von-Siebold Straße - 2 D-37075 , Göttingen, Germany

The Apatani eco-cultural landscape in the Eastern Himalayas illustrates the utility value of traditional knowledge systems in the face of globalization with high economical and ecological efficiencies. Animistic religious belief systems has strongly influenced the use of natural resources and hence the livelihoods of the ethnic tribes in this biodiversity hotspot of the Indian subcontinent. The Apatani cultural landscape identified by the 'Wet-Rice Cultivation' system which combines rice, millet and fish cultivation in the form of 'sedentary agriculture' in the valley land which is about 1600 m asl within a restricted area is not only highly productive but also energy efficient. Rural forestry as part of their community natural resource management where they were found to maintain several natural resource plantations like bamboo forest, pine plantations, *Castanopsis* plantation and mixed broad-leaved forest not only signified a traditional institutional arrangement but also a very efficient and sustainable method. The self-managed system of folk medicine practiced by the Apatanis reflected their traditional management and sharing of natural resources and preliminary studies had documented the utilization of about 158 medicinal plant species as herbal remedies. The use of above-ground plant parts and particularly the leaves was found to be higher. The ethnobotanical knowledge system of the Apatanis could be considered to richly contribute towards the development potential of herbal medicine. Community based natural resource management as found amongst the Apatanis could significantly contribute towards the integration of 'Traditional Ecological Knowledge' into biodiversity conservation and this could prove to be a very useful tool in conserving and managing the rapidly depleting biodiversity in the developing tropics while at the same time focusing on the sustainable livelihoods of these traditional developing societies, as cultural diversity in the Eastern Himalayas is a very effective method for protection of both natural resources and the cultural integrity and survival.

Key words: Apatani, eco-cultural landscape, Eastern Himalaya, community-based, natural resource, biodiversity, conservation, cultural diversity