

Institutional response to global change: The consequences of interplay between international regimes and local institutions for the forests of Southeast Asia

APN 2001-14 Activity Report



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INTRODUCTION

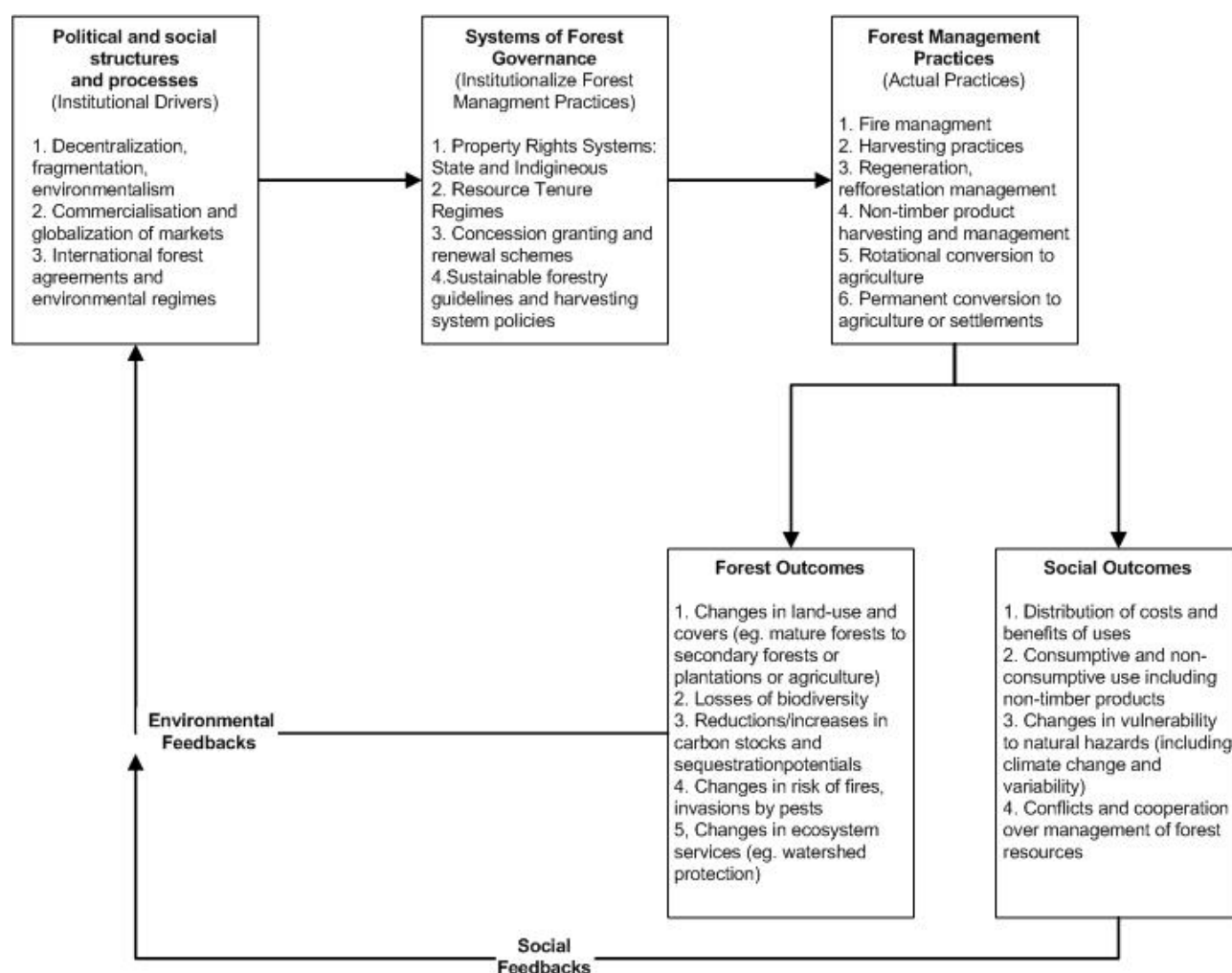
The purpose of this report is to document the research findings and main activities of the one year collaborative project “Institutional response to global change: The consequences of interplay between international regimes and local institutions for the forests of Southeast Asia” funded by the Asia Pacific Network for Global Change Research in 2001. The project is also a direct contribution to the research program of the Institutional Dimensions of Global Environmental Change (IDGEC) core project of IHDP.¹

The first part of the report explains the rationale, goals and design of the project. This is followed by a concise overview of the key activities completed during the project. The main body of the report is a summary of the main research findings with selected highlights from each chapter of the edited book being prepared from the results of this project. The report ends with a critical reflection on the projects achievements, limitations and a couple of recommendations to APN and START for future activities.

Rationale

The state of the world's forests is an emerging global issue. Global environmental changes, and the social, economic, and political processes that help drive them, are now influencing local forest conditions and management practices (Figure 1).

Figure 1. Conceptual framework of the study. Systems of forest governance and actual practices modify the influences of the political and social structures and processes, which ultimately drive changes in forest land-use and conditions. Changes in forest condition and the social outcomes of forest management and land-uses influence the institutional drivers of future change in a system that feeds back on itself (modified after proposal and Contreras et al. 2001).



At the same time political changes and alliances are facilitating the evolution of novel institutions and the interplay between institutions from different levels of governance.

In our initial conceptual framework we identified decentralization, globalization, and internationalization of the environment as key transformations or cycles of change (Figure 1). During our project we added “*privatisation*” as another critical change. In this report, institutions are defined as “*systems of rules, decision-making procedures, and programs that give rise to social practices, assign roles the participants in these practices, and guide interactions among the occupants of the relevant roles. They include both rules on paper and rules in use*”.² Institutions are thus both causal agents of change and a critical part of societies’ responses to environmental change.

Governments in Southeast Asia have been active in legislating laws to support their expanding bureaucracies. At the same time an increasing number of international agreements are being forged that potentially have implications for land-use and forest management. As the number and complexity of institutions increases, the opportunities for interaction between institutions also increases. Under these conditions the success or effectiveness of institutions depends not only upon its own characteristics and interactions with the resource or ecological processes, but also on how it interacts with other institutions, or **institutional interplay**.

Some of the new institutions are clearly aimed at facilitating further exploitation of forest resources and promoting economic development, whereas others are aimed more at controlling or mitigating some of the environmental and social impacts of these transformations. At the international level a number of environmental regimes, like the Kyoto Protocol and the Convention on Biological Diversity, are evolving in ways that could potentially have a major influence on forest land development strategies of nations. At more local levels, decentralization is facilitating what is in some cases, a return to more community-based rather than state-centered forms of forest management.

In tropical Southeast Asia there is a rich literature of anthropological and environmental research that has focussed on local institutions, in particular, property rights systems governing access and use of forest lands and products. This is complimented by a growing theoretical and experimental understanding of the conditions under which cooperation can develop to manage the common pool resources such as those often found in forest lands.³ In addition there is a growing body of research on the politics of commercial exploitation and contests over forest resources.⁴ So far, however, comparatively few studies have considered the horizontal interplay between environmental, political and economic institutions, and almost none the full range of vertical interplay between local, state and international environmental institutions.⁵

In this study we focussed on the issues of institutional interplay by linking existing work on local institutions and environment relations with the new body of knowledge about international regimes. Ultimately, our analysis should enable us to draw some conclusions about the effects of this interplay on current forest conditions and how these interactions may evolve given alternative scenarios of global environmental change, and socio-political transformation in the region.

This consideration of mechanisms of interplay raises the question about what traces interplay may leave in history. It draws attention to the importance of institutional dynamics. Institutions have a life span: they are born, die and are transformed. Institutional interplay can arise where none existed before. History is thus very important in analysis of interplay. Too short time frames will prevent us from seeing the dynamics. Interplay can be seen as a kind of discourse between rule sets with probing, challenges and reactions over time. In some cases the interactions can be very one way (assymetrical), but in others there may be a to-and-froing. Moreover, periods of change in institutions are episodic. Most of the time they accumulate minor refinements as strategies for their own persistence and change is slow. At times of crises, however, windows of opportunity for reform are opened and major changes can happen relatively quickly.

Although this project takes institutions as the framework for analyzing human relations with forests, it is acknowledged that differences among agents are crucial for how institutions develop and interplay unfolds. It is agents after all who push and pull and are co-opted into the various institutional arrangements and their response is not uniform. There are leaders, followers, designers, free-riders, corrupters and rule-benders. The diversity of stakeholder and the large

differences in the mental models they hold about forest ecosystems and their desires for the future, should not be underestimated. In fact various interest groups often align themselves around alternative institutions or try to avoid or encourage interplay as one of the ways of negotiating.

Research Questions

This project will address key questions from that research framework:

Under what conditions, and to what extent:

Does decentralization result in better forest management practices and outcomes (carbon stocks and sequestration potential, biodiversity, watershed and other ecosystem services)?

Are local institutions effective in protecting forests, local communities, and forest-based interests from the adverse social and environmental impacts of economic globalization and trade liberalization?

Does the interplay between local institutions and international regimes determine (a) the performance or effectiveness of international environmental regimes; (b) forest governance in case-study countries and (c) actual forest management practices?

If institutional interplay is a major factor then,

How can the various international environmental and trade regimes be re-designed so that they interact in ways that will facilitate sustainable and equitable management of forests?

Study Design

We formed a regional network of six case-studies to address these research questions. The cases provided different environmental and socio-economic settings, but each had a strong institutional emphasis and a clear relevance to upland or coastal forests of regional or global significance (Table 1). To address the overarching questions about interplay between environmental and resource institutions and other institutional factors, we have selected a set of case studies that provide a representative range of levels of political decentralisation and economic integration as these are hypothesized to be critical variables affecting the strength and outcomes of institutional interplay.⁶ Moreover, by considering the range of upland to coastal forest ecosystems we hope to strengthen our capabilities to make generalisations about institutional design.

Finally, our strategy was to recruit members from existing projects, or areas in which much of the groundwork on local institutions and interactions with state were at least partly understood. In this project we aimed to add value to these endeavors by comparison and synthesis, and the novel analyses of interplay.

Table 1. Overview of contributing case studies.

Case	Features of the ecosystem and environment and resource Institutions and their socio-economic setting
<u>Northern highlands of Vietnam</u>	Consequences of land reform for the management of degraded lands and maintenance of upland forests used by poor ethnic minorities ⁷
<u>Uplands of northern Thailand</u>	Consequences of community forestry arrangements on management of upland watersheds and conflicts between ethnic minorities and lowland agriculture and the State ⁸
<u>Indonesia</u>	Drivers and environmental implications of alternative land-use systems, including oil palm estate development and the effects of globalization ⁹
<u>Philippines</u>	Role of community-based forest management policies and practices for the recovery of degraded up and low lands forests with special emphasis on decentralization ¹⁰
Coastal mangrove forests of Vietnam	Effects of changing property rights systems and shrimp aquaculture development on management of coastal mangrove forests ¹¹
Coastal mangrove forests of <u>Thailand</u>	Political and economic history of mangrove conversion and management ¹²

ACTIVITIES COMPLETED

The project consisted of a series of integrated activities, from planning meetings, data gathering in cases, through to synthesis and review. The project was carried out largely as planned in the proposal, though we found out it more effective to divide some of the working group meetings into smaller events to complete writing tasks. Table 2 summarise the main joint activities completed as part of the project. In addition to these each of the case studies had their own histories of field work, secondary data and document reviews, expert-group and policy review meetings. Data collection in the individual case studies was done between June – December 2001. Most of the writing and reporting back was done between January – March 2002.

The main synthesis meetings (see Appendix 1) was held in conjunction with a Resilience Alliance workshop on Institutions and Politics, allowing us to access the expertise of a wider pool of international reviewers attending the later meeting.

Table 2. Summary of the main activities completed under the APN grant. A few more details about participants, agendas and outcomes for each of the meetings are given in the appendices.

Activity	Venue, Dates, Participants	Inputs	Objectives Achieved - Main Outcomes
1 st Working Group Meeting – Initial planning	19-21 May 2001, Bangkok <i>All team leaders</i>	Case Study proposals and draft comparative framework	Agreement on case study framework and process of collaboration, including timetables, budgets and rough chapter outlines.
2 nd Working Group Meeting – Draft Review	1-2 December 2001, Bangkok <i>Project members, mostly team leaders</i>	Draft study chapters – some only in extended outline pr note form	Plan for revision and completion of draft chapters; Planning of synthesis meeting
Mangrove-Coastal Case Studies Working Group Meeting	1-2 February 2002, Chiang Mai <i>Project members working on lowland forests & Coordinator</i>	Drafts of two mangrove-based case studies in Vietnam and Thailand	Greatly improved drafts of the two lowland chapters
Synthesis Meeting	25-26 February 2002, Chiang Mai <i>All team leaders + ca. 20 invited experts and researchers</i>	Draft Chapters and initial synthesis presentation Presentations by other groups working on related research projects in Southeast Asia	Recommendations for revision and completion of chapters Ideas for synthesis and conceptual papers Expanded interest network
Synthesis Chapter Working Group Meeting I	16-18 April 2002, Nakhon-sri-tammarat <i>Suparb Pasong, Louis Lebel</i>	Revised drafts of all chapters and review comments from synthesis meeting	Initial comparative analysis and outline of synthesis chapter
Synthesis Chapter Working Group Meeting II	9-10 May 2002, Siam Intercontinental Hotel, Bangkok, Thailand <i>Suparb Pasong, Antonio Contreras, Louis Lebel</i>	Rough draft of synthesis chapter	Draft of synthesis chapter of book

SUMMARY OF FINDINGS

The findings of this report are already available as a full draft manuscript. After additional editing the findings will be published as a book later in 2002. The provisional title of the book is ***“Institutional Interplay and the Governance of Forests in Southeast Asia”***. In this activity report we summarize in a highly condensed form the main findings and highlights of each of the chapters (Table 3). Each of the sections that follow were taken directly from the draft text of the individual chapters with only minor editing for language and flow.

Table 3. Planned Organization of the Final Publication

Likely Chapter Titles	Authors
1. Introduction	Suparb Pasong, Louis Lebel
2. Institutional responses to global change: the consequences of international regimes and local institutions for the forests of the Philippines	Antonio Contreras
3. Institutional dynamics and interplay and the governance of forests in Northern Thailand	Louis Lebel
4. Decentralization and globalisation in the Northern Mountain Region of Vietnam	Le Trong Cuc
5. Indonesian forests at the crossroads: the impacts of globalisation and decentralization on Indonesian forest	Agus Sari
6. Institutional interplay and mangrove resources in Vietnam	Le Kim Thoa, Nguyen Hoang Tri
7. Political Economy of Mangroves in Thailand	Suparb Pasong
8. Synthesis	Louis Lebel, Antonio Contreras, Suparb Pasong
Overall Editors	Louis Lebel, Suparb Pasong

Philippines

Institutional response to global change: The consequences of interplay between international regimes and local institutions for the forests of the Philippine

It is clear that the interplay between local and global institutions in forest governance occurs not as a tacit or policy-stated directive that clearly articulates a mandate and a mechanism. The only national institution that seeks to refer to such overt mechanism is the Philippine Council for Sustainable Development. Nevertheless the existence of community-based forest management at the local level, and its supporting institutional arrangements that foster partnerships between and among stakeholders, including the State and local communities, enable the pursuance of global commitments in the area of biodiversity conservation and climate change, as well as other forest-related issues. This is not to say that nothing should be done to formulate a more structured mechanism to institutionalize the interplay. While organic and de facto mechanisms may serve the purpose, and in fact can even be more effective in some aspects, the presence of well-defined parameters can at least provide accountability and focus. One should however be careful not to over-bureaucratize and over-regulate the organic interplay of institutions. Experience shows, as supported even empirically by some of the sites studied in the CIFOR project, that too much formalization of institutional mechanisms often restrict collective action, and can defeat the very goal such formalization seek to achieve (Table 4).

Finally, much of the institutional redesign, at least in the case of the Philippines, will occur at the local and national levels, and less at the global levels. For one, changing global agreements are politically difficult. However, and going beyond the reason of political convenience, while global

policy reforms happen, these are products of diplomatic initiatives, the conduct of which require political alliances. One of the emerging paradigms in diplomacy is the growing role of civil societies not only to influence policy shifts within their boundaries, but also across boundaries.

The relations between states and civil societies have long been established as a critical and complex one. States emerge and gain legitimacy from civil society institutions and processes, even as the state limits civil societies through its legal-bureaucratic authorities manifested in law and public policy. With the increasing role of civil society institutions in recent years, state policy, including foreign policy, could very easily be influenced by it. In Southeast Asia, particularly in the realm of the ASEAN, states have been traditionally seen as the actors as well as the objects of diplomacy. In the context of the policy of non-interference, which has long been upheld by ASEAN, Transboundary environmental concerns, such as haze from forest fires, or Transboundary timber poaching, remain difficult issues to address. When one looks at the problem deeper, both forest-based issues are deeply rooted in problematic governance arrangements, of which the individual states concerned are largely responsible. Numerous authors have concluded that the annual forest fires that ravage most of Sumatra and Kalimantan are outcomes of state policy on land use. The illegal timber trades that crisscross the Mekong River basin are also indirect results of either forest policies or the lack of it. In a context wherein diplomatic intrusion is anathema, and wherein consensus politics is the norm, the achievement of a desirable outcome would only be confined to reactionary palliatives, and not to long-term solutions that directly address the root cause.

It has been shown, particularly through examples from Thailand and the Philippines, that a strong civil society can have enormous influence in the crafting of public policy. Civil societies provide states their legitimacy. Civil-society based processes at the sub-national levels have begun to interact with regional and global civil society structures such that they become potent venues for regional and global dialogue on important issues. All major international UN conferences, from Rio to Cairo to Beijing, have always provided venues for parallel civil society fora. This is evidence of the recognition of the role which civil society plays in the promotion of cooperation and peace.

However, the discourse remains state-centered and focused. A closer examination of the outcomes of these fora yields a pattern in which calls for action are still directed at states. It is a known fact that civil societies in many parts of the world remain marginalized and weak, or worse, suppressed by authoritarian or strong states. Others are co-opted by state apparatus in the form of state-sanctioned associations no longer operating autonomously from the state. Having said this, it is still valid to create mechanisms by which civil societies can be strengthened through regional and global processes, not brought through state mechanisms, but through inter-civil societal interactions. Thus, as it exists a Track 1 mode in international relations wherein states interact and seek to influence each other, and a Track 2 mode wherein civil society forces interact to influence their states, there is a need to inquire into the potentials for a Track 3 mode wherein civil society forces interact to influence, help build and strengthen them.

It is at this point that the Philippine experience of having community-based mechanisms for forest governance, despite their flaws, can become the focus of institutional transformation. A strong forest civil society will always have the capacity to localize global imperatives, even as it can have a capacity to globalize its efforts in influencing global forest regimes.

Table 4. Example of summary features of the some of the sites studied in the Philippines Case Study

Site	Nature of Devolution (Program)	Tenurial Arrangement with the state	Forest Quality	Cultural Dependence on Forests	Economic Dependence on Forests	Internal Social Capital	External Social Capital	Organizational Capacity
State-Initiated Devolution								
Sangbay, Nagtipunan, Quirino	State-initiated (ISF-Devolved)	Individual lease good for 25 years	Degraded	Low	High, but only on forest lands	Weak	Weak	Fair
Bicol National Park	State-initiated (NIPAS)	None	Fair	Low	Low	Weak	Weak	Weak
Maputi, San Isidro, Davao Oriental	State-initiated (CFP)	Communal lease good for 25 years	Fair	High	Low	Strong	Strong	Fair
Civil Society-Initiated Devolution (communities and third-party mediators)								
Bayagong, Canarem, Aritao, Nueva Vizcaya	Self-Initiated but state legitimized (ISF-CFSA)	Communal lease good for 25 years	Degraded	High	High	Strong	Weak	Strong
Balian, Pangil, Laguna	Self-initiated	None	Fair	Low	Low for forest products; high as water source	Strong	Weak	Strong

Northern Thailand

Institutional dynamics and interplay and the governance of forests in Northern Thailand

Institutional change and interplay have been critical processes for the governance, and management, of forests in Northern Thailand. There are periods when, and places where, interplay and institutional change have had positive consequences for the sustainability of socio-ecological systems. There also counter-examples, as well as occasions characterized by stasis and lack of interplay. Moreover, forest conditions themselves are not uniformly declining, but in some cases may actually be improving for a variety of reasons. Likewise livelihoods of many upland people are also improving, but not universally so. A lot seems to depend on handful of crucial intervening variables. Prominent among these, as many others have recognized, are conditions that facilitate trust and learning, often included as part of social capital, the form of dependency on forest and other land-based resources and the distribution of power. In addition, I argue that maintaining or creating conditions that foster institutional and appropriate technological innovation also seem to be very important in the uplands. This is visible, in part, because of the rapidity of change in underlying social structures and processes. The context in which institutions must perform is changing so rapidly that having systems that fit current conditions very well, but cannot evolve, are as much a liability as a solution to problems of environmental change.

How some of the most important changes have unfolded in Northern Thailand are summarized in Table 5.

Table 5. Broad structures and process of change in Northern Thailand and their implications for institutional interplay.

Transformations of socio-political structures and processes	Class of institutions most greatly affected that are relevant to Forest Management	Implications for interplay	Some Examples from Northern Thailand
Decentralization	Political – natural resource management responsibilities to local government authorities;	Opening of public policy processes that creates opportunities for more two-way interplay between state and local as well as state and international institutions;	Community Forests vs reserve forests and protected areas Elite, political and military involvement in logging scandals
Globalization	Market – liberalization of trade and investment and expansion of arenas of exchange Knowledge – technology to communicate, technical information related to forest and land management and use, as well as spread values and information about traditional forest uses (see next)	Market penetration undermining local institutions and claiming priority against . At international scale GATT and other trade related agreements on agricultural products and timber, or forest products.	Incentives to acquire land (for agriculture more than forest products) in uplands
Internationalization	Environment - Environmental Laws Environmental Norms & Values	Increasing density of institutions concerned with environment and related to activities in forests.	Protected area and watershed policies; attempts at resettlement; Logging Ban
Privatization	Property Rights	Increased opportunities for vertical Interplay among formal institutions of state and customary local institutions especially for land and resource property rights.	Land Rights, Resource Tenure Counter: State Plantations

The presence of strong local institutions results in stronger interplay with state and international institutions. The outcome of this interplay is not symmetrical, but depends on a number of other factors. Firstly, the extent of decentralization and residual relative powers of key groups of actors, effects how rules are made and implemented. For example, where local institutions arise from self-organization rather than central policies the effectiveness is likely to be larger. Secondly, the degree of integration of local economies into global markets changes the values placed on various forest ecosystem goods and services. These changes in turn alter the incentives for resource exploitation and hence the need for cooperative arrangements on resources. On the one hand the creation of alternative sources of income or intensification of production can reduce pressures for further conversion of forest lands. On the other hand, new land-use systems which are highly profitable are likely to spread quickly where local trust networks are well developed, and this in turn, may quickly create additional pressure for conversion of forests. Thirdly, the degree of participation in international agreements will, over time, alter the overall framework for policies, including the information base, and even management goals upon which decisions are made. These in turn will create a policy environment in which soil, water and biodiversity conservation efforts are enhanced. The success, however, if this interplay between state and local communities, depends very much on the degree of participation in planning and implementation. Where this is low, but there is high levels of participation in international agreements, serious conflicts between different interest groups are likely. However, where participation is high, feasible institutions can be negotiated and constructive interplay becomes possible.

Upland Vietnam

Decentralization and Globalization in the Northern Mountain Region of Vietnam

Population growth, a consequence of both high birth rates and declining death rates of many minority groups, and the massive in-migration of people from lowland areas, has placed excessive pressure on an already degraded environment. Over the past 40 years, intensive deforestation has seriously depleted the natural resources base. Biodiversity has plummeted. Vast areas of formerly forested land are now classified as wastelands and barren hills and mountains.

Development of the Northern Mountain Region is a priority for the Party and the government of Viet Nam. All policies share the common goals of promoting the ideals of equality, unity, and mutual aid for all the ethnic groups in the area. These policies have resulted in many social and economic achievements. However, the effectiveness of policy implementation varies greatly in different communities (Table 6). In general, implementation of those policies has been least successful in remote areas. It is suggested that the implementation of development programs in these areas has not paid appropriate attention to the characteristic of diversity as well as the difficulties specific to local conditions. Development planners do not fully understand the upland areas and their people, especially those living in remote areas. Thus, improving the knowledge base for upland development is a critical need. In particular, efforts to incorporate indigenous knowledge into this information base should be increased. The cultural knowledge of each ethnic group should be respected and local people should have as much input as possible in the decisions made regarding what is done in their areas, so that they “own” the development process. This can lead to more effective implementation of development policies in all the diverse communities and environments of the NMR.

In the NMR, just as everywhere in the developing world, communities are increasingly becoming more closely integrated into larger economic and social systems, as part of a process now commonly referred to as “globalization.” There are both positive and negative aspects to this process. It offers some people expanded intellectual horizons and greater opportunities for self-fulfillment but it can also generate increased dependency on external forces over which local communities lack effective control. Both aspects are evident in our sample communities.

Table 6. Summary of Key Characteristics of Sample Communities

	Khe Nong	Thai Phin Tung	Tat	Ngoc Tan	Lang Thao
Ethnicity	Dan Lai	White H'Mong	Da Bac Tay	Cao Lan	Kinh
Topography	Mountain-valley	High mountains	Mountain-valley	Midlands	Midlands
Population density (persons/ha)	Very low (0.08)	High (1.01)	Moderate (0.59)	Very high (4.37)	Very high (5.43)
Accessibility	Very low	Low	Moderate	High	Very high
Mode of adaptation	Swiddening, collection of forest products	Dryland maize farming, animal husbandry, distilling alcohol	Composite swiddening, animal husbandry, collection of forest products	Wet rice farming, agroforestry, Animal husbandry, wage labor	Wet rice farming, agroforestry, Animal husbandry, wage labor
Extent of market orientation	Subsistence oriented	Largely subsistence oriented with some market involvement	Mixed subsistence and market oriented	Market oriented	Market oriented

Indonesia

Indonesian Forests at the Crossroads: The Impacts of Globalization and Decentralization on Indonesian Forest

Forest conditions are changing. Indonesia's forest cover is diminishing at an alarming rate of more than 1.5 million hectares (ha) per year.¹³ The latest forest fires in 1997 – 2000 further exacerbated the rate of deforestation an order of magnitude higher, about 10 million ha per year. To put this in perspective, 10 million ha per year is the figure of the average rate of deforestation globally in the 1990s.

Indeed, the existence of forest, especially old growth, primary forest, is increasingly threatened. The global deforestation reaches a rate that has never been seen before. Before human intervention, the Earth forest cover is estimated to be about 8,000 million ha, 8,000 years ago. By the turn of the century, there were only 3,500 million ha left in the world. Out of which, 2,000 million ha was found in the developing world, mainly in the tropics and sub-tropics.¹⁴ It is estimated that, in the last 8,000 years, we lost about 40 - 50 percent of the world's forest.¹⁵ Most of the loss in forest area is a direct consequence of human intervention in the 20th century.

In Indonesia, massive deforestation and degradation continue to happen, threatening the last frontiers of primary forest. About 144 million ha of Indonesia are classified as forestland, representing 75 percent of the country's total land mass.¹⁶ Between 1984 and 1998, the average rate of destruction was about 1.6 million hectares per year. The figures in the recent years might have been closer to 2 – 2.4 ha per year, the highest destruction rate in the world. By 1997, Indonesia had lost 72 percent of its primary forest cover and 54 percent of the remaining ones were threatened.

Indonesian forests remain vulnerable, and significant portions of which are lost every year, albeit efforts by domestic and international communities to save them. The outcome of the existing institutional interplay shows that forests remains being degraded. Decentralization as we know it may exacerbate, rather than solve, the deep-seated problems surrounding the forestry sector. Why does this happen?

One of the key factors seems to be the lack of involvement of the local institutions. National institutions are considered failing to function as a safeguard for forest protection. International

institutions were utilized to complement and substitute them — mainly to substitute than to complement. Indonesia, as many other developing countries, is currently trapped in the globalizing world, where production and consumption are no longer limited by national borders. Demand for forest products — not only logs, but also plywoods, pulp and paper — and demand for other commodities with, due to overlaps in areas, extraction of which may disrupt the forest.

In Indonesia, foreign institutions that may have strong influence on forest management are the ITTO and, due to the economic crisis, the IMF. But still, these institutions are considered ineffective in reforming the unsustainable forest management. The ITTO relies its success on ecolabel mechanism. The mechanism relies largely on the ecolabel mechanism, which itself relies on consumer awareness. While markets to environmentally-conscious countries such as Japan and those in Europe are restricted by ecolabel, those to large developing countries such as China are not. Even the compliance rate in the European countries is not fully. In the UK, for example, paper products are distributed in such a way that the origin of the fiber is obscured.¹⁷ At the same time, developing countries will increase their share as consumers of forest products from Indonesia, and since they are not members of the ITTO, they are not bound to the ecolabel mechanism. Consumers from these countries are very unlikely concerned about the origin of the products and whether they are produced sustainably.

Similarly, the IMF-led reform was not effective for various reasons. First, domestically, pro-reform movement has been hampered by the status-quo who for the longest time reaped benefits from unsustainable forest management. For example, even the precondition for sustainable forest management such as basic information on the status of the forests and their surrounding environment is lacking, and so is a comprehensive map of forest resources. Second, the reform process lacks proper involvement from key stakeholders, notably local institutions. Third, and this may result from the above two, is the lack of political will for the reform itself — showing reform only to please the IMF. The recommendations from the Reform Committee, the members of which consists of pro-reform forest professionals, were largely ignored in further decisionmaking. For example, when government regulation No. 6/1999 was issued, the suggestions of the Reform Committee's representatives in the process of its enactment were not included at all. Similarly, in the discussions of the draft Basic Forestry Act, after broadly circulated for discussion, inputs from the Reform Committee was largely ignored. Lastly, the reform failed to recognize the core problem in the sector, which is excessive demand for woods and fibers due to overcapacity of the downstream forestry sector. Unless this problem is addressed, forest degradation will continue to prevail.

Multilateral environmental agreements also fail to support sustainable forest management. The Forest Principle has turned into sovereignty saga, which turns forests into object of development. There are no legally-binding consequences in the Principle. Biodiversity Convention has probably been the most utilized international agreement to enhance forest protection with some financial assistance through bilateral donors and the Global Environment Facility. These assistance have been focused around protected areas, and around the physical and economic issues, but the key institutional problems failed to be properly addressed.

The CDM under the UNFCCC and its Kyoto Protocol has not been fully implemented, but may provide another potential pressure from the international community to reduce forest degradation and maintain the functions to sequester and store carbon dioxide. CDM can provide funds to contribute to the efforts to slow down forest degradation. However, as already discussed at length above, lack of money is not the underlying cause of forest degradation in Indonesia. CDM may only provide solutions to the symptoms of forest degradation, but not the root cause of it.

At the same time, there are actually local institutions that have demonstrated their effectiveness in managing the forests sustainably, as the partnership between the people of Katu and the National Park manager demonstrates. But these cases were not elevated into national and international institutions — in some cases, they are ignored or even undermined. A savory vision may not be what we want, but possibly what we see. Unless the local institutional interplay is taken into account, forest degradation may be unstoppable.

Table 7. Allocation of Natural Resource and Environmental Management Functions Under Government Regulation 25/2000, by Sector.

Sector	Government Authority	Autonomous Regional Authority (province as "autonomous" region)	Comments/Issues
Forestry and Estate Crops	Determines forest areas, and changes of status and function; Manages and grants permits for management of conservation and protected areas; Set criteria and standards for: 1) forest management; 2) establishment of forest exploitation areas, conservation areas; and 3) tariff of business permit-holders' contribution for forest use, reforestation funds; Business licenses for use of forest areas, forest products, environmental services.	Oversees cross-district forests, including: 1) granting cross-district permits for forest product use and manufacturing; and 2) participating in Government's determination of cross-district forest areas and changes of status and function, together with districts. Manages; Setting and securing of forest boundaries; supervises forest rehabilitation, reclamation, and choice of silviculture method.	Under PP 25/2000, MoFEC remains the most centralized of the natural resource sectors. The center retains two operational roles -- determination of forest areas and changes in status and functions, and conservation and protected area management. Another MoFEC policy initiative, Perumisasi, would maintain central control of existing forest concession areas. Perumisasi calls for upgrading parastatal Inhutani forest companies to state enterprises (Perum), which would take over existing forest concession leases.
Environment	Sets standards/guidelines for pollution, conservation, control of natural resources and preservation of environmental functions; Reviews AMDAL (Environmental Impact Assessment) of activities with potentially broad social impacts, covering more than one province and having security implications.	Sets environmental quality standards based on national standards; Reviews AMDAL activities covering more than one district.	Implies that district reviews AMDAL of within-district activities. <i>Issue:</i> this is inconsistent with the 1997 AMDAL Regulation, which devolves within-province AMDAL review to Provincial AMDAL Commissions, but not any lower than the provincial level.

Source: "Indonesia: Environment and Natural Resource Management in a Time of Transition," by the World Bank (p.96).

Vietnam Mangroves

Institutional interplay in mangrove resources in Vietnam

Mangroves of Vietnam used to cover a large area of around 400,000 ha before 1943 including 250,000 ha in the South (Ca Mau province alone laboured 200,000 ha) and 40,000 in Ho Chi Minh City. The quality of forests back this time was also very high with big old trees, and high density and there were plenty of wildlife much of which is absent or rare today.

During the Vietnam War (1962-1971), herbicide spraying and bombardment have destroyed 40% of mangroves in the south with some areas totally depleted. Since the north-south reunification in 1975, mangroves have been further destroyed for wood, agriculture, resettlement and shrimp farming. Attempts to rehabilitate mangroves have also been made in many areas. However, while new mangroves are being planted, old and good ones keep being cut down for different purposes especially shrimp farming. The remaining was mainly secondary mangroves, plantations, bushes and shrubs.

Vietnam has responded to the international regime that it is a signatory. There has been the incorporation of these regimes into the national action plan. However, the interaction between national to lower levels are still weak. Effective measures for these policies to be effective

implemented in practise have not been found at the national levels. Rather, the local themselves apply them in their own way, and thus the outcome depends very much to the capacity, especially the awareness of local levels. Decentralization (Table 8) therefore yields different outcomes in different situations. Flexibility in application is needed.

International NGOs play an important role in helping these regimes become effective in practice through their support in forest rehabilitation, management, and raising awareness.

There has been a weak interaction between different sectors related to mangroves especially forestry and fisheries. Each has acted independently of the other contributing to inappropriate use of mangrove resources and threatening the sustainability of the ecosystem-human system. More positive interactions between these sectors should be established. One recommendation is a middle or bridging organization that brings these sectors together.

The process of globalisation has strong negative effect on mangroves resources due mainly to strong market power, for example for shrimp aquaculture products. Changing consumer behaviour or strict import-export standards or other similar solutions may help in the Vietnamese context.

Table 8. Selected legislation related to decentralisation and mangroves in Vietnam

Year	Policy	Application for decentralisation in forestry
1985	Decision No 52 of the Council of Ministers on the renovation in the management of forestry state owned enterprises	Suggesting: "in order to make full use of forest land, land should be allocated to households for production, no wasteland should exist"
1988	Decree on 171: Reform the organisation and management of co-operatives:	- Allocation of outputs to members of the co-operatives
1991	Law on forest protection and development	The State manages all forest land, and allocate land for organisation, households for long term protection in accordance with the government's laws and regulations. Forestry resource must be protected and developed.
1992	Constitution	All land belongs to the entire people and managed by state, land is allocated by the state for individuals for stable long term use
1993	Law on land	Land is allocated or leased by the state for organisations, households and individuals for long term use
1994	Decree No 02/CP	allocation of forest land to organisations and households and individuals for long term production on forestry purpose
1995	Decree 01-CP	Rules o the land allocation for agriculture, forestry and fishery production within the state owned enterprises
1999	Decree on forest land allocation	On the allocation and leasing of forest land for organisation, households and individuals for stable long term use on forestry purposes

Thailand Mangroves

Political Economy of Mangroves in Thailand

History of coastal zone management in Thailand has developed in response to problems in coastal areas. In just 35 years from 1961 mangrove cover declined by more than half to approximately 170,000 hectares in 1996. Despite these declines no laws were passed specifically to manage mangroves. Forest resources have been managed under four major forest laws and a variety of supporting and sometimes conflicting legislation. Mangrove use was regulated by these laws until 1981 when the first cabinet directive or resolution on mangrove use and management. Since then mangrove policies have been in the form of cabinet directives which have semi-legal status. In theory government policies and decisions must comply by these directives.

The history of mangrove change can be described in five periods as follows:

1. Traditional use based on subsistence need. Mostly gathering of fuel wood and marine organisms from mangrove forests.
2. As coastal communities more integrated into markets, uses more directly determined by markets. Fishing and wood-cutting for charcoal exports became important pressures on mangrove ecosystems leading to degradation in some areas. During this period management was mostly concerned with charcoal production. Regulations were few and simple and mostly aimed at providing concessions for the charcoal industry. The system continued until 1996 when the government switched to rehabilitation programmes.
3. As economies grew control communities lost control over mangroves they used to depend on. State encouraged use of mangroves for economic purposes, for example, charcoal concessions, salt ponds, and for infrastructure construction, like roads and power lines.
4. In the most recent period conversion for aquaculture and industrial sites has been the most important additional changes.

Synthesis

The modest set of case studies presented in this book extend conceptual understanding about the underlying causes of changes in forest cover and quality in southeast Asia. As other studies that have taken a political economy approach the research here emphasised the underlying transformations in social processes and structures and how these affect forest governance. In our initial conceptual framework we identified decentralization, globalization, and internationalization of the environment as key transformations or cycles of change (Figure 1). During the research we added privatization as another key change because of its importance for upland and coastal land tenure. The framework also acknowledges that systems of governance for forest arise from interactions among institutions at different scales. Our research as others before have found showed that actual forest management practices, and hence conditions, depend on a set of intervening variables that influence decision behaviour – for example, whether or not to comply with current institutional arrangements or whether certain practices are economic or benefit or detract from the sustainability of a livelihoods. Through the research we have included additional detail in the part of the framework dealing with crucial intervening variables (Figure 1) because this is where most of the interesting hypothesis about institutional effectiveness and design need to be addressed.

Globalization

One of the more pervasive consequences of globalization for the environment has been the internationalization of environment and sustainability issues and values.

This has reason for at least two broad classes of reasons. First that human activities are now so ubiquitous and intense that global environmental changes can be observed, measure, and predicted with varying degrees of confidence. For example, ozone layer changes, increases in greenhouse gas emissions, climate change, biodiversity loss, increased rates of species invasions, massive alterations of biogeochemical cycles such as the nitrogen cycle, and so on. To what extent some of these change are considered serious problems as opposed to acceptable trade-offs during

development is a major political issue that depends on interests of different stakeholders, the capacity of human societies to innovate and substitute in a timely fashion, and the risks posed by disrupting various ecological functions. Recognition of shared and transboundary problems at sub-global regional scales is also important. Whether it is conflicts over ocean fisheries, or water and fishery resources in international rivers, or health and economic problems created by transboundary pollution from vegetation fires, the idea that states can and should act in isolation to manage ecological change has been seriously challenged within southeast Asia.

A second class of reasons are much more political. Environmentalism as a social movement has grown tremendously over the past several decades in many industrialized western nations. Several big international NGO's (BINGOs) such as WWF and GreenPeace, have been very important roles in bringing ideas into both local NGOs and government bureaucracies. A controversial part of many of these platforms is the criticisms such organizations have had of forest management practices in developing and transitional economies.

At the same time many of these arguments have been co-opted by development agencies and international development banks. These can wield significant power through conditions on loans, for example in the case of the IMF rescue packages for Indonesia following the financial crisis. In practice, however, there are many barriers to vertical interplay (see section below) so that bringing about actual changes in management practices is much more difficult. In any case the primary interest of the banks is on collecting interest and debt repayments and ensuring that the structural adjustment programmes are carried out in ways that will facilitate their, primarily developed-nation, investors.

Given that criticisms largely originate from actors in western industrialized nations, where forest cover is often now increasing, and value of timber exports is often high, the views are easily countered by nations wishing to protect their own logging industries. The priority and attention given to international agreements varies greatly between countries studied, for the most part reflecting the current value of timber stocks, or in the case of coastal mangroves, shrimp aquaculture industry, to national economies (see section on Dependency).

Thus, although there are many international and regional agreements relevant to forests, direct and binding agreements are strongly resisted by the countries that still have substantial timber resources, which in SEAsia, have been largely Malaysia and Indonesia (*see section on International Agreements*). In any case the most important agreements for forest are probably those related to trade of timber AND agricultural products rather than those concerned with biodiversity, climate change or sustainable forest management.

Cross-Scale and Trade-offs

In many cases at stake are issues of scale and trade-offs between various ecosystem goods and services.

Our studies underline that scale is central to the analysis of many environmental and sustainability issues in forests. Scale, however, is not politically neutral. The selection of scale may intentionally or unintentionally privilege certain actors or groups. The adoption of a particular scale in analysis or assessment set bounds on the types of problems that can be addressed, the modes of explanations that are allowed, and what generalizations are likely to be used. For example the range of ecosystem services from forest that are directly used or acknowledge as having important support functions are dependent on socio-cultural contexts and these are restricted in space. As we move to higher spatial extent the number of services which are shared drops away. The same basic ecosystem processes can also be seen as providing different services at different scales and different types. Forests, provide carbon storage and biodiversity (as public goods) and timber for a house (as an individual or shared private good) and timber for exports (as a corporate private good).

In conclusion, the consequences of internationalization of the environment have been very important for how forests are viewed within nations in Southeast Asia and remain one of the most sensitive international political issues for countries in the region.

Interplay

Vertical interplay is usually asymmetric, conflict-ridden, and “inefficient” because there are few mechanisms or institutions for exchange of information across levels of governance. In southeast Asia highly centralized states have acted as almost impermeable barrier to international agreements on the environment. One of the only ways it can be circumvented through networks that acts as conduits of information, policy ideas and innovations in practices. Globalization of communication and information technologies as well as market processes has assisted the process of breaking down the *hierarchical organization of institutions*. Thus vertical interplay, in many cases actually skips or detours around the state.

This does not imply that international agreements are irrelevant or that vertical interplay is of no consequence to the governance and management of forests in Southeast Asia. But it does argue that the mechanisms of interplay are more often indirect and slow. International agreements are seen as important for changing the way states perceive and formulate environmental and forest management problems that overtime change the very goals of policy programmes. Some of these changes come through pressure from inside forces well-connected to the “outside” but others are through changes in mental models and understanding of key people within forest department and related bureaucracies.

The bureaucratic separation of natural resource management into agriculture and forestry in the uplands, and between forestry and fishery, in the coastal zone, provides a rich set of examples of strong forms of horizontal interplay among institutions.

The distinctions drawn between forests and other systems by the state do not necessarily reflect historical land-use systems in Southeast Asia. In many places there is a wide diversity of complex and integrated land-use and coastal-use systems that don’t fall neatly into forestry or agriculture classifications. With integration into markets, and interventions by the state and NGOs, simplified and intensified agriculture and aquaculture systems now dominate in the main rice growing areas, separating these systems physically in space, but in the uplands and to a lesser extent coastal zones, landscapes are often still contain a mosaics of alternative uses and in a few places more complex agro-forestry or aqua-fishery systems.

States in Southeast Asia have treated forests as public lands for which various use rights may or may not be granted, for example, as concessions to extract timber, or to plant trees for pulp-and-paper harvesting, or the collection of timber and non-timber productions for small-scale local consumption. Agricultural land, on the other hand, is usually treated in practice much more like private individual land, even in some areas of centrally planned economies like Vietnam, prior to land reform.

Thus, one of the strongest sources of “institutional tension” is the way property rights change as land is converted between forest and agricultural categories, with the way such categories are defined being critical. For example, the state does not recognize fallow-fields in shifting-cultivation systems land-use systems as legitimate stages in crop rotation. Fallow fields have often been reclaimed by the state for re-forestation projects. The sedentarization of agriculture practices has been a dominant policy goal for uplands by central governments throughout Southeast Asia.

In practice, many of the changes in the structure of rights which individuals and communities have to access, use or own forest lands, are much more complex than the above analysis of horizontal interplay suggest. The structure of rights, especially what is included in the bundle versus what is dropped out, changes as well.

Whereas, traditionally many societies catered for complex systems of overlapping rights for any particular parcel or area of forest or potentially forested land, modern nation states have been keen to simplify and bundle rights so that they are passed on in a more all-or-none fashion, especially in the form of actual or de facto private individual ownership. Effectively this has resulted in the privatization of the commons. The appropriateness of such institutional arrangements for the ecosystem goods and services they are supposed to manage has not been taken into consideration with the result many public goods or transboundary services are no longer managed and thus maintained. Moreover the possible advantages of shared private property arrangements (with ownership in a community or committee rather than the individual) have rarely been re-considered by modern nation states.

Thus, the interaction between the rules that apply to land considered agriculture (or aquaculture) versus those considered forestry has been a dominant source of conflict, confusion and tensions between the state and communities in Southeast Asia. Tenure insecurity arising from such interplay has been an important factor in “unnecessary” forest loss and degradation.

Institutional Fit

Formal institutions, such as the laws, and regulations of government that are written down and are the responsibility of police, soldiers, or forest department officers too implement are the most conspicuous form of institutions. But appearances are deceptive. Many of such institutions are in practice implemented in different ways or are simply ignored. In this chapter we have already discussed a number of factors that influence the effectiveness of institutions including local capacities, incentives and legitimacy. A fourth and equally important factor is the extent to which the attributes of an institution match the ecological and biophysical processes with which they interact, or in other words, institutional fit.¹⁸

A lack of fit, or institutional mismatch, can arise for a variety of reasons. Some that were uncovered within the case studies we studied include the more obvious ones such as the failure to include key habitats or the full range of target species in conservation or management areas, often as a result of bureaucratic and jurisdictional problems. In other cases the mismatch could be attributed to inappropriate mental models about ecological systems. A clear example of this is the the wholehearted adoption of upland forest management and institutional designs for the management of much more open coastal mangrove systems where very few of the relevant processes are adequately encompassed. The result of which is that very few of the critical ecosystem goods and service provided by mangroves to wider fisheries, such as providing nursery habitat, are not seen or counted. Finally, overt political conflicts and gridlocks can prevent achieving fits which technically may be feasible.

Over the past century increasing density of institutions, and at the same faster rates of exploitation and conversion of forests, has provided many opportunities for interplay. Changes in systems of forest governance thus arise out of both vertical and horizontal institutional interplay as well as transformations in the structure of property rights themselves. The key political, economic and social processes that continue to transform Asian societies, place serious constraints on what institutional forms can be re-designed, re-built or re-introduced. The social and ecological contexts have changed so greatly that institutions which don't have the flexibility to learn and evolve will have to be discarded. At the same time there are important environmental changes occurring at scales beyond the control and capacity of individual nations or even regional blocks like ASEAN, to manage and govern. The scale and intensity of human activity make international agreements about environment and other global or large scale phenomena inevitable, but whether these work to maintain existing injustices or really address environment and development improvements depends on the processes by which they are built and re-defined.

Knowledge

A common observation in each of the case studies was that the goals, methods and justifications for policy interventions with regards to forests have shifted over time in ways that suggest that, for most of the time, people with power have similar mental models (or perspectives) about how forest ecosystems behave and how society should be organized (Table 9).

Although alternative perspectives persist, they only become visible because of crises and conflict. As there many underlying uncertainties in understanding of both social and ecological systems, radically different perspectives can co-exist at the same time, each with their own group of proponents and experts. Science itself is not immune to these influences but often operates within the bounds of current perspectives, or paradigms.

The control of knowledge is a critical expression of power. The state through control of research and education budgets has had substantial control on what is not known, that is, on uncertainties, and thus, cannot be easily challenged. For example, lack of scientific research and knowledge about hydrological and ecological impacts of shifting, rotational and various complex land-use systems in the uplands of Southeast Asia, has allowed poorly supported and probably erroneous mental models about forest degradation and loss to persist for decades. Even where scientific

research or extensive experienced-based knowledge has shown that current generalizations used by policy are wrong, changing mental models can be very difficult. In a sense, worldviews and perspectives are partly “hard-wired” in through education systems that promote memory, rote learning and do not foster critical thinking and skepticism.

Thus, for the most part, Southeast Asian societies in the pursuit of modernization have accepted, and been reinforced through education and economic incentives, into accepting almost without question a technocratic or managerial view of nature and social systems. A view in which the elites in power, and their experts in control of knowledge, are seen as having the skills and foresight to develop optimal land-use plans, forest management systems, and institutional arrangements to govern these. In short, the “State Knows Best”.

Table 9. Five knowledge paradigms and their expression in forest management practices and governance in Southeast Asia

Paradigm	Institutional Implication and examples
State Knows Best	Nationalization of forest estate; Harvesting in national interest by state logging companies, plantations and exclusion of smallholders
West Knows Best	Strong international agreements including transfer mechanisms (technology, debt-nature swaps etc.)
We Know Best	Management by local communities under local institutions
Market Knows Best	Create and develop markets for land, timber, non-timber products; Markets sort out most suitable land-uses; Private individual and corporate ownership of land; Prices for water
Nobody knows best	Pluralistic - Multiple levels of governance, some redundancy between and among levels and possibilities for institutional innovations to arise from bottom-up as well as other way; Multiple sources of knowledge

Re-design

Our results suggest that the areas with greatest potential for re-design or outright innovation are those which help link management across scales rather than trying to place a particular level, whether it be the local community, the state, or the institutions of an international body. It is this area of research too, which is least understood.

There seems to be two pathways open. The first is to build on existing sets of interacting or potentially interacting institutions and to consider adding mechanisms or even rules of engagement that would help information flow between them. These bridging or ladder institutions if well designed could take advantage of horizontal and vertical interplay in ways that should enhance institutional fit.

The problem of course is the added cost of transactions in complex governance system. Ideally, this means that only those levels that need to interact often should be formally linked otherwise it may be best if everything remains loosely connected and somewhat redundant. There are dangers in over-connection when one of the institutions much more powerful than the other. Today this seems to be the case with the rule-making under the General Agreement on Trade and Tariffs having substantial power and precedence over environmental agreements of similar large scope.

The second is to consider how particular institutions at each scale might be re-designed to facilitate linkages. In most cases the problems is about flow of information from the bottom- up rather than from the top-down. In other words the changes are needed mostly at the international or state level. We have suggested that public participation is a key intervening variable, because without the state remain an impermeable barrier to information flow in both direction.

CONCLUSIONS

Project Achievements, Limitations and Follow-up

The project was able to meet in general terms the goal set out in the proposal, namely, to assess the role of major socio-economic transformations and institutional interplay in forest governance and the drivers of, and responses to, changes in forest cover, quality and use. As such it is an important first step contribution to the developing IDGEC-IHDP flagship activity on the political economy of forests. It should be, however, be seen as only an early step.

One of the main limitations of this analysis was the lack of detailed attention to actors, variation within communities, and the relationships between knowledge, power and rule-making. A thorough analysis of interplay will need a better analytical framework that allows combination of information about rules, actors and knowledge. This seems especially critical to understanding some of the historical changes in Southeast Asia, where key individuals have been extra-ordinarily influential in undermining and altering institutional changes. Another important limitation is that a detailed assessment of the impacts of various institutional experiments on both forests and livelihoods of the poor was beyond the budget and scope of the current project, but appears to be doable given the history of work on both areas in the case study countries. A group of case study leaders from this project have since submitted a successful proposal to APN on sustainable livelihoods and biodiversity which help address some of these issues.

The project also revealed the weakness and incompleteness of current conceptual frameworks and theories for handling institutional dynamics across scales. We think this will be a very important research area for the next few years, and one that will have profound consequences for how societies think about organizing responses to global environmental changes.¹⁹

Some international collaboration in this area is now evolving and likely to yield one or two major projects. A proposal to the US agency NOAA, is being submitted, for an empirical and theoretical study of cross-scale interactions in social and ecological systems. Louis Lebel is one of four co-investigator on this proposal. If successful, the activities will include small workshops and post-doctoral research positions.

Along this theme, we are also planning to organize and host a major international conference on the politics of the commons. This would include a major component on cross-scale issues and international agreements. A draft proposal for this has already been prepared with a group at Chiang Mai University, and a campaign to secure partial funding support for participants from developing countries will be run during the second half of 2002. The meeting will be probably be held at the end of 2003 or early 2004.

Finally, some of the themes arising within the synthesis chapter of the book are likely to be developed further into papers or new projects by the authors and some of the participants at the synthesis meeting. One example, the theme of "Nobody Knows Best" which plots the historical waxing and waning of forest management paradigms, will be presented at an international relations conference in early 2003. The issue of social construction and sources of knowledge and how this influences the evolution of institutions and effectiveness of forest management is a promising avenue of research.

Suggestions

At the end of this report we would like to offer some suggestions to APN and START as they pursue their strategic goals in stimulating and coordinating global environmental change research in the Asia region. These arise out of reflections on the experiences with this project.

1. It is vitally important that both agencies continue to foster human dimensions research, especially, that which is well integrated or builds upon, ecological, and biophysical work within the region, often guided by the past efforts of the global environmental change programmes. The IHDP programme and projects can help in setting priorities, but it is also important to assess feedback about local and regional issue of importance within Asia.²⁰
2. START and APN should consider working more closely together to develop a new initiative that would foster the development of integrated regional studies within or across Asia.

These should place special emphasis on cross-scale integration, a type of research that often falls beyond the scope of interest of single donors. APN could help lever funding or build consortia to support fundamental and more applied research that deals with cross scale issues – for example in the use of ENSO forecasts, or as in this project, the governance and management of forests.

3. In this project we developed a network of collaborating research nodes, through a mix of small seed funding for individual groups, and working group meetings with joint synthesis and writing activities. This approach is not appropriate for all projects, but it does provide an important alternative format, to the one-off large meetings more typical in the early stages of START and APN. In this more complex kind of project the funds are widely distributed, rather than centralized, and because local costs are for many countries in the region not very high, small amounts of funds towards gathering and synthesising local secondary or even primary data can go along way. We encourage APN to continue experimenting with funding projects of this and other styles, and not just contributions to “big meetings” though these are clearly sometimes needed.
4. As the science community and its research networks in the region mature, the types of activities that START coordinates or stimulates and which need funding has been changing.²¹ This also reflected in the Phase II of IGBP and way the IHDP programmes are re-defining themselves. APN should consider updating its own framework and the scope of projects it targets for funding and leveraging of other funds. I suggest that one area where it could make a strategic mark is in the research areas linking global environmental change with issues of sustainability at various intermediate and more local scales. Issues of trade-offs between various ecosystem goods and services, especially those important for global environmental change like carbon with others of more immediate, and direct concern locally are particularly important to understand. This is obviously related to the cross-scale issues mentioned above and repeatedly faced within this current project, but in addition it encourages greater attention to issues of sustainability.

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This report was prepared by Louis Lebel and Suparb Pasong on behalf of the project team. We'd like to thank our friends and colleagues, Antonio (Tonton) Contreras, Le Trong Cuc, Agus Sari, Le Kim Thoa, for sharing their thoughts, experiences and wisdom throughout the project.

APPENDICES

Appendix 1. Synthesis Meeting

Institutional Interplay and Forest Governance in

Southeast Asia: Impacts of decentralization, globalization and the internationalization of the environment

International Workshop at the Siam Commercial Bank Training Centre, Chiang Mai, 25-26 February 2002

In this workshop we propose to focus on the issues of institutional interplay by linking existing work on local institutions and environment relations with the new body of knowledge about international regimes. Ultimately, our analysis should enable us to draw some conclusions about the effects of this interplay on current forest conditions and how these interactions may evolve given alternative scenarios of global environmental change, and socio-political transformation in the region.

Through a series of short empirical case study presentations and then wider discussions on other empirical and theoretical findings we aim to explore three main themes related to forest governance:

1. Under what conditions, do decentralization, economic globalization and trade liberalization result in better forest management practices and livelihoods outcomes?
2. How does interplay between international, state and local institutions affect forests and livelihoods?
3. How could institutions at different scales be re-designed, or new institutions created, that would better support sustainable and equitable use of forests?

The focus of this workshop was on empirical evidence from Southeast Asia about the causes and consequences of various institutional changes for forests. Some participants were asked to make short presentations on relevant case studies they have worked on, or to provide feedback on these case studies or broader conceptual issues.

The workshop has two immediate expected outputs:

- a written synthesis report the results of workshop
- sets of critical and constructive commentaries for each of the presented case studies and theory papers.

In addition, if the group decides that there is sufficiently novel material arising from our discussions, to prepare a synthesis paper, then we expect to have agreed upon a process for preparing a draft of that paper, which of course could start from the workshop synthesis report.

Program

		Themes and Goals	Activities and Format
DAY 1 (25 FEBRUARY 2002)			
0830	0900	Informal introductions of participants	Chair: <i>Suparb Pasing</i>
0900	1030	<u>Institutional Interplay and Forest Governance : initial findings from a set of case studies in Southeast Asia</u> Introduce the main themes of the workshop through the presentation	Chair : <i>Suparb Pasing</i> Overview of Case Studies – <i>Louis Lebel</i> Plenary discussion with responses from case study panel: <i>Le Truong Cuc</i> – Uplands of northern Vietnam

		of initial findings from a set of six case studies in Southeast Asia.	<i>Le Kim Thoa</i> – Mangroves in Vietnam <i>Antonio Conteraras</i> – Philippines Forests <i>Henley Hendrickson</i> - Indonesian Forests <i>Suparb Pasong</i> – Mangroves in southern Thailand <i>Louis Lebel</i> – Uplands of northern Thailand
1030	1100	Break	
1100	1230	<u>Decentralization and political institutions</u> Explore the real nature of decentralization processes and other changes in political institutions and how these affect forest governance and management	Chair: <i>Antonio Contreras</i> Plenary discussion with additional short case study presentations from panel: <i>Levita Duhaylungsod</i> – Decentralization and forest governance <i>Claudio Delang</i> - Local vs national interests in forests
1230	1330	Lunch	
1330	1500	<u>Globalization and market institutions</u> Explore economic globalization and other changes in market institutions and how these have affected forests.	Chair: <i>Suparb Pasong</i> Plenary discussion with short case study presentations from panel: <i>Cecilia Luttrell</i> – Changes in coastal zone of Vietnam
1500	1530	Break	
1530	1700	<u>International environmentalism and institutions</u> Explore the significance of international environment and trade agreements and international environmentalism for local forest governance and management.	Chair: <i>Louis Lebel</i> Plenary discussion with short case study presentations from panel: <i>Phil Hirsh</i> – Environmentalism and forest governance from a local perspective ? – International Environmental Agreements
1815	2030	Dinner at “The Rainforest” open-air restaurant	Bus leaves from lobby at 1815

Appendix 2. Contact information for Project Collaborators and Meeting Participants

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Synthesis Workshop Participants

In addition to the six case study leaders listed above we invited several other participants to comment on our research and make presentations on their own research experience in Southeast Asia. A couple of participants who were already attending the Resilience Alliance Workshop on Institutions and Politics held immediately after the Synthesis Workshop at the same venue (27 February – 1 March 2002) also participated in this synthesis meeting and are listed here. They brought very valuable international experiences to the discussions. A few participants were self-funded or funded under other grants for their travel.

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