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## **Traditional Environmental Knowledge Systems of the Ethnic Communities of Chittagong Hill Tracts in Bangladesh**

During the most parts of my current tenure of service in Chittagong University in the southern part of Bangladesh, I had the opportunity to do research work in the hill forest ecosystems of greater Chittagong. Most of my work, though, was concentrated in the Chittagong Hill Tracts (CHTs). CHTs lie in the south-eastern parts of Bangladesh, is a unique landscape occupying about one-tenth of the country's land area consisting of about 53 percent of the country's total forest land containing once luxuriant but presently decaying semi-evergreen forests. As many as 12 ethnic communities living in CHTs practice shifting cultivation locally termed as *Jhum*. Once a very highly productive system, *Jhum* lies at the center point of traditional environmental knowledge (TEK) systems that have developed through human-nature interactions. The main focus of my current research is to develop an understanding of the local environmental knowledge systems that might be useful for maintaining environmental sustainability in the degraded hill ecosystems.

The last several decades of mismanagement, such as clear felling of trees from natural forest ecosystem for raising monoculture plantations of valuable timber species, led to a gradually shrinking land base for *jhum* that prompted shortening of crop fallow periods and unsystematic tillage practices in hill slopes which in turn contributed not only to sharp declines in *jhum* productivity but also to massive land degradation and water quality deterioration. Declines in crop productivity coupled with rises in population in the hills led to agricultural intensification which eventually accelerated environmental degradation in the fragile landscape. Rising population pressure prompted landscape fragmentation and indiscriminate use of lands for production of cash crops largely ignoring the importance of tree vegetation for the maintenance of upland ecosystem. Intensive rubber and fruit gardening with the sole objective of higher returns from investment stand as major threats to environmental sustainability of the upland region. The development initiatives in most cases only aggravated the land degradation problem pushing the sustainable livelihood and food security issues of the ethnic communities at a serious risk. The value and potential of indigenous ecosystem-related knowledge in securing environmental protection of local traditional landscapes and wellbeing of the communities who live there is often not given due attention in development planning and practices. Therefore, a

sheer negligence of indigenous traditional knowledge systems in development programs has led to incompatible interventions in the CHTs that jeopardized people's livelihood and culture.

While, in general, traditional knowledge systems in the CHTs are on the wane, community resource use culture and conservation techniques are the vital learning tools for the conservationists and the restoration ecologists. Therefore, the goal of my research is to identify the traditional knowledge systems of the indigenous communities of the CHTs with a particular focus on the community resource use culture and conservation techniques for promoting their better understanding among the academia, the researchers and the forest landscape restoration specialists as well as to facilitate their incorporation into the current development practices in the region.