Bamboo in the High Forest of Eastern Bhutan

A Study of Species Vulnerability

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PREFACE

This case study from eastern Bhutan depicts clearly how policies that ignore traditional forest and species' management systems, that have evolved – and worked well – from generation to generation do so at the risk of the disappearance of not only sustainable, locally acceptable management and harvesting systems, but also at the risk of species disappearing.

This document provides rich information about bamboo resources in Bhutan, the geophysical conditions, main species, use and management. It is illustrated with sketches and photos. Bamboo comprises a number of fast growing species, important resources for housing, tools, and containers. The commercial demand for bamboo doubled from 1991 to 1997 in Bhutan. Bamboo is a good alternative non-timber forest species. Ridam, the traditional management of forest resources, a generic long-standing method for protecting mountai forest resources, needs to be supported and improved. The study also provides highlights of factors affecting the sustainability/vulnerability of bamboo which are of interest for future discussion.

The work by Messerchmidt, Temphel, Davidson and Incoll should put us on alert as species disappear throughout the Himalayas, and poverty encroaches on hard working hill and mountain dwellers.

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ICIMOD

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ABSTRACT

Bamboo is an important alternative forest resource harvested from the high forests of eastern Bhutan. A study was conducted to determine the significance of bamboo in the local subsistence and commercial economies, with particular attention to factors affecting the vulnerability of species (risk of extinction). The importance of indigenous knowledge and of the traditional system of forest resource protection are described, along with recommendations for linking them with scientific management. Field observations indicate that the bamboo in the forest of the Khaling-Kharungla Forest Management Unit (FMU) of Tashigang District, Bhutan, is under some threat from factors related to commercial demand, forest management, certain seasonal conditions, timber harvesting, forest grazing, and open (increased and uncontrolled) access by road. To improve analysis of the data, a vulnerability assessment scale was adapted from the literature and modified for further clarity and rigour. It is introduced here as a 'Rapid Plant Vulnerability Assessment Scale'. Thirteen categories of potential threat are ranked on the scale, several of which are new to this analysis and were added to determine the level of threat (low, moderate or high) more accurately. It is concluded that the bamboos of Khaling-Kharungla are vulnerable to a moderate to high degree, and that remedial action (better overall management) is needed.

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