

thematic synthesis and future research questions

The morning of 25 January in Chiang Mai was devoted to a final session on the three thematic working groups. The groups met separately to synthesise their key observations, perspectives and learning, as well as articulate priority research questions for the future. This was followed by group report-backs and discussion.

The two main aims of the final session of the thematic working groups were

- to bring closure to the thematic working group discussions focusing on comparative analysis across sites in Xishuangbanna, northern Laos and northern Thailand, and
- to frame researchable questions based on priority needs and gaps in knowledge across all themes.



Wrap up workshop in Chiang Mai

Table 1: Major factors relating to land use dynamics observed in the six sites visited in northern Thailand

| | Mae Khongkha | Mae Suk | Mae Tum | Lamphun | Mae Wang | San Sai |
|---------|--|---|---|---|--|--|
| Change | <ul style="list-style-type: none"> from shifting cultivation (SC) to permanent agriculture | <ul style="list-style-type: none"> from SC/opium production to permanent agriculture from open access to defined protected areas | <ul style="list-style-type: none"> shorter fallow periods | <ul style="list-style-type: none"> from paddy and degraded forest to longan orchards | <ul style="list-style-type: none"> from SC to fruit trees and forests | <ul style="list-style-type: none"> from agriculture to non - agriculture activities from staple crops to high -value crops |
| Drivers | <ul style="list-style-type: none"> contract farming, private companies (market integration) government policy against SC | <ul style="list-style-type: none"> government policy road access markets water use issues | <ul style="list-style-type: none"> population increase culture/lifestyle | <ul style="list-style-type: none"> markets (price) | <ul style="list-style-type: none"> tourism promotion | <ul style="list-style-type: none"> market information lifestyle |
| Markets | <ul style="list-style-type: none"> from farmer cooperative to private company shift away from contract farming | <ul style="list-style-type: none"> crop choice driven by market price integrated directly with market | <ul style="list-style-type: none"> not integrated with markets (subsistence) | <ul style="list-style-type: none"> from farmers cooperative to central cooperative | <ul style="list-style-type: none"> linked to guesthouses, tourism market and industry | <ul style="list-style-type: none"> individual access local, regional, and international markets |
| Future | <ul style="list-style-type: none"> small expansion (due to land tenure issues) possible disintegration of permanent agricultural production system | <ul style="list-style-type: none"> out-migration (due to land decrease in g. outside opportunities) remittances issues with yield higher education cultural change (in food, clothing, etc.) | <ul style="list-style-type: none"> national park? depends on the government | <ul style="list-style-type: none"> shift towards dry products and diversified processing market uncertainties due to government interference improved transport of fresh products possibility of new markets in China | <ul style="list-style-type: none"> change in lifestyle protection of the forest resources local self -sufficiency | <ul style="list-style-type: none"> sale of agricultural land for <ul style="list-style-type: none"> consolidation conversion to housing & commercial enterprises |
| R3 Road | <ul style="list-style-type: none"> potential for self -marketing | | | | | |
| | <ul style="list-style-type: none"> new markets (international) | | | | | |

Summary aspects of field learning by the thematic groups appear earlier in this report (see Section 4: "Field Learning: On the Road through MMSEA").

Land Use Change – Group Synthesis

Through the mobile workshop interactions, the land use change group witnessed three major trends of change in the areas traversed.

Sedentarisation – from shifting cultivation to more permanent forms of land use (e.g., rubber plantations)

Commercialisation – from staple subsistence food crops to high-value cash crops

Urbanisation – from agricultural land use to non agricultural uses (e.g., urban, peri-urban)

The drivers of these changes were found to be predominately: government policy, markets, NGO and GO project interventions, technology, lifestyle and culture, roads

The group also analysed the six sites visited in the Chiang Mai area in terms of land use change, drivers, markets, the future, and the R3 highway that is under construction (see Table 1).

Local Livelihoods, Markets and Trade – Group Synthesis

The local livelihoods, markets and trade group synthesised their collective learning by comparing the livelihood activities, market issues and key changes in the three areas studied during the mobile workshop (see Table 2).

This group also made a comparative synthesis of land allocation policy, market economy, economic development and village institutions in the three areas (see Table 3).

Resource Governance – Group Synthesis

In terms of general issues, the key learning of the resource governance group focused on:

- shifting cultivation,
- economic development zones,
- institutional infrastructure (e.g., rural finance/credit access),
- 'negotiating' within informal/formal political frameworks, and
- government monitoring and feedback mechanism for improving governance.

The group also had an opportunity to reflect on the specific governance issues that emerged from the workshop from the viewpoint of the Chinese, Lao and Thai participants. These key focused issues, as well as other learning points, are summarised in Table 4.

Based on their field observations and learning, the resource governance group also provided an excellent synthesis of the governance history, current governance arrangements, and strengths and limitations of current governance in the areas visited (see Annex 4 on field visits in southern Yunnan, Annex 5 on field visits in northern Laos, and Annex 6 on field visits in northern Thailand).

Table 2: Comparative analysis of livelihoods, markets and changes in southern Yunnan, northern Laos and northern Thailand

| Southern Yunnan, China Xishuangbanna | Northern Laos Oudomxay & Luang Prabang | Northern Thailand Chiang Mai and Lamphun |
|--|--|---|
| Livelihood Activities | | |
| <ol style="list-style-type: none"> 1) Rubber plantations — small and large scale 2) Paddy rice cultivation 3) Upland agricultural practice (e.g., rice, maize) 4) NTFPs for subsistence 5) Off-farm employment 6) Income from upland conservation programme 7) Land renting | <ol style="list-style-type: none"> 1) Traditional subsistence livelihoods: swidden (shifting cultivation) and use of natural resources, production of marketable surplus such as swidden rice and livestock 2) Crop substitution (opium) and shifting cultivation stabilisation (swidden rice) towards cash crop production 3) Weak support systems and entrepreneurial approach leading to higher dependence on natural resource use (e.g., NTFPs) | <ol style="list-style-type: none"> 1) Combination of livelihood activities differs depending on the location of the settlement (e.g., shifting cultivation, cash crops, fruit-trees, NTFPs, livestock, cottage industry, and small-scale enterprise) 2) More livelihood and market options for households and communities |
| Market Issues | | |
| <ol style="list-style-type: none"> 1) Individual-based market system 2) Price fluctuation of rubber products (e.g., increase market integration) 3) Potential competition with neighbouring countries for market opportunities 4) Scale of market for different commodities 5) Increased support services provided by private sector 6) Contract farming (e.g., rubber) 7) Unregulated market for NTFPs | <ol style="list-style-type: none"> 1) Market integration towards commercialisation of agricultural products (e.g., rubber, maize) and natural resources (e.g., bitter bamboo shoots, cardamom) 2) Emerging potential for eco-tourism (e.g., Luang Prabang) 3) Community-based approach to marketing 4) Asymmetrical market information leading to market opportunities | <ol style="list-style-type: none"> 1) Upland and lowland labour exchange 2) Agro-industries (e.g., CP Company) 3) Road network and access to transport 4) Tourism 5) Role of private companies 6) Role of agricultural cooperatives |
| Key changes | | |
| <ol style="list-style-type: none"> 1) Improved standard of living: income, access to public services, etc. 2) Improved basic infrastructure (e.g., roads, electricity, etc.) 3) Expansion of rubber plantations 4) More access to market, information and labour 5) Less access to natural resources caused by different policies (e.g., land policies, forest management policies, etc.) 6) Social differentiation and transformation of social structure 7) Transition from a centrally planned economy to a market economy | <ol style="list-style-type: none"> 1) Land and resource use policies (e.g., shifting cultivation stabilisation, opium substitution, land and forest allocation) 2) Emerging regional economy with China and Thailand 3) Regional political stability 4) International projects 5) Infrastructure improvement (e.g., roads, electricity, etc.) 6) Resettlement and relocation 7) Off-farm employment 8) From land-locked to 'land-linked' through economic corridors 9) NTFPs and institutional arrangements | <ol style="list-style-type: none"> 1) Market changes (e.g., price) 2) National policies on forest and resource use (e.g., national park) 3) Population increase 4) Cultural and lifestyle changes 5) Project interventions 6) Economic crisis of the late 1990s |

Table 3: Comparison of policy, market, development, and village institution aspects in the three areas studied

| | Southern Yunnan | Northern Laos | Northern Thailand |
|--------------------------------------|---|--|--|
| Government policy on land and forest | <ul style="list-style-type: none"> major changes occurred during the 1950s, 1980s, and 1990 s strong focus of government policy on environment and improving land productivity (e.g., forest conservation, flood control, food security, etc.) natural resource management (NRM) is integral to poverty alleviation goals of the government relocation policy and resettlement in relation to state industrial development policy and control of forest and land tendency to focus on off -farming livelihood strategies such as improving household cash income through wage labour opportunities increasing scarcity of natural resources and problem of confusing management structure | <ul style="list-style-type: none"> policies began in the 1990s classification of forest and land: focus on forest conservation and protection NRM is integral to poverty alleviation goals of the government relocation/resettlement to prevent upland communities from conducting shifting cultivation (SC) relatively recent transition from subsistence to cash economy relatively abundant forest resources compared to China and Thailand | <ul style="list-style-type: none"> 'land tiling' began in 1985 forest and watershed classification by the Royal Forest Department opium substitution and SC control policies changing land use and management practices in the uplands |
| Market economy | <ul style="list-style-type: none"> transition from centrally planned economy to market economy improved infrastructure development (e.g., transportation) integration with international market and increasing market opportunities local administrative support for market driven production increased contract -farming more access to capital and production inputs | <ul style="list-style-type: none"> limited access to market and market opportunities support of international organisations community -based marketing limited access to capital and production inputs strong influence of Chinese economy in Oudomxay, while Luang Prabang is more influenced by Thai economy | <ul style="list-style-type: none"> households from upland and lowland villages are highly integrated into regional/global market and have different market strategies (e.g., combination of activities including cash crop production, cottage industry, wage labour, eco -tourism, etc.) large volume of agricultural production is geared towards export (e.g., to China, US A, and Europe) increased economic and trade linkages with China relatively greater government support to private industries (e.g., agro -industry) compared to farming households availability of capital resources from domestic economy farming households in upland/highland/lowland have different capacity to mobilise capital resources |

Table 3: Cont.

| | Southern Yunnan | Northern Laos | Northern Thailand |
|----------------------|--|--|--|
| Economic development | <p><i>Rubber promotion</i></p> <ul style="list-style-type: none"> • more experience • more planting in the lowland • large and small scale plantations • linkage to industrial development • migration of labour • less dependence for food production • more access to information • more market choices • loss of natural forest <p><i>Market management, government services, and capacity building:</i></p> <ul style="list-style-type: none"> • primary focus on rubber • more services from private companies and government (e.g., technical inputs and knowledge) | <p><i>Rubber promotion</i></p> <ul style="list-style-type: none"> • less experience • small and large scale plantations • seen as a potential alternative for SC • less access to information <p><i>Market management, government services, and capacity building</i></p> <ul style="list-style-type: none"> • focus on commercialisation of NTFPs • intervention of international projects that support rural development | <ul style="list-style-type: none"> • opium substitution and SC control policies promoting alternative livelihood options (e.g., cash crop production) • road connection to upland villages • improved basic infrastructure development • market-driven economic development • support of international organisations, NGOs and others (e.g., Royal Projects) for upland agriculture and rural development |
| Village institutions | <ul style="list-style-type: none"> • village funds allocated by the local and central government • decentralisation of administrative leadership to local communities • decentralisation of natural resource management to local authorities | <ul style="list-style-type: none"> • village funds largely supported by international projects • creation of users organisations to market NTFPs • decentralisation of administrative responsibilities • decentralisation of resource management responsibilities at the village level | <ul style="list-style-type: none"> • allocation of village funds from the government (e.g. the 'One Million Baht' project etc.) • farmers/producers organisation to market products |

Table 4: Key learning about governance from the Chinese, Lao and Thai perspectives

| Chinese participants' key learning about governance | Lao participants' key learning about governance | Thai participants' key learning about governance |
|---|--|---|
| <p><i>Key specific issues</i></p> <ul style="list-style-type: none"> village institutions in Thailand are dynamic actors in local governance how to bridge scale? state-driven (big) vs. community-driven (small) lack of civil society in China <p><i>Other issues</i></p> <ul style="list-style-type: none"> village niche crops/products in Thailand (OTOP – one tambon, one product) state dominance in China watershed concept from Thailand watershed as a management unit | <p><i>Key specific issues</i></p> <ul style="list-style-type: none"> big road and small road networks, farmers' road connections impact of improved road and infrastructure on forest land more support from state needed for infrastructure increasing informal cross-border trade <p><i>Other issues</i></p> <ul style="list-style-type: none"> marketing link village fund in Thailand (eg. the "One Million Baht" project) regional market potential (e.g., in China) land rights in uplands local livelihood development in Thailand voluntary resettlement from upland to lowland/road negative impact of road and its mitigation | <p><i>Key specific issues</i></p> <ul style="list-style-type: none"> role of state, communities and private sector in resource governance how state-introduced institutions (e.g., village fund) integrate into local level <p><i>Other issues</i></p> <ul style="list-style-type: none"> promoting free trade by government law enforcement in China/Laos township/village enterprises in China big private sector involvement in Thailand |

Future Research Questions

Each thematic group also articulated a set of priority research questions, which should be considered in framing the MMSEA agenda for research and action. The questions generated by the thematic groups are as follow.

Land use change priority research questions

1. What is the comparative advantage of rubber/teak cultivation in China vs. Thailand?
 - productivity ('yield per unit of labour per year')
 - natural endowments in terms of status quo and change
 - trajectory of land use change for northern Laos
2. What is the comparative advantage of rubber vs. permanent agriculture in upland environments?
 - economic advantage
 - natural endowments
 - trajectory of land use change for northern Laos
3. What is the effect of external forces such as the following on land use?
 - market prices
 - road building
 - government policy
 - labour costs/options
 - implementation of government policy, effectiveness of institutions
 - climate

4. What are the effects of changes in land use spatial patterns on ecological functions and environmental services with feedback to human behaviour? In particular in relation to the following.
 - biodiversity
 - watershed hydrology
 - migration patterns
 - payment for environmental services (e.g., paying for maintaining shifting cultivation in Mae Tum to protect biodiversity)
 - culture
 - policy
5. Which methods and tools for studying land use change require further development?
 - How to integrate case study understanding with regional patterns of landscapes, economies, development, etc.?
 - matrices
 - remote sensing
 - spatial databases
 - modelling
 - standards and protocols
 - qualitative methods

Local livelihoods, markets and trade priority research questions

1. How are upland livelihoods being influenced by State intervention (e.g., land use policies, markets)?
2. What are the role(s) of roads, markets (trade) and investment on livelihoods?
 - What are the risks and opportunities of market integration?
 - How are local communities and households responding to risks and opportunities?
3. What are impacts of the above on natural resources and implications for sustainable development?

Resource governance priority research questions

1. What conditions enable collective action?
 - How can traditional and new governance mechanisms be combined to manage ecotourism (e.g., Mae Wang)
 - How are the local institutions of governance (e.g., traditional values, customs, and beliefs) impacted by policy/market-driven changes? Are local institutions losing out?
2. What governance mechanisms – community, government, and civil society – can help balance market forces for better livelihood and environmental outcomes?
 - consider multiple levels/scales
3. What forms of civil society organisations are useful in addressing natural resource management issues and when/how can they link with government organisations?

- What is the relevance of 'watershed' as a unit of environmental governance?
 - How important is the role of civil society in making the watershed as a unit relevant?
4. How does the initial rationale for intervention in upland agriculture affect the long-term trajectory of land use change?
- e.g., opium eradication in Thailand; environment conservation/prevention of shifting cultivation in Laos; and commercial crops in China



Workshop opening in Xishuangbanna Tropical Botanical Garden

