ASIA FOREST NETWORK

The Asia Sustainable Forest Management Network supports the role of communities in protection and sustainable use of the region's natural forests. The Network comprises a small, select coalition of Asian planners, foresters, and scientists from government agencies, universities, and non-government organizations, many of whom have collaborated for years. The solidarity of the Network members is based on a common commitment to exploring alternative management strategies for Asia's disturbed natural forest lands. The emphasis of the Network's research includes the ecology of natural regeneration, the economics of non-timber forest product systems, and the community organizations and institutional arrangements which support participatory management. The lessons stemming from the research aim to inform field implementation procedures, reorient training, and guide policy reform.

For more information about the Network and its publications, please contact Dr. Mark Poffenberger and Betsy McGean or Cynthia Josayma at the address below.

Center for Southeast Asia Studies
University of California, Berkeley
2223 Fulton Street #617
Berkeley, California 94720
Tel: 510-642-3609
Fax: 510-643-7062

THE FOURTH ANNUAL MEETING, TRANSITION IN FOREST MANAGEMENT: SHIFTING COMMUNITY FORESTRY FROM PROJECT TO PROCESS, HAS BEEN SUPPORTED BY THE USDA FOREST SERVICE’S INTERNATIONAL FORESTRY PROGRAM, USAID’S NATURAL RESOURCE MANAGEMENT PROGRAM, THE MACARTHUR FOUNDAITON, AND THE WALLACE GENETICS FOUNDATION.

©1995

Front cover photograph: Rattan drying on the banks of the Dupinga River in the Sierra
TRANSITIONS IN FOREST MANAGEMENT:
SHIFTING COMMUNITY FORESTRY
FROM PROJECT TO PROCESS

Proceedings of the Fourth Annual Meeting of the
Asia Forest Network

Held 2-6 April 1995
Oriental Mindoro, The Philippines

Summary by
Mark Poffenberger
Cynthia Josayma
Peter Walpole
Karen Lawrence

Research Network Report
Number 6 -- August 1995

CONTENTS
Figures, Tables and Boxes

Acknowledgements v

Introduction 1

Network Secretariat Activities, 1994-95 12

Panels

I National Community Forestry Status Reports: Creating Flexibility in Forest Management Policy and Practice 16

II Managing Regenerating Forest: Approaches to Research 26

III Identifying and Supporting Community Environmental Movements 33

Emerging Methodologies for Assessing and Assisting the Transition to Community Forestry 41

Future Directions for Member Countries 47

Conclusion 53

Meeting Participants 55

Asia Forest Network Publications 58

Figures

1 Knowledge tree of forest ecology and use practices 6

2 Linking cultural institutions and governance structures in resource management 9

3 Evolution of the Asia Forest Network 11

4 Transect of Ban Tat village lands, Chieng Hac Commune, Vietnam, with traditional land use classifications 31

5 Resource issues and social communication in Northern Thailand 36

6 Cultural institutions that encourage protection of the upland watersheds in the Upper Pulangi, Philippines 39

7 Manual geographic information system mapping tools 43

8 Community map of ancestral domain, Talipanan-Ainoan watershed 45

Tables

1 Characteristics of Project and Process Approaches to Forest Management 4
ACKNOWLEDGEMENTS

The Asia Forest Network thanks all of its supporters for both financial and substantive contributions made over this past year. Special thanks are due to the USAID's Asia Bureau, the NRMP-II Project, and the USDA Forest Service-International Forestry Office, which funded the fourth annual meeting of the Network in Mindoro Oriental, as well as many of our fieldwork and training activities. Alex Moad's and Mike Benge's concerted efforts to make these funds available to the Network are gratefully acknowledged, as is the encouragement from Molly Kux and George Taylor. The Network Secretariat also thanks Kuswata Kartawinata for his assistance in arranging MacArthur Foundation funding to allow Vietnam to develop a country program. We also appreciate Nick Menzie's help in opening the way for the Network's nascent involvement in China. Thanks are also due to Jeff Campbell for his continued support to Network activities in India. We are also grateful to Bob Wallace and Charlotte Fox for providing further assistance to the India program from the Wallace Genetics Foundation.

The Network Secretariat continues to appreciate the support it receives from its host institutions, the East-West Center's Program on Environment and the Center for Southeast Asia Studies at the University of California at Berkeley. Our thanks go out to Jeff Fox, Meg White, Terry Rambo, Richard Buxbaum, David Szanton, Bob Reed, Eric Crystal, and Magdalene Khoo.

This year's annual meeting was wonderfully organized and executed, thanks to the efforts of our colleagues at the Environmental Research Division of the Manila Observatory and with special gratitude to Rowena Soriaga and Monina Letargo. In preparing this proceedings, we thank the ERD staff and Jane Sterzinger for the artwork, Daniel Bauer for editing and layout, and Jack Brulle at Apollo Printing.

Finally, we wish to give a special acknowledgement to the participation of Mr. M.F. Ahmed, India's inspector general of forests. Mr. Ahmed has been working in the field of community forest management for over thirty-five years, contributing greatly to its evolution. We warmly welcome Mr. Ahmed to the Network and gratefully accept his enthusiastic to hold our next annual 1996 meeting in Orissa.

INTRODUCTION

Mark Poffenberger, Director
Asia Forest Network

Asia's forests are experiencing growing pressures from expanding economics and populations. Sustaining these valuable resources requires effective access controls and sustainable use systems, often best managed by local communities residing in or near the forest. Over the past twelve months, Network members continued to explore how public forest management responsibilities may be devolved to hundreds of thousands of rural Asian villages. After nearly 150 years of growing state control, the process of decentralizing the management of forestlands is an immense task. In the Philippines, a decade after the issuance of policies supportive of community management, progress in public land reform has been slow. In India, even with a grassroots forest protection movement that has swept the eastern states since the early 1970s, less than 2 percent of public forestlands are actively protected by local community groups. Implementing effective village-based forest protection and management over Asia's vast forest tracts is a process that will continue well into the next century. The challenge of the Asia Forest Network, and this meeting, is to seek ways to understand this historical process, design learning processes for the present, and facilitate and accelerate its progress for the future.

Viewing current changes in Asian forest management as part of a historic transition in public policies and social institutions is helpful in anticipating future challenges in this sector. Forestry was only one of the many government agencies that grew dramatically as a part of bureaucratic expansion of the post-World War II era. While government technical agencies and local governance structures have been effective in delivering many services, it seems they are unable to replace many of the resource management functions provided by indigenous cultural and communal institutions.

To understand the changes that may be required to sustain Asia's forests it is useful to (1) view the management transition as part of a historical social process rather than as a composite of donor-driven social forestry projects and policy decisions; (2) recognize both the management disjunctures and the linkages between the formal structure of governance and informal cultural institutions; and (3) build on both scientific and indigenous knowledge of forest ecosystems and management strategies as a framework for understanding decision making.

Paradigm Shift: Project Driven to Process Responsive

During Asia's Development Era, which began gaining momentum in the 1960s, planners attempted to set in motion national economic transitions, establishing five-year-plan targets funded through project activities. This approach relied heavily on the creation and staffing of formal institutional structures, with large investments in new technologies and capital. Forest management, like other social and environmental sectors, took on these attributes. Forestry activities were structured around project investment, guided by centralized decision making and donor priorities, while traditional use fell largely outside the programming view. This frequently resulted in disconnected, often-conflicting interaction between rural use needs and forestry project needs.

Increasingly, planners are finding that project-structured forestry intervention are failing to respond to the management requirements of the huge areas of natural forests, and at the same time are alienating forest-dependent communities. After a cycle of project funding ends, tree planting activities cease, with little or no effective management structure left in place. Because reforestation projects are often designed around exotic species and alien nurseries and management practices, local people cannot readily understand new technologies or participate easily in the initiative, especially in meaningful leadership roles. Typically, forestry skills are not being transferred from the project staff to communities, nor are projects linked well with village forest-oriented activities.
Localized projects also create an "island effect," with short-term benefits flowing toward specific locations or groups, leaving neighboring communities and forest unaffected. Throughout Asia, these linear, time-bound, target-oriented activities absorb hundreds of millions of dollars, but due to a lack of community accountability and social fit, they often leave little behind. Forestry projects come with high price tags as well. Establishing one hectare of fast-growing exotic trees often costs over US$1,000. With tens of millions of hectares of disturbed natural forests, replanting even a fraction of the area has been prohibitively expensive. With survival rates of seedlings frequently low, costs increase. Communities, too, are often unhappy with the hardy but low-value species generally relied upon for plantation, finding them of little use beyond a cheap source of fuel. Yet for over two decades, multilateral development bank and bilateral assistant agencies throughout Asia continued to invest billion of dollars in forestry plantation projects.

While donor agencies continue to invest heavily in these projects, there is a growing recognition that a very different approach is needed to stabilize the region's natural forest. Network members are advocating a major reversal in strategy away from directive capital and technical investments to one which is supportive of community-based initiatives to regenerate natural forests through local institutions. By perceiving the stabilization of forest use to be part of a social process that will be driven by communities' own resource needs, planners may need to transfer authority and control of forests to village user groups rather than attempt to retain control through short-term projects.

Increasingly, Asian villagers are informing urban planners that forests can best be managed through their small community groups and cultural institutions rather than through the local government administrations commonly relied upon for project management. In some parts of the region, they are requesting that their informal institutions and emerging resource management systems be legitimized by government. To respond to these new opportunities, government agencies will need to develop a capacity to include rural partners in management, evolving new abilities to extend information, flexible financing, and appropriate technical support in a responsive and timely manner. This requires forestry agencies to play a new role as facilitators of a management transition process rather than as controllers of projects. It also implies a shift in emphasis from fiscal accounting and target setting toward enhancing horizontal communications and monitoring information on social and ecological changes. Some distinguishing characteristics of project and process approaches to forest management are presented in Table 1.

<table>
<thead>
<tr>
<th>Project Approach</th>
<th>Process Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time-bound, linear concepts</td>
<td>Evolving social processes, integrated concepts</td>
</tr>
<tr>
<td>Inflexible, structured approach</td>
<td>Flexible approach, able to adapt to changes in community circumstances</td>
</tr>
<tr>
<td>Output drives design-specific research</td>
<td>Output emerges as a consequence of evolving information and research</td>
</tr>
<tr>
<td>Decisions delegated to community and timed according to project plan</td>
<td>Activities move at a pace matching the community's ability, giving it more control of the process</td>
</tr>
</tbody>
</table>
Communication Strategies: Integrating Scientific and Community Knowledge to Improve Forest Environments

This year's meeting highlights new concepts emerging from the field that have potential to assist in the shift from project to process orientation. Human knowledge regarding natural forest ecosystems is largely composed of information from the modern science of silviculture, applied forestry research, and community-based environmental knowledge. The tree diagram in Figure 1 illustrates these sources of knowledge. Government forest management systems have relied almost exclusively on the knowledge generated from the two branches of silviculture research and applied research. The terminology, conceptual frameworks, problem foci, and management goals used by professional foresters have been shaped through this perspective and have profoundly influenced forestry policy and practice throughout the Asia region. While this has brought a wealth of information and an analytic structure to the hands of planners, it has also determined a European-derived terminology and conceptual orientation to Asian forest. At the same time, the third branch of community knowledge holds the accumulated knowledge from thousands of years of Asian experimentation in manipulating forests for societal needs, knowledge that has been largely ignored.

This predominant reliance on western concepts of silvicultural and applied research has erected barriers to community integration. In part, this results from the use of foreign management concepts, extension frameworks, and terminologies that impede communication. Terms like "biodiversity" and "sustained yield felling cycles" have little meaning to indigenous forest users and are therefore difficult to translate. Yet, Asian communities have extensive and diverse indigenous experience with a wide range of forest manipulation and use systems that are often sustainable and foster biodiversity. This field-based reality needs to be communicated to the government sectors, with policies and programs modified to support indigenous management systems, to integrate them into national planning.

In many Asian countries, governments have been unable to coordinate forest policies and management programs effectively with communities because of the absence of a common language for discussing options and inadequate mechanisms for communication. This can result in conflicts that lead to forest degradation. Policy and program initiatives drawn solely from professional knowledge usually have a minimal if not detrimental impact on forest
Communities are generally excluded from project planning, they do not understand the goals of the activity, and they are sometimes alienated from their lands or resources in the process. Network members agree that in much of Asia, given the pervasive presence of rural population in forested areas, better communication linkages and coordinated decision making between the government forestry sector and community-based resource users are prerequisites for improving forest management.

If governments are to succeed in sharing forest protection and management responsibilities with community groups, a common framework needs to be formulated that helps establish mutually understandable agreements. The adoption of indigenous forest management concepts and terminology will enhance this process. The use of local land use typologies and forest-related vocabularies allows villagers to not only speak in their own terms, but also use words that more that more accurately reflect perceptions and realities related to forest use. Further, by finding ways to integrate basis and applied forestry knowledge with indigenous experience, a much deeper understanding of Asia's complex tropical forest ecosystem will result. Until ways are found to bring local terms and knowledge concerning forest use into the resource planning and policy dialogue, the expertise of the community will be neglected in the policy environment.

![Knowledge tree of forest ecology and use practices](image)

**Figure 1. Knowledge tree of forest ecology and use practices**

### Linking Government Structures with Cultural Institutions

Network members find another factor inhibiting sustainable forestry has been the lack of linkages between formal governance structures and traditional cultural institutions involved in resource management. Many Asian communities have regulated forest use through tribal, clan, and extended family units, indigenous councils, local leaders, and others traditional...
institutions. While some traditions have eroded, others are still active or are being reestablished to respond to resource scarcities and environmental problems. Unfortunately, government resource management systems and donor projects are designed to administer policies and implement activities through formal governance institutions. Experiences with Asia social forestry projects over the past two decades indicates that local government bodies may not represent the views or needs of forest-dependent communities. Local government institutions are frequently dominated by political and economic elites who capture development benefits for their immediate constituencies. More marginal, forest-dependent hamlets are often bypassed in project decision making, even though these activities are drawn from their traditional resources.

Effective partnerships between government and forest communities in the management of watersheds and forest resources will necessitate new mechanisms to link formal administrative structures to traditional and emerging resource user institutions embedded in local cultural systems (see Figure 2). New methods are being developed to identify and acknowledge the presence and role of small hamlets, often composed of ethnic minorities, as local resource managers. Settlements, often composed of a single tribe, caste, or clan group, may want to cluster and coordinate management systems in ways that conform to cultural or physical, rather than administrative, boundaries. Government agencies will need to create more flexible public lands management frameworks that allow indigenous forest use and tenure systems to be recognized and incorporated within national land management policies, if they are to build on these important social institutions to stabilize forest resources.

![Diagram of informal cultural institutions and formal governance structure](image)

**INFORMAL CULTURAL INSTITUTIONS**
- Village councils
- Clan associations
- Informal resource user groups
- Residential clusters

**LINKING AND BRIDGING ACTIVITIES**
1. Joint mapping of resource use zones
2. Local governance legitimization of informal resource user groups
3. Regular village/government meetings to discuss resource management practices, processes, and policies
4. Small local groups on informal organizations

**FORMAL GOVERNANCE STRUCTURE**
- Resource Policy
- National
- Provincial/State
- District
- Subdistrict
- Administrative village

**NATURAL RESOURCE BASE**

Figure 2. Linking cultural institutions and governance structures in resource management

In summary, Network learning continues to confirm the need to shift strategic thinking from the planning and implementation of discrete forestry projects to supporting a social process leading to the decentralization of public lands management. Forest management systems need to build on the scientific and technical knowledge available from both modern knowledge and indigenous experience. Such a synthesis not only enriches our understanding of the natural ecosystems and how they might be manipulated to meet human needs, but also may lead to a common vocabulary and improved communications between planners, scientists, and forest villagers. Finally, new linkages are needed to bring the formal government structures and informal cultural institutions together in cooperative forest management efforts. Evolving forest management policies and programs that reflect
and support local user activities and institutions will help to reduce conflict and encourage more cooperative, stable utilization practices.

**Box 1. The Evolving Asia Forest Network**

The origins of the Asia Forest Management are rooted in its members' shared interest in supporting the role of communities in protecting and regenerating natural forests. In the early 1980s, Southeast Asian researchers identified a common need to decentralize the management of public lands to the community level to stabilize the management of public lands to the community level to stabilize forest use. They recognized that planners formulating policy reforms would require accurate field information reflecting emerging community management techniques and strategies to guide management transitions. This recognition led to the decision to form a small coalition of committed professionals who would systematically explore community forestry as a forest management option for Asia.

In eastern India in the late 1980s, hundreds of forest protection committees began emerging in response to deforestation. Foresters, researchers, and NGOs began a series of meetings in West Bengal, New Delhi, Gujarat, and Orissa to develop strategies to support these grassroots environmental initiatives. By the early 1990s, working groups were formed in three states and at the national level to respond to policy, training, and research needs. Collaboration between forest officers, scientists, and Indian NGOs began to breakdown distrust, leading to accelerated learning. A series of national workshops were held as new government policies supportive of joint forest management were enacted.

In January 1992, the First Regional Meeting of the Asia Forest Network was held in Bangkok at the Regional Community Forestry Training Center, bringing together participants from Thailand, the Philippines, Indonesia, and India. Country teams agreed to undertake comparative studies of natural forest regeneration patterns under community protection. A Network Secretariat was established at the University of California, Berkeley, and the East-West Center in Honolulu. The Second Regional Meeting was held in Ciloto, West Java, Indonesia, in March 1993. At this meeting the first round of comparative research finding were presented by country teams. Many studies emphasized the extensive indigenous knowledge of local communities regarding forest use and regeneration patterns. Over the course of the next year, the Secretariat staff worked with country teams to produce three monographs reporting research findings.

In March 1994, the Third Regional Meeting was held at the East-West Center in Honolulu, Hawaii, USA. This meeting focused on the policy implications of decentralizing the management of public forests and natural regeneration as a primary approach to ecological restoration. More than sixty people attended from the participating countries, including new members from China, Vietnam, and Nepal. Senior policymakers from several Asian countries took part in a dialogue with donor agency representatives from the World Bank and USAID. The workshop proceedings reported the enormous biological potential of natural regeneration for Asia's degraded forests, as well as the proven capacity of rural communities to act as keepers of the region's forests.
Evolution of the Asia Forest Network

NETWORK SECRETARIAT ACTIVITIES, 1994-95

The Asia Forest Network Secretariat had a very productive year (see Table 2). Following last year's annual meeting in Honolulu, the Secretariat coordinated a series of workshops in India, China, and Vietnam. Two visits were made to India; one was to conduct a workshop in Orissa on new spatial assessments, including well-received training in a new spatial assessment methodology known as manual GIS (geographic information system).

A second visit to India in November helped establish a new research project that integrates satellite imagery analysis with ongoing case history and field mapping of community forestry protection activities by Network members in the states of Orissa, West Bengal, and Bihar. This project links India members with Mark Poffenberger at UC Berkeley and GIS-expert Nancy Podger from the East-West Center's Program on Environment. An additional manual GIS workshop was held in Udaipur for divisional forest officers in February 1995. Over the next few years, the Indian Forest Service hopes to develop manual GIS as a monitoring system that can track the spread and long-term impact of community forestry activities across large areas of land.

Over the past year, network Vietnam members established community forestry research sites in Bavi National Park and in Yen Chau District in the Da River watershed. In May 1994, Secretariat staff held a research design workshop with Network members in Hanoi's Forestry Inventory and Planning Institute to assist them in project development. The Network's Southeast Asia Secretariat office arranged for four members of the Vietnam team to visit the Philippines country team in October 1994 to learn field-level research techniques. The Secretariat, joined by members of the Philippines group made a return trip to Vietnam in December to coordinate a participatory rural appraisal (PRA) training workshop, giving the Vietnam team a well-rounded introduction to community forestry research and field experiences.
Secretariat staff Mark Poffenberger and Cynthia Josayma also made trips to Thailand and China to participate in a range of activities.

Table 2. Network Secretariat Support Activities, 1994-95

<table>
<thead>
<tr>
<th>1994</th>
<th>1994</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>March</strong></td>
<td>Fourth Annual Network Meeting: Policy Dialogue on Natural Regeneration and Community Management -- Honolulu, Hawaii</td>
</tr>
<tr>
<td><strong>May</strong></td>
<td>Orissa Spatial Assessment Techniques Workshop -- Bhubaneswar, India</td>
</tr>
<tr>
<td></td>
<td>Community Forestry Research Design Workshop -- Cuc Phuong and Bavi National Parks, Vietnam</td>
</tr>
<tr>
<td><strong>June-July</strong></td>
<td>Publication and distribution of annual meeting proceedings</td>
</tr>
<tr>
<td><strong>June-December</strong></td>
<td>Community and Forestry Mediation, Natural Area Reserves-Big Island, Hawaii</td>
</tr>
<tr>
<td><strong>August-September</strong></td>
<td>Preparation of &quot;Village Voices -- Forest Choices&quot; for publication by Oxford University Press</td>
</tr>
<tr>
<td><strong>October</strong></td>
<td>Vietnam Cross-Visit to the Philippines</td>
</tr>
<tr>
<td><strong>November</strong></td>
<td>Vietnam Training Workshop in PRA Techniques -- Da River and Bavi National Park, Vietnam</td>
</tr>
<tr>
<td><strong>December</strong></td>
<td>Diagnostic Assessment of Community Forestry in the Salween River Watershed -- Chiang Mai, Thailand</td>
</tr>
<tr>
<td></td>
<td>Yunnan Province Community Forestry Analysis Workshop -- Kunming, China</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1995</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>January</strong></td>
<td>East Kalimantan Research Design Meetings -- Jakarta, Indonesia</td>
</tr>
<tr>
<td></td>
<td>Eastern India Village Forest Protection Movement Study -- Field visits in West Bengal, Orissa, and Bihar, India</td>
</tr>
<tr>
<td><strong>February</strong></td>
<td>Workshop on Manual GIS Methods for Community Forestry Inventorying-Udaipur, India</td>
</tr>
<tr>
<td><strong>March</strong></td>
<td>Workshop to Develop Community Forestry Case Studies as Training Modules -- RECOFTC, Bangkok, Thailand</td>
</tr>
<tr>
<td><strong>April</strong></td>
<td>Fifth Annual Network Meeting -- Mindoro, Philippines</td>
</tr>
</tbody>
</table>

Lert Chuntanaparb and Wanida Subansenee met with the Secretariat staff in Bangkok to finalize reprinting of the Thai case study into the Thai language for wider distribution within the Royal Forest Department. Network Chiang Mai members Samer Limchoowong and Uraivan Tan Kim-Yong and other members of the Sam Mun Project met with the Secretariat to discuss the current research on regeneration plots of the Karen, Lisu, and Hmong. Network Philippines members Peter Walpole and Gilbert Braganza also joined in a field trip to observe the research site before conducting a diagnostic assessment of the Salween River watershed along the border of Thailand and Burma.
The Secretariat also funded and hosted with the Regional Community Forestry Training Center (RECOFTC) in Bangkok a ten-day writing workshop to develop community forestry case studies as training modules. Using a Harvard case-study analysis format, the training modules are being developed specifically for forestry students to develop problem-solving skills needed for joint forest management. The Secretariat would like to acknowledge the work of Pradyot Bhattacharya (India), S. M. Mariano (Philippines), Guangxia Cao (China), Niti Rittipornpan (Thailand), Helle Quist-Hoffman (Denmark), and Kadi Warner (RECOFTC) in writing and producing these forthcoming teaching tools. The publication is available for general distribution to teaching institutes across Asia and the United States.

The Secretariat also collaborated with the Institute of Botany and the Yunnan Institute of Geography in Kunming in holding a three-day community forestry workshop. The goal of the meeting was to begin analyzing the characteristics and status of indigenous and newly emerging community-based management systems within Yunnan’s five social-ecological zones. A new Network team was formed with members from the Yunnan Institute of Geography, the Institute of Botany, the Academy of Social Science, and the Yunnan Provincial Department of Forestry; they are currently completing a monograph based on their past research and the findings of the analysis workshop. The final report will be published in Chinese and English in the coming year.

The Asia Secretariat is also proud to announce the opening of a Southeast Asia regional office, at the Environmental Resources Division (ERD) of the Manila Observatory. This transition has allowed for such activities as the Vietnam-Philippines cross-visits and the coordination of this year’s conference. Thailand and India have similarly expressed interest in establishing regional offices of the Network within their countries in the upcoming year. This should further encourage inter-country exchanges and shared learning, a primary objective of the Network.
EMERGING METHODOLOGIES FOR ASSESSING AND ASSISTING THE TRANSITION TO COMMUNITY FORESTRY

The Network recognizes the need to develop methodologies that allow urban-based planners, researchers, and development workers to understand the perspectives and indigenous knowledge of local communities. In the 1980s, considerable effort was devoted to the creation of rapid rural appraisal (RRA) methods in Thailand and participatory rural appraisal (PRA) techniques in India and other Asian nations. In the early 1990s, a new wave of more-specialized PRA tools was created, many by Network members, to specifically address community forest management and natural regeneration concerns. This led to publication of a two-volume Methods Manual by the Society of Wastelands Development, the Ford Foundation, and the Asia Forest Network in 1993.

Community forestry PRA methods have been extremely useful in opening discussions between rural people and outside agencies involved in forest management activities. Still, much remains to be done to improve these and create other learning mechanisms to reach collaborative agreements for public land management. At the Network meeting, members reported on the development of a variety of new approaches for creating dialogues and establishing collaborative frameworks for management.

In India, divisional forest officers are playing a leadership role in the creation of manual GIS mapping techniques. Due to their familiarity with the resources and limitations of their field staff, they are well-positioned to design participatory planning tools that are appropriate for the Indian Forest Service. The design team assumes that in order to stabilize natural forest ecosystems, the establishment of access controls is a prerequisite. Access controls may be best imposed by neighboring forest communities. To achieve this goal, however, it is necessary to determine specific territories that can be protected by different community groups. This process of matching social units with spatial areas can be facilitated by participatory mapping procedures that identify historical forest rights, existing use patterns, conflict areas, and processes by which mutually acceptable agreements can be established.

Mapping tools provide diverse interest groups—including villagers, foresters, NGOs, and local government officials—with a visual framework for integrating knowledge of forest conditions and resource conflicts. By focusing attention on a visual representation of the forest territory, different perspectives on management problems and opportunities can be integrated, allowing for the development of a common framework for analysis.

These new procedures may, in part, replace earlier methods that have been used for over a century and that no longer respond to the emerging information needs of new joint forest management systems. The manual GIS technique involves the use of existing topographic maps on a scale of 1:50,000. These maps are well-suited to the task as they include information on local settlement distribution, providing the names and locations of each residential settlement as well as public and community forest boundaries. Plastic acetate sheets are overlaid on the map, with colored pens used to draw in each forest user village and its interaction with a specific forest patch (see Figure 7). On Sheet 1, territorial and village boundaries are demarcated. On Sheet 2, forest-user villages and vegetational characteristics are identified. Sheet 3 is used for management issues, including areas with illegal logging, overgrazing, heavy fuelwood headloading, etc. Finally, Sheet 4 is used to identify clusters of communities co-dependent on a specific forest area, representing possible larger management units. Forest patches where individual community rights and responsibilities need clarification and demarcation can be enlarged to a scale of 1:10,000. This provides a map appropriate for village-level discussions.
Figure 7

Manual geographic information system mapping tools

Using the manual GIS, solutions or interventions become apparent, such as identifying a particular community that could benefit from regular meetings or assistance from extension workers, or a particular district that could use the skills of a mediator or technical assistance. Land use classification and zoning systems used by government planning agencies commonly draw upon the science of regional planning. While the terminology and tools of this field have much to offer, they have not included indigenous land use knowledge or the analytic categories used by local communities. For example, most of Vietnam's fifty-eight ethnic minority groups practice different forms of upland, long-rotation agriculture. These cultural communities clear and burn their land in a variety of ways, leave it fallow for varying periods, and interact with their watershed forests differently.

Box 2: Community-Network Exchange in Talipanan, Philippines

One of the meeting highlights was a half-day cross-learning visit with Talipanan Iraya villagers of Mindoro Island. Three village men came by boat to the conference center.
Each group's land use practices have different effects on the biodiversity, forest cover, and hydrology of the natural environment. By using the indigenous names for each type of land use system, land use classifications can much more accurately describe how the resource is being utilized.

The Environmental Research Division (ERD) of the Manila Observatory has used indigenous classification on a more micro level to begin zoning the forests of the Dupinga watershed in eastern Luzon's Sierra Madre Mountains. The indigenous Dumagat people classify the forest as "rich, hard-up, poor, and cold." These classifications reflect the availability of important products like rattan and foodstuffs as well as environmental stability or instability. ERD feels such classifications will assist the Department of Environment and Natural Resources to discuss ways to improve the management of the Dupinga with the Dumagat residents. If broad-based transitions to community management for public forests are to succeed, extensive changes in the ways management knowledge is collected, stored, and analyzed for decision making appear needed. Indigenous and scientific knowledge is currently fragmented by distinctions regarding basic and applied research,
and by disciplinary boundaries. Scientists, forest administrators, and community forest users will need to collaborate closely in pooling their knowledge regarding ways to manage forest ecosystems both productively and sustainably.

Figure 8
Community map of ancestral domain, Talipanan-Ainoan watershed

FUTURE DIRECTIONS FOR MEMBER COUNTRIES

China

In the coming year, the Yunnan team intends to publish a monograph in collaboration with
the Network summarizing findings from four years of community forestry case-study research. The team is also developing a public information strategy to use television and press media to disseminate and support the province’s indigenous forest management traditions and emerging programs. Producing a series of short films for local television based on the sustainable forest management systems of important ethnic minority groups in different parts of Yunnan has been proposed.

The Network hopes to broaden its interactions with community forestry research groups in China in the coming year. A proposal has been submitted to the Ford Foundation to fund a series of exchanges between Chinese institutions and other Network members. There is particular interest in examining community forestry strategies along river systems that cross the international borders between China, Burma, Laos, Thailand, and Vietnam.

India

The India country team will continue to support the development of the national joint Forest Management (JIM) Program over the coming year. Regular meetings will be held by the National Advisory Committee with systematic input from the National Support Group on joint Forest Management, a coalition of NGOs involved in applied ecological, economic, and institutional studies related to community forestry and natural regeneration. The research is now ongoing in approximately twenty sites covering six Indian states. The country team will work to assist in the formation of state-level JIM support groups in states where such groups have not yet been formed. Researchers will assist forest communities in setting management goals for natural forests and designing village-based experiments with varying manipulation techniques to achieve specific production objectives. Over time, the program hopes to generate a variety of sustainable management systems for a diversity of natural forest ecosystems, designed to achieve optimal production levels for selected timber and non-timber forest products.

A group of NGOs is also engaged in gender-related research and training issues related to JIM. The country team will actively pursue and support the activities of the JIM Research Network on ecological and economic issues, institutional matters, training programs, and gender sensitivity, being coordinated by the National Support Group on JIM.

Members of the country team are also attempting to develop a historical explanation of the social and environmental forces that have shaped a growing local forest protection movement in three eastern Indian states. The Asia Forest Network intends to publish the results of these studies in late 1995. In addition, the India National Support Group is forming a special team of divisional forest officers who are designing new tools for inventorying and monitoring the spread of community forest protection groups in five states. Once perfected, it is hoped that manual GIS will be adopted by many Indian states as a cost-effective participatory planning tool to support joint forest management activities.

Finally, the India country team has agreed to host the Fifth Annual Meeting of the Asia Forest Network. The proposed site for the meeting will be in coastal Orissa, 10 kilometers south of the temple city of Puri. The Society for the Promotion of Wastelands Development and Vasundhara will act as meeting organizers, under the auspices of the Ministry of Environment and Forests. The meeting will be held the first week of March 1996. A series of field trips will be planned to allow Network members to learn more about the spread of forest protection groups in eastern Indian states.
Indonesia

At the Network's March 1994 meeting, the Indonesia country team identified the Middle Mahakam River basin as a strategic area for the development of community forestry management activities. A critical watershed for the rapidly developing coastal zone of East Kalimantan, much of the 2-million-hectare basin was commercially felled during the 1970s and 1980s. Aside from commercial timber activities, natural forests are under pressure from frequent fires and migrant farmers. The country team, with funding from the MacArthur Foundation, plans to initiate a phased program that will begin with a spatial and social assessment of the area to identify high-potential sites for establishing collaborative management agreements. The Swedish government is funding an analysis of SPOT satellite images of the Middle Mahakam at a scale of 1:50,000, which should provide an excellent assessment of existing ground-level forest vegetation conditions. The team proposes to build on this and other data by working with the provincial government, universities, and NGOs, and by holding discussions with communities in the region to elicit their views on management options for logged-over forests.

In the second phase of the program, communities that have expressed an interest in participating in trial programs will begin defining the forest tracts to be managed. Questions regarding management objectives, technologies, and rights and responsibilities will be determined through an interactive dialogue. The country team will assist the participating communities in identifying cultural institutions that could work with local government and private-sector operators to establish communication linkages, dispute arbitration mechanisms, and improve processing and marketing channels. The country team will be responsible for documenting learning emerging from the program and providing it to planners and policymakers for larger application within Indonesia.

Philippines

Over the past year, the Network Philippines members have helped establish a National Working Group to monitor community forest programs in ten sites throughout the country. The Philippines Working Group has met regularly to examine both field operations and the policy orientation of the Community Forestry Program. Group members have visited four sites over the past twelve months and hope to complete their assessments in the coming year. The working group has brought senior planners, NGO leaders, and researchers together and into communication with a wide range of rural communities to explore ways to improve and accelerate community forestry within the country.

In the coming year, the working group will continue site visits and community dialogues to further understanding of implementation problems of existing policies and programs at the community level. The working group will also advise on strategic options available to support community forestry and relay information to the media to explain policy to the Public. In 1995-96, the Philippine team will explore how existing policies and programs can better support local initiatives and stimulate a process of decentralizing public lands management, thereby reducing dependencies on projects.

Some changes in the Philippines research includes a shifting orientation of the Community Forestry Program to be more responsive to local needs and initiatives rather than being driven by political priorities or development financing. Working group members are considering the use of a "Pre-Community Forest Management Phase," which could acknowledge greater recognition of the process of public lands management transfers.
Introduction of this phase would assist communities in discussing forest rights and responsibilities, in exploring management options both technical and institutional prior to deciding on possible technical and capital inputs, and in establishing legal formalization, which characterizes conventional social forestry projects.

It is likely the National Working Group will be expanded to create an affiliated donor agency working group. Donor agency representatives would meet regularly and visit community forestry sites to hold discussions with village-based organizations. This mechanism will allow donor agencies providing financial support for community forestry policy initiatives to obtain a greater understanding of field realities and program design requirements. Both working groups, although independent, would hold joint meetings periodically.

The Department of Environment and Natural Resources (DENR) sees a continuing de-emphasis of timber exploitation activities with a growing commitment to the rights of indigenous peoples. Certificates of ancestral domain will be used to enhance the legal rights of indigenous people, ensuring them control over natural resources. DENR also anticipates greater interagency collaboration and joint management agreements with NGOs to provide more effective resource protection. In the Philippines, NGOs also recognize a need to build their research and management capabilities to respond to evolving government programs. Social processes that are encouraging the spread of local resource management initiatives need to be monitored and supported, with particular reference to community forest management programs (CFMP). More detailed research is needed on pre-CFMP processes, to identify, monitor, and support catalysts and mechanisms of spread of both community protection and regeneration management strategies.

Thailand

Within the Royal Forest Department (RFD) of Thailand, community forestry programs are gaining increasing attention. At RFD meetings and training programs, successful community forestry initiatives like Dong Yai and major projects like the Sam Mun Project are receiving attention as models of sustainable management. The RFD’s Community Forestry Division is actively working with district foresters to encourage them to explore participatory management options. The country team is committed to continuing efforts to build public support for local forest protection and management, both through the media and through local cultural institutions.

The Thai team is examining how new forms of community subwatershed management can be spread beyond program areas in the Nam Sa region to neighboring watersheds. Technical studies of forest succession in Nam Sa will continue, but with greater participation of Karen, Hmong, and Lisu villagers in an attempt to gain insights into indigenous knowledge of regeneration and means to accelerate and increase the productivity of restored sites. These studies will provide greater understanding of the types and preferred locations of forests that communities are interested in protecting.

In Northeast Thailand, studies of forest burning in Kalasin will continue, with a new emphasis on community perceptions of its pros and cons. The research should reveal economic and ecological problems and benefits resulting from burning, as well as community beliefs regarding alternatives to annual fires.

Finally, the Thai team is invested in complementing its national community forestry inventory with spatial identification of sites where local forest protection currently exists. The RFD, like the India team, will be developing manual GIS methods. Network members will
share their experiences with these tools at the next annual Network meeting in India. The Thai team plans to increase regular meetings of the Northern and Northeastern teams to develop a synthesis framework for existing research activities.

Vietnam

In Vietnam, the Forest Inventory and Planning Institute (FIPI) will continue its research in the Yen Chau District of the Da River watershed. FIPI and other Ministry of Forestry researchers plan to work with villagers and commune -- and district-level officials to explore how new forest privatization policies and programs may be integrated with indigenous forest and watershed management systems. A series of pilot activities will be carried out that assist minority Tai communities in reestablishing their traditional yumpa (forest keeper) systems. Under the program, indigenous systems would be legitimized and linked to emerging watershed management policies and strategies. The Vietnam country team will also continue to develop tools for documenting forest use practices of upland ethnic minority groups as well as identifying program and policy actions that could support them.

In Bavi National Park, the team will work with the Dao community and park administrators to explore institutional arrangements and activities for establishing a system of co-management. Particular emphasis will be placed on documenting and strengthening indigenous medicinal systems, including the sustainable harvesting and propagation of over two hundred species of plants found within the park.

In the coming years, the Vietnamese research team plans to build a national community forestry network program, with input from district administrators and local communities. The FIPI team will expose additional forestry staff to community forestry processes and planning tools. FIPI also plans to initiate community forestry research activities in the Northwest and the Central Highlands. This will further broaden information from a wider diversity of bi-ecological zones and major watersheds.

CONCLUSION

The annual meetings of the Asia Forest Network provide opportunities for a coalition of forestry professionals, ecological and social scientists, donors, and NGO workers to periodically share their learning regarding changes from the forest to the national policy arena. During this fourth meeting of the Network some significant shifts in Asia's public forest management sector were presented. Field reports indicate that an increasing number of forest-based communities are both experiencing and discussing problems related to deforestation. In some parts of Asia, they are also taking action to reestablish access controls and sustainable management systems.

Throughout Asia, rural people are suffering from growing shortages of forestland that they depend on for sustainable long-rotational agricultural systems. Increasing scarcities of important forest products used for agriculture, housing, nutritional supplements, medicine, and cottage industries impact directly on the welfare of low-income communities. Often of equal concern to villagers are changing hydrological conditions and altered microclimatic patterns. Deterioration of rural resources, increasing scarcity of critical products, and environmental degradation are issues of immense importance, raised at village meetings, discussed in tea shops, among family, friends, and neighbors.
Network studies find many communities are developing new strategies to stabilize their natural resources, reduce conflicts, and intensify management. Network members observe that most government and donor programs, which have the same concerns, have relied on bureaucratic institutions and projects, bypassing valuable input from local communities. This orientation appears to be changing, but a critical next step is moving beyond rhetoric to developing operational systems for linking community initiatives with governmental support programs.

Workshop participants agreed that a number of strategic actions may facilitate the transition of forest management. The discussions suggested that continued attention be given to developing inventories of local resource management initiatives and mapping their spatial distribution. Establishing feedback mechanisms linking communities and field-level staff with national policymakers and planners is important.

Many country-team representatives stressed the need to involve cultural leaders and traditional institutions to strengthen local efforts to protect forest resources. Meeting participants also concurred that mass media provide a powerful array of communication vehicles to transmit messages to the rural public regarding the emerging policy environment that supports local action. The use of an emotional appeal to the public in stressing the need for forest protection, especially when endorsed by cultural leaders, should be effective in stimulating local action.

It was also noted that academic studies have not effectively responded to the emerging information requirements of transitional forest management systems. Research agendas need to address operational problems more directly, while scientific findings need to be channeled to planners and practitioners as well as to academic colleagues. Policy decision making could also be better informed through the integration of ecological and economic information and analysis that directly considers the value of local management and natural regeneration as a cost-effective strategy for rural resource stabilization.

Network members’ commitment to document and support transformations in management grows with each annual meeting. The opportunity to share learning across countries provides members with a larger picture of regional environmental pressures, illuminating common problems as well as common solutions. Network members return to their countries bringing with them the knowledge that they are not alone in their efforts to find ways to ensure healthy forests and invigorated communities.

MEETING PARTICIPANTS

**CHINA**

Mr. Lu Xing, Director  
Ms. Wang Wanying, Research Fellow  
Rural Development Research Center  
Yunnan Institute of Geography  
No. 28 East Jiaochang Rd.  
Kunming Yunnan 650223, P.R. China  
Fax. (871) 514 6912

**INDONESIA**

Mr. Gustaaf Lumiu  
Yayasan Kehati  
Gedung Patra Jasa, 1st fl. Room 1C2  
Jakarta 12950, Indonesia  
Tel: (62 21) 522 8032  
Fax: (62 21) 522 8033

Mr. Martua Thomas Sirait,  
Graduate Student  
Ateneo University, Msc. Social Development  
c / o IPC, Ateneo University Campus  
Loyola Heights, Quezon City, Philippines

**INDIA**
Mr. M. E Ahmed, Inspector General of Forests
Ministry of Environment and Forests
Pargavaran Bhavan, CGO Complex, Lodi Road
New Delhi 110003, India
Tel.: (91 11) 436 1509
Fax: (91 11) 436 0678

Mr. N. H. Mathur, Forestry Advisor
Society for the Promotion of Wastelands Development
Shriram Bharatiya Kala Kendra Bldg. I
Copernicus Mar
New Delhi 110001, India
Tel.: (91 11) 384 521; 383 713; 386 210
Fax: (91 11) 382 6333

Mr. Ajay Rai, Programme Officer
Vasundhara
VII-H-130
Shailasree Vihar, Chandrasekharpur
Bhubaneswar 751016, India
Tel.: (91 674) 440 190
Fax: (91 674) 409 107

Dr. N. H. Ravindranath, Senior Scientific Officer
Center for Ecological Science
Indian Institute of Science
Bangalore 560012, India
Tel.: (91 80) 334 0985; 334 4411; ext. 2506
Fax: (91 80) 334 1683

PHILIPPINES

Mr. Gilbert Braganza
Mr. Eric Bruno
Mr. Cesar Carrion
Mr. Chuck Encarnacion
Ms. Karen Lawrence
Mr. Peter Walpole, Division Head
Environmental Research Division
Manila Observatory
P.O. Box 2232
Manila 1062, Philippines
Tel.: (63 2) 924 1751
Fax: (63 2) 924 4414

Mr. Patrick Dugan, Programme & Policy Support Consultant
Mr. Mike Gould, Head of Environment Office
Mr. Delbert McCluskey, Programme Officer, NRMP
Mr. Ernie Wijangco, Project Officer, NRMP
ONRAD/USAID
Ramon Magsaysay Center
1680 Roxas Boulevard
Manila 2801, Philippines
Tel.: (63 2) 522 4411, ext. 3970
Fax: (63 2) 521 4811

Mr. Romeo Acosta, Director
Office of the Director for Special Concerns
Department of Environment and Natural Resources

THAILAND

Mr. Mon Duangkantee
Mr. Chaleo Kanjunt, Director
Mr. Uli Oberhauser, Consultant
Mr. Preecha Panasree, Associate Director
UN/Thai Sam-Mun Highland Development Project
Office of Watershed Development
Hua Kaew Road, Amphoe Muang
Chiang Mai 50000, Thailand
Tel.: (66 53) 217 453; 217 454
Fax: (66 53) 217 455

Mr. Buared Prachaiyo, Head
Forestry Technical Group
Khon Kaen Regional Forestry Office
Khon Kaen, Thailand
Fax: (66 43) 239 831

Mr. Patrick Dugan, Programme & Policy Support Consultant
Mr. Mike Gould, Head of Environment Office
Mr. Delbert McCluskey, Programme Officer, NRMP
Mr. Ernie Wijangco, Project Officer, NRMP
ONRAD/USAID
Ramon Magsaysay Center
1680 Roxas Boulevard
Manila 2801, Philippines
Tel.: (63 2) 522 4411, ext. 3970
Fax: (63 2) 521 4811

Mr. Romeo Acosta, Director
Office of the Director for Special Concerns
Department of Environment and Natural Resources

PHILIPPINES

Mr. Gilbert Braganza
Mr. Eric Bruno
Mr. Cesar Carrion
Mr. Chuck Encarnacion
Ms. Karen Lawrence
Mr. Peter Walpole, Division Head
Environmental Research Division
Manila Observatory
P.O. Box 2232
Manila 1062, Philippines
Tel.: (63 2) 924 1751
Fax: (63 2) 924 4414

Mr. Patrick Dugan, Programme & Policy Support Consultant
Mr. Mike Gould, Head of Environment Office
Mr. Delbert McCluskey, Programme Officer, NRMP
Mr. Ernie Wijangco, Project Officer, NRMP
ONRAD/USAID
Ramon Magsaysay Center
1680 Roxas Boulevard
Manila 2801, Philippines
Tel.: (63 2) 522 4411, ext. 3970
Fax: (63 2) 521 4811

Mr. Romeo Acosta, Director
Office of the Director for Special Concerns
Department of Environment and Natural Resources

THAILAND

Mr. Mon Duangkantee
Mr. Chaleo Kanjunt, Director
Mr. Uli Oberhauser, Consultant
Mr. Preecha Panasree, Associate Director
UN/Thai Sam-Mun Highland Development Project
Office of Watershed Development
Hua Kaew Road, Amphoe Muang
Chiang Mai 50000, Thailand
Tel.: (66 53) 217 453; 217 454
Fax: (66 53) 217 455

Mr. Buared Prachaiyo, Head
Forestry Technical Group
Khon Kaen Regional Forestry Office
Khon Kaen, Thailand
Fax: (66 43) 239 831

Dr. Chatt Chamchong, Associate Professor
Department of Agricultural Economics
Faculty of Economics & Business Administration
Kasetsart University
Bangkok 10903, Thailand
Tel.: (66 2) 561 3467
Fax: (66 2) 579 8547; 561 5037

Dr. Wuthipol Hoamuangkaew,
Associate Professor
Department of Forest Management
Faculty of Forestry, Kasetsart University
Bangkok 10903, Thailand
Tel.: (66 2) 579 2774
Fax: (66 2) 561 4761

Dr. Komon Pragtong, Director
Community Forestry Division,
Royal Forest Department
Bangkok 10900, Thailand
Tel.: (66 2) 579 5416
Fax: (66 2) 579 5416
ASIA FOREST NETWORK PUBLICATIONS

Research Network Reports

No.


Other Publications

Poffenberger, Mark, Betsy McGean, N. H. Ravindranath, and Madhav Gadgil, eds.


Poffenberger, Mark, Betsy McGean, Arvind Khare, and Jeff Campbell, eds.


Poffenberger, Mark, and Betsy McGeen, eds.

PANEL I. NATIONAL COMMUNITY FORESTRY STATUS REPORTS: CREATING FLEXIBILITY IN POLICY AND PRACTICE

The first Network meeting panel reported on national community forestry strategies and explored policy and communication linkages that can bridge the gap between government and community interests in each of the six participating countries. There has been a preoccupation with "projects" to solve forest management problems. After decades of model "pilot" and "policy projects," little progress has been made in developing effective methods that actually support community initiatives attempting to stabilize resource systems. Despite well-intentioned efforts by governments, donors, and NGOs, projects tend to emerge from within the agencies, reflecting internal priorities rather than external realities; such projects are often unresponsive to community and local government concerns. The panel presentations and brief overview of the follow-up discussion highlight several approaches for overcoming the communication gaps between these groups.

India: Mr. M. F. Ahmed and Mr. N. H. Mathur

Mr. M. F. Ahmed, India's inspector general of forests, provided an overview of India's forest policy history, current directions, and emerging priorities. The forest department, first established by the British in 1894, struggled to balance industrial demands with "serving agricultural needs for the benefit of the people." He noted that the present condition of national forestlands is a result of policies of the past century.

Over the past five years, India has moved rapidly, establishing a strong policy framework to support a transition to the participatory management of public forestlands. In formulating the new forest policy in 1988, the government of India has laid emphasis on the need to involve people, particularly forest-dependent tribes, in forest management. In following this policy the government issued an enabling order in June 1990, setting into motion a process to involve the people in regenerating and managing public forests. In this process, state forest departments are moving from isolated management to an increasingly open, participatory system that encourages active working relations with local communities, NGOs, and other forest-sector actors. While local forest protection initiatives have independent momentum derived from local concerns and based on community activism, sixteen states have formulated supportive policies and programs that have accelerated the spread of the movement. Community forest protection movements are currently concentrated in central India, particularly in the eastern region. The emergence of local resource management systems appears to be associated with high tribal population concentrations, areas with extensive but degraded natural forest tracts, and high-poverty zones. The states of Orissa, West Bengal, and Bihar each possess an estimated two thousand to three thousand village forest protection committees, allowing the rapid regeneration of over 1 million hectares of once-degraded natural forests.

Mr. N. H. Mathur, senior forester for the Society for Promotion of Wastelands Development, reported on the current spread of community forest protection in India. While much progress has been made by both communities and outside agencies in stabilizing India's forest cover, only 1-2 percent of the nation's total forest area currently benefits from effective community-based access controls. Further, most of this area is characterized as locally protected forest, rather than jointly managed. Forest departments need to gain more experience in working collaboratively with community user groups. New management systems and technologies are required to increase forest productivity to meet community requirements and national goals. Joint forest management policies and programs are currently primarily limited to degraded public forestlands. Discussions are underway to
consider involving communities in the management of natural forests with good growing stock as well as national parks and conservation areas.

India faces a significant challenge in reorienting the attitudes and technical skills of over 150,000 professional foresters, as well as in training the next generation. Foresters are moving from more conventional roles as commercial managers and custodians to generating environmental awareness, community organizing, and technical assistance. Both in-service and formal training programs require teachers and new curricula that are only beginning to be developed.

Discussion Summary. An American forester asked the speakers if there was any joint forest management in protected areas in India. Mr. Mathur answered that there are villages involved in forest protection along the buffer regions of some parks, including Buxa in West Bengal and Simlipal in Orissa. There are also participatory rural appraisals (PRAs) being done to assess community interest in other protected areas. Donor agencies are encouraging that 4 percent of India's total land mass be put aside for protection, with local people participating in management of both the buffer and core areas. One of the Vietnamese members requested an explanation of how community people and the policymakers work together. Mr. Ahmed explained that the forest department was a highly structured bureaucracy with interaction and information flowing regularly from field-level foresters up to the policy-level foresters. Similarly, communities have their own hierarchical system of interaction, and foresters are working with community persons who have the authority to initiate change in management practice. In Orissa and Rajasthan, forest departments have successfully improved communications between the two sides by holding meetings with representatives from forest protection groups to review joint forest management policies. Such dialogues have been very productive, with policies periodically revised based on guidance from community protection groups.

Philippines: Mr. Romeo Acosta and Mr. Gilbert Braganza

Mr. Romeo Acosta, a director in, the Department of Environment and Natural Resources (DENR), introduced the shift in forest management policies and strategies taking place within his agency. After experiencing rapid depletion of the nation's natural forest reserves over the past thirty years, the Philippines is currently engaged in a management transition, shifting away from an agricultural-industrial strategy to a social reform agenda that respects the rights of indigenous people to participate in forest management. The industrial sector is beginning to recognize this transition and is attempting to respond through appropriate projects and programs.

In the mid-1980s, a number of tenure mechanisms and programs were established to support community forestry. These include the Integrated Social Forestry Program, Community Forestry Management Agreement, Forest Land Management Agreements, and Certification of Ancestral Domain. Over the past ten years, however, progress in decentralizing public lands control has been slow. The policy instruments and programs were overdependent on government and non-governmental implementing agencies and failed to encourage local initiatives. Local government organizations and field staff did little to encourage forest communities to take advantage of new policies. The multiplicity of projects created confusion regarding which tenure mechanism to use and were often viewed as competing. Because community forestry was tied to projects, decentralized forest management occurred only in isolated project sites, creating an "island effect."

Based on this experience, there is increasing recognition that a sequential evolution is
needed in policy development to deal with emerging issues and to more fully integrate project and program activities into broader social and political changes occurring in the Philippines. DENR is beginning to redefine its own role from one of commercial extraction to protection management, relying on the facilitation of NGOs and community-based activities. In the future, the DENR is considering a new approach to accelerate transitions in management to improve upper watershed protection. This strategy will rely heavily on the use of mass and local media to transmit information on forest management programs to wider audiences.

Mr. Gilbert Braganza of the Environmental Research Division of the Manila Observatory noted that new forest management policies provide the DENR with greater flexibility to decentralizing public forest management to the communities. Yet, these new management opportunities have not been well communicated to the rural public. There is a need to inform forest communities regarding emerging policies and to receive feedback from them to allow programs to be adapted to accommodate the diversity of cultures in the Philippines. Mr. Braganza stressed that it is important to shift away from the centralized "mega" - projects of the past, if such flexibility is to be created.

In response to this need for new communication channels, the Philippine Working Group was formed following the 1994 Asia Network meeting in Honolulu. The group selected ten field sites reflecting a broad range of ecological and cultural settings and DENR and NGO program approaches to participatory forest management. Over the past twelve months, the working group has been establishing dialogue with informal leaders and villagers to discuss resource management issues and the effectiveness of existing national community forestry policies and programs. Through this field-based learning laboratory, the Philippine Working Group hopes to capture new insights into ways to strengthen emerging programs. The group is also exploring ways to effectively disseminate their findings to other government agencies and NGOs, as well as to the larger public, in an effort to accelerate the spread of community-based, sustainable resource management systems.

Discussion Summary. An American NGO representative asked Mr. Acosta if there were any mechanisms to change commercial forestry approaches. Mr. Acosta answered that up to four years ago community forestry was not discussed by the industry, but recently commercial foresters are seeing village-managed, small-scale operations as the future. They view the community as a new resource to assist with timber production. They calculate that production costs will be much cheaper using community labor and expertise. Current problems involve issues of tenure; landownership and product rights must be defined. Many communities remain insecure regarding their long-term rights.

An Indian team member asked how the DENR monitored and protected communities from exploitation by commercial industry. He noted that in India, industry often takes unfair advantage of communities, both through exploitation of labor and in the extraction of natural resources; in response, there is now a firm policy that prohibits industry in areas where joint forest management is in place. Mr. Acosta answered that the Philippines has had similar experiences. The DENR hopes to help strengthen community organizations, increasing their capacity to make good marketing decisions. There is also a good partnership between NGOs and government, working toward a common goal of linking communities with environmental protection and regeneration.

One of the Chinese members expressed great interest in the innovative approach of integrating communities' perspectives into environmental policy assessment. He asked how the Philippines Working Group envisioned building channels of communication between DENR and communities at regional and national levels. Mr. Braganza said the group was currently experimenting with a combination of regular meetings, documentation of cultural
knowledge, and joint mapping projects.

China: Mr. Lu Xing and Ms. Wang Wanying

Mr. Lu Xing from the Yunnan Institute of Geography reported that China's current national forest policies encourage provinces to conduct reforestation and regeneration projects and expand protected forests. But new shifts in land use rights and market integration policies have systematically undermined efforts to sustain natural ecosystems. Provincial policies attempt to control access to forest resources, but are often undermined by the market demands driven by rapid economic development. While emerging policies support some decentralization of authority from the national to provincial governments, and from cooperative to private-sector management, planners have not yet found effective ways to engage and reestablish China's indigenous cultural groups in resource protection and management.

In Yunnan Province, the upper watershed of several of Asia's great rivers and home to twenty-four ethnic minorities, the decentralization process has allowed greater provincial autonomy in policy formation. The provincial forest department is using the opportunity to explore more flexible policy instruments that can better respond to the region's great physical and social diversity. Currently, the Network China team is active in Yunnan and considers the identification of indigenous land management practices a high priority. The team is documenting the variety of belief systems and cultural institutions that regulate community interaction with the forest environment, as well as local forest use technologies and manipulation strategies. To better communicate their findings to planners, the researchers have subdivided Yunnan into five major biophysical and cultural zones and conducted twenty in-depth studies of forest use practices across the province. They have used a classification framework to examine patterns reflecting forest conditions, the strengths of indigenous management institutions, and emerging resource needs and pressures. The team will link their individual case study areas to the zonal framework to identify regional patterns and needs. The team-hopes this spatial analysis of cultural and environmental zones will help inform planners regarding ways to adjust national and provincial programs to respond to the province's varying contexts. The team is also attempting to build community forestry management linkages with large government programs such as the Yangzi River Shelter-Belt Project, which includes fruit tree plantations and natural regeneration.

Ms. Wang Wanying, researcher with the Rural Development Research Center, gave an overview of one of the China team's research sites in the village of Mang Ying in northwest Yunnan. The study examines the impact of a 1981 policy that changed tenure rights from full authority by the collective commune to a new system that divided tenure rights between the household, the collective, and the township association. Management responsibilities were assigned in terms of personal, community, and provincial needs. This policy was the first to directly allow local people to determine forest resource use. Over the past fourteen years, according to the study, private households experienced the greatest successes in timber management. Forests managed by collectives and townships experienced greater disturbance and lower productivity. These problems reflect mismatches between policy and local realities, poor leadership in developing locally appropriate management practices, and changing market conditions that complicated the selection of appropriate tree species.

Discussion Summary. A Thai team member asked how much forestland communities normally protected. Ms. Wang answered that a village may manage forests up to three to four hours' walk from the settlement. A Vietnamese member asked if there was any
community management of upper watershed areas. Mr. Lu explained that Yunnan is a
border province adjoining Burma, Thailand, Laos, and Vietnam, and is the principal
watershed for the Salween, Mekong, and Red Rivers. There is a national project for
provincial watershed management, but currently no effort is being made to coordinate
communities' activities in protecting watersheds.

**Indonesia: Mr. Sopari Wangsadidjaja**

Mr. Sopari Wangsadidjaja, chief of Forest Production Section of the Indonesian Ministry of
Forestry, noted that his country is one of the few remaining nations with extensive old-
growth natural forests. There are also millions of hectares of production forest, which while
already selectively felled still possess good residual secondary growth. In the outer-island
regions such as Kalimantan, Sumatra, and Irian Jaya, population densities remain low. Yet,
scattered settlements of indigenous peoples and a growing influx of migrants provide a
basis for integrating local communities into sustainable forest management systems.

In recent months, the Ministry of Forestry has issued new policy directives, mandating that
much of the production forests be transferred from commercial to community management.
During the current Five-Year Plan, a target of 450,000 hectares has been proposed for
transfer to community control. The Consolidated Production Forest Areas (Kesatuan
Pemangkuan Hutan Produksi-KPHP) has been designated as one of the primary vehicles
to devolve management authority to local groups.

In moving from policy to implementation, the Ministry of Forestry faces a number of
operational questions. It remains unclear what types of community organizations or
institutions should be involved as field-level management units. The size of forest area to
be protected and utilized by communities needs to be determined through village-
level discussions. How the forests are to be managed, what products are to be extracted, and
which technologies are to be used to ensure sustainable yields need to be clarified. Since
the commercial timber industry remains active, processing and market linkages between
community forest management institutions and the larger private sector will need to be
developed. Finally, stronger communication and coordination relationships between
national planning agencies, local government, and community groups require clarification
and establishment. This last, critically important task assumes an ability to identify and
interface indigenous cultural (adat) institutions with the formal governance sector.

**Vietnam: Mr. Vu Van Dung and Mr. Vo Tri Chung**

Mr. Vu Van Dung, vice director of the Forest Inventory and Planning Institute (FIPI) of
Vietnam’s Ministry of Forestry, explained that in his country, attention is currently focused
on accelerating their economic transition. Capital and technological investments in the
industrial and agricultural sectors are streaming into the country. Yet the longer-term
success of the economic transformation of Vietnam is heavily dependent on the stability of
the nation’s upland resources. The challenge the Vietnamese country team faces is to bring
to the attention of planners the immense potential present in government collaboration with
ethnic minority groups to stabilize the vast but degraded upland watersheds. Since current
policy and project momentum is focused on lowland private-sector development, it is
imperative that government planners explore strategies for integrating governance and
private-sector efforts alongside the nation’s diverse upland cultural groups. Over two-thirds
of the country’s land area is located in upland watersheds inhabited by fifty-eight ethnic
minority groups.

FIPI’s Mr. Vo Tri Chung reported that given the great cultural diversity present in upland Vietnam, finding ways to formally integrate these communities into national forest management strategies presents significant challenges. Earlier policies and programs promoting resettlement were socially disruptive and largely failed. More recent policy initiatives are encouraging the allocation of forestlands, yet while these strategies may be appropriate in highly populated, lowland agricultural zones, they may not reflect historic human-forest interaction patterns characteristic of upland cultural communities. The Vietnamese country research team has already reviewed current privatization policies with Hmong, Tai, and Dao minority groups in the Black River watersheds of the north and found villagers to be doubtful of programs that lead to fragmentation of responsibilities for protecting upper watershed forests. Villagers are, however, expressing considerable interest in restoring traditional community access to non-timber forest products within national parks, reforesting degraded lands with indigenous tree species, and strengthening cultural mechanisms of land use allocation such as the traditional tai yumpa or "forest keeper" system.

The Vietnamese team is working with district and commune officials, initially in Yen Chau District in the Da River watershed and around Bavi National Park, to create new approaches to collaborative resource management in upland areas. In the longer term, FIPI, in cooperation with other departments in the Ministry of Forestry, intends to develop an information base detailing indigenous forest management practices, both institutional and technical, of the majority of ethnic minority groups in the country. It was proposed that this information be fed into policy and planning formulation to better integrate Vietnam's upland cultural diversity and rich traditions with national forest management systems.

Thailand: Mr. Komon Pragtong

According to Dr. Komon Pragtong, director of the Royal Forest Department’s (RFD’s) Community Forestry Division, economic priorities have driven forest policy decisions in recent decades. Since 1985, however, policies encouraging community management of public forests gained support. By the end of the century, Dr. Pragtong expects new laws will support a transfer of responsibilities for much of the public forestlands from the forestry agency to community groups. However, while a policy environment supportive of community forestry is emerging, many earlier conflicting land laws remain in force that may constrain any major initiatives leading toward a broad-based public forestland decentralization. Broad-based regulations still require communities in steep upper-watershed areas to be resettled; villages situated inside national parks are also required to move. Within a policy and legal framework that has mixed implications for the role of communities in state forest management, the RFD’s Community Forestry Division has attempted to develop a flexible strategy for enhancing local participation and understanding local cultural traditions that help sustain forest resources.

The RFD has enlisted the assistance of Thai cultural institutions to help strengthen local forest management initiatives. These have included involving members of the Royal Family, as well as the Buddhist clergy, in supporting community forestry. Encouragement from the king’s family is often a powerful motivation to forest villagers to initiate management activities; Buddhist monks are also very influential in supporting villagers to carry out communal projects. New decentralized governance policies have also empowered district-level government to levy taxes on forest-related activities that can be channeled back to forest-based communities. This provides new financial resources to respond to community
concerns, including support for forest protection, regeneration, and related management initiatives. The Community Forestry Division continues to build its national inventory of local forest management groups. Recent surveys indicate over ten thousand community forest organizations are actively protecting local ecosystems for ritual, hydrological, or production purposes. The RFD is exploring how to extend greater legitimacy to informal resource management institutions.
PANEL II

MANAGING REGENERATING FORESTS: APPROACHES TO RESEARCH

Since the early 1980s, there has been growing interest in exploring the potential of natural regeneration as a management option for degraded forests. Local communities across Asia are taking on direct responsibility for abandoned and degraded neighboring forest areas to ensure protection while natural regeneration occurs. Network members are developing new models for assisting communities in determining optimal time frames for protection and future sustained resource extraction, based on a variety of methodologies. India and Thailand are both involved in studies of natural regeneration cases that substitute traditional forestry time-sequenced research with space-sequenced research, by comparing the regeneration patterns of different cultural groups’ abandoned swidden plots. Vietnam and China are examining indigenous community forest management systems within critical watersheds. Indigenous classification systems have helped reveal local land use patterns, allowing for a variety of typologies to evolve, with significant implications for government support programs. Learning from these research activities was presented and discussed in Panel II.

Studies of Natural Regeneration and Non-Timber Product Flows

Mr. Chaleo Kanjunt and Mr. Uli Oberhauser of the Sam Mun Project in Chiang Mai, Thailand, gave an overview of a research project on the study of forest regeneration on abandoned farm plots of the Karen, Lisu, and Hmong ethnic minorities. Thai scientists are using a series of variously aged abandoned swidden fields to chart forest succession patterns. For each of the ethnic groups, three fallowed sites have been studied, ranging from three to eighteen years of natural regeneration. Research findings note significant regeneration patterns in the different sites, due to varying farming practices of each group. Preliminary findings indicate that Karen fields regenerate more quickly, with a greater yield of harvestable wood and a denser crown cover. By contrast, abandoned Lisu fields recover slowly, with a longer dominance of grasses. The research team plans to involve the ethnic communities in manipulation trials of regenerating forests to explore ways of accelerating reforestation and raising the production of important forest-based goods. Community participation in forest management research offers opportunities to orient study agendas to reflect local concerns, as well as incorporate indigenous knowledge. Emerging forest manipulation techniques are also more likely to be adopted by communities if they participate in their development and evaluation.

In a related Network study in Northern Thailand, Chatt Chamchong found that non-timber forest product (NTFP) incomes range from 4,420 baht (US$177) per year among Karen, 3,485 baht ($139) for Hmong, to 1,909 baht ($76) among the Lisu. Generally, only 10-20 percent of the value of the NTFP comes from cash sales, while most products were consumed in the home. The main categories of NTFPs included bamboo poles and shoots, rattan, fibers, vegetables, fruits, fodder, edible insects, mushrooms, honey, medicinal plants, and wild animals.

In Northeast Thailand, researchers Wisoot Yukong and Wuthipol Hoamuangkaew reported that they have monitored a large tract of regenerating forest in Dong Yai with community members over the past four years. The study indicates that community members extract large quantities of non-timber forest products from the forest, including twenty-nine species of mushrooms with a total annual volume of 104,000 kilograms. Mushrooms are an important market commodity in the area, and trials are now under way with bamboo-shoot
enrichment planting in the forest. In Dong Yai, mushroom collection has been open to all neighboring communities, creating difficulties for families who wish to intensify production through enrichment planting. Throughout Asia, more information is needed concerning how collection right systems could provide greater security to communities and families to invest in natural forest production activities.

Mr. Buared Prachaiyo gave an overview of the research in Kalasin Province, Northeast Thailand, where Network members have spent several years monitoring the impact of fire on the regeneration of dry dipterocarpus forests. The study shows that both biomass levels and many important soil nutrients decline by over 50 percent in forests experiencing burning. Yet, because forests that burn annually generate higher mushroom and fodder yields, communities prefer to use yearly firing. Fires also appear to assist natural regeneration by facilitating the germination of many species. At the same time, annual burning may suppress the growth of saplings. Further investigation of the "burn ecology," both in terms of the effects on natural regeneration and the ways communities perceive the value of firing the forests, are considered priority topics for investigation in many parts of Asia.

In India a group of researchers led by Dr. N. H. Ravindranath of the Center for Ecological Science have established twelve forest study sites throughout the country to examine disturbances affecting forest ecosystems and monitor forest regeneration in areas under community protection. The group is particularly interested in how the flow of important forest products changes during succession and what types of manipulation strategies might be used to raise productivity. In rural India with its high forest-dependency levels, it is important to determine how natural forests can be sustainably managed to optimize the productivity of fodder grasses, non-timber forest products, as well as wood. The India team is using a number of methodological innovations in their study to quickly generate management guidelines regarding sustainable rates of extraction. By examining the species composition, species frequency, and productivity of regenerating forests of different ages, the team is attempting to anticipate future production trends. This information is shared with village forest management groups for resource-use decision making. The India team also plans to involve local community members in designing and monitoring forest manipulation techniques to assess management options. The research team intends to use their findings to help define simple "rule-of-thumb" sustainable harvesting guidelines for village forest utilization.

After Dr. Ravindranath's presentation, one participant expressed the need for caution in using "rule-of-thumb" methods for measuring extraction levels. Dr. Ravindranath answered that people have to use the forest and need some estimations of sustainable yield levels; consequently the team felt introducing such guidelines was more beneficial than having none in place. Another participant asked if they were documenting traditional "rule-of-thumb" practices. Currently there is an ongoing study classifying traditional listings, measurements, impact understanding, and process procedures that will be ready for presentation at the Network's 1996 meeting in Orissa.

Studies of Cultural Determinants of Forest Use Practices

Mr. Chuck Encarnacion of Manila Observatory's Environmental Research Division (ERD) reported that ERD's Community Forestry Support Program in the Sierra Madre Mountains of eastern Luzon finds the indigenous Dumagats and the migrant Tagalog people are interconnected through their common interest in rattan collection. In this setting, the development of community watershed management systems will necessarily be based on
the allocation and utilization of the rattan resource. Dumagat collection practices are distinctively different from those of the Tagalog. Dumagats live deep within the watershed for extended periods, harvesting in more remote areas, while the Tagalog have different collection zones that they visit on short trips. The Philippines team is exploring with local communities in the Dupinga watershed ways to develop an intensified rattan management system, building on these different resource extraction patterns.

One participant asked why watersheds are emphasized as a unit of management. He noted that in India most community protected forests are located along the plains, and the forest boundaries are determined by traditional use rights. Thus, what was the significance of a watershed as the focal point for village protection? Mr. Encarnacion explained that most of the remaining forest areas in Philippines, Thailand, Vietnam, and China were located in steep upland watersheds, and village communities in these regions frequently use ridgelines and riversides as natural boundary indicators. Watershed stabilization is an essential activity for communities to work toward, as deforestation will impact rapidly on their homes and livelihood. Forests in the flat lowlands are less-visible defined topographically by watersheds, and maybe less important to communities in determining territorial boundaries.

In Bavi National Park in northern Vietnam, researchers Nguyen Huy Phon, Vu Van Dung, Nguyen Huy Dung, and Vo Tri Chung of the Forest Inventory and Planning Institute (FIPI) are working with Dao community members to document over two hundred plant species that form the raw materials for indigenous medicines; community members prescribe these medicines to patients living as far as 100 kilometers from the village. Network scientists from the FIPI hope to establish a long-term collaborative research program with Bavi villagers to determine the micro-ecological zone that each species inhabits, what plants are becoming scarce, and ways to propagate them within or outside the national park.

In Vietnam, FIPI is effectively using ethno-land use typologies as a way to identify and document indigenous resource interaction practices. The FIPI team is working in the Da River watershed with Tai and Hmong communities, collaboratively drawing transects that indicate how forests are used and zoned by local villages. Figure 4 provides an illustration of a land use transect from the Tai minority village of Ban Tat in Chieng Hac Commune. According to the Tai people of the area, padong forest is classified as a critical watershed protection area where timber felling is not allowed, and this should remain under their traditional yompa community protection system. Both pa bamboo groves and pakai secondary forests are production forests managed for building materials, but also under community control. Palau lands, while having early scrub regeneration, are actually long-rotational agricultural lands; private rights need formal registration. The FIPI team is talking with the villagers regarding ways to strengthen traditional forest management as well as improve current production systems.

FIPI and Ministry of Forestry researchers are also working with Yen Chau District communities reestablish the traditional yompa (forest watcher) system of the Tai ethnic minority. Tai community members living in the Da River watershed are eager to reinstate the institution and desire to make it even stronger than in the past, to deal with growing population and commercial pressures on their watershed forests. The Vietnamese team intends to hold extensive discussions with many of the twenty-eight other ethnic minorities in the watershed to document any present indigenous institutional mechanisms of resource use and control. In cases where ethnic minorities do not have local resource management institutions, such as with the Tai, the research team is interested in exploring whether local cultural systems may be adopted by neighboring ethnic minorities. Over the coming year, FIPI and the Da River Project staff want to assist the community to develop micro land use plans and maps that can be integrated with larger programs to stabilize the Da River
watershed. FIPI intends to develop an inventory of indigenous land use systems and terminologies for most of Vietnam’s ethnic minorities.

Questions to the Vietnam presenters included how does research on cultural diversity help policymakers? Mr. Chung explained that by developing an ethnic classification system that charts the cultural land use practices and traditional knowledge of the ethnic minorities, government will be able to make policy that fits local resource use patterns and interests.

**Figure 4**

Transect of Ban Tat village lands, Chieng Hac Commune, Vietnam, with traditional land use classification

**Discussion Summary**

Following the paper presentation, Network members joined in a roundtable discussion. The group recognized two common methodologies that Network members were developing: (1) using traditional land use classifications to explain and understand resource interaction patterns, and (2) studying forest regeneration and productivity changes through participatory research. Three sets of data were being collected: (1) the identification of forest user communities and their spatial domain, (2) the documentation of indigenous land use systems using local terms and transect drawings, and (3) the inventorying of community strategies for natural regeneration, sustainable extraction, and watershed protection.
PANEL III
IDENTIFYING AND SUPPORTING COMMUNITY ENVIRONMENTAL MOVEMENTS

The nationalization of forestlands over the past century has frequently eroded traditional tenure rights that had, to some extent, controlled forest resource use in Asia. Demographic and commercial economic expansion has further exacerbated unsustainable use patterns. Research, however, indicates that as rural Asian communities face growing resource scarcities, they may attempt to reestablish conservation efforts.

Network members have been developing methodologies to better understand the social and environmental conditions associated with imposing community-based resource control. A number of Network country teams are already documenting local community definitions of group membership, management territories, control access, and use rights, as well as reconstructing the historical process of community organizing.

Over the past year, Network researchers report similar findings regarding community forest protection phenomena. Local forest resource controls were commonly found to be implemented by small social units. In many cases, these are residential clusters of ten to one hundred households, related through clan, tribe, linguistic, or caste groups. Because of their small size, these groups usually have no formal identity in government structure, but are parts of larger administrative units.

This panel examined patterns of community organizing for environmental protection that lead to community controls over forest and watershed resources. The studies presented use spatial and social assessment methods to determine how communities initiate proactive leadership to cope with problems and reach agreements for environmental protection. During the panel discussions, three methodologies were used to understand how communities organize and how management systems spread between communities.

Historical Patterns of Forest Use and Control

The Indian researchers, and to some extent other country teams, are using historical analysis to clarify how communities have interacted with forest resources in the past. Mr. Ajay Rai of the Orissa NGO Vasundhara notes that by tracing the histories of community forest protection, the Orissa team has been able to chart the resurgence of village-based forest controls over the past twenty years, identifying resource depletion and scarcities as a motivating factor. The research has also illuminated the roles different leaders and cultural institutions have played, as well as specific issues that have stimulated communal action. These historical reconstructions often reveal that the development of management systems occurs sequentially, beginning with an awareness of a problem, a process of consensus building, development of protection activities, and finally to actual management. It is also possible to project the types of supportive roles that outside institutions may need to play in facilitating transitions to decentralized community management.

Time-based analysis of community forest management is especially relevant in understanding the process of transition. In the Dong Yai study community of Northeast Thailand, Dr. Wuthipol Hoamuangkaew stated that community forest protection started with changes in the agricultural economy, combined with resource scarcities. Government policies and programs affecting resource access and tenure have also been found to
influence community behavior. Historical analysis of changes in forest conditions, resource availabilities, social conditions, political events, and economic changes can provide useful insights into patterns leading to the destabilization or stabilization of the forest resource base. By understanding and monitoring these processes, it may also be possible to gain insights into means to support community actions that lead to better forest management.

Researchers in India have found a range of information is available to reconstruct the history of forest use in an area. In-depth interviews with community members, retired foresters, and other local leaders are particularly helpful. This information can be organized in time lines or trend lines to better establish the sequence of events. Secondary historical information from forestry working plans and other management documents, regional histories, and census data is generally available. Spatial data including old aerial photographs and maps, as well as satellite images covering the past twenty to twenty-five years, can be helpful. At the 1996 Network meeting in Orissa, the India team plans to present their recent multi-state study on historical patterns of community forest management.

Interactions Across Forest User Communities

Upland and forested areas often have a diversity of cultures and practices that resist government imposition of uniform forest management structures and guidelines. In many Asian forests there are multiple cultures utilizing these resources, necessitating sharing agreements among multiple parties. Researcher Peter Walpole noted that there are substantial discussions among cultural groups in the mountain areas of Northern Thailand on how to reduce environmental degradation. The tribal peoples in the Nam Sa watershed project and the people's action group around Doi Mae Toe already have an extensive history of inter-ethnic group exchange. Beyond these areas of activity, the Thai research group is looking at new efforts by various cultural communities to cooperate in joint resource management along on the Salween River where Thailand borders Burma. Preliminary studies have identified four elements in the natural resource management, exchanges between ethnic minorities in Northern Thailand. These include the viability of indigenous and modern technologies, resource sharing arrangements, the compatibility of government agency programs and community concerns, and the integration of outside project activities and inputs (see Figure 5).

Figure 5

Resource issues and social communication in Northern Thailand
There appears to be a need for an expanded analysis of the types of concerns and information regarding upland resource management that is flowing between upland ethnic minority communities in Northern Thailand. Network researchers agreed that studies of informal communication channels and agendas, between Asia's upland ethnic minorities and forest communities, could prove helpful in identifying local concerns and problem-solving strategies. Outside agencies, working through existing informal communication linkages, could also assist in disseminating successful approaches to forest and watershed stabilization. In upland Vietnam, Laos, Thailand, and southern China, ethnic minorities have historically been linked by their human-ecological practices, yet the mechanisms they have used to coordinate their shared resources are poorly documented and generally ignored by government resource management agencies.

Forest product market flows have been investigated by Network members in a number of countries. While it is widely agreed the forest products often provide important incentives for rural communities to protect forest environments, their importance as goods that link communities together is less-widely acknowledged. Studies by the Indonesia team in East Kalimantan indicate that extensive market linkages for rattan producers in the upper Mahakam River provided a security that helped to sustain regenerating secondary forests. Conversely, disruption of forest product market flows, especially for commodities that have been traded over long periods of time, may undermine viable management practices. Past and current informal resource use agreements are often based on these flows. Outside researchers and organizations attempting to assist forest communities in improving resource management systems may benefit through understanding the flow of forest goods.
Cultural institutions and Management

Since last year’s Network meeting, many country teams have made significant progress in both inventorying and examining indigenous social processes and institutions linked to resource management. Dr. Komon Pragtong noted that the Royal Forest Department of Thailand has identified 10,437 villages actively practicing community forestry for protection of their forestlands. The principal motivating factors for protection have been found to be respect of spirits and performance of traditional rituals, soil and water conservation, and sustainability of forest products. A variety of rules have been established to regulate community access, the three most-common forms being through customary rules, Buddhist doctrine, or village agreement. In spirit forests, the community collectively performs rituals requesting permission from the spirits before cutting any trees. In other areas, committees have been formed to set annual harvesting rights and impose fines and punishments. Dr. Pragtong noted that community forestry is an indigenous practice that integrates beliefs, cultures, and traditions of the rural Thai people. Thailand’s Parliament is currently considering a policy that would recognize and adopt community forestry as a formal management practice, but planners are still seeking answers to the following questions: Should there be a standardized committee formed within each community that is responsible for the routine work that community forestry entails? Can existing forest laws be adjusted to include community input, or are new acts needed? How should national policy over protected lands accommodate the fact that communities do live within in them, and are either managing or want to manage the lands for sustained yields?

In upland Mindanao in the Philippines, the research team is working with the indigenous Lumad community to reinforce cultural institutions and traditional communication channels. Ms. Karen Lawrence of Manila Observatory’s Environmental Research Division reported that in recent generations the Lumad have retreated farther upland to escape the steady stream of lowland migrants and have seen upland forests logged by powerful commercial interests. Network members are working as catalysts to strengthen local leadership patterns and assist the Lumad in controlling their rights to upland forestlands and resources. By building on existing cultural leaders and institutions, the Lumad are better positioned to work with Visayan migrants and local government to generate cooperative agreements for stabilizing upper watersheds.

Ms. Lawrence noted that in the initial stages of community organizing, recognition of the traditional tribal leadership roles of the datu male clan chiefs and bai female elders was important. Datu and bai from Lumad communities in the Upper Pulangi have begun gathering again as a tribal council, focusing their attention on resource access and use issues. The tribal council provides the traditional forum for leaders to resolve cultural community issues and concerns (see Figure 6). The research team has also identified the kaamulan, a traditional ritual gathering for the Lumad, as a cultural mechanism to spread information and strategies for stabilizing forest resources. Using the tribal council and kaamulan gatherings for organizing and decision making, the Philippine research team is playing a catalyst role in assisting the Lumad to gain greater tenure security over their upland resources. The reestablishment of the datu and bai leaders in the Upper Pulangi and their organizing efforts regarding watershed resource management issues are being communicated to other Lumad communities in central Mindanao through tribal and clan interactions. It is possible that strengthened tribal institutions and improved dialogues with migrant groups will lead to a broader resurgence of local management systems and help to stabilize forest resources in this region.

Figure 6
At panel's conclusion, Network members agreed to continue to explore ways of identifying and working with indigenous leaders and institutions, and to develop new roles outsiders can play in response to local environmental concerns and organizing strategies. Mentioned as an example was India's experience with supportive legislation and programs to accelerate joint forest management, which appear to be enhancing local initiatives. Further formulation of analytic frameworks for documenting patterns of community management initiatives appears to have considerable potential. Assessments concerning how forest policies and projects have affected vegetation in the past can provide insights into emerging patterns of human-environmental interaction and their consequences. Analyzing how flows of ideas and goods influence relationships between communities may lead to the development of better agreements between communities and government over resource management. Finally, identifying and supporting indigenous resource management institutions help to build or reestablish informal or cultural mechanisms that can be instrumental in creating consensus and organizing action related to sustainable forest use.

Network members identified many questions regarding community-based environmental movements and their relationships with government forest departments. How should local forest protection movements be related to forest department activities? How can forest departments change the attitudes of foresters from being authorities over state lands to
being copartners in environmental protection? Suggested future research topics include experimenting with strategies to encourage community forest stabilization before extreme resource depletion occurs, using the media to spread public acceptance and understanding regarding the need for local resource protection initiatives, and identifying ecological and economic concerns that can be tied to national strategies that popularize forest regeneration efforts.