

Strategic Innovations for

Improving Pastoral Livelihoods




in the Hindu Kush-Himalayan Highlands

Volume II: Technical Papers



Editors
Camille Richard
Kate Hoffmann

About ICIMOD

The International Centre for Integrated Mountain Development (ICIMOD) is an independent 'Mountain Learning and Knowledge Centre' serving the eight countries of the Hindu Kush-Himalayas – Afghanistan , Bangladesh , Bhutan , China , India , Myanmar , Nepal , and Pakistan  – and the global mountain community. Founded in 1983, ICIMOD is based in Kathmandu, Nepal, and brings together a partnership of regional member countries, partner institutions, and donors with a commitment for development action to secure the future of the Hindu Kush-Himalayas. The primary objective of the Centre is to promote the development of an economically and environmentally sound mountain ecosystem and to improve the living standards of mountain populations.

Strategic Innovations for Improving Pastoral Livelihoods in the Hindu Kush-Himalayan Highlands

(Volume II: Technical Papers)

Proceedings of an International Workshop held in
Lhasa, Tibet Autonomous Region, People's Republic of China
12-19 May 2002

Editors

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International Centre for Integrated Mountain Development (ICIMOD)
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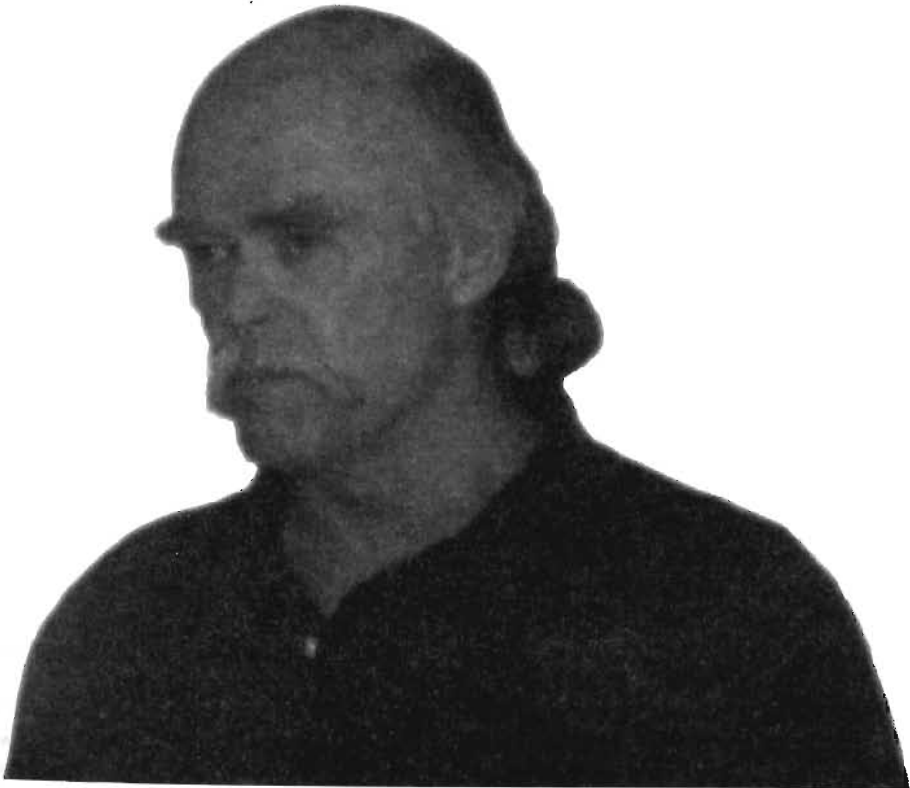
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Note: The affiliation and professional positions of the various participants were those current at the time of the meeting.

DEDICATION

This proceedings is dedicated to the memory of Dr. James Ellis from Colorado State University, whose untimely death is a great loss to the profession of rangeland sciences. Dr. Ellis was instrumental in developing the theory of non-equilibrium dynamics in rangelands, which has influenced contemporary rangeland policy in much of Africa and now Central Asia. We missed him in Lhasa, where he was to attend and present findings of pastoral research in Central Asia. We offer our sincere condolences to his family, friends and colleagues.



DR. JAMES ELLIS
OCTOBER 03, 1938 - MARCH 14, 2002

Foreword

Rangelands cover some 60% of the Hindu Kush-Himalayan and Tibetan Plateau region. Vast tracts of shrub, grassland, and sparse forests are the major sources of forage for free ranging native and domestic animals, as well as critical sources of wood, medicinal plants, wild food, fibres, and freshwater, and provide essential habitat for many endangered wildlife species. In terms of land area, rangeland resources encompass more territory than any other ecosystem in the Hindu Kush-Himalayas and are relied on by millions of farmers and pastoralists for their subsistence.

However, since rangelands are often remote, at high elevations, subject to harsh climates, and sparsely settled, they have largely been neglected by research and development agencies alike – not only in the Hindu Kush-Himalayan region but across the world. This neglect has been further exacerbated by institutional anomalies that generally allocate rangelands to forestry departments, for whom they are of marginal interest. In recent years this neglect of rangelands has started to change, although greater emphasis is still laid on the lower cultivated areas of mountain regions.

The Rangeland Programme at ICIMOD started from humble beginnings in 1995 with the hiring of its first rangeland management specialist. At this time, ICIMOD began to shift its focus to these largely ignored 'waste lands' of the high mountains. Strategies for range management and pastoral development were developed that focused on maintaining rangeland productivity, rehabilitation of degraded areas, protection and improvement of biodiversity, promotion of sustainable livestock production, and improving people's livelihoods by stimulating economic growth and increasing employment among the local population. Information was collected and analysed to provide the basis for informed discussion and development of appropriate and effective activities, and to feed into policy-level discussions.

With the generous support of the Federal Government of Austria, ICIMOD was able to expand its rangeland focus with the inception of the Regional Rangeland Programme (RRP) in 1999, a four-year endeavour to increase awareness of issues affecting the rangelands and the millions of inhabitants who rely on their resources to sustain a pastoral way of life, and to devise strategies to improve the quality of rangeland resources and the livelihoods of its inhabitants.

The International Year of the Mountains in 2002 provided an ideal opportunity to showcase the rangelands of the Hindu Kush-Himalayas. With the support of our long-standing partner in the Tibet Autonomous Region, the Tibet Academy of Agriculture and Animal Sciences (TAAAS), ICIMOD was able to bring a diverse array of professionals and members of community-based organisations together to share

ideas and strategies at a major event, “The Changing Face of Pastoralism in the Highlands of the HKH: A Strategy Workshop” held in Lhasa in May of 2002. The two volumes published here reflect the outcomes of this meeting and highlight our partnerships with the numerous institutions in the region that have helped to make the rangeland programme a success.

We hope that our partnerships will only grow from this point forward. ICIMOD is committed to support the positive efforts of the regional governments to serve their mountain communities through improved rangeland management. We have worked with our partners to develop the next phase of the Regional Rangeland Programme, as summarised in Chapter 6 of Volume I. We wish to continue our efforts in capacity building, communications and outreach, and policy support for integrated natural resource management and enterprise development through a focus on co-management so that our mountain rangeland communities can achieve cultural pride and prosperity in the decades to come.

We are pleased to be able to present this summary of discussions and collection of papers for all those concerned with helping the people of the rangelands to improve their livelihoods, and interested in the constraints and possibilities: development workers, policy makers, researchers, and many others. We are grateful to the participants for their excellent contributions; and to the editors for their superb work in summarising and presenting the results.

J. Gabriel Campbell, PhD
Director General

Acknowledgements

The Lhasa regional workshop was a challenging and exciting endeavour that would not have been possible without the participation of many players. It was an amazing experience to have the opportunity to interact with the diverse and committed group of individuals who attended this workshop. Participants from 17 countries – government officials, policy-makers, researchers, extension workers, representatives of both international and national NGOs, and members of community based organisations – came together to share experiences in an integrated manner. This is perhaps the first time that such a group has assembled on the Tibetan plateau and we all gained much insight. And we also had a most enjoyable time due to the warm hospitality of the Tibet Autonomous Region Government and its people. Special thanks to the TAR Vice-Governors, Ms. Tsering Drolka and Mr. Ja Bao, for their hospitality and support.

Many people worked hard to make this workshop a success. Primary among these are the staff of the Tibetan Academy of Agriculture and Animal Sciences (TAAAS) who took the lead in organising the logistical arrangements for the meeting. Special thanks go to the leadership of TAAAS – Lousang Danda, Chen Zhengrong, Wang Baohai, Li Baohai, Gu Maozhi, and Nyima Tashi. Their staff worked exceptionally hard for weeks prior to and during the meeting and their dedication was much appreciated. These include: Yang Yong, Shen Yuqiong, Wang Jianzhong, Liu Xiaohan, Pubu Ciren, Chen Yuxiang, Xiewei, Zhuang Yinzheng, Xiehui, Xiong Weiping, Liang Chunfang, Deji, Lu Yuling, Danzong, La Bacang, Ji Quiying, Yixi Duoji, Dawa, Luosang, Basang Ciren, and Laxi Lazong.

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Translation services were provided by a number of excellent Chinese professionals. Without their assistance, we could not have involved many of the local community and government representatives. With good translation they were able to participate fully in an international forum. These include: Li Bo from the Center for Biodiversity and Indigenous Knowledge, Tan Jinzheng from the Sichuan Agricultural College, Mr. Song from Tibet University, Norbu Tsering from Tibet Academy of Social Sciences, Xie Hui from Simon Fraser University Canada, and Han Jianlin from the International Livestock Research Institute. Han Jianlin also played a crucial role in organising the schedule and speakers.

Last but not least, many thanks to the primary supporting organisations: the Federal Government of Austria and the European Community's INCO-DEV. Many additional organisations supported participants to attend the meeting, including: ICIMOD International Year of the Mountains (supported by SIDA); The Mountain Institute, Aga Khan Rural Support Programme, Pakistan; OXFAM China; US State Department Diplomacy Office; International Fund for Agricultural Development; Helvetas, Bhutan; The Bridge Fund; the Trace Foundation; Basic Human Needs Project (CIDA), Tibet; EU-Panam Project Tibet; Heifer Project International, China; Plateau Perspectives; Tibet Poverty Alleviation Fund; KunDe Foundation, Tibet; and WWF China.

Executive Summary: Volumes 1 & 2

In May 2002, ICIMOD and the Tibetan Academy of Agriculture and Animal Sciences organised an international workshop on 'The Changing Face of Pastoralism in the Hindu Kush-Himalayan (HKH)-Tibetan Plateau Highlands', held in Lhasa, Tibet, as one of the contributions to the International Year of Mountains 2002. The meeting brought together more than 125 participants from 21 countries to build a mutual understanding of the realities of highland pastoralism in the HKH-Tibetan Plateau: the factors that have contributed to marginalisation, the response, the challenges faced by development workers and policy makers, existing programmes and policies, and future policy strategies.

The proceedings of the Lhasa workshop and related material are presented here in two volumes. Volume One summarises the background of ICIMOD's RRP and the rationale and objectives of the workshop; provides detailed summaries of the presentations and working group discussions; and summarises the outcomes of the workshop, including conclusions drawn during a roundtable on rangelands conducted at the Bishkek Global Mountain Summit in Kyrgyzstan in October of 2002. Volume Two contains a selection of detailed papers by invited participants of the workshop.

Volume One is arranged as follows.

Chapter One describes ICIMOD's Regional Rangeland Programme (RRP) and provides the justification for the workshop, given the objectives of the RRP.

Chapters Two through Four provide summaries of the 28 invited oral presentations given during the first three days of the workshop and the results of the juniper research trials that were shown during a workshop field trip.

Chapter Two highlights integrated pastoral production research conducted in the HKH region. To date, much of the research related to rangelands that has been conducted in the HKH region has addressed mono-sectoral issues such as livestock husbandry or forage development. In this chapter, papers are presented that offer a more multi-disciplinary perspective, ranging from rangeland ecology and foraging behaviour to de facto customary arrangements for the management of pastures and other rangeland resources.

Chapter Three summarises eight papers that revolve around various aspects of integrated development approaches, keeping in mind the interconnectivity between technologies, markets, financial capital, and access to social services. Major themes include improving local community access to technological, financial, and social services, improving marketability of livestock products, and identifying alternative livelihoods, such as eco-tourism, as a means to augment pastoral incomes.

The presentations in Chapter Four describe participation as a driving force in the process of development and conservation initiatives. Participation here involves not only institutional building of the local communities, but also building the capacity of government and non-government institutions to facilitate local learning processes and improve service delivery to pastoral communities that meets both local needs and society at large. The last two papers deal with grassland tenure policies as a basis for collaborative management, providing the security and incentive for communities to participate in rangeland improvement and development schemes. All papers emphasise that effective collaboration among local and government stakeholders requires a supportive extension, research, and policy environment that is adaptive to change and responsive to local needs, knowledge and aspirations.

Chapter Five provides a summary of the working group sessions conducted during days 5 and 6.

Chapter Six summarises the outcomes of the Lhasa workshop and the Bishkek Global Mountain Summit Rangeland Roundtable. It also provides the working strategy for the next phase of ICIMOD's Regional Rangeland Programme (2003-2006).

The workshop schedule and the contact information for contributing authors are given in Annexes One and Two.

Twelve full papers are printed in Volume 2. These papers were selected because they provided additional information that could not be condensed into the summaries presented in the summary volume. Other papers by ICIMOD partners will be published in separate volumes by ICIMOD, and in external publications.

Note: the papers in this volume have been edited into the current form, in some cases without further review by the authors.

Acronyms and Abbreviations

ADB	Asian Development Bank
AEZ	Agro-ecological Zone
AHB	Animal Husbandry Bureau
AKRSP	Aga Khan Rural Support Programme
APPA	appreciative participative planning and action
CBO	community-based organisation
CPA	common property arrangements
CPR	common property regime
CPR	Center for Policy Research
CTNR	Chang Tang National Nature Reserve
GGR	Gilgit Ghizer region
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
HKH	Hindu Kush-Himalayas
ICIMOD	International Centre for Integrated Mountain Development
IFAD	International Fund for Agricultural Development
JDNP	Jigme Dorji National Park
KCC	Khangchendzonga Conservation Committee
KKH	Karakoram Himalaya
LRKB	Livestock and Rangeland Knowledgebase
ME	metabolisable energy
NGO	non-government organisation
NRM	natural resources management
PAR	participatory action research
PLA	participatory learning and action
PME	participatory monitoring and evaluation
PRA	participatory rural appraisal
PRC	People's Republic of China
RCP	Regional Collaborative Programme
RRA	rapid rural appraisal
RRP	Regional Rangeland Programme

SLC Snow Leopard Conservancy
SME small to medium sized enterprise
SNZ Shenzha Nature Reserve
SPNP Shey Phoksundo National Park

TAAAS Tibetan Academy of Agriculture and Animal Sciences
TAR Tibet Autonomous Region
TARFB Tibet Autonomous Region Forestry Bureau
TMI The Mountain Institute
TPAF Tibet Poverty Alleviation Fund
TPIB Tibet Plateau Institute of Biology

UK United Kingdom
UNDP United Nations Development Programme

WTO World Trade Organization
WWF Worldwide Fund for Nature

Contents

Foreword

Acknowledgements

Executive Summary

Acronyms and Abbreviations

**Community-based Natural Resource Management among Kazakhs
In the Tlan Shan and Altay Shan Mountains of Xinjiang** 1

Tony Banks

**Tenure and Management Arrangements for China's Grassland
Resources: Fieldwork Findings and Legal and Policy Recommendations** 15

Brian Schwarzwalder, Zheng Baohua, Li Ping, Su Yufang, and Zhang Lichang

Resource Tenure Models for Rangeland Improvements 37

Camille Richard and Tan Jingzheng

**IFAD's Experience in Supporting Community-based Livestock
and Rangeland Development** 47

Ahmed E. Sidahmed and Antonio Rota

**How Much Participation? Experiences with Participatory
Approaches in Pastoral Settings** 59

Wolfgang Bayer and Ann Waters-Bayer

**Integrated Application of Technical Skills and Participatory
Approaches in Rangeland Improvement in Pastoral Areas** 73

Zhao Qun, Ma Jianyun and Niang Maojia

**A Community-based Approach to Mitigating Livestock – Wildlife
Conflict in Ladakh, India** 95

Rinchen Wangchuk and Rodney Jackson

**Medicinal Plants within the Context of Pastoral Life in the Village of
Pungmo, Dolpo, Nepal** 107

Yildiz Aumeeruddy-Thomas, Yeshi Choden Lama, Suresh Ghimire

**Where There is No Doctor: Building the Capacity of the Himalayan
Amchi to Serve Pastoral Communities** 129

Tenzing Bista, Gyatso Bista, and Yeshi Choden Lama

**Holistic and Community-based Approaches to Building
Sustainable Livelihoods for Herders in Mongolia** 143

Ayurzana Enkh-Amgalan

Integrating Yak-herding Communities Into Conservation and Resource Management Planning Processes In Jigme Dorji National Park, Northwest Bhutan	159
<i>Tshewang R. Wangchuk</i>	
Pastoralists, Government, and Natural Resources in Iran: Organisational Learning in the Forest and Range Organisation	173
<i>Mohammad H. Emadi</i>	

Contents of Volume I

Foreword

Acknowledgements

Executive Summary

Acronyms and Abbreviations

- 1** ICIMOD's Regional Rangeland Programme and the Objectives of the Lhasa Regional Workshop
- 2** Integrated Research on Pastoral Production Systems
- 3** Integrated Development Approaches: Improving Access to Rangeland Technologies, Markets, Alternative Incomes, and Financial and Social Services
- 4** Enabling Institutional and Policy Change to Support Collaborative Pastoral Development and Rangeland Conservation
- 5** Outcomes of the Lhasa Working Group Sessions
- 6** Strategic Innovations for Improving Pastoral Livelihoods in the Highlands of the Hindu Kush-Himalayas

Annex 1: Agenda

Annex 2: Contact Information for Contributing Authors of Invited Oral Presentations