

# Mountain Natural Resources



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## Integrating Geomatics and Participatory Techniques for Community Forest Management

Case Studies from the Yarsha *Khola* Watershed,  
Dolakha District, Nepal

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Preface

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*MNR Series No. 98/2*

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## Acknowledgments

# Preface

The work described in this publication has been conducted as part of the People and Resource Dynamics' Project (PARDYP), implemented by ICIMOD. PARDYP is a three-year watershed management research and development project in the fields of:

- cooperative rural participation,
- hydrology and meteorology research,
- soil erosion and fertility studies,
- conservation activities,
- rehabilitation of degraded areas, and
- agronomic and horticultural initiatives

PARDYP operates in five watersheds in four of ICIMOD's partner countries - Pakistan, India, Nepal, and China. It approaches watershed dynamics and research in a holistic, interdisciplinary, and participatory manner.

The goal of PARDYP is to improve the understanding of environmental and socioeconomic processes associated with degradation and rehabilitation of mountain ecosystems and to generate wider adoption and adaptation of proposed solutions by stakeholders in the Hindu Kush-Himalayas (HKH).

By providing a basic understanding of the processes concerned with natural resource degradation, it seeks to recommend proven strategies and programmes for community and farm-based rehabilitation of the natural resources in the HKH region.

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# Table of Contents

There is a growing need for forest resource information in community forestry to provide baseline data enabling changes in the resource to be assessed. Traditional methods of forest resource assessment are not appropriate for community forestry owing to the time and expense involved and their focus on timber production.

This paper shows how recent geomatics' technology can be used in conjunction with participatory techniques to provide a framework for low cost, appropriate technology forest resource assessment. The role and value of a variety of different approaches are evaluated by using case studies as examples.

The use of geomatics in a participatory context has great potential for community forest resource assessment in providing basic spatial data for management purposes rapidly and effectively, and by acting as a facilitation tool.

1.1 Introduction

1.2 Global Positioning Systems (GPS)

1.3 Geographical Information Systems (GIS)

## 1.4 The Study Area

1.4.1 Location

1.4.2 Land Use

1.4.3 Population

## Part 2: Case Studies from the Yarsha Khola Watershed

# Table of Contents

## Part One Setting and Methodology

Preface	
Acknowledgements	
Abstract	

### **Part 1: Setting and Methodology** **1**

1.1	Introduction	3
1.2	Aims and Objectives	4
1.3	An Outline of the Methodology	5
	Overview	5
	The Framework for Resource Assessment	6
	Initial Participatory Session	8
	Aerial Photographs	11
	Global Positioning Systems (GPS)	13
	Geographical Information Systems (GIS)	16
1.4	The Study Area	18
	Location	18
	Land Use	18
	Population	21

### **Part 2: Case Studies from the Yarsha Khola Watershed** **23**

2.1	Introduction to the Case Studies	25
	Background on the FUG and Their Forests	25
2.2	An Example of a Participatory Session	25
2.3	Aerial Photo Session	25
2.4	Using GPS	31
2.5	Information Analysis and Dissemination: The Role of GIS	33
2.6	Discussion	39
	Key Issues	39
	Addressing the Aims	40
2.7	Conclusions	42
	Limitations	42
	Further Work	43

### **References** **45**