

## INTRODUCTION

Important linkages exist between forestry and farming in the mountains. Forestry supports agriculture and livestock husbandry, making important contributions to the highland farming economies. It is important to understand these linkages in the context of forestry development and to gear future forestry activities to fulfil the needs of the local people. This study attempts, therefore, to demonstrate how forestry plays a role in the economic and social development of the people living in the hills and mountains and thus establish a place for forestry in rural development.

The major objectives of this pilot study are, therefore, to broaden the understanding of forestry-farming inter-relationships and discuss forestry's contribution to hill farming economies while highlighting the related problems. It also tries to show that increasing activities and investment in forestry could mean an increase and diversification in the income and employment opportunities of rural people.

The study concentrates on three main aspects:

- o Contribution of forestry to the hill farming system
- o The hill farmer's problems
- o Diversified income through forestry activities

Important policy implications of this study are identified.

In so far as ICIMOD is currently focusing its attention on the Hindu Kush-Himalaya Mountains, examples from this Region are taken to illustrate the above points. Examining in some detail a few case studies of forestry and allied practices relevant to the Region, therefore, also forms an important part of the study. Due to paucity of data, however, it may not be possible to illustrate case studies from all parts of the Hindu Kush-Himalaya Region



Plate 1: Farmer managed forest and terraced cropland in Banskharka, Sindhupalchok

or from each country within the Region. Most of the illustrative case studies are thus reported from Nepal where data became relatively easily available.

The economy of the Hindu Kush-Himalaya Mountain Region of Asia is dominated by a rural sector based exclusively on farming. Crop production, livestock husbandry and forestry constitute the three main closely and inseparably integrated components of much of the Region's hill farming system. The farmers who cultivate the land also raise livestock and depend on the forest for the support of both components. The practice is very different from that followed in developed countries in modern times. There, farming may be exclusively devoted either to crop production or livestock raising, and forestry is mainly seen as an independent commercial enterprise isolated from the other two. In the Hindu Kush-Himalaya Region, however, a change in one of the components of the farming system significantly affects the others. Although the hill farmers have always understood these linkages and closely integrated the agriculture, livestock husbandry and forestry practices, the inter-relationships have only recently begun to be understood and appreciated at the professional level (Mahat, 1985).

The forests in the Region represent an important land use, and make a substantial contribution to the upland farming economies.

They sustain the hill farming system by supporting agriculture and livestock husbandry. Hill agriculture is heavily dependent on trees and forests, and could not be sustained without them as it requires a net transfer of fertility from the forest, through fodder and leaf-litter, to the stall-fed animals. The forests are, as a result, also subject to heavy human and livestock pressure. Due to increasing competition for these resources the Hindu Kush-Himalaya Region has become the object of growing environmental and socio-economic concern in recent decades. The hill farmer has to bear the brunt of the ever-increasing problem.

Forestry, through appropriate activities and investment, could contribute to the Region's hill farming economies in a number of important ways. People oriented forestry development activities have high potential for creating additional income and employment opportunities, particularly for the poorer sections of hill rural populations, while also re-establishing the resource base for supplying their basic needs and reducing environmental deterioration. Logging and other harvesting operations may still be relevant in some areas to create some off-farm income to the local people. Promotion and development of forest based and allied cottage industries, handicrafts and cash crops also have a high potential for creating employment and income opportunities outside the farming occupation for hill farmers.



Plate 2: Trees on hill farmland maintained for livestock fodder & fuelwood: *Artocarpus lukoocha* Roxb. lopped for fodder by mid-February