



Land Use History in Montane Mainland Southeast Asia

Highlights and Outcomes of a Mobile Workshop
held 15-27 January 2005, in China, Laos, and Thailand



About the Organisations

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-Himalayan region. The primary objective of the Centre is to promote the development of economically and environmentally sound mountain ecosystems and to improve the living standards of mountain populations.

CBIK

The **Centre for Biodiversity and Indigenous Knowledge (CBIK)** was established in Kunming, People's Republic of China, in 1995 as a non-profit organisation dedicated to supporting the indigenous knowledge of ethnic minorities and to enhancing biodiversity conservation in the mountain regions of Southwest China. CBIK is a participatory learning organisation and knowledge centre, which aims to explore alternative development approaches to working directly with indigenous people and communities to enhance their livelihoods and maintain cultural and biological diversity. CBIK does this through application of indigenous knowledge practices and innovations in an environment of rapid change and uncertainty in southwest China.

Land Use History in Montane Mainland Southeast Asia

Highlights and Outcomes of a Mobile Workshop held 15–27 January 2005, in China, Laos and Thailand



Compiled by
Xu Jianchu, Chun K. Lai, and Sardu Bajracharya

Sponsored by
The Rockefeller Foundation

Report prepared by
Centre for Biodiversity and Indigenous Knowledge (CBIK)
International Centre for Integrated Mountain Development (ICIMOD)

August 2005

Copyright © 2005

International Centre for Integrated Mountain Development
Centre for Biodiversity and Indigenous Knowledge
All rights reserved

Published by

International Centre for Integrated Mountain Development
G.P.O. Box 3226
Kathmandu, Nepal

Photos: Title page – the workshop participants in China
All photos by the workshop participants

ISBN 92 9115 112 2

Editorial Team

Susan Sellars (Consultant Editor)
A. Beatrice Murray (Senior Editor)
Joyce Mendez (Editor)
Dharma R. Maharjan (Technical Support and Layout Design)

Printed and bound in Nepal by

Hill Side Press (P) Ltd.
Kathmandu

The views and interpretations in this paper are those of the contributor(s). They are not attributable to the International Centre for Integrated Mountain Development (ICIMOD) or the Center for Biodiversity and Indigenous Knowledge (CBIK) and do not imply the expression of any opinion concerning the legal status of any country, territory, city or area of its authorities, or concerning the delimitation of its frontiers or boundaries, or the endorsement of any product.

Note: The affiliation and professional positions of the various participants were those current at the time of the meeting.

Preface

The region known as 'Montane Mainland Southeast Asia' (MMSEA) includes the upland areas of Yunnan in southwest China, Myanmar, Thailand, Laos, Vietnam, and part of Cambodia, all of which share many common cultural and biophysical features. The common characteristics include history, settlement patterns, land use, biodiversity and ecological landscapes, economy, livelihood activities, and associated ideological and cosmological elements. Crossing the MMSEA landscape and reading its features, we often find that the land-use practices are a product of a long history of creative adaptation to local environments and ecological conditions such as climate, terrain, soil, water, air, plants, and animals. These adaptive practices have given rise to the knowledge that enables these people to live well and with confidence in the diverse and sometimes harsh environments, as well as to develop livelihoods based on fishing, hunting, gathering, grazing, and shifting cultivation and terraced agriculture, and to trade through social networks in natural and cultural products. Historically, caravans have served as market structures and created a sociocultural network among mountain and lowland communities. Today, the caravan trade has been replaced by modern transportation systems, such as the proposed Kunming-Bangkok highway, and economic corridors have evolved into transnational highways, riverways and railway links, which have become major drivers of land use and land cover change in the region.

Human modification of land cover has been a major driving force in earth system changes over the past centuries, and currently this change is being accelerated as a result of rapid economic development and the impacts of globalisation. Land use policy is at the centre of some of the most complicated problems faced by policy makers around the world today. Over the past decades, land use and land cover change (LUCC) science has attempted to bridge the scale and epistemological gaps for land use decision-making through interdisciplinary study, participatory research and development, and science-policy interaction. LUCC science not only facilitates knowledge exchange among stakeholders and addresses the scientific questions linking humans and ecosystems, it also serves as a tool for public action and decision-making.

The International Centre for Integrated Mountain Development (ICIMOD) has worked together with partners on issues related to land use and land cover change in mountain regions for some two decades. Our premier concern is the effects of land use and land cover change on environmental goods and services for both upland and lowland people.

In January 2005, an interdisciplinary team facilitated by ICIMOD joined with partners to participate in a unique learning process to gather, experience, and exchange information about land use and land cover in Montane Mainland Southeast Asia. This 'mobile workshop' on land use history traversed through the heart of the MMSEA eco-cultural region, stopping at three venues in three different countries: China, Laos, and Thailand. The innovative approach included case studies in each area, thematic working groups, community assessments, and policy dialogue for sharing knowledge

and ideas about epistemology. The understanding of participants moved from simplicity to greater realism and complexity. Major questions arose as to whether land use and land cover change can be 'governed' through policy interventions. In negotiating trade-offs between various stakeholders and land use options, the real-world interests of multiple key actors at various scales need to be balanced, and innovative institutions and technologies need to be focused at 'hot spots' of change rather than spread homogenously.

This publication summarises the outcomes of the mobile workshop and provides insight into land use dynamics in the Greater Mekong sub-region. Equally important, it outlines the mobile workshop approach, which proved to be highly successful for interactive learning and sharing knowledge on complex mountain issues, in this case those related to land use and land cover change. We are proud that ICIMOD could be a part of this learning process, and owe particular thanks to the Rockefeller Foundation for generous financial support for this workshop. This publication will be of benefit to all those interested in innovative approaches to learning and information exchange on complex regional issues, especially those related to mountains and land use and land cover, as well as to planners and policy makers coping with LUCC issues, and those interested in the MMSEA region itself. We are very glad to be able to further disseminate information about these methods and issues through the medium of this publication.

Xu Jianchu, Ph.D.
Programme Manager WHEM
ICIMOD

executive summary

In January 2005, some 60 participants from eight countries took part in a unique mobile workshop on land use history that transected the Montane Mainland Southeast Asia (MMSEA) eco-cultural region from China to Laos, finishing in Thailand.

The participants started at the Xishuangbanna Tropical Botanical Garden (XTBG) in the Yunnan Province of China, travelled overland to Luang Prabang in northern Laos, and then flew to Chang Mai in Thailand. En route, participants learnt about large-scale and household-managed rubber plantations in Mengla, Yunnan; farming systems, livelihoods, and emerging market opportunities in the upland communities of Oudomxay and Luang Prabang; and about the more permanent, intensive market-based land use systems found in Chiang Mai.

During preliminary sessions in Xishuangbanna, participants were given an overview and profile of the region and introduced to spatial, thematic, and transboundary dimensions, as well as community-based perspectives and issues in MMSEA.

A mini-workshop was held in Luang Prabang to explore the science-policy interface, particularly the policy framework and field realities of shifting cultivation in northern Laos.

Three working groups were formed to explore, discuss, analyse, and synthesise field work and learning on the interlinked themes of land use change; local livelihoods, markets, and trade; and resource governance.

Participants contributed a number of interesting case studies spanning the spectrum of the workshop themes, providing key insights into local as well as transboundary dynamics in MMSEA. Participants also shared their work and findings in an interactive way through three information markets that featured relevant work in China, Laos, and Thailand.

The group synthesis work revealed a wide range of learning and findings with respect to:

- ongoing land use trends such as the sedentarisation of shifting cultivation, commercialisation of cash crops, and conversion to urban and non-agricultural uses;
- emerging livelihood and market opportunities, both local and trans-border, linked to the development of economic corridors and trade liberalisation; and
- evolving resource governance arrangements driven by decentralisation, democratisation, and growing opportunities for civil society involvement.

The participants identified a series of key researchable questions for future consideration and a core group was identified to plan future activities in MMSEA.

In addition to this workshop report, other expected outputs include a CD-ROM containing the workshop documents, and possibly a special journal issue based on selected papers, case studies, and workshop outcomes.

The success of the mobile workshop was the result of excellent cooperation among partner organisations such as the Kunming Institute of Botany (KIB), Centre for Biodiversity and Indigenous Knowledge (CBIK), National University of Laos (NUoL), National Agricultural and Forestry Research Institute (NAFRI), Chiang Mai University (CMU), World Agroforestry Centre (ICRAF), International Centre for Integrated Mountain Development (ICIMOD), and East-West Center (EWC). The workshop was made possible by the generous sponsorship of the Rockefeller Foundation to whom all the participants are grateful.

acronyms and abbreviations

ADB	Asian Development Bank
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
CAS	Chinese Academy of Sciences
CBIK	Centre for Biodiversity and Indigenous Knowledge
CDRI	Cambodia Development Resource Institute
CIFOR	Centre for International Forestry Research
CMU	Chiang Mai University
CP	Coop Promotion
CPI	Committee for Planning and Investment
DAFO	District Agriculture and Forestry Office
DAN	Divers Alert Network
ELSE	Ecosystem Landscape Scenario Explorer
ERI	Environment Research Institute
EWC	East-West Centre
FTP	file transfer protocol
GIS	geographic information system
GMS	Greater Mekong Sub-region
GO	government organisation
HRS	Household Responsibility System
ICIMOD	International Centre for Integrated Mountain Development
ICRAF	World Agroforestry Centre
IFAD	International Fund for Agricultural Development
IUARP	Integrated Upland Agricultural Research Project
IUCN	The World Conservation Union
KIB	Kunming Institute of Botany
LAFC	Luang Prabang Agriculture and Forestry College
LUCC	land use and land cover change
MA	Millennium Assessment
MCTPC	Ministry of Communications, Transport, Post and Construction
MIT	Massachusetts Institute of Technology
MMSEA	Montane Mainland Southeast Asia

MoU	memorandum of understanding
MRC	Mekong River Commission
NAFRI	National Agricultural and Forestry Research Institute
NGO	non-government organisation
NRM	natural resource management
NTFP	non-timber forest product
NUoL	National University of Laos
NUR	Northern Upland Region
OTOP	One Tambon One Product
PAFES	Luang Prabang Provincial Agriculture and Forestry Extension Service
PAFO	Luang Prabang Provincial Agriculture and Forestry Office
RECOFTC	Regional Community Forestry Training Center for Asia and the Pacific
RS	remote sensing
SC	shifting cultivation
SOE	state-owned enterprise
SUAN	Southeast Asia Universities Agroecosystem Network
TVE	township-village enterprise
USAID	United States Agency for International Development
WHEM	Water, Hazards and Environmental Management
WRI	World Resources Institute
WTO	World Trade Organization
XTBG	Xishuangbanna Tropical Botanical Garden

contents

preface
executive summary
acronyms and abbreviations

introduction: preparing for the road ahead	1
Montane Mainland Southeast Asia	1
The MMSEA Mobile Workshop	1
MMSEA overview and profile	9
Spatial Overview and Macro-Micro Linkages	9
Community-based Perspectives and Issues in MMSEA	10
Area Profiles: Yunnan, Northern Laos and Northern Thailand	11
Transboundary Perspectives and Issues in MMSEA	12
dissecting the workshop themes	15
Land Use Change	16
Local Livelihoods, Markets and Trade	18
Resource Governance	20
field learning: on the road through MMSEA	23
Land Use Transformation in Xishuangbanna	25
Upland Development in Laos	26
Market-Economy Transition in Northern Thailand	27
Land Use Change Group – Key Findings	30
Livelihoods, Markets and Trade Group – Key Findings	31
Resource Governance Group – Key Findings	32
science-policy dynamics in Lao PDR	35
Agriculture and Development in Luang Prabang	35
Northern Lao Development Strategy	36
Land Use Change in Northern Laos	37
Sustainable Livelihoods in Laos	37
Panel and Open Forum Discussion	38
case studies from participants	41
Case Studies within the Context of the Mobile Workshop	41
information markets	45

thematic synthesis and future research questions	47
Land Use Change – Group Synthesis	49
Local Livelihoods, Markets and Trade – Group Synthesis	49
Resource Governance – Group Synthesis	49
Future Research Questions	53
take-home messages, follow-up actions and feedback	57
Workshop Messages and Follow-Up Activities	57
Feedback on the Workshop	61
mobile workshop wrap-up: the road goes on	63
Emergence of a Core Group to Advance the MMSEA Agenda	64
Facilitator's Feedback, Workshop Outputs and Closure	65
annex 1: list of participants	67
annex 2: workshop programme	73
annex 3: composition of thematic working groups	77
annex 4: field visits in southern Yunnan	79
annex 5: field visits in northern Laos	87
annex 6: field visits in northern Thailand	93
annex 7: case study abstracts	101