# การเปลี่ยนแปลงและประเด็นท้าทายของป่าชุมชนในชุมชนที่พึ่งพาป่าในรัฐคะฉิ่น

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วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาศิลปศาสตรมหาบัณฑิต

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ศูนย์วิทยทรัพยากร
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# CHANGES AND CHALLENGES OF COMMUNITY FOREST PRACTICES IN FOREST-DEPENDENT COMMUNITIES IN KACHIN STATE

Mr. Theera Wanasanpraikhieo

ศูนย์วิทยทรัพยากร

A Thesis Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Arts Program in International Development Studies
Faculty of Political Science
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ธีระ วนาสันต์ไพรเขียว : การเปลี่ยนแปลงและประเด็นท้าทายของป่าชุมชนในชุมชนที่พึ่งพาป่าในรัฐคะฉิ่น. (CHANGES AND CHALLENGES OF COMMUNITY FOREST PRACTICES IN FOREST-DEPENDENT COMMUNITIES IN KACHIN STATE) อาจารย์ที่ปรึกษาวิทยานิพนธ์หลัก: รศ. ดร.ฉันทนา บรรพศิริโชติ, 113 หน้า.

การศึกษานี้ มุ่งตรวจสอบความเปลี่ยนแปลงและความท้าทายที่ระบบการจัดการป่าชุมชนแบบประเพณี ดั้งเดิมเผชิญ ภายใต้สภาวะความเปลี่ยนแปลงทางเศรษฐกิจและการเมืองในพื้นที่หลังความขัดแย้ง ชุมชนที่ ทำการศึกษาเป็นชุมชนที่อยู่ภายใต้การบริหารขององค์กรคะฉิ่นอิสระที่ตั้งอยู่บริเวณชายแดนระหว่างประเทศพม่า กับจีน

การวิจัย ได้ศึกษาพัฒนาการและสภาพการณ์ปัจจุบันของปฏิบัติการป่าชุมชนของชุมชนที่พึ่งพาป่า (Forest-Dependent) ที่ตั้งอยู่บริเวณเทือกเขาสินลุม (Sin Lum) ในเมืองบะมอ (Bhamo) รัฐคะฉิ่น ประเทศพม่า โดยมุ่งเน้นปัญหาท้าทายที่กระทบต่อวิถีชีวิตของชุมชนดังกล่าว ที่อยู่ภายใต้สภาพแวดล้อมทางเศรษฐกิจ สังคม และการเมืองภายหลังข้อตกลงหยุดยิงระหว่างรัฐบาลทหารพม่ากับองค์กรคะฉิ่นอิสระ ในปี พ.ศ. 2537

การอภิปรายในรายงาน ครอบคลุมแนวคิดและโครงการต่าง ๆ ที่ผู้มีส่วนได้ส่วนเสียหลากหลายกลุ่มผลักดันและนำมาใช้ในการพัฒนาชุมชนในช่วงเวลาดังกล่าว แนวทางเหล่านั้นส่งผลอย่างไรต่อชุมชน ตลอดจนบทบาทองค์กรพัฒนาเอกชนของท้องถิ่นในกระบวนการที่เกิดขึ้น

การศึกษาครั้งนี้ใช้วิธีวิจัยแบบประเมินปัญหาชุมชนแบบมีส่วนร่วม (Participatory Rural Appraisal methodology) ในการสืบค้นแนวทางที่ประชาชนในท้องถิ่นใช้ตอบสนองต่อความเปลี่ยนแปลงและปัญหาท้าทายที่ กระทบต่อวิถีชีวิตและสภาพแวดล้อมทางธรรมชาติของชุมชน ร่วมกับการใช้วิธีวิจัยหลักอื่น ๆ ได้แก่ การสัมภาษณ์ เจาะลึกผู้ให้ข้อมูลหลัก และการประชุมกลุ่ม (focus group)

การศึกษาพบว่า ชุมชนท้องถิ่นต้องเผชิญหน้ากับประเด็นปัญหาใหม่ ๆ เพิ่มสูงขึ้น สืบเนื่องมาจากเงื่อนไขสำคัญ ได้แก่ ก) การเปลี่ยนแปลงทรัพยากรธรรมชาติเพื่อการพัฒนาอย่างฉับพลัน ข) การค้าระหว่างชายแดนภายใต้การขยายตัวของตลาดที่ขับเคลื่อนเศรษฐกิจ ค) การเปลี่ยนแปลงเป็นสังคมเมืองที่มาจากแผนส่วนกลาง ง) การเปลี่ยนแปลงไปสู่การเกษตรสมัยใหม่ จ) อิทธิพลของภาคธุรกิจเอกชน และ ฉ) การเข้าถึงทรัพยากรป่าไม้อย่างจำกัดของชาวบ้านพื้นถิ่น

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สาขาวิชา การพัฒนาระหว่างประเทศ ลายมือชื่อนิสิต.....

ปีการศึกษา 2551 ลายมือชื่ออาจารย์ที่ปรึกษาวิทยานิพนธ์หลัก.....

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KEY WORDS: KACHIN/ COMMUNITY FOREST/ COMMUNITY DEVELOPMENT/ LOGGING

THEERA WANASANPRAIKHIEO: CHANGES AND CHALLENGES OF COMMUNITY FOREST PRACTICES IN FOREST-DEPENDENT COMMUNITIES IN KACHIN STATE, ADVISOR: ASSOC. PROF. CHANTANA BANPASIRICHOTE, Ph. D., pp. 113

This paper examines the changes and challenges faced by traditional community forest management systems under the changing political and socio-economic conditions in the post conflict areas along the Myanmar/China Border administered by the Kachin Independence Organization (KIO).

This research investigates the development and current state of the forest management practices of Forest-Dependent Communities in the Sin Lum Mountain range of Bhamo District, Kachin State, Myanmar. The research focuses on the livelihood challenges these communities face in the political and socio-economic environment since the 1994 ceasefire agreement between the Burmese Junta and the Kachin Independence Organization.

This paper discusses the different approaches and projects introduced to Forest-Dependent Communities by different stakeholders under the name of development during this period, how these communities have fared under these development schemes, and the role of local Non-Governmental Organization (NGO) in this process.

This research uses a Participatory Rural Appraisal methodology to investigate the variety of ways that local people have responded to the changes and challenges which have impacted their livelihood and natural environment. Extensive interviews with key informants and focus group discussions formed the core of this methodology.

The study found that Challenges faced by local communities arising from a) exchanging natural resources for rapid development, b) Cross-border trade under the expansion of market driven economy, c) top-down urbanization plan, d) the change to modern agriculture, e) the influence of private sector, and f) local people's limited access to the forest resources.

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Field of study: International Development Studies Student's signature: .....

Academic Year: 2008 Advisor's signature: .....

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# LIST OF ABBREVIATIONS

| | |
|---|---|
| ADB | Asian Development Bank |
| ARI | Acute Respiratory Infection |
| BSPP | Burma Socialist Programme Party |
| CBFM | Community Based Forest Management |
| CF | Community Forest |
| CFM | Community Forest Management |
| FAO | Food and Agriculture Organization |
| GMS | Greater Mekong Sub-region |
| HYV | High Yield Variety |
| IMF | International Monetary Fund |
| IPR | Intellectual Property Rights |
| KIA | Kachin Independence Army |
| KIO | Kachin Independence Organization |
| KWAT | Kachin Women Association-Thailand |
| NDA (K) | National Democratic Army – Kachin |
| NDF | National Democratic Front |
| NGO | Non-Governmental Organization |
| NTFP | Non-Timber Forest Product |
| PKDS | Pan Kachin Development Society |
| PRA | Participatory Rural Appraisal |

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| | |
|---|---|
| RECOFTC | Regional Community Forestry Training Center |
| SLORC | State Law and Order Restoration Council |
| SPDC | State Peace and Development Council |
| TNC | Transnational Corporation |
| UN | United Nations |
| UNDP | United Nations Development Programme |
| UNICEF | United Nations Children's Fund |
| WB | World Bank |
| WCS | World Conservation Society |
| WG-CIFM | Working Group on Community Involvement in Forest Management |
| WHO | World Health Organization |
| WWF | World Wildlife Fund |

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# CHAPTER I

# INTRODUCTION

The causes of the rapid deforestation taking place in the Third World are complex and are deeply- rooted in countries' development patterns: rapidly increasing populations, extreme concentration of landholdings that leave hundreds of millions in search of land, and slow growth of job opportunities in both city and countryside. Further reasons include shifting cultivation, logging, and the conversion of forestland to farmland.

In many countries, the displacement of traditional communities exercising customary law over the forest has actually weakened controls over the use of the resource. Many of these causes stem directly from Third World government's Policies that promote forest exploitation, and promote industries that compete for the use of forest lands. However, there are better policy options which can conserve forest resources, raise economic welfare, and reduce fiscal burdens on governments. In most Third World countries, the large remaining natural forest areas are designated as public lands. Governments have taken over authority and responsibility for managing them from indigenous communities, which traditionally used the forests in accordance with their own laws. In countries endowed with large forest resources, government policies frequently ignore indigenous knowledge related to efficient resource use. The government policies generally over-emphasize the timber harvest at the expense of other potential benefits. Government policies also result in greater conversion of forestland to agriculture land, often with a loss in net benefits from the land.

The communities researched for this thesis have been impacted by the cross-border trade generated through the expansion of market driven economic cooperation between China and Burma. This trade has opened opportunities for the extraction of timber, forest products, wildlife and wildlife parts, and minerals, especially jade and gold. Many acres of forest were exchanged for infrastructure development such as roads, bridges, and dams. Roads became important for exporting timber and

agriculture product, especially rice to China. And for importing expensive consumer goods such as construction materials, electrical appliances, engines, agricultural tools, textile, cosmetics, canned food into Burma. Natural resources including endemic species of Wildlife and flora have been illegally traded to China on a large-scale. Rich people occupied communal lands and converted the land into mono-culture plantations. This phenomenon led to a situation where local people were incapable of controlling their natural resources, and resulted in multiple difficulties for local villagers including limited land for farming, degraded forestland that could not produce any natural fertilizer, insufficient water resources for agriculture, and low quality of water for drinking and domestic use.

Indeed, the communities in Sin Lum mountain range of Bhamo District have been isolated from modernization and market driven economic development for generations due to the impact from the armed conflict between the Burma military government and ethnic Kachin insurgency. Many of the villages are still accessible only by foot or horseback. The area was rich in natural resources including valuable primary hardwood forests, minerals and a rich diversity of herbal medicinal plants. The indigenous Kachin peoples who have long inhabited the area live in a state of dynamic dependence on the land and natural resources. Their livelihood is predominantly dependent on swidden agriculture and collection of various products (fruits, vegetables, medicines, building materials and handicraft materials) from the surrounding forests. For generations they have been protecting their forest resources through traditional Community Forest management systems. The ancestral Community Forest management system has been proven as a beneficial practice that enabled the villagers to control the community forests sustainably for their livelihood in sufficient way.

Community Forestry has been practiced for generation by communities in the Asia-Pacific and Indian Ocean region. The concept has many dimensions including forest conception, use and rehabilitation; traditional cultural practices; customary law; and the life styles of people living in, and to some extant depending on, forest resources. "*In these regions, the forest has been used as a source of food, construction material, medicines and fuelwood* (Taylor, 1998: p. 25)."

In 1994, with the signing of the ceasefire agreement between the Burma military regime, the State Peace and Development Council (SPDC) and the ethnic insurgent group the Kachin Independence Organization (KIO) the natural resource management systems in Kachin state changed very rapidly. The new border area development policies (mainstream), encouraged by both authoritarian governments the SPDC and the KIO, have resulted in natural resources over-exploitation, especially the timber. These new development policies have caused local rural villagers to lose control over their forests. The local villagers could not negotiate with Chinese logging business because some of the local authorities supported and protected the logging businesses. This situation dramatically affected the rural communities who depend on the forests.

The KIO touted the rapid infrastructure development and economic growth as be necessary for the modernization of Kachin state in order to eliminate poverty. The KIO rapid development schemes came to the Forest-dependent communities as external forces. The consequences of these external forces were a degraded environment and the de-empowerment of local Forest-dependent community. The KIO has managed the macro level infrastructure development schemes, while allowing humanitarian assistance development agencies to implement community development projects. Several NGOs, including Church based organizations, have been operating different kinds of projects under scrutiny of the KIO.

Due to the facilitation by Kachin Environment Project of the Pan Kachin Development Society (PKDS) local villagers themselves found solutions to improve the condition of their forests. Local villagers established Community Forest areas which were integrated with livelihood development projects in their communities.

Indeed, an opportunity for saving the forests in Kachin state could be achieved by creating space for rural communities to be empowered to undertake sustainable community based development projects. These projects would provide an opportunity for villagers to learn the process of democratic participation and empowerment to help solve their own problems as well as defining and choosing their own proper development. According to the human development report of United Nations

Development Programme (UNDP), "*development must be woven around people, not people around development and it should empower individuals and groups, rather than dis-empower them* (UNDP, 1993: p.1)." In order to empower the community, the traditional knowledge of local villagers must be encouraged and practiced during the implementation of all community-based development projects.

There are several debates concerning the proper development path for Burma: that development projects cannot be done unless Burma gets Democracy; that forest conservation cannot be done where there is political instability; that rapid economic growth is eliminating poverty.

This thesis does not strive to offer a definitive answer to the above mentioned debates, but rather this thesis aims to contribute to the discussion by focusing on the ways in which rapid social and economic changes are impacting the ability of local people to manage forest resources. However, it is vital to create space for community-based development projects. This is facilitated by understanding rights to resources, by adapting to the middle path ("not too little" and "not too much"), by finding the right balance between internal resources and external pressures in political, social and economic conflict areas, as well as by empowering communities to choose their own path to development.

## 1.1 Statement of Problems

Forest-dependent communities including Ma Htang and Mai Ja Yang situated along the China Burma border in Kachin state have been affected by the intensive natural resources extraction (including illegal logging, gold mining and wildlife trade) which followed the expansion of the market driven economy in the area. The forest is an integral part of the livelihood of villagers in Forest-dependent communities; it is a food source, a sanctuary, and a knowledge center. In the early 1990s, the global economy and SPDC and KIO policies jeopardized local forest resources by promoting the over-extraction for export to China.

### 1.2 Research site selection

The area of research is focusing on Forest-dependent communities who are living on the Sin Lum mountain range along the border of Kachin state, Burma and Yunnan province, China. Two sites, Ma Htang and Mai Ja Yang were selected for collecting information due to their livelihood related or depended partly or fully to the forest. However, Mai Ja Yang, east part of the Sinlum Mountain range which next to the border of China and Burma was rapidly changed and impacted by the expansion of market (production) oriented economy. This scenario brings risk to the forests in Kachin state as well as the traditional forest management system.

Contradictorily, Ma Htang, west part of Sinlum Mountain range 40 kilometers far from the border has lesser influence from the expansion of market (production) oriented economy however, it is possible to be reached sooner or later when community does not have power to resist the outside threats in order to maintain their CF practices in sustainable way.

### 1.3 Research Question

How have Community Forests survived with the changing social and economic conditions in Kachin State?

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### 1.4 Research Objectives

- To identify and assess the existing traditional forest management systems in the forest dependent communities
- To identify challenges and opportunities of local peoples' control on the forests

- To assess how communities adjust themselves or respond to the social and economic changes

## 1.5 Conceptual Framework

Focusing on the Community Forest practices of Forest-dependent communities, the conceptual framework used for this thesis outlines the diversity of factors which impact on these practices. This holistic outline includes not only the changing social and economic situations faced by Forest-dependent communities in the research area, but also the interrelated political transition from the period of Christian pilgrimage to the period of armed conflict between the Burma military government and ethnic Kachin insurgency to the current post armed conflict era. The Community Forest practices of Forest-dependent communities are the center of this conceptual framework in order to highlight the continuity of these practices in the face of the many external changes and challenges. For generations Forest-dependent communities have employed their traditional community forest management systems to serve their livelihood as well as to protect their forest resources. However, within the context of the changing social, economic and political environment faced by Forest-dependent communities the practices of their ancestral community forest management systems has been challenged.

This conceptual framework emphasizes three critical aspects of current changes. Firstly, the concept of modernization and development has been dominant in the state-led development schemes implemented in the region, especially in the period of post armed conflict. This dominant concept has been characterized by cross-border trade, rapid urbanization, modern agriculture and the influential role of the private sector. Accordingly, Forest-dependent community's Community Forest practices have been challenged by changes in both the economic and social systems which have resulted from these modernization and development schemes, and which have led to

an increase in forest degradation and a decline in practices of community forest management systems.

Secondly, state forest policy - which directly effects Forest-dependent community's forest management practices - has lead to both positive and negative impacts on community forest practices. These different impacts are resulted in different perspectives and concepts employed to lay down state policy. The critical contrasting views on forest policy are the viewing forests as commercial values resources versus community forest management. While the former policy promotes the commercial exploitation of forest for the expansion of market oriented economy, the latter promotes sustainable forest management that primarily benefits local people.

Thirdly, the alternative approaches to community-based development projects initiated by local NGOs with the support of external funding agencies can be seen as an opportunity for individuals and their communities to achieve sustainable development. These alternative approaches employed in development assistance programs include empowerment, advocacy and democratic participation process.

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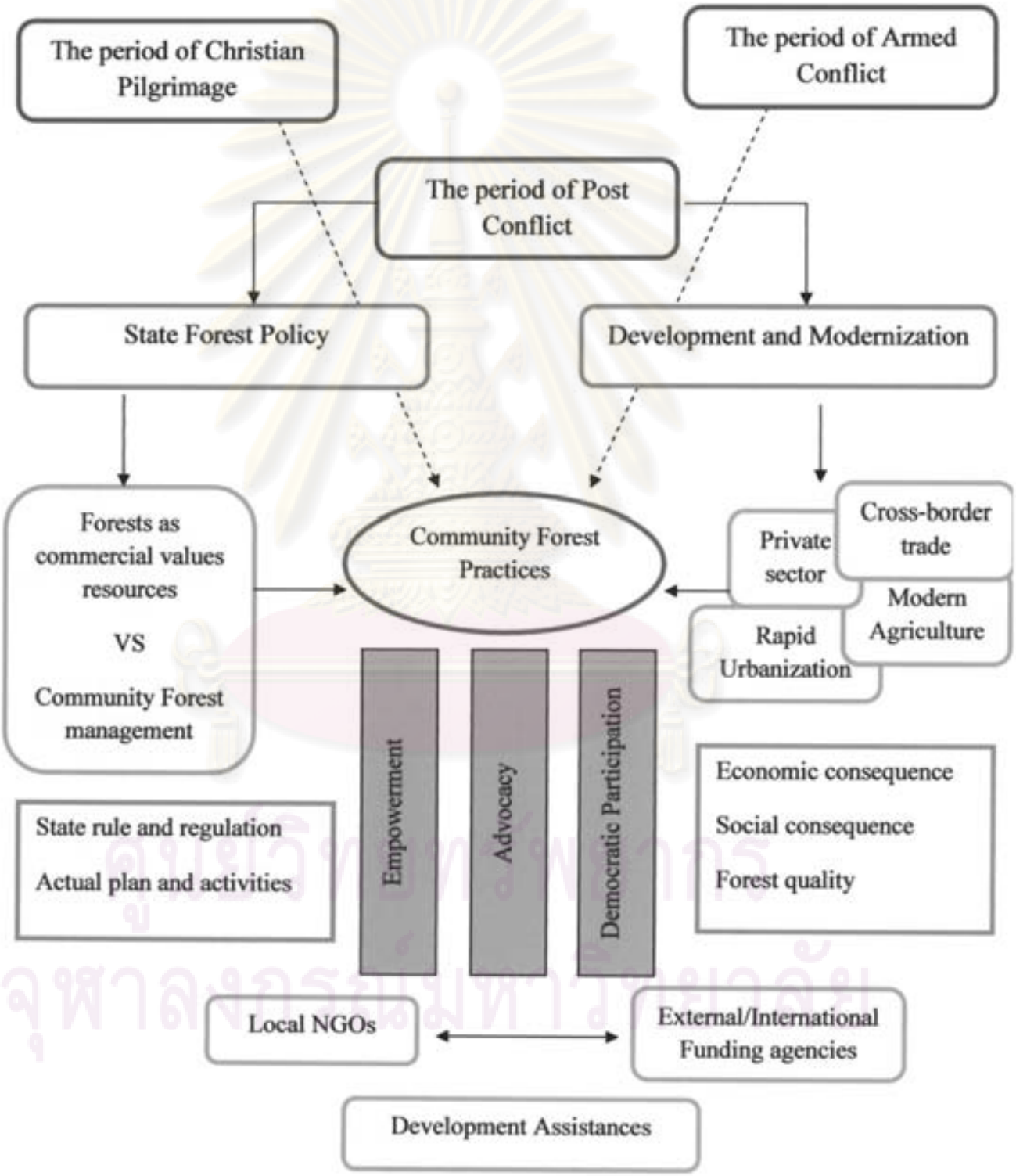
Conceptual Framework of Changes and Challenges to

Forest-dependent communities



**1.6 Research Methods**

Two villagess, Mai Ja Yang and Ma Htang were selected as the study areas.. Both villages had shared similar experiences in the past such as traditional forest practices, war, conflict, and natural resources exploitation in their areas. Mai Ja Yang, east part of the Sin Lum Mountain range which next to the border of China and Burma was rapidly changed and impacted by the expansion of market (production) oriented economy after the post conflict era which caused the rights to manage their forest resources in sustainable way.

Ma Htang, west part of Sin Lum Mountain range 40 kilometers far from the border has lesser impact from the expansion of market (production) oriented economy however, it is possible to be reached sooner or later when community does not have power to resist the outside threats in order to maintain their Community Forest practices in sustainable way. This research finds how the scenario brings risk to the forests in Kachin state as well as the traditional forest management system.

The two villages represent different stages of changes and also pose different challenges. Most of traditional practices can be clearly observed in Ma Htang so it served as the typical model of community forest. While Ma Ja Yang faces with more modern development, it can serve as community forest in transition. Although the two places might or might not follow the same path, the lessons learned can reflected upon the possible conditions and the new realities that help us understand changes and challenges community forest in Myanmar better.

Group discussions were conducted and information was collected from different focus groups (including farmers who practice traditional terrace farming system; farmers who practice High Yield Variety oriented modern agriculture system; Non-timber forest product collectors (both women and men), user-groups of Community Forest in two Forest-dependent communities. During the research, in-depth interviews were conducted with the KIO administrative leaders at the policy-making level, forest department officials, education department officials, businessmen

and villagers who were impacted (positive and negative) from the cross-border trade, health workers, schoolteachers, the social workers of Non-Governmental Organizations and Church-based organizations. Information was collected and recorded through key informants such as herbalists, religious leaders, and elders who know traditional culture and forest diversity. The Participatory Rural Appraisal was done at Ma Htang village together with village elders, herbalist, village leaders and women group spent one day forest walk inside the Community Forest in order to understand the forest management system of forest-dependents, to observe the value that the Community Forest provides to the villagers, and to understand their livelihood under the pressure of social and economic change. Thirty five people were being interviewed for the research.

The case studies of the community development projects facilitated by the Kachin Environment Project were analyzed, and used as the indicator of community responses to the rapid social and economic change in the area. It is important to understand that the collaboration between NGOs and local community is a major mitigating factor in the growing social and economic pressure felt by Forest-dependent communities as a process rather than an outcome.

**1.7 Significance of Research**

The research area of this thesis remains a political conflict area where there is no standard of democracy and human rights. Collecting information among different armed groups required additional time in order to explain the constructive research while respecting their ethnic political destiny. It is important to understand not only the social and economic complications but also the political implications of this research.

Indeed, this research is expected to be a tool (blue print) for both communities and the KIO policy makers. Another challenge faced by this research is the tension

between the high expectations from Forest-dependent communities regarding maintaining their sustainable forest management system and the high expectations from the KIO policy-makers regarding the development of the area in a drive towards modernization.

Forest-dependent communities have capabilities to control and manage their own natural resources sustainable manner; which they have learned and practiced from generation to generation. However, their ancestral knowledge and capabilities on forest management are being disregarded due to political and economic factors. In accordance with political and economic changes, dynamic challenges are emerging which the Forest-dependent communities are forced to respond to.

The young social workers of the Kachin Environment Project have found that by integrating Community Forest practices with livelihood development projects in Forest-dependent communities these communities might be able to overcome the difficulties brought by the growing social and economic pressures. The social workers (change agents) have learned that by creating space for rural communities to be empowered by practicing their traditional natural resource management knowledge and by creating space for building communities capabilities in all development activities, the Forest-dependent community will be able to implement appropriate development models by themselves in their communities. However, under some circumstances, development organizations can play an enabling or facilitating role; by encouraging participation, acquisition of skills and decision-making capacity. Oxaal & Baden also stated that, "Overall, this alternative development paradigm is one that focuses on enabling the poor themselves to critically assess their own situation and create and shape a transformation in society (Oxaal & Baden, 1997)."

The outcome of this research can be a lesson learned for contributing to Government agencies, NGOs, and donor agencies which like to support the improvement of community livelihood and the safety of forest environment.

# CHAPTER II

# COMMUNITY FOREST

## 2.1 The concept and definitions of Community Forestry

There are many definitions of Community Forestry. How it is conceived varies according to time, moment, culture, and geographical location. Some examples are given as below.

"*Community forestry is a village-level forestry activity, decided on collectively and implemented on communal land, where local populations participate in the planning, establishing, managing and harvesting of forest crops, and so receive a major proportion of the socio-economic and ecological benefits from the forest.*"

"*Community forestry, social forestry and rural development forestry are more or less equivalent and reflect Abraham Lincoln's view of democracy - government of the people, by the people, for the people.*"

"*The political dimension of community forestry makes it a venue for people's struggle against domination and exploitation of the community's resources by 'outsiders'. Ecology, equity and social justice are part of this struggle.*" [1]

These are all useful definitions which add depth to our understanding of the concept of Community Forestry. However, for the purpose of this thesis Community Forestry is simply understood as local people's involvement in sustainable forest management whereby they wield democratic control over decisions relating to the forests and its resource for their own benefit. Community Forestry is a process which highly people-oriented and participatory in regards to the decision-making process concerning the conservation and utilization of forest resources. Basically, the

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[1] Retrieved from: www.Rainforestinfo.org.au/good_wood/com_fy_htm 30/7/2008

management of the forest covers traditional practice, traditional belief, customary law, small income generation and livelihood which are interdependent on forest resources.

## 2.2 The relation of Human and Forest in Southeast Asia

Six thousand years ago, most forest dwelling peoples of Southeast Asia subsisted through nomadic hunting and gathering, semi-sedentary fishing and gathering, or semi-sedentary cultivation of wild plant species such as yams, bananas and coconut. Small settlements would create openings in the forests in order to establish swidden fields. Forest clearings and enriched soils around settlements provided an environment for light-loving plants that allowed humans to identify useful species.

In Southeast Asia, the colonial period began in the early 16$^{th}$ century. The Spanish and Portuguese were the first explorers to arrive in the region, followed by the Dutch, the English and the French. The Europeans' travel to Southeast Asia was in search of valuable trading commodities that were both light in weight and able to withstand long sea voyages. Spices, gums, resins, and aromatic woods fetched high prices in Europe.

The depleted forests of Europe led colonial powers to increasingly depend on Asia for materials for ship repair and construction. The first forests set aside by Europeans were designated as sources of timber for boat building. By 1677, the Dutch were already negotiating contracts with Javanese rulers to secure access to the rich teak forests of the northern coast (Peluso, N. 1990: pp. 27-53).

While forest reserves were established to protect shipbuilding industries as early as the seventeenth century, by the nineteenth century commercial timber extraction was widespread. Burma and Thailand were being heavily logged for teak, and much of the lowland Philippines was intensely harvested from the 1850s on.

To control the excessive logging, the Spanish colonial government established the first Philippine forestry bureau in 1863. By 1870, the island of Cebu was so badly deforested and eroded that the bureau banned logging. However, this resulted in the emergence of a black market and in timber smuggling that the agency could not control. It is evident that the bureaucratic system does not include any design that encourages community participation in forest management.

After World War II, Southeast Asia's newly independent states largely retained the forest management policies of their former colonial government's, officially designating forestlands as state domain. Ancestral domain claims received little recognition under the new constitutions. The new nations of the region were eager to generate revenues from their natural resources base to develop their emerging industrial sectors, finance government, and stimulate trade. At the same time, industrial nations targeted the rich forests of Asia for exploitation.

The two most prominent relationships between humans and natural forests during the modern era in Southeast Asia has been first, the implementation of greater government control over forest resources and, secondly, the expansion of logging throughout the region. Both trends undermined the role of forest-dependent peoples as resource managers. The people from Forest Dependent Communities are usually minority groups who are viewed as backward and primitive by the dominant culture and even by the government. National land laws, often statutes carried-over from colonial days, fail to recognize communal tenure or ancestral domain claims, and as a consequence minorities are simultaneously losing control over their resources and becoming culturally disempowered.

Furthermore, most Southeast Asian countries began implementing "development" programs in the 1960s. These development programs resettled forest-dependent ethnic minorities into government-administered villages, and took them away from the practice of swidden agriculture. During the 1970s and 80s, resettlement programs were instituted to accelerate the assimilation of ethnic minorities into the mainstream of society. By removing local forest residents, it also allowed state and private corporations to move into new forest areas to utilize timber concessions,

establish estate crop plantations, or begin mining on lands leased from the government.

The World Bank and other development agencies began supporting social forestry programs in order to alleviate poverty and in response to fuel-wood shortages in 1970s. However, this led to financing the establishment of woodlots with fast growing plantation species. These programs could not address some of the underlying causes of deforestation, such as tenure insecurity. Local forest communities have gained resource extraction leases from governments for areas that have been held under communal use and management for generations.

Many Forest-dependent communities in Southeast Asia have obtained an extensive knowledge of plant use, soil improvement, fire protection for sustainable forest management. They use this knowledge to adapt swidden-farming systems to the surrounding environment. Myth, ritual, taboo, divination rites, and oral traditions and leadership provide a means for implementing forest management strategies that balance human utilization and conservation across generations. Indigenous knowledge of forest environments, accumulated through centuries of experimentation, allow Forest-dependent communities to better regulate forest use and enhance the stability of human ecological relationships.

Swidden farming systems are suited to those who practice traditional knowledge and respect to ancestral belief. Migrant communities settling near the forest frequently lack the traditional knowledge of local residents whose ancestors have resided in the area for generations.

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## 2.3 State Forest Management

Most of Southeast Asia's forestland was placed under state control during the nineteenth and twentieth century, largely dictated by the European colonial administrations of the era. Western concepts of nature preservation, silviculture, and industrial forestry provided a scientific basis for developing management goals and mechanisms for administering newly demarcated public forestlands. Indigenous forest management practices, such as long rotation swidden agriculture, agro forestry, hunting and gathering regimes, often found little or no recognition in these new systems of land tenure and forest laws as they were based on European concepts of land ownership. These two visions of forest management reflect very different modes of production and legal traditions.

Throughout Southeast Asia, a discourse of state forestry was established drawing on constitutions, laws, and other legislation that largely rejected local claims to forest resources. The globalization of the world economy reinforced state claims to resources while facilitating their exploitation by national and transnational companies. Political leaders found they could control the leasing of large tracts of forest for timber and mineral extraction that provides a wealth of money, power, and influence. With the increasing centralization of forest control, national elites acquired hundreds of thousands, and even millions of hectares of land to log, mine, and establish estate plantations. From the early 1970s through the mid-1990s, international development organizations and large private banks financed these activities, perceiving these large private sector initiatives to be consistent with prevailing paradigms for economic development.

There is growing recognition that corruption in the forestry sector begins at the top, where centralized control is frequently concentrated in the hands of a relatively small group of political and economic elite. This pattern is also reflected at more local levels where provincial, district, or sub-district government officials may establish patronage links with local businessmen. The World Bank, the IMF, and other development agencies continue to view these problems as being rooted in the poor

implementation of forest policies, rather than questioning the basic viability of state forestry. But, the massive failure of forest policies for half a century or more throughout the region requires that we look beyond the managerial and technical problems facing forestry agencies to explore alternative management paradigms, community forestry being a logical candidate.

## 2.4 Community Forest Management

While autonomous and communal systems of management have existed in Southeast Asia for centuries, state sponsored social and community forestry projects are a recent invention. As Gilmour and Fisher note, "The early approaches to community-based forestry in the 1970s were referred to as "social forestry", and were often limited to hiring local villagers to establish wood lots. Fundamental questions regarding community rights and responsibilities for forest resources management were usually beyond the mandate of state sponsored projects. The Food and Agriculture Organization of the United Nations (FAO) defined Community Forest Management very broadly in 1978 as "any situation which intimately involves local people in a forestry activity (FAO 1978)." But Gilmour and Fisher (1997) have extended this definition to emphasize issues of authority that exist within Community-Based Forest Management (CBFM). They now define it as: "the control and management of forest resources by the rural people who use them especially for domestic purposes and as an integral part of their farming system". The question of control is arguably the most important and controversial issue in the debate regarding the role of communities in the management of the region's forests. Increasingly, throughout Southeast Asia, community forestry is being recast as a political issue, driven by an emerging peoples' movement.

Even at the end of the twentieth century, indigenous resource use practices have not disappeared; instead many Southeast Asian communities are adapting their resource use systems to changing social and political conditions and market trends.

While greater emphasis is being placed on commercial forest products, subsistence goods such as food, shelter, and medicine still retain a significant if not dominant role in local management activities.

Although most Southeast Asian governments give little recognition to community resource management institutions, village elders, clan chiefs, and other traditional community leaders and their members continue to play important role in guiding the use of farmlands, water sources, pasturelands, and forests. In Laos, for example, 80 percent or more of all forestlands remains under indigenous systems of management. In Indonesia, local communities retain control over substantial tracts of forest often operating alongside commercial enterprises. These indigenous patterns of stewardship of the natural environment exist in the shadows, however, as they are given little or no recognition under the land laws and policies in most Southeast Asian nations.

In this era of development, traditional resource use systems have often been viewed as obsolete, uneconomical, and inefficient. Despite a growing body of scientific research that indicates that many indigenous forestry and agro forestry systems are economically productive, possess an ability to mimic natural environments, and are remarkably compatible with local ecosystems, they receive little legal or financial support from government or development agencies. Instead, government planners signed away hundreds of thousands of hectares of natural forests to foreign logging firms, mining concessions, or estate crop operators, while disregarding evidence that local people have effectively acted as resource stewards for generations.

Due to the control of state authorities, local communities lost control on their traditionally resources management system. The new development policies were characterized by a top-down approach, a focus on mono-culture agricultural production, and a drive to modernization, in forest management de-empower local communities' capabilities in forest management. Local communities were excluded from participation in the decision-making, planning and implementation processes of

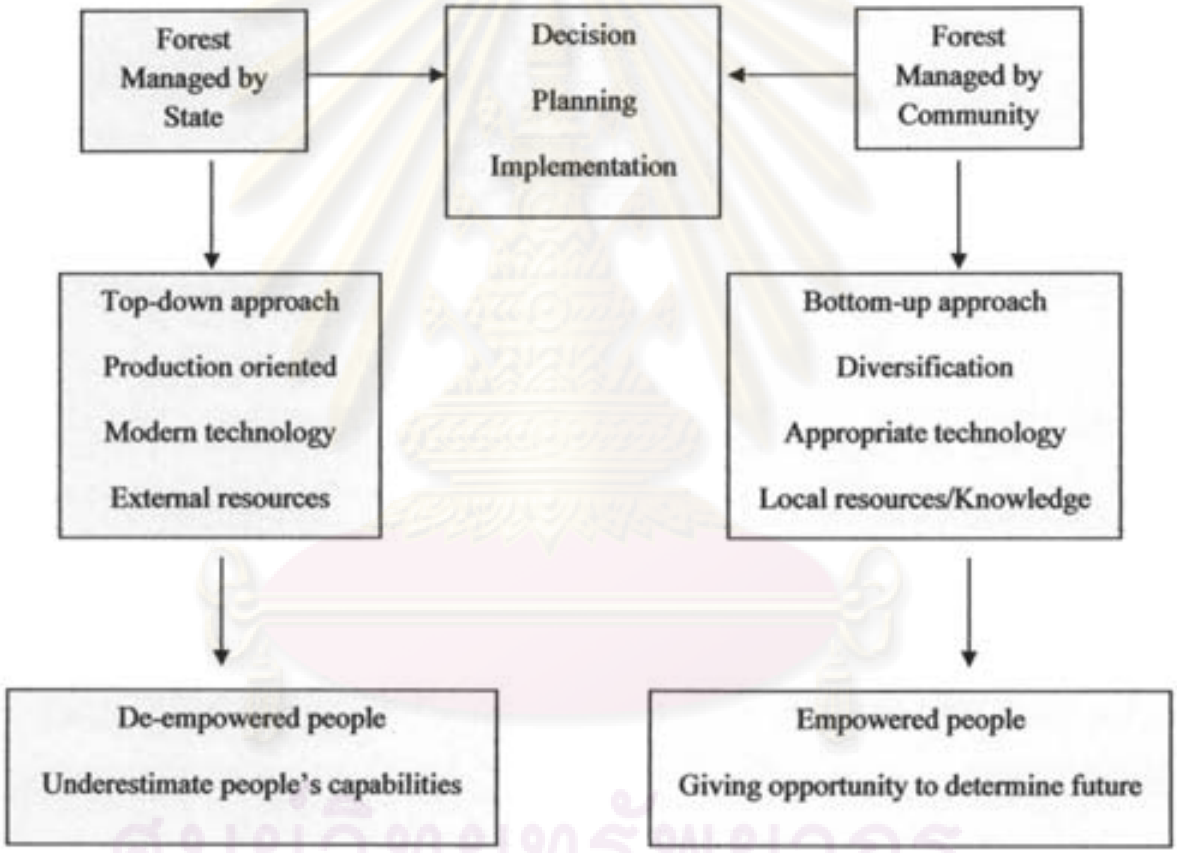
these development schemes. This situation has placed the future of the Community Forests, as well as the Forest-dependent communities themselves, into jeopardy.

**2.5 The differences between State and Community Forest Management**

Traditionally, communities in Kachin State have had a close relationship to the land and resources, and see themselves as part of the whole ecosystem. Natural resources are significant not only as a means of production but also as part of indigenous peoples' spiritual and cultural traditions, and thus are central to their identity as a people. Indigenous knowledge regarding natural resource management is little understood by outsiders yet is highly complex and developed. These indigenous resource management systems incorporate a keen awareness of the environment, have an appreciation for conservation and continuity, encourage sustainable innovation, and place the long-term well-being of the community together with the long-term well-being of the natural environment. This indigenous natural resource management involves both physical and spiritual realms. It is fully integrated into the daily activities of Forest-dependent communities, and has become a way of life for the community. Indigenous resource management systems are closely linked with other indigenous social, cultural, spiritual, economic, governance, juridical, health, technological and learning systems.

Indigenous resource management systems which are harmonious with the natural environment face serious challenges at present. These challenges include: a lack of understanding of indigenous resource management systems by The State; a lack of recognition of traditional administration as legitimate; conceptions of natural resource conservation which do not recognize alternative systems of resource management, particularly those which are considered non- scientific; the pursuit by the State of profits, modernization and development paradigms that are in conflict with indigenous resource management. These challenges have resulted in the alienation of indigenous peoples' from the rich resources found in their territories.

Finally, policies that have led to wasteful exploitation of forest resources, both in developed and developing countries, have been costly not only in biological terms, impoverishing the biota and soils, but equally costly in economic terms. Unsound investments have been promoted, assets have been sacrificed (sold) for a fraction of their worth, and government treasuries have been deprived of revenues and foreign exchange earnings sorely needed for genuine development purposes.

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# CHAPTER III

# KACHIN PEOPLE, BIODIVERSITY AND THE TRADITIONAL FOREST PRACTICES

## 3.1 Introduction

The Kachin people (here loosely defined as the multiple ethnic groups living in the mountain ranges spanning northern Burma, as well as bordering areas in China and India) have lived closely with the natural environment for innumerable generations. Most traditional Kachin villages (or groups of villages) are Forest-dependent communities. Forest-dependent communities are characterized by a spiritual connection to the forest (including reverence to the Nat/spirit of the forest), and cultural, social, political and legal governing structures based on the rule of Duwa/village chief (including in relation to issues of agricultural and forest management).

Traditional Kachin villages have communal forests called "Mare Namkawn" which provide residents with livelihood needs including materials for house construction, fuelwood, herbal medicinal plants and other Non-Timber Forest Products (NTFP), as well as acting as a source of irrigation water for paddy and other crops. These "Mare Namkawn" communal forests are one of multiple land classifications used by the Kachin that together represent a complex environmental management system which is the foundation of all Forest-dependent communities.

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### 3.2 Kachin people and forest biodiversity

Kachin state is situated in Northern Burma and its boundaries are India in the West and China in the North and East. The area of Kachin state is 34,379 square miles with a population of 1,254,381 (Bawknaw, L. 2007: p. 13).

People from Kachin State didn't identify themselves as *Kachin* in their own languages. The name *Kachin* is a Burmese word that does not exist in any local dialects. This hill people were grouped as Tibet-Burman according to the Anthropologists. Kachin state is populated by a diversity of tribes and ethnic groups such as the Jinghpaw (known as Jingpo in China and Singpho in India), the Maru, the Lashi, the Atsi (or Azi), the Lisu and the Rawang. For the sake of simplicity, the name Kachin will be used to refer to all of the above mentioned ethnic groups. These groups are separated by high mountain ranges and wilderness, however, their hospitality towards each other is remarkable. According to Bertil Lintner (1997), "*Ola Hanson*[1]*, an American missionary, described that every stranger stopping over night in a Kachin village is sure of his food and lodging. The chief is in duty to entertain all visitors, or, if he is not able to do it, one of the "elders" must do the honors. The guest receives it not as a favor, but as an established right.*"

Most of the Kachin people live in northern Burma near the source of the Irrawaddy River. The Irrawaddy itself is formed by the Mali Hka and the N'Mai Hka, 43 kilometers north of the Kachin State capital of Myitkyina. In his book *The Kachin: Lords of Burma's Northern Frontier,* Bertil Lintner (1997) wrote that the triangle between the N'Mai Hka and Mali Hka is considered as the homeland of Kachin people. This triangle is an area where outside influences have always been minimal and old traditions continue to the present day. Most of *jaiwa* (saga teller) claim that the Kachin people come from a place called Majoi Shingra Bum (Naturally Flat Mountain)[2]. In present day, the Kachin population spread to Hukawng Valley, western Kachin State, Mogaung and Bhamo in the east, Kutkai and Namhpakka in the

[1] Ola Hanson arrived to Bhamo in 1890.
[2] Also called Kaang Shingra or Majoi Shingra Hkindawt

south. Some Kachins also settled north western of Yunnan State of China and Arunachal Pradesh north eastern of India.

The forests of Kachin state form part of an area said to be "*very possibly the most bio-diverse, rich, temperate area on earth.*"[3] This area also suffers from the highest rate of deforestation in Burma. Kachin state is situated on the two of the world's most biologically rich and threatened environments: the "Indo-Burma" and "Mountains of South Central China" hotspots.[4] According to the World Wide Fund for Nature, the region *"presents a rare opportunity to conserve large landscapes that will support the ecological processes and the biodiversity within this eastern Himalayan ecosystem"*

Across Kachin State many mountain peaks rise steeply reaching heights of more than 3,000 meters - the highest among them being the snow-capped Hkakaborazi Mountain (5,881 meters above sea level). These mountains possess a great richness of biodiversity, and three distinct types of forests are found in these mountain ranges. The temperate forests lie between 1,830 meters and 2,700 meters, sub-alpine coniferous forests lie above 2,700 meters and subtropical forests lie below 1,830 meters (Bawknaw, L. 2007).

The flora of the temperate forests is extremely diverse and has led to a high degree of plant endemism. Mammal species such as Tiger *(Panthera tigris)*, Clouded leopard (*Pardofelis nebulosa*), Red Panda (*Ailurus fulgens*), Great India Civet (*Viverra zibetha*), and Irrawaddy Squirrel (*Callosciurus pygerythrus*) are threatened[5]. The endemic Leaf Deer[6] is commonly found in Kachin state has recognized as new specie according to World Conservation Society (WCS)[7].

Kachin state is home to two of Burma's largest protected areas: the Hukawng Valley Wildlife Sanctuary and Hkakaborazi National Park. This is a problematic

[3] "Strong through a Chinese painting", California Academy of Sciences by Howell, K. K. Retrieved from: www.calacademy.org/calwild/winter2001/china2.html

[4] Hotspots are regions that support at least 1,500 endemic species, and which have lost more than 70% of their original habitats. There are 25 global hotspots.

[5] Source: http://www.worldwildlife.org/wildworld/profiles/terrestrial/im/im0402_full.html/

[6] Leaf Deer is the smallest and primitive species in the world, recently discovered.

[7] WCS is an international NGO working inside Burma supporting Tiger reserve in Kachin State.

process, with protected area being declared without participation from local communities and the remaining forests being heavily logged by Chinese companies.

### 3.3 The spirit of the forest

Respecting the forest was traditionally practiced as a traditional belief in the past. Traditionally, Forest dwellers believe on the Nat (Spirit/ god) of forest. All creatures of the forest have their own respective Nat or guardian. People tried to avoid behavior which will make the Nat unhappy. For example, engaging in farming at the meeting point (area) of three different ridges is prohibited because it is assumed as the home of Nat. Domestic animal would be offered whenever villagers make a mistake.

Indeed, the traditional belief is a kind of evaluation of our morality. According to Hpungga Ja Li, humans possesses seven types of Spirit, and if one of these spirits disappears in a person, that person will be attacked by bees or bitten by a dog. "Inviting the Spirit to return" needs to be done. To understand simply, the inviting back of the spirit is a way of reinstating ones morality. However, the degree to which people from the hill regions in Kachin State respect of the forest Nats has markedly decreased since the time when many of them converted to Christianity. *Jaiwa* (saga teller), *dumsa* (priest), and *hkinjawng* (ritual butcher) took important role in various ritual ceremonies in the past. The traditional ritual ceremonies and practices related to the knowledge of forest have not been practices frequently since the *jaiwa, dumsa* and *hkinjawng* converted to Christianity. Hpungga Ja Li said, "*The conversion of a jaiwa, dumsa and hkinjawng led to the conversion of the whole community. The villagers followed what the traditional religious leaders said.* This is the success of missionary works among the Kachins and why many missionaries were willing to spread their missionary works in the remote area of Sin Lum mountain range of Bhamo District.

### 3.4 The Duwas' control of forests

In the past, under the British colonial administration[8], the Duwa (Tribal mountain chief) possessed absolute power concerning every aspect of life in the hills. According to E. R. Leach (1965), under the British colonial administration the Duwa was "responsible for the law and order of his community and for adjudicating upon matters of native law and custom [in addition to] the collection of house tax and he was entitled to a commission on his collection."

Samlut Gam, an elder of Ma Htang village, describes the Duwa as "*The mountain chief [which is] a hereditary position*". Each Duwa ruled particular area. There were big and small Duwas. Small Duwas rule one village and the big Duwas rule up to eight or nine villages. There were also Dai tusi (native chiefs or natural respected leaders) who ruled from a distance but had no authority to appoint, dismiss, or change the status of the Duwa. Under the Duwas there were village headmen who assisted the Duwas. The Duwas retained a range of special privilege too. For example, Duwas themselves could decide at any time to cultivate fields that belonged to someone else; if a commoner moved away or had no descendents, the Duwa would assume the rights to his land; when immigrants entered the area, they had to present gifts to the Duwa and only upon his approval could they have land in the area. The Duwas also assumed duties of organizing agricultural production, as well as solving conflict over land. The planning of land use, the selection of fields to be cultivated in a particular year, as well as the succession of crops, were all matters decided by the Duwas, who also consulted with the village headmen and villager elders on these matters. Whenever there were disputes over land among villagers, the mountain chief along with the village headmen would step in to mediate and resolve the disputes.

The Duwas also enjoyed the rights to certain services performed by the villagers. For example, every year, when cutting trees and clearing new fields, the villagers would have to perform one day's labor for the Duwas. Some villages, whenever sowing, constructing field huts, or weeding, even had the duty to work

[8] Burma was totally under the British rule in 1886 and get independence in 1948

collectively for one day for the Duwa before they could begin their work on each of these tasks. During the interview, Samlut Gam said, "*To do upland rice farming, villagers need to ask permission from the* Duwa. *Villagers had to provide some parts of their farm products to the* Duwa *as taxation. In addition, villagers had to cut trees and transported from the place no matter how far or difficult in order to build the* Duwa's *house*."

It made a hard time for villagers during the time under the reign of Duwa due to villagers' interview. According to Leach (1965), "*No matter villagers were happy with the leadership of the Duwa, his role was recognized as "(a) judicial affairs, (b) military affairs, (c) economic affairs, (d) day-to-day executive decisions, (e) religious affairs*?" During the colonial period the proper management of the forest was a challenge for Forest-dependent communities due to the Duwas centralized control on forest allocation. However, the Duwas took important role in agricultural ritual ceremonies among the Kachin Forest-dependent communities since the selection of the site of the clearing, felling the trees, burning the lands, the sowing, and the harvest were performed by ceremonies.

### 3.5 Knowledge and practices related to forest and its resources

Indeed, the traditional forest practices have been applied for many generations among Kachin Forest-dependent communities. The local people simply utilize the forest resources for their subsistence livelihood. Forest nearby the village is called "Mare Namkawn"[9], village forest or community forest which everyone in the village can access and get benefit from the forest. At this point, the "Mare Namkawn" is relevant as village communal forest. However, according to the forest management system such as the regulation of forest usage and reforestation, their strong involvement on controlling the forest which does not allow excessive logging and setting up new Community Forest regulations for their own benefit, are meant more

[9] "Mare" means village as well as community and "Namkawn" means forest

than that the communal forest. Samlut Gam said, "*due to our protection of the community forest, now we don't need to go for far distance to get building materials for our houses*."

These Community Forests produce biomass which is suitable for rotational farming, provides a reliable water source for irrigated rice farming, and a source of diversified Non Timber Forest Products. For villagers, Community Forest practices means management of Utilization and Conservation of forest resources in a way which focuses on both the sustainability of people's livelihood and the conservation of existing forests. It seems that to the people, forest matters are parts of their traditional way of living so that people cannot be removed from the forest. Similarly, forests should not be separated from the people too.

Furthermore, the local villagers also have a rich tradition of knowledge related to certain natural phenomena, and they manage their rotational agricultural system using this indigenous knowledge. For example, when the bird call which sounds something like gudundun resonates between the hills, it is time to fell the trees; in the beginning of the third month, when mountain slopes and river banks are covered with flowering pink and snow-white azaleas, this a sign that it is time to burn the fields; when the peach and the pear trees stand in full bloom, it is the best time to sow buckwheat; when one hears the powerful call of the cuckoo, it is taken as a call for people to hurry and sow their upland rice, and this work is never to be allowed to take longer than up to the time when the fruit of the red bayberry have ripened. By observing and following the natural phenomena, the Forest dwellers' traditional practices help to prevent the forest degradation. These practices of respecting and following natural phenomena are widely applied in Kachin traditional farming systems.

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### 3.5.1 *The importance of fuelwood*

Forest-dependent communities have been living in the area for many generations. Villagers collect fuelwood from the dead trees in the forests. They usually collect fuel-wood in the summer and store it as a pile behind or underneath their houses which can be used for the whole year. There is currently debate about the suitability and sustainability of practice of collecting fuelwood.

According to Asian Development Bank (ADB), Review of the Energy Policy (2003), "*The availability of clean forms of energy in rural households as replacement for firewood and biomass will help reduce indoor pollution*". ADB is expressing its sympathy and pity to rural poor by planning to install electricity which can be derived from the hydro power plant. It is true that the electricity can provide energy for rural poor. However, rural villagers prefer to use fuelwood which is well-suited to multiple uses such as cooking, lightening, heating (protecting them from cold), drying meat or others, preserving seeds, repelling insects. It is a simple traditional technique as well as no cost as long as the forests still exist.

Apart from generating energy, the use of fuelwood holds cultural significance. Every house in the research area has a fireplace (hearth) in the middle of the house (guestroom).[10] This element of house design is functional in that the weather is cold for most of the year, but there are also cultural aspects to this design feature. The fireplace is an important location for social gathering and ancestor teaching. Fireplaces in Forest-dependent communities are specially designed for multiple uses. They are areas for generating and heat for the house and for boiling water for tea. Whenever people come into the house, the fireplace becomes guestroom automatically.

Furthermore, the sorts of meetings held by the fireplace; range from general small talk to important village consultations. Family members gather around the

[10] The fireplace (unattached to the floor) is normally one square meter (wooden tray) size with around 6 inches lower than the floor. Earth (villagers prefer clay) is filled into the fireplace into the tray until 2 inches left to reach the level of the floor. The earth need to be dried before using.

fireplace after dinner to tell tales; from comical stories to serious teachings by elders. Therefore, the fireplace can be called a place of social gathering, transferring knowledge and conveying wisdom to new generations in remote areas of Kachin State.

In August 2006, Samlut Gam from Ma Htang village who was preparing to build new house was asked whether he planned to build traditional style or modern style (like Chinese houses in the city built using bricks and cement). He answered that he appreciates the Chinese style house because it looks modern, and that he was intending to build a Chinese style house. Then, he was asked where fireplace will be placed in a new house? He thinks for a while and didn't give any answer. Later, in August 2007, he finished build his new house with traditional style (fireplace in the middle). He said, "*Our ancestors know well about the value of coexistence of forest and our culture*". The introduction of modern techniques into Forest-dependent communities clearly has many – often unforeseen - consequences.

In is important to note that when villagers understand the importance of forest to their livelihood and culture they will not allow the forests disappear. Residents of Forest-dependent communities prefer to see the forests thrive.

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Figure 1: Both lower and upper montane evergreen forest types are found on the Sin Lum mountain range.

*Source: Theera Wanasanpraikhieo July 2008*

Figure 2: Fireplace can be seen in every houses at Ma Htang

*Source: Theera Wanasanpraikhieo July 2008*

3.5.2 *The traditional land classification and farming system*

According to a Kachin historian Hpungga Ja Li, all the forested lands of each village are divided up into sections. Each such section is called a *jingwang*. These *jingwang* include:

1) (The land on top of the hill ridge)
2) (The land where a spring emerges)
3) (The land with the large rocks)
4) (The land with the porcupine hole)
5) (The land of the mountain pass)
6) (The land of the nest of Falcon)
7) (The land of the whistling of Snake)

The classification of *jingwang* is different in each village due to the local physical geography. Each year, the village concentrates on the clearing and cultivation of either one large *jingwang,* or several small *jingwang*, and others will be left fallow. This kind of forest management system or forest practice gives an opportunity for forest regeneration due to its continual rotation between forest land and agricultural land.

For example;

- (The land with the large rock). Prohibit to do upland rice farm because the large rock from the cliff can be collapsed onto human and wild animals

It is similar to the classification system which is used by the Karen in northern Thailand. The Karens in Thailand classify soil into 7 types (Santasombat, 2003: p. 81). The following are two examples of this Karen soil classification system;

- Haw Koh Bluh (Anthill soil). Soil from old anthills, suitable for certain kinds of crops, such as sweet potato and chilly,

- Haw Koh Thu (Black soil). Suitable for cultivating all kinds of plants especially chili, aubergine, maize, coriander.

The knowledge of soil seen in this classification system helps farmers to manage certain crops on certain land.

Traditional upland rice farming is a part of traditional forest management systems of the Forest-dependent communities. Secondary forests that have been left fallow for at least 10 years are usually selected for upland rice farming. The Forest-dependent communities have been practicing the traditional system of swidden farming for a long time with understanding of ecosystem, and to the present the ecological environment has not deteriorated because of it. There is no land ownership to the fallow land; however, those who are in difficulty in finding land for rice farming must ask permission from the previous cultivator by offering one bottle of rice wine.

3.5.3 *Food as medicine/Medicine as food*

The rural villagers who depend on the forests rely heavily on food from the forests. They believe that everything which derived from the forests is food as well as medicine. Food is medicine and medicine is food only where there is knowledge relating to how to prepare and eat appropriately. Laha Hkawnglum, a Kachin local herbalist, said: "*If people know how to eat appropriately, then they don't need clinic for medical treatment except accidental disease. Our ancestors taught us that people can eat any kind of plants except those which avoided by goat and insects means they capable to select poisonous or non-poisonous plants.*" This traditional herbalist said that human being consists of four basic properties of matter, ie. Solidity, Heat, Cohesion of fluidity, and Volatility or Mobility. The balance of these four basic properties supports good health. To achieve the proper coexistence of these four basic properties, the consumption of food needs to be balanced.

For example, sour is good for digestion. In addition, the taste of sour, salty and hot provides heat. To understand simply, sour, salty and hot taste represents heat matter. That's why people who live in cold weather need food, which provides heat. Rice wine which is made by fermenting rice with yeast[11] is also heat matter. Good yeast formulates good essences in the rice wine. Ancestral knowledge tells of which special plants are best for making the yeast.

The unique taste of Kachin traditional food is sour. Kachin people put *Shalat* or *Shan Hkak,* native plants, which is commonly known and often put in traditional dishes. The taste is slightly sour and silky. According to the traditional way of cooking, the *Shan Hkak* plants are sliced and cooked together with fish or beef added with little water without oil. The herbalist agrees that every vegetable which is collected from the forests and cooked in the traditional style seasonally holds some medicinal function. Laha Hkawnglum said, "*Seasonal food from the forest is consistent with good health conditions.*"

Nowadays, the abundance of food in the forests is decreasing due to deforestation caused by logging and urbanization which promotes a mono-culture cash crop oriented production system along the border of China and Kachin state.

### 3.5.4 *Locally ethical knowledge on herbal medicine*

The local forest dwellers have developed and practiced a system of herbal medicinal knowledge for many generations. This indigenous knowledge has been passed from generation to generation and is obviously affected by the historical development of the communities themselves. One such example is that according to the Kachin elders, traditional medicinal knowledge evolved during times of war when experimentation became possible. In the past, war between different forest

[11] Traditional yeast from Sumprabun village, Northern Kachin state is made from 20 to 100 varieties of plants which collected from the forests.

communities on the mountain ranges governed by different Duwa[12] was an important catalyst in the development of Kachin traditional medicinal knowledge because the wounded soldiers acted as 'guinea pigs.' The prevalence of battle injuries enabled the Kachin herbal medicine specialists to experiment and develop new techniques. Difficulties often provide opportunities to increase herbal medicinal knowledge. Kachin herbal medicinal knowledge is famous in the region, especially for the treatment of bone fragment, joints, nerve and ligament. Many medicinal plants which are effective for problems of bone; nerve and ligament are native to the dense forests of Kachin state. The majority of Kachin people living in Forest-dependent communities depend on traditional herbal medicine as their main source of health care.

Due to the interview with Zahkung Zungbawn, famous herbalist among the Kachins in Myitkyina, villagers know how to use medicinal plants to treat basic ailments but only the professional herbalist who has been selected by his/her parents hold the full range of traditional knowledge. Without the transfer of knowledge from her/his parents, she/he cannot give effective treatment to patients. For example, the herbalist needs to select only one person from his/her children to replace him/her in future. The selected child must be competent and enthusiastic, hold a high moral standard, practice their trade and be a trustworthy person. This hereditary form of knowledge transfer ensures that the knowledge is maintained within the community generation after generation.

The collection of medicinal is very ritualized and is done in way which ensures the resource is not over-exploited. The ancestors taught that the effective herbal medicinal plants need to be collected only where the collector cannot hear the noise of dog barking or the noise of a cock crowing. Even when a group of ten people enter the forest to collect medicinal plants, only the leader is allowed to physically extract herbal plants from the ground. Before the plant is extracted, the herbalist must hold the plant with his right hand, and while spreading rice from his left hand ask for blessing by saying "relief to those who are suffering". This is an example of restrictions placed on the collecting of medicinal plants. If the herbalist travels into

[12] Tribal mountain chief

the forest to collect certain herbal plant for bone fragment purpose only the sought after plant can be extracted, other plants cannot be collected. Another restriction is that people are prohibited from extracting herbal medicinal plants if they have been drinking alcohol.

Furthermore, after collecting the plants from the forest, the herbalist may give herbal medicinal plants to the patient for brewing. After consuming the herbal medicine, the patient needs to return the left over medicinal brew back to the herbalist so that the waste will be thrown back to the forests in a respectful way. This is kind of ethic surrounding the collection of medicinal plants acts to respect the natural resource from over extraction.

According to Zahkung Zungbawn, "*Illegal logging, non-subsistence agriculture, crop substitution for cash crops and the large-scale cultivation of medicinal plants for commercial purposes by greedy investors who exploit the local herbalists are the main causes of herbal medicinal plants degradation in Kachin state.*" Kachin Forest-dependent communities are very proud of their traditional medicine and confident that they can survive for many decades without health assistance provided by the government authorities as long as they still have fertile forests.

The above mentioned traditional forest practices related to the extraction of medicinal plants reveals the extent that the villagers depend on the forest for their livelihood. These benefits are why Forest-dependent communities understand the need to properly manage their Community Forests in sustainable way.

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### 3.6 Ma Htang village profile and existing Community Forest practices

During WWII Ma Htang village located on the Sin Lum Mountain range suffered severe damage by aerial bombing as a result of fighting between the British and Japanese. After WWII the villagers reestablished their village and lived peacefully, practicing rice farming as their main occupation.

In the Post-War period the villagers at Ma Htang were almost entirely self-sufficient in food production. Rice was the main staple food in Ma Htang but corn, potato and taro was occasionally substituted instead of rice. The ancestral agricultural system cultivated rice integrated with corn, maize, sesame, chili, sweet potato, pumpkin, cucumber, gourd, sponge gourd, mustard, yam, roselle, tomato, and eggplant using swidden (or rotational) farming techniques. Contemporary villagers prefer to do swidden agriculture not only because it is a productive farming method but also for the purpose of cultural preservation. Apart from the rotational crops, herbal medicinal plants are also grown at Ma Htang.

The large forests surrounding the village provide sufficient water and nutrients to enable productive swidden cultivation. Villagers also grow many varieties of fruit trees in their home gardens such as Mango, Papaya, Sugar cane, Jack fruit, Banana, Lemon, Orange, Lime, Peach, Passion fruit, and Grape fruit.

At present, Ma Htang has 60 households[13] where most of the villagers are terraced field rice farmers (40 families) and the rest are upland rotational rice farmers (20 families). The village is under the administration of KIO however, social services such as basic health and education are partially provided with the assistance of the SPDC.

Villagers recognize the forests are closely connected to their farmlands and that the forests are the source of water resources required for agriculture. In addition, villagers receive benefits directly from the forests by collecting Non-Timber Forest Product inside the forests for income generation. Seasonal forest products such as

[13] According to the statistic collected in 2007, 150 male and 169 female

fruits, vine, cinnamon, tea leave, mushrooms are collected by villagers whenever they are able to take free time from rice farm work. Wildlife is also hunted for their own consumption and sometimes they share or sell within the community. Villagers buy salt, sugar, soap, and cloth with the income they receive from selling the Non-Timber Forest Product.

No conflict related to the collection of Non-Timber Forest Product was reported by women group during the interview process. When villagers enter to the Community Forest, they separate from each other and collect the Non-Timber Forest Product individually. Those who did not find anything are allowed to collect at the place where others found Non-Timber Forest Product in abundance. Thus the Community Forests are truly considered a community resource.

The forests do not serve only as biomass resources for swidden farming; they also play an important role in the daily life of the villagers. It is important to maintain healthy and bio-diversified forests because most of the materials used in cultural ceremonies can be collected only in the Community Forest.

Villagers enter the forest only when they need something from the forests. Hunting is done occasionally by villagers when they have less farm work. Men usually went to the forest for collecting fuel-wood, timber and bamboo for house renovation while women collect fuel-wood, vegetables, fish, shrimp, crab, and herbal medicinal plants. Food sharing among villagers is still practiced in this village; however, in contrast, villages near to the China border usually sold things which they get from the forests to the market.

The villagers benefited from the Community Forest due to their effective management of Community Forest. Since 2005, villagers no longer need to travel great distances to find building materials for their houses. Another reason they do not want to lose control over the management of the village Community Forest is because the village income from Non-Timber Forest Product is between three to four million Kyats (approximately 3000 to 4000 US$) yearly according to La Zing Nawngbawk, a villager at Ma Htang.

3.6.1 *Type of forest and the concept of forest classification*

The Sin Lum Mountain range is between 1500 to 2320 meters above the sea level.[14] Two forest types - upper and lower Montane evergreen forests - are found in the area.[15] Montane forests are characterized by the presence of a diversity of ferns, mosses, gingibers, and orchids. It is a dense, closed canopy forest, similar to evergreen forest. The canopy is almost continuous and single-layered. Trees are often stunted and gnarled with a smooth, low canopy. Moisture levels tend to be higher than neighboring forests at lower elevations as they are augmented by fog and cloud humidity.

Indeed, Montane forests are important reservoirs of endemic species, especially birds. When located on steep slopes with highly organic soils in high rainfall areas, cloud forests protect the watershed against erosion. Deforestation in such contexts often leads to catastrophic landslides. These mossy forests play an important role in capturing and filtering water into surface and ground water (Poffenberger, 1997: p. 32).

Ma Htang village, a Forest-dependent community, is surrounded by good secondary forests or regenerated forests. The primary forests were partly converted to secondary forests by rotational farm for many generations and partly disappeared by logging businesses in recent decades.

The village is located in the middle of the forested area or the inner core layer. Houses, small vegetable gardens and fruit trees, natural trees are also situated inside the core layer or inner circle. Outside of the core layer, the second circle contains the rotational rice fields, terracing rice fields and income generation purposed tea leave plants and Shuyu[16] trees which are managed as agro-forestry system. The third circle is consisting with community protected forests such as Community Forest, Sacred

[14] Sin Lum Mountain range is 5000 – 7660 feet of elevation, approximately.
[15] Typically, upper montane evergreen forest type is found between 1800 – 2500 meters elevation.
[16] Shuyu (*ceterola toora*) is a herbal medicinal plants which has potential to be produced commercially

Forest, and Watershed Forests for the purpose of Conservation. The outer of the third circle is forested area of the State and the territory of other communities.

The village protected Community Forest is controlled and managed by villagers for the community benefit. This forest management and community structure stated that community is woven by the forests, which means that the community is the heart of the forests. Contradictorily, the new kind of protected forests concept implemented in several Countries exclude people out of the forest.

Villagers acknowledge that the forests provided shelter and security to them during the time of armed conflict in the area. Forests were providing not only sanctuary but also food sources for villagers who are hiding in the forests.

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Figure 3: The Concept of Forest classification at Ma Htang village


Figure 4: Cross-session of Ma Htang Village

3.6.2 *Rules and regulation of Ma Htang Community Forest*

Villagers have been following the rule and regulation of the Community Forest which was laid down by themselves, even without officially written down on the paper for many years. However, since 2002, villagers started to do written rule and regulation. The written version of the rules and regulations are directed towards outsiders who disrespect the village Community Forest. The village's Community Forest rule and regulation are as follows:

1. Villagers can cut the trees for house building after permission has been approved by village committee. However, big trees (a girth of 4 to 5 meters) are not allowed for any purposes.
2. Trees can be cut for using community purposes such as bridges, schools, and religious building.
3. Outsiders are not allowed to cut any trees for any purposes.
4. Clearing land for any agriculture purpose is prohibited.
5. Fuel-wood can be collected only when they are dried. Collecting fuel-wood for selling purposed is prohibited. Outsiders are not allowed.
6. Small trees can be cut for animal fencing is exceptional.
7. The Non-Timber Forest Product can be collected inside the Community Forest but collecting bamboo shoot and trees bark is not allowed.
8. Hunting for selling purpose is not allowed in village Community Forest.

The above mentioned Community Forest rule and regulation is currently practiced in Ma Htang village.

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Table 1: The average income per family from Ma Htang Community Forest (2007-2008)

| Local name in Kachin | Common name in English | Harvest season | Amount | Cash Income Kyats | Remark |
|---|---|---|---|---|---|
| *Shuyu hsaung* | Ceterala toora | September October- | 30 bottles x 4500 | 135,000 | Herbal medicine |
| *Ma Kawk Si* | | | 20 basket x 3600 | 72,000 | Fruit |
| *Bawm Nyen Ru* * | | | 50 viss x 1000 | 50,000 | Shampoo |
| *Nai Si* | Taro | | 20 viss x 2500 | 50,000 | Food |
| | Chestnut | | 3 baskets x 1500 | 4,500 | Fruit |
| *Sum Krum Htyi* ** | Cinnamon | | 500 viss x 400 | 20,000 | Spices |
| *Bum Hpa Lat Nam Hpa Lat* | Wild Tea Plant | March | 10 viss x 12,000 | 120,000 | Drink |
| *Mati/Makrat* | Mush rooms | | | 10,000 | |
| *Htu San Si* | | | 5 viss x 1,200 | 6,000 | |
| *Mawau Si* | *Cydoria cathayensis* | August-October | | 10,000 | Fruit/Medicine |
| Total | | | | 477,500 | 400US$ Approximately |

Remark: * Some villagers can collect up to 300 viss due to their more available time

** At present all kinds of tree bark are not allowed anymore in the village Community Forest

The mentioned statistic is showing the income of selling the Non-Timber Forest Product only. Villagers do safe money which they do not need to pay for utilizing the Non-Timber Forest Product. For example, a family use 32 cubic meter of fuel-wood per year. Due to the existing Community Forest villagers could save 160,000 kyats which is equal to 32 cubic meter of fuel-wood.

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Table 2: Wildlife habitat in Ma Htang Community Forest

| Local name in Kachin | Common name in English | Scientific name | Status | Remark |
|---|---|---|---|---|
| *Ya* | Sambar deer | *Cervus unicolor* | Locally Common | |
| *Chya Hkyi* | Mouse deer | | | |
| *Wa Du* | Wild boar | *Sus scrofa* | Locally Common | |
| *Hkan* | Palm Civet | *paradoxurus* | Common | |
| *N Grau* | Crested Gibbon | *Hylobates concolor* | Critically endangered | |
| *La Gang* | Monkey | | | |
| *Chya Hkyawn* | Dhole | *Cuon alpinus* | Vulnerable | |
| *Sha Raw* | Clouded leopard | *Neofelis nebulosa* | Vulnerable | Decrease |
| *Sa Law* | Marble cat | *Felis marmorata* | Vulnerable | |
| *Tsap* | Asiatic black bear | *Ursus thibetanus* | Vulnerable | |
| *Bum Bai Nam* | Blue sheep | | Rarely Seen | Non existing |
| *Gwi Sun/Wa Sun* | Hog-badger | *Arctonyx collaris* | Lower risk | Pig head |
| *Gwi Sun/Wa Sun* | Eurasian badger | *Meles meles* | Locally Common | Dog head |
| *Sha Ram* | Oriental short-clawed Otter | *Aonyx cinerea* | Low risk | |
| *Pa Tsip* | Bat | | | |
| *Lang Da* | Falcon | | | |
| *Sa Wai* | Chinese Pangolin | *Manis pentadactyla* | Low risk | |
| *Dum Si* | Porcupine | | | |
| *Sha Ru* | rodents | | | |
| *Ka Du Hka* | squirrel | | | |
| *Du* | Big Squirrel | | | |
| | Giant Flying squirrel | *Petaurista elegans* | Common | |
| | Cobra | | | |
| | Python | | | |
| | Green snake | | | |

Figure 5: Good farmland in lowlands which depends on natural fertilizer from the biomass of a healthy forest.

*Source: Theera Wanasanpraikhieo,July 2008*

Figure 6: Women are carrying the vegetables and farm products from their rotational farm

*Source: Theera Wanasanpraikhieo, October 2006*

Figure7: The main transportation for Forest-dependent communities

*Source: Theera Wanasanpraikhieo, July 2008*

Figure 8: Forest is the food sources for villagers

*Source: Theera Wanasanpraikhieo, July 2008*

# CHAPTER IV

# CHANGES AND CONSEQUENSES

## 4.1 Introduction

Forest-dependent communities in the Sin Lum Mountain range have been living a similar way of life for many generations, but the traditional practices of these communities was disrupted with the beginning of armed conflict between Burmese national military and Kachin Independence Organization (KIO) army in 1962. Between 1962 and 1994 (when a ceasefire agreement was signed) Forest-dependent communities in the Sin Lum Mountain Range all but abandoned their traditional agricultural and forest management systems due to the need to be constantly on the move to avoid the armed conflict. Opium production became more prevalent, and traditional agricultural and forest management practices became marginalized.

The SPDC policy of signing ceasefire agreements different ethnic insurgent groups has had many significant consequences, including in relation to forest management in ethnic nationality controlled areas. In Kachin state the ceasefire agreement has lead to an "opening" of the state's natural resources to the international market. The logging industry in Kachin state has expanded significantly since the ceasefire agreement between the SPDC and the KIO was signed in 1994. In addition to this "opening" the KIO and the SPDC have placed an emphasis on border development and modernization schemes, largely focused on infrastructure construction. The traditional practices of former Nam Lin Bum Forest-dependent community villagers in Ma Ja Yang have been altered significantly. The development path in Ma Ja Yang since 1994 has been characterized by the expansion of cross-border trade with China, rapid urbanization, the promotion of modernized agricultural techniques, increased private sector investment in Casino and related businesses, and the expansion of illegal logging enterprises.

## 4.2 The Period of Pilgrimage

While Kachin forest dwellers possess a wide range of traditional knowledge related to forest resource management, it has been disappearing gradually since their conversion to Christianity.[1]

There is debate about the extent to which the traditional ritual practices (part of forest practices) of the Forest-dependent communities have been affected by the arrival of Christianity. Many Christian preachers said that no one was above human beings who are created by God in his image, and therefore God gave absolute power to human beings to rule the earth. After God created everything, then God said, *"And now we will make human beings; they will be like us and resemble us. They will have* ***power*** *over the fish, the birds, and all animals domestic and wild, large and small* (Good News Bible, 1976: Genesis 1:26, p. 2)."

Therefore with the power of God, the people who believe in Christianity chopped down trees. Moreover, they were encouraged to cut down more trees when they see nothing happened to them; previously, there used to be a belief that they would be harmed if the trees were chopped down in the absence of the performance of traditional rituals. Indeed, these beliefs and rituals made people afraid of invisible forces in the forest (Forest guardians) in order to avoid the misuse of forest resources. In many cases, these traditional practices were even criticized as evil activities.

As a challenge, when Kachin forest dwellers converted to Christianity many of their traditional ritual practices related to forest conservation began to be ignored. In an interview with a Kachin historian Hpungga Ja Li, he said, "*We had to conserve our forests with traditional beliefs as a part of forest protection but now all these traditions are gone in the hands of Christians. But these people are not real Christians.*" Here, the historian is referring to the fact that the Bible teaches people to respect and conserve the creatures of God. However, humans misuse the power of God and damage the beliefs of others causing more forest degradation.

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[1] At present, more than 99% of Kachin people in Burma are Christians.

### 4.3 The Impacts of the armed conflict (1962-1994)

The peaceful life of the communities, including Ma Htang at the Sin Lum Mountain range was affected by violence when the conflict between the KIO and the Burmese government appeared in the area around 1962. The fighting between the Burmese military and Kachin insurgents forced some villagers to relocate deep into the forest. Other villagers were forcibly relocated to a concentration camp at Prang Hku Dung village by the Burmese military.[2] Those who refused to move to the camp were arrested and tied up by the Burmese soldiers. Houses at Ma Htang were burnt down during that time. At the camp, men were forced to be porters. Villagers faced many difficulties at the concentration camp in Prang Hku Dung village, having access to insufficient rice rations being the main one.

During that time both villagers who were in hiding in the forests and in the concentration camp couldn't practice their ancestral farming technique for several years. Due to the shortage of food, the Burma military couldn't supply any food to the villagers so that villagers were allowed to come back to their old village in 1969. Even after returning to Ma Htang the villagers faced difficulties in restarting their traditional farming. The lack of seeds and agricultural tools, which were disappeared during the time that they are in hiding, hindered the restart of the rice farming.

Furthermore, Ma Htang villagers were coming under increasing pressure from both sides of the on-going armed conflict. The Burmese military assumed that all Kachin villagers living in the hills were providing material support to the KIO so villagers were routinely subjected to human rights abuses by Burmese soldiers. At the same time, the KIO was placing demands on villagers, especially by recruiting one person per family to be KIO soldiers for their revolutionary struggle.

During the period of armed conflict, the Forest-dependent communities abandoned their traditional farming (both upland farm and irrigated farming) and, for

[2] Villages such as Mung Hka, Balawng Kawng, Mung Loi, Loi Ying, Ga daw, Man ta, Hpakawn, La Mai Pan, Bum Wa, Ma Htang, Ja-hkai, Kum Kaung, Bum Kahtawng, Man dung, Hkarang Kawng, and Ma wut Kawng were forced relocated to the Prang Hku Dung.

over three decades, were forced to hide in the dense forests. They had the chance to farm if they stayed out of visibility; they had to move from place to place whenever heavy fighting occurred. Therefore, it was not possible to employ consistent farming techniques during that time. Many forest plots were cleared two to three times a year per family instead of once per year.

While villagers were frustrated with the hard job which yielded decreasing farm products, they were forced to take advantage of the opportunity to make quick money by growing opium in the 1970s. The villagers altered their rice centered agricultural system to include opium cash-crop production as a kind of safety-net in case they were unable to harvest their traditional crops due to the fighting. They cultivated opium products out of economic necessity during the time of armed conflict. The farmers grew accustomed to the idea that a small amount of opium could be exchanged for not unsubstantial amounts of cash. Therefore, many farmers became opium growers to meet their daily needs, for example in order to send their children to school, and to pay for health care, clothing, taxes, and food. The expansion of opium cultivation impacted forest regeneration because of the farming methods used.

The challenges during this period of war were food insufficiency and loss of seed varieties due to the loss of more sustainable traditional farming practices. In addition, when the KIO officially banned opium cultivation in 1991, the villagers had a difficult time to get their traditional seeds and fruit trees as crop substitution (Kramer, 2005: p. 98).

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### 4.3.1 *Nontraditional farming*

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During the armed conflict, forested areas became free fire zones. Villagers who were found in the forested hills doing farming were assumed as guerrillas who support the KIO. Fear and anxiety were overwhelming inside the minds of all villagers during that time.

Non-traditional farming was widely practiced during the era of armed conflict. Traditional farming practices, such as site selection, cutting the trees, burning, sowing, weeding, harvesting, and threshing have to do in certain period of time. If farmers couldn't complete all of these tasks in time due to the fighting, it would negatively affect that year's harvest. For example, villagers cut trees and dried it for burning, but if they had to avoid the fighting at the burning time more than a month, they were unable to do the farming due to the rain which make difficult to well-burned. In order to do cultivation again, farmers have to cut the trees for second time. This kind of situation leads to non-traditional farming, which impact to the forest and the ecosystem.

In other cases, villagers have to run from the fighting at the time of sowing after the farmlands were already burned. When they came back late to their farms, uncontrolled weeds germinated all over the fields. In additions, when villagers couldn't present at the farm all the time during ripen season, both domestic and wild animals had destroyed the crops. Not only the non-traditional farming caused to the environmental impact but also increased starvation and food insecurity. According to the interview, during the armed conflict only 10 baskets of grain could be harvested in a land which 1 basket of grain was using for sowing.[3]

4.3.2 *The opium growing*

In past times small amounts of poppy was grown by farmers for their own household consumption. According to tradition, farmers used opium for preventing themselves from illness and bad weather so that they can work harder. On the other hand, the opium can be given to cattle when they have diarrhea.

The land preparation of opium cultivation is different from that of rotational farming. Rotational farming relies on natural fertilizer (biomass from the forest). Thus forest recovery is the priority for rotational farming practice. In practice, trees were

[3] In normal condition, 40 to 50 baskets of paddy can be harvested from sowing 1 basket of paddy

cut at least one meter high from the ground to encourage regrowth the following year, as the trees roots are still alive. However, with opium cultivation the soil needs to be heavily ploughed. The opium growing needs the soil condition to be like powder. So, trees are cut and the roots are removed from the ground so that it makes easier to plough. Growing opium on the same place for many years significantly alters the soil and makes it difficult for trees to regenerate. The small-scale of poppy cultivation doesn't have a detrimental effect on the ecosystem, however, when poppy is cultivated on a large scale it becomes an environmental concern.

Around 1970, villagers perceived the opportunity to make quick money growing opium. The villagers altered their rice centered agricultural system to include opium cash-crop production as a kind of safety-net in case they were unable to harvest their traditional crops due to the fighting.

La Zing Tang, a villager at Ma Htang, said: "*A family with strong labor, five working people can produce up to 32 kilo grams of opium in 2 acres of farmland.*" Villagers would come out of hiding to sell small amounts of opium when they need money to buy rice. In this way, 32 kilograms of opium can sustain a family up to 2 years when they are unable to cultivate their fields during war time. Indeed, opium addiction was a problem during this time about one third of growers became addicted according to the village headman who was interviewed, but opium was also used for medicinal purposes in the area.

Villagers were wandering in the forests for more than 20 years hiding from the war. It is undeniable that people could survive because of the existence of dense forests which villagers could collect sufficient food resources. The forests supplied subsistence food for villagers. In addition, the dense forests provide secure hiding places for villagers during the armed conflict.

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### 4.4 The Ceasefire agreement

The SPDC military government made a decision to attempt to build national reconciliation through political dialogue and cooperation with insurgent groups signified by the signing of a number of ceasefire agreements, after more than 50 years of continuous fighting between the Burmese military regime and a number of ethnic minority groups.

In addition, to ceasefire agreements there was the implementation of a number of "national development plans" in former insurgent areas. General Khin Nyunt[4] - ousted former prime minister of SLORC - initiated a new ceasefire policy in 1989. Some of the ethnic insurgency groups took the Junta's offer of a ceasefire arrangement. The KIO was one of them.

While not providing any political settlement, the ceasefire arrangement permitted ethnic forces to keep their territories and their weapons until the drafting of a new constitution through the National Convention process and the formation of a new national government. *"Ceasefire Group is a catch-all term for those groups who have struck ceasefire deals with the SLORC/SPDC, but it should be noted that the nature of these deals, and of the groups themselves, differs wi*dely (Global Witness, 2003: p. 47)".

For example, even within Kachin the 'status' of the various ceasefire groups is quite different. The splinter armed-groups of KIO, such as the National Democratic Army – Kachin (NDAK) in Kachin State, have become officially recognized as militias. The SPDC labels these groups as having "returned to the legal fold", and they operate with the agreement and in some instances financial support from Rangoon. The KIO on the other hand does not accept that it was ever an illegal organization and therefore the description of "returning to the legal fold" is deemed entirely inappropriate; it remains an "armed opposition party".

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[4] The powerful former military intelligent chief and prime minister was detained in 2004 due to the accusation of close relationship with ethnic armed ceasefire groups

The SPDC leaders see the ceasefire deals as their government's major achievement despite the fact that the deals do not provide any type of official political settlement. The SLORC/SPDC has encouraged the ceasefire groups to engage in business within and outside their territories. Once they became tied into development schemes such as infrastructure construction and other business ventures, the minority groups' leaderships has had less time and inclination to pursue their political aspirations, let alone the armed struggle, for minority rights or autonomy.

Due to the SPDC's ceasefire strategy there has been a weakening of the opposition armies. There have been other effects as well. For example, all ceasefire groups engage in logging and some of the most serious deforestation has occurred in ceasefire areas. Many of these groups are aware of the problems related to uncontrolled deforestation, and would rather not be involved in logging, but they rely on this source of revenue to maintain their armed resistance. In many cases, a lack of business expertise and a lack of political stability have led to over-exploitation of forest resources. In Kachin State there are many logging arrangements which are uncontrolled and unmanaged, and deforestation is rampant.

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While not providing any political settlement, the ceasefire arrangement permitted ethnic forces to keep their territories and their weapons until the drafting of

[5] The powerful former military intelligent chief and prime minister was detained in 2004 due to the accusation of close relationship with ethnic armed ceasefire groups

a new constitution through the National Convention process and the formation of a new national government. *"Ceasefire Group is a catch-all term for those groups who have struck ceasefire deals with the SLORC/SPDC, but it should be noted that the nature of these deals, and of the groups themselves, differs wi*dely (Global Witness, 2003: p. 47)".

For example, even within Kachin the 'status' of the various ceasefire groups is quite different. The splinter armed-groups of KIO, such as the NDA (K) in Kachin State, have become officially recognized as militias. The SPDC labels these groups as having "returned to the legal fold", and they operate with the agreement and in some instances financial support from Rangoon. The KIO on the other hand does not accept that it was ever an illegal organization and therefore the description of "returning to the legal fold" is deemed entirely inappropriate; it remains an "armed opposition party".

The SPDC leaders see the ceasefire deals as their government's major achievement despite the fact that the deals do not provide any type of official political settlement. The SLORC/SPDC has encouraged the ceasefire groups to engage in business within and outside their territories. Once they became tied into development schemes such as infrastructure construction and other business ventures, the minority groups' leaderships has had less time and inclination to pursue their political aspirations, let alone the armed struggle, for minority rights or autonomy.

Due to the SPDC's ceasefire strategy there has been a weakening of the opposition armies. There have been other effects as well. For example, all ceasefire groups engage in logging and some of the most serious deforestation has occurred in ceasefire areas. Many of these groups are aware of the problems related to uncontrolled deforestation, and would rather not be involved in logging, but they rely on this source of revenue to maintain their armed resistance.

In many cases, a lack of business expertise and a lack of political stability have led to over-exploitation of forest resources. In Kachin State there are many logging arrangements which are uncontrolled and unmanaged, and deforestation is rampant.

### 4.5 Development and Modernization (1994-Present)

Border area development in Kachin State is the main activity which needs to be carried out after the ceasefire agreement between the KIO and the SPDC. Under the supervision of the KIO, roads, bridges, hydro power projects, schools and hospitals were constructed in Kachin state.[6] Both government, the SPDC and the KIO consider that this infrastructure development will improve border trade and brings economic growth and people can live under modernization. "*Due to the long standing war, people are illiterate, backward, and in poverty so that development is a necessity*" according to a junior KIO officials.[7] The vision is that modernization can bring peace in Kachin state when its people gain economic wealth.

According to a report of the KIO special region (Number 2), the infrastructure development scheme between 2003 and 2005 involved the construction of: 153 concrete water pipes (less than two meters in diameter); 89 concrete bridges (2 meters wide and 13 meters long); 60 kilometers of gravel road; and 15 kilometers of tar road. In addition, a 10.5 megawatts "Mali" hydro power plant was constructed in 2006. The project purposed to provide 24 hours electric power services to the people in Myitkyina, however, the flow of electricity is manipulated by the SPDC troops. A villager who does not want to reveal his name said, "*Only those who can pay money to the military receive a few hours of the electricity each day.*"

In this research, Cross-border trade, rapid urbanization plan, modern agriculture, and private sector (Casino complex) are contributed to the economic growth under development and modernization scheme however its impact to natural resources and people livelihood in Mai Ja Yang has been revealed.

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[6] 65% of the SLORC/SPDC's border area development budget is for roads and bridges, with little directed towards health and education. These roads also result in better access to the rich natural resources in ethnic minority regions and facilitate their extraction and export, into China. (source: Curtis W. Lambrecht: Watershed, December 1999)

[7] Interviewee wished his name will not be revealed

4.5.1 *The expansion of Cross-border trade*

The Greater Mekong Sub-region (GMS)[8] economic cooperation program was established in 1992 on the initiative of the Asian Development Bank (ADB). The economic cooperation between China and Myanmar was significantly affected by this program as the two countries share a land border, and already had a well-developed relationship in terms of cross-border trade, investment, tourism, and labor cooperation. Myanmar signed Cross-border trade agreement with China in August 1988. Cross-border trade is significant not only for Myanmar but also for the China. In 2003-04, Yunnan's share of Myanmar's total border trade was 72.8% while Thailand was 14.4%. According to Mya Than (2005), cross-border trade depends on the political situation in each country, and on the political relations between neighbors. Trade has flourished along the China Myanmar border since the Myanmar government has adopted a market economy system, and signed a number of ceasefire agreements.

Mya Than defines border-trade as follows:

- Formal or official border trade: Trade between two neighboring countries with permission from respective governments or from the country of study by paying dues (custom duties, commercial tax, etc.) at border posts.
- Informal border trade: Trade where no border posts exist, where both sides avoid border posts, or when sanctioned by local authorities but not recorded in official statistics.
- Illegal border trade (Smuggling): Trade without the knowledge of local authorities or trade in goods that are banned by the governments on both sides of the border.

[8] GMS consists with Cambodia, the People's Republic of China (PRC) (Yunnan Province and Guangxi Zhuang Autonomous Region), the Lao People's Democratic Republic (Lao PDR), Myanmar, Thailand and Vietnam.

- Transit trade: Importing goods across one border and exporting them from another; importing goods across one border and exporting them overseas; and importing goods from overseas and exporting them across a border.
- Barter trade: Trade based on agreements between countries for direct exchange of agreed quantities of goods without the mediation of international finance. This can also be traditional mutual exchange among inhabitants of arrow areas along both sides of a border.

All types of border trade have been developed along the border between Kachin state and China. Myanmar established a department of border trade in 1996 under the authority of the Ministry of Commerce. The border checkpoints and offices along the Myanmar / China border are at Muse, Lwejel, Laiza, Kanpeiktee, Chinshwehaw, Mailar and Pansan. There are also numerous checkpoints and crossings which aren't officially recognized.[9] These checkpoints facilitate that the export of natural resources from Kachin State and the import of consumer goods from China. Myanmar has become an important market for China as shown by Mya Than's report. According to Mya Than (2005), Myanmar was Yunnan's largest border trading partner with an average total volume of about US$400 million accounting for 73.8% of Yunnan's total from 1992 to 2000.

Due to the expansion of cross-border trade, many small towns along the China border became economically important points. The Chinese products, especially low quality products are targeted to the developing countries, such as Burma, Bangladesh and India where there is a high population with low income. These products - including textiles, electronics, construction materials, engines, heavy machinery, generators, motorcycles, bicycles, fuel, utensils, preserved foods, cosmetics, luxury goods - are imported into Burma daily. These products are cheap but not long lasting. Furthermore, there are a variety of health concerns related to cosmetic, food[10], and modern medicine products from China.

The influx goods transported into Burma is viewed as a positive indicator of the economic strength of the region. Local residents welcomed the market economy,

[9] Mai Ja Yang is one of the unofficial checkpoints
[10] In September, 2008, the powder milk consisting of melamine has killed children in China.

and saw the expansion of cross-border trade as a way to earn their livelihood. The influx of cheap consumer goods into Burma stimulates people to buy more, with the result that they must work more and find ways to gain access to money in order to pay for these goods. The natural resources have been the immediate target of this search for quick and easy sources of income. Not only forest products but many types of natural resources including agricultural products, gold, jade, and wildlife are traded to China.

With the expansion of cross-border trade many young people have become involved in natural resource extraction sector. Many young people have chosen to work in this sector without knowing the full extent of the possible dangers that this entails. Many young people leave their communities with great expectations of being able to earn high salaries. For example, most of the jobs in the gold mining sector do not provide any long-term stability or career-advancement options. Most end up working as temporary gold diggers, divers, cooks and gold panning workers, etc. They work as daily wage workers, meaning that they get paid each day and that they are never guaranteed future employment. Employment in this sector is very precarious.

These new employment opportunities have often not been as stable or as lucrative as expected, and people who migrated to gain employment faced many difficulties. In some cases the employer failed to give workers their wages for up to three months. If the business failed, workers were not able to collect the back-salary owed to them. Many workers hold high levels of debt to local food and consumer goods shopkeepers. The cost of living in the lowlands is more expensive, and many workers were forced to borrow in order to cover their basic living expenses. Another negative consequence is that many women and young girls have entered the sex trade to become sex workers. Drug addiction is also prevalent, especially among teenagers.

The KIO and Burmese military government share the similar perspectives towards economic development despite nominally being in political conflict. Both attempted to implement economic development strategies focused in increasing cross-

border trade with China through the construction of roads, bridges and electricity generating infrastructure in Kachin State.

In order to build good roads for developing cross-border trade, the KIO used barter system with private road construction firms. The approved construction firms made the initial investment in the road infrastructure projects designated by the KIO. In return, the construction firms received special privileges allowing them to harvest timber resources on either side of the new roads. The KIO has agreed to this arrangement because it viewed the new roads as necessary to improve transportation and communication in Kachin State as well as to function as key trading routes to expand cross-border trade. However, these new roads provided easy access to the natural forests by forest encroachers leading to greater deforestation.

Another problem of increased border trade is the occurrence of human trafficking. According to the report (*Driven away: Trafficking of Kachin women on the China-Burma border*) produced by the Kachin Women's Association Thailand (KWAT)[11], 63 verified and suspected trafficking cases occurred during 2000-2004. There are many reasons of being trafficked to China. An interview with Maily Awng, local representative of the KWAT has been conducted during the research. According to Maily Awng, many young women are being lured into the sex trade and forcibly trafficked without any knowledge that human trafficking existed. They were lured into the sex trade due to their willingness to help their family under severe economic crisis, eagerness of earning money for job opportunities, and earning money in order to continuing their education. Women have to serve as sex entertainment workers, domestic workers, and wives. (Due to China's birth control policy the number of male are increasing so that difficult to find woman for spouse). After women delivered baby, they were resold to other sex business.

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[11] KWAT is a group of Kachin Women working in the issue of Children's rights, promoting women leadership role and gender awareness, based in Chiang Mai.

Figure 9: Motor cycle parts from China, which were disassembled to avoid border tariffs, are reassembled in Lai Za to be sold in Myitkyina. (Informal border trade)

*Source: Theera Wanasanpraikhieo, July 2008*

Figure 10: A Chinese officer checks a trader at the border checkpoint while a convoy of trucks loaded with consumer goods lines up to cross the border.

*Source: Theera Wanasanpraikhieo, July 2008*

Figure 11: Women sell Non-Timber Forest Product along the Muse-Lashio trading route.

*Source: Theera Wanasanpraikhieo, July 2008*

Figure 12: Pineapples from China are transported to Mai Ja Yang.

*Source: Theera Wanasanpraikhieo, July 2008*

4.5.2 *Rapid Urbanization Plan*

The forest dwellers had lived and practiced their traditional livelihoods on the hilly area of Nam Lin Bum for several generations in the past. Between the hilly area of Nam Lin Bum and the flatland of the border there was Ung Lung village reserved forest belonging to local Shan people.

In 1964, KIO troops arrived and set-up camp in this area[12] of abundant tall grasses and bamboo forests. During that time, there was no significant human activity in the area other than the farmlands and temporary shelters of Duwa Zaw Yawng who descended from Nam Lin Bum for doing lowland rice farming. In 1966, the Duwa accommodated his cattle shelter as primary school in order to encourage more people sending their children to modern education.

Due to insufficient forestland on the hill side for cultivation, some villagers (especially, Kachins who migrated from Yingjiang County of Yunnan state) had managed to do new site of farmland in the lowland area closed to the Chinese border since 1964. In 1981, the KIO established the formal educational school until high school education (up to grade 10) was provided in 1982-83. The fighting between SPDC and the KIO was worsen between 1991and 1993 while the SPDC burnt down all the insurgent buildings including the school. After years of heavy fighting, a ceasefire agreement was signed between the KIO and SPDC in 1994.

In 1995, Forest-dependent communities from Nam Lim Bum were relocated to lowland areas according to the KIO development and urbanization policy. Human settlement on the hills was considered uncivilized, and the swidden upland rice farming system was considered destructive to the forests according to the KIO.

The Ung Lung reserved forest was selected as the site for development of a new modern town. The KIO negotiated with the Shan villagers living near Ung Lung, and allocated a place called Loi Ying Hkai, northeast side of Ung Lung, as compensation. The new town developed at the former site of the Ung Lung forest

[12] At present, this area is called Mai Ja Yang

reserve was called Mai Ja Yang. The first two people who build houses at Mai Ja Yang were Zaw Yawng and Hkawng Dai, and they were soon followed by around 100 households from Nam Lin Bum. According to Gun Htang Lum, deputy village headman of Mai Ja Yang village, a 40 by 40 meter plot of land was allocated to each family who settled in Mai Ja Yang in 1995-96. For those who settled in 1997-98, a smaller plot of land was allocated.

At the time of the initial establishment (1995) of Mai Ja Yang villagers faced difficulties such as insufficient building materials, bamboo, wood and thatches. The building materials needed by the villagers became costly because of their scarcity in the new place. Villagers could no longer collect house-building materials from their Community Forest due to its distance from the new town. Money became essential in the new kind of living in Mai Ja Yang.

When residents of Forest-dependent community are separated from the forest, access to money becomes fundamental for their survival because they need to buy their necessities. An old Nam Lin Bum resident stated that villagers love their traditional village location and feel they belong there. When villagers are relocated far from the forest, they feel alienated from their traditional way of life as well as the forest.

In order to gain access to money, people searched for new occupations in Mai Ja Yang. The majority of the people (former traditional upland cultivators) became wage labors due to the limited land available for agriculture. Some people who had lowland rice farms before the relocation continued doing lowland rice cultivation, while the others who didn't have lowland rice farms often became unemployed. Villagers had no option but to adapt their means of livelihood according to the place where they had been relocated.

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Figure 13: Villages from the uplands were 'mobilized' and relocated to the lowlands

*Source: Theera Wanasanpraikhieo, March 2005*

Figure 14: Villagers are selling their farm products at Mai ja Yang

*Source: Theera Wanasanpraikhieo, July 2008*

Figure 15: The hamlet Mai Ja Yang has experienced rapid urbanization and modernization since the ceasefire agreement in 1994.

*Source: Theera Wanasanpraikhieo, July 2008*

4.5.3 *Modern Agriculture*

Since 1990 the majority of farmers along the China - Kachin border have practiced modern agriculture to cultivate cash crops. There has been a rapid development of the market-oriented agricultural economy in this area. Farmers have increased their yields by using chemicals and genetic engineering.

The miracle rice seeds (High Yield Variety) from China were introduced to farmers in Mai Ja Yang within few years since 2005. Many farmers have been attracted to using these seeds because of the promise of higher yields. In the past, 50 to 60 baskets of paddy could be harvested using 6 to7 baskets of seed. With the introduction of high yield varieties, 60 to 70 baskets of paddy can be harvested while using 1 and half basket of seed. The miracle seeds provided high yield however the seeds cannot be kept (stored) more than one year for germination. Initially, (1995-96) farmers did not need to use fertilizer, or just a small amount of fertilizer, in order to get high yields. Later on, more and more chemical fertilizer was required to achieve the small yields. Farmers experienced that domestic animals died after eating the grass which had sprayed by the herbicides used with the high yield varieties. Some farmers were instantly shocked or died due to the inappropriate mixture and application of the pesticides. Lack of information and instruction regarding the use of chemicals put many farmers' lives at risk.

The traditional practice of rice cultivation for subsistence was again dramatically changed with the wide-scale introduction of market-oriented sugar cane mono-crop plantations in 2004. The change in agricultural practices in Mai Ja Yang happened widely and swiftly. According to Marip Gam Hpang, a farmer who was interviewed during the field research in 2008, in 2004 he had 9 acres for rice cultivation and 9 acres for sugar cane cultivation. By 2008 the farmer was cultivating only sugar cane due to the high price of sugar cane. The attitude of farmers at Mai Ja Yang is changing, and many are practicing modern agriculture techniques due to the potential for higher incomes. At present, rice harvested on the size of 1 mu[13] can be sold only 700 Yuan, whereas sugar cane can be sold for 1400 Yuan. The switch to this

[13] Chinese calculation 4 mu is equal to 1 acre. 1 hectare = 2.5 acres

market-oriented type of agriculture production is facilitated for the farmers, and they don't need to worry about whether they have their own cash for the initial investment required. At first, the sugar cane buyer (middleman) provides cash for seedlings, chemical fertilizer, pesticides and insecticides, land clearing, etc. as a loan. Farmers use their labor on their own farm to cultivate the cash crop. After the harvest, farmers receive a big amount of money from selling of their cash crops to the middleman. Then they have to pay back the initial loan as well as buy everything for the next cultivation season. Indeed, the money which they actually get is small. This is temporary happiness as the large amount of money they had in the morning will disappear by the evening.

According to C. C. Hkawn Nan, a community health worker who has been working in the area (Ja Reng Yang, next to Mai Ja Yang) since 2005, Malaria, Diarrhea, Sexual Transmitted Disease, and Acute Respiratory Infection (ARI) have become major problems in the area. She noticed that ARI patients have been increasing significantly within the past few years. She concluded that the intensive use of chemical fertilizer and pesticides on the mono-culture agricultural plantations, as well as increased air pollution, is a major contributing to the increasing number of ARI patients. Food poisoning and malnutrition among children has also been increasing within the past few years. She was worried that the chemicals have the potential to cause growth defects in Children such as physical deformity. Several people have entered her clinic with chemical shock, however she couldn't give any treatment except first aid due to lack of medicine. What she could do was only organized a health education campaign and addressing the impacts of agricultural chemicals to farmers.

Many farmers are reluctant to aware the cultivation of cash crops according to specific market directives has resulted in the loss of local control over production and management of genetic plant resources. Villagers are not well-informed about the global market driven economy that determines the price of sugar cane. The price of chemical fertilizers and pesticides, and fuel are growing at an accelerating rate. The price of chemical fertilizer was 58 Yuan in 2004, but had jumped to 110 Yuan in 2008 at the market of Rulli. The wholesale buying rate of agricultural products is also

outside of the control of farmers. Their livelihoods are now at the mercy of the global economy, where the 'market' controls the price. When the supply is low the price is high, and when the supply is high the prize is less.

Between March and April in 2007, the falling prize of Sugar cane and the higher prize of chemical fertilizer led to farmer-led demonstrations inside China. Many sugar cane factories refused to buy the sugar cane at the agreed price. Many sugar cane cultivators blocked the road with their trucks until the factories agreed to buy at the negotiated price. Chinese cultivators were able to demonstrate and win concessions from the Chinese company in a way that cultivators inside Kachin state cannot. The Kachin farmers do not have any rights on Chinese soil. They have to agree with whatever prices the company decides to buy at.

None of the farmers knows when the company will stop buying the sugar cane. However, they believed that the high level of demand will last for many years according to the news that local Chinese authorities have ordered Chinese farmers to grow only sugar cane four miles wide each side of the road instead of rice in Yunnan Province.

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Figure 16: Farmers usually carry drinking water and grass killer/pesticide together in their basket.

*Source: Theera Wanasanpraikhieo, July 2008*

Figure 17: Children are using a pesticide sprayer as a toy.

*Source: Theera Wanasanpraikhieo, July 2008*

Figure 18: Rice fields are being converted into sugar cane plantations.

*Source: Theera Wanasanpraikhieo, July 2008*

Figure 19: Intensive chemical use is becoming a serious issue for environmental health in the area.

*Source: Theera Wanasanpraikhieo, July 2008*

4.5.4 *Private sector investment (The Casino business)*

Under the name of development, the promotion of tourism has given an opportunity for Casino businesses to operate in Mai Ja Yang since 2001. There are five companies operating at the Casino Complex in Mai Ja Yang. According to the information given by the KIO local authority[14], 80 acres of land were leased to this Chinese consortium for 20 years to house the Complex.

It is located only a few meters off the border demarcation line next to the border checkpoint. Within a small Complex more than ten thousand peoples are actively running their different businesses. There are registered and unregistered businesses operating in the area. According to an anonymous source, there are 3 main gambling companies with many small branches. The registered businesses include 126 hotels, 30 massage parlor shops, 15 Karaoke and VDO shops, 27 drug stores attached with clinic, and 19 restaurants.[15] The unregistered business include mobile phone shops, beauty parlors, salons, mini markets, internet café, electronic shops, agriculture tools and equipment stores, garment shops, shoes shops, and noodle shops.

The private sector has absolute rights to control and manage within the 80 acres of the leased land. The Chinese authority dislikes the business; however they turn a blind eye on these businesses due to economic and social issues which could be happened to China. Approximately 10,000 Chinese from nearby Chinese communities depend on the economy of this casino business. This private sector contributes high revenue to the KIO as well as local economy, especially to the Chinese. For example, some may say that the business creates job opportunity to local people however, only few numbers of local Kachins get the job inside Casino Complex due to their Chinese language inefficiency.

Gamblers are coming from different parts of China including Macau and Hong Kong. Most of the gamblers come from China, but in some cases local people, especially the young are engaging in gambling at the Complex. There are many

[14] Interviewee wished his name will not be revealed
[15] Indeed, the actual number is more than the interview

different types of gambling activity available. At some tables, a gambler spent 100,000 Y (more than 12,500 US$) at a time for a game. All kinds of money transfer are done through the bank at the Complex.

A variety of drugs, especially opium and heroin, are widespread inside the Complex. The use of drugs among young Kachins is increasing and is a problem. According to the survey done by community health workers, HIV patient number among the youth is becoming higher between 2007 and 2008. The KIO practices anti-narcotic policy however the KIO until now, unable to interfere inside the Casino Complex according to the agreement between the authority and Casino business operator.

Following the development of the Casino Complex at Mai Ja Yang local natural resources and forest resources have been in high demand. A large amount of water is essential for the private sector in order to run the Casino business smoothly. At the same time as the Casino Complex was constructed a concrete reservoir was built at the top of Nam Wa Hka stream, 8 kilometers upstream from the Casino Complex. From this water reservoir, water is channeled through one foot diameter aluminum pipe to the Casino Complex.

There has been no study of the environmental and social impacts on the downstream communities. Prior to its construction villagers were told that water from the reservoir will be distributed after finishing the construction. However, after the water pipe was finished none of villagers received the water. The private sector tried to swindle villagers by giving hope of receiving water in order to prevent protest by the downstream communities.

In another case, a spot where villagers fetch drinking water from a watershed stream was occupied by private water purifying factory. Then the purified drinking water was distributed for sale. No one knows how the private company could set up the factory for its own benefit on public place, where the villagers use the place for communal purposes. In the new money-oriented society, natural resources are usually privatized by the rich people.

Furthermore, restaurants and hotels in the Casino Complex have created an accelerated demand for wildlife in the area. The wildlife meats are sold as a luxury cuisine as they are considered valuable remedies in Chinese traditional medicine. Various kinds of Snakes (Cobra, Python), soft shell Turtle, Pangolin, Porcupine, Slow Loris, Deer, Bear, Vulture, Peafowl, and Jungle Fowl have been given high price between 80 to 150 Chinese Yuan (10 to 20 US$ approximately) per half kilogram in Mai Ja Yang. The bone, skin, skull, claw, tooth, oil, tusk, horn, urine, and bladder of endanger species are illegally traded to China through the border. At the being of researching in Mai Ja Yang (August 2008), two giant Asiatic black bears were kept inside the cages waiting for trading.

Prominently, the Casino business contributes to inappropriate waste management. The crowded small business Casino Complex produces many tons of garbage every day. During the research, it was counting as between 4 to 6 times per day of six-wheel truck and 5 to 6 times per day of four-wheel truck carrying the waste from this small square. All these wastes were piled up without separation and dropped on the area of 50 x 50 meters top of the hill. Without accommodating the huge amount of daily incoming waste, it moved downward to the valley of the creek is a challenge to those who live at the downstream area.

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Figure 20: Fuelwood is high demand by business operators

*Source: Theera Wanasanpraikhieo, July 2008*

Figure 21: No solution for the growing amount of waste

*Source: Theera Wanasanpraikhieo, July 2008*

Figure 22: The Casino Complex at Mai Ja Yang

*Source: Theera Wanasanpraikhieo*, July 2008

Figure 23: Wildlife is smuggled to be used as special cuisine and health remedy.

*Source: Theera Wanasanpraikhieo, July 2008*

4.5.5 *The illegal logging enterprises*

In Kachin state, the commercial logging business operates under the dual administration of the SPDC and the KIO. Under the administration of KIO controlled forests, logging enterprises pay a deposit of between 500,000 to 1 million Kyats[16] depending on the size of the forest. Then the round logs (teak and tamlan) are taxed an additional 1000 Yuan (120-130 US$) per ton whenever passed through the KIO checkpoint at the Chinese border. Under the administration of the SPDC government controlled forests, the northern military command issues permits to the logging enterprises under the auspices of a border area development scheme.

There are 2 types of logging enterprises: small scale logging business (low investment) usually had done by local Kachins, and big scale logging business (high investment) by Chinese timber merchants. The small scale businesses are usually scrutinized by authorities while big scale businesses are given special privileges. For example, it is common for a Chinese merchant with a permit to cut 300 tons of timber to over-cut by 50,000 tons of timber without any scrutiny or punishment. By contrast, an old truck operated by small business hauling a few round logs could be confiscated for many days without any reason or explanation.

Although, the law strictly says that the sentence for illegal cutting of trees will be a jail sentence from 10 to 15 years in prison to life imprisonment, in many cases, over exploitation of forest resources is systematically ignored by the authorities which is a major cause of forest degradation. Whether under the administration of KIO or SPDC, all trees from the natural forests in Kachin state were transported through the China border passage. Timber can be sold along the border at illegal timber market. After that the timber merchants negotiate with the Chinese different departmental authorities and transported to Kunming, Yunnan Province.

Aungli, a local businessman who did logging in the area northern part of Mai Ja Yang said "*We didn't do any timber trading, just stealing the trees* ". He explained

[16] 1000-1200 Kyats = 1 US$

how the business operated. Big scale or small scale is depending on man power, equipment and transportation accessories. However, the process is the same no matter big or small. He said, "*An individual who has at least 50,000 Yuan is enough for the investment.*" Then together with rental logging truck, driver, workers and logging equipments must be ready for entering to the forests. When everything is ready then they just drove the truck to the forest under the Burma military controlled area of forests followed the logging trail which had been constructed by the logging concessionaire. With swift and rush action trees need to be cut within that night. They left the area immediately after round logs were loaded on the truck. During driving through the forests, they were stopped by uniformed soldiers who are riding motorcycles. They had to pay some certain amount of money to the gang of soldiers which is called protection fee. Several armed groups with motorcycles were swarming around in the forests. If logger is lucky, protection fees need to be given to less than three armed groups. The more armed groups, the more money you have to pay. When he argued by paying money for many armed groups, the uniformed soldiers simply said "*You are thieves, and we are robbers, so, no more arguments in this kind of business.*" The squad of soldiers who collected money from loggers needs to pay high certain amount of money to their boss in order to be posted in the forests.

The reason that official forestry checkpoint wasn't located in the area for official taxation is because the collected money shall be used only for Northern military regional command administrational operation. The wide variety of authorities that loggers need to bribe include the drug suppression unit, forestry unit, special investigation unit, military intelligent unit, police unit and military unit between the road from the west bank of Irrawaddy River to the eastern border. For example, in a case, 14 logging trucks loaded with teak logs (112 tons) were stopped between Myitkyina and Laiza in 2006. According to Aungli, "*If the logger pays 10 million kyats (7,000 US dollars) per truck demanded by the military commander then he will be released.*" Corruption in different level, different means is overwhelming everywhere during commercial logging businesses.

Figure 24: First grown teak from pristine forest.

*Source: Theera Wanasanpraikhieo, April 2005*

Figure 25: Logging trucks smuggling teak to China.

*Source: Theera Wanasanpraikhieo, April 2005*

Figure 26: The illegal logging business operates without interference in Kachin State.

*Source: Theera Wanasanpraikhieo,* July 2008

Figure 27: Logs are piled-up near the border before being sold at auction.

*Source: Theera Wanasanpraikhieo, July 2008*

# CHAPTER V

# CHALLENGES FACED BY FOREST-DEPENDENT COMMUNITIES

## 5.1 Introduction

This thesis examines the different development trajectories that have occurred in Kachin state since the 1994 ceasefire agreement by looking at two case studies. This thesis takes the two villages having markedly different development trajectories since 1994. Villagers from the former villages of Nam Lin Bum community have migrated to the larger urban centre of Mai Ja Yang. Villagers from Ma Htang village in the Gauri Community returned to their village-site and attempted to continue to practice their traditional livelihoods and culture.

After the 1994 ceasefire agreement Forest-dependent communities in the KIO controlled areas were granted "village community forests," but new challenges to the traditional forest management systems - especially the expansion of the commercial logging industry - began to emerge. Since 1994, infrastructure development schemes and forest management policies and programs have been contested. Some communities have fought for more control over their community forests, while other communities have moved away from the forests and have opted for urbanization and modernization.

In contrast to the situation in Mai Ja Yang, villagers in Ma Htang have attempted to maintain their traditional practices since returning to their village site after the ceasefire agreement. The Ma Htang villagers have had greater control over the development path taken by the community, and have been assisted in working-out the appropriate development path for their community by the Kachin Environment Project of the Pan-Kachin Development Society (PKDS). Community-centered development initiatives in the Ma Htang village include a buffalo bank, construction of irrigation canals for paddy and a drinking water supply system, an integrated forest

conservation project, and a program to maintain traditional knowledge and intellectual property rights.

The Ma Htang village is an example of a Forest-dependent community that fought hard to maintain control over their community forest in the face the changes and challenges emerging in Kachin state. At present the Ma Htang community forest is being managed in a sustainable manner that enables the villagers to participate in and have some degree of control over the management process, and thus to continue practicing their traditional livelihood and culture.

Through an examination of the changes and challenges faced by villagers from Forest-dependent communities - as well as the community responses to these pressures - this thesis aims to provide an outline of the current state of community participation in community development processes in Kachin state.

The case studies of Mai Ja Yang and Ma Htang provide an excellent overview of the changes and challenges faced by Forest-dependent communities in the post-conflict era in Kachin state.

**5.2 Post conflict effects**

The most significant challenges happened to the Forest-dependent communities during the post conflict era, which occurred after the ceasefire agreement was signed in 1994. Changes towards mainstream development (economic oriented growth) were assumed as a contribution to state economy and local economy. However, the Forest-dependent communities have become the victims of rapid development.

In this research area, the era of modernization and development has brought various challenges from cross-border trade, urbanization, modern agriculture, private sector and Community Forest management system. Firstly, this research would like to discuss who benefited from the expansion of cross-border economic relations and

trade. There have been positive and negative consequences of the increasing trade across the Burma and China border. It is undeniable that the incomes of some people living in the border areas have increased as cross-border trade has increased. However, the cross-border trade has also brought significant social problems, debt, consumerism and environmental degradation. Before the formalization of border trade, for example, Mai Ja Yang was just a village and a hamlet respectively. Now, this village has become a big town with high-rise buildings, hotels, karaoke bars, and casinos along with increased provision of water, bridges, roads and electricity. The growth of consumerism has encouraged local villagers to work harder to make money to purchase material goods. While this may not be an inherently negative aspect of modernization, there are negative side effects that are arising. For example, consumerism has resulted in the increase of the sex industry. In the end, in cash oriented societies, ethics and values are far too easily replaced by the need for survival.

There have been many challenges arising from the formalization and expansion of cross-border trade. Increased trade has resulted in market dependency and environmental degradation in Kachin State. The infrastructure built to facilitate the expansion of cross-border trade (e.g., roads and bridges) also facilitates increased natural resources extraction. The degradation of natural resources results in increasing difficulties of collecting non-timber forest products by the local villagers and former Forest-dependent communities. Htain Nan, a rice farmer who was interviewed during the research stated that "*since the border trade opened, we sell our good quality rice to China and buy low quality rice from China*". Thus, this research has found that while there may be benefits from increased trade, it has not necessarily been shared by the local communities on the border regions.

Secondly, this research revealed that the rapid urbanization plan in Mai Ja Yang is viewed in different ways. There were two different perspectives concerning the KIO plan to relocate Nam Lin Bum residents to the lowlands. The first perspective was that by moving residents to concentrated communities in lowland areas close to China the residents would be able to achieve 'modern development' due to access to effective administration, better communication, and trade and other economic

activities. From the other perspective, however, moving residents to lowland areas would result in villagers losing the opportunity to access their Community Forests as well as having difficulty adapting to their new environment. However, despite the opposition of some of the local people, the KIO authority enforced their plan for lowland urbanization and development. In order to force Forest-dependent communities to go along with the development plan some local authorities threatened to burn down villagers' houses if they refused to resettle to the lowlands. The local administrative authority believed that by relocating people to lowland areas and establishing urban communities, people's living standard and the quality of life would improve.

One of the major political motives behind the relocation of people from the hills to lowlands was so that they could be better monitored by the authorities of the area. This sentiment is reflected that "[*villagers] cannot be reached by the state power if they are in the forests* (Ganjanapan, 2007: p. 53)." Most of the forest dwellers didn't agree with the move, but they had no choice but to comply. Villagers feel that they will be more controlled by the authorities when they move to the new site. This extension of state power is one of the major political factors behind the "Border Area Development Scheme" instituted jointly by the SPDC and the KIO after the ceasefire agreement. In addition, according to the analysis of the Working Group on Community Involvement in Forest Management concerning forest management in Southeast Asia, *"removing local forest residents, [has] allowed state and private corporations to move into new forest areas to utilize timber concessions, establish estate crop plantations, or begin mining lands leased from the government* (Poffenberger, 1997: p. 19)."

Thirdly, this paper investigates the shift from traditional to modern agriculture in terms of the ability to secure food and livelihoods in the long term. Farmers in Mai Ja Yang who are under a modern agricultural system felt that they had nothing to lose except their labor. In fact, by switching to agricultural methods that use intensive chemical pesticides and fertilizers and miracle seeds, there were repercussions beyond their control. The result has been that local ecosystems have been destroyed, biodiversity impaired and human livelihoods threatened. Secondary crops such as

edible fish, crabs and shrimp which are usually found in the rice fields have been decreasing gradually since the introduction of modern agricultural practices. The farming methods that depend heavily on chemical fertilizers do not maintain the soil's natural fertility, and because pesticides generate resistant pests, farmers need ever more fertilizers and pesticides to achieve the same results. Indeed, traditional lowland rice farming needs sufficient water which flows from the watershed catchment area. Without sufficient forest coverage, the water and natural biomass will not be sufficient to contribute to soil fertility. Traditionally, farmers recognized the importance of healthy forests to their agricultural system. However, with the conversion to modern agriculture, the importance of healthy forests has been given less importance. The attitude of farmers has changed. A common sentiment among farmers at Mai Ja Yang is that "*no matter what has been happened to the forests, we (farmers) can still do agriculture under the modern agricultural system* (Marip Gam Hpang)." The change to modern agriculture in Mai Ja Yang has shown that when people are separated from the forest as an integral part of their lives, forests become less important and more forest exploitation will happen. There is less of a connection to the surrounding environment. Many local farmers have experienced negative impacts, however it is challenging for them to stop the modern agriculture which now provides their livelihood.

Fourthly, the research examines the contribution of the private sector to the local economy. Generally, the business from the Casino Complex creates markets which local people can sell their products for cooking (salt, cooking oil, seasoning powder) and thereby generate income. While there may be no argument at this point, the Casino Complex creates high a demand for Non-Timber Forest Products which leads to over exploitation. This chain reaction of supply and demand is undeniable and problematic. For example, fuelwood is becoming a major concern and critical issue as long as the businesses in Mai Ja Yang operate without concern for the environment. Many hotels, restaurants, bath and massage places use fuelwood as a source of energy apart from electricity. There needs to be greater discussions concerning the rapidly increasing use of the business operators in the Casino Complex of this renewable resource. La Lum, one of community workers from Kachin

Environment Project said, "*The higher demand for fuelwood, the decreasing sustainability of village Community Forest*" in that area. The way in which the private sector is operating, thus, threatens the village Community Forest; in this situation, however, the community does not have sufficient power to sustainably manage their Community Forest. In addition, local wildlife is also facing overexploitation beyond sustainable limits in the wake of trade and economic openness. In the past, Kachin people hunted wildlife for their own consumption. This situation has dramatically changed. Now Kachin people hunt local species in response to the growing demand in China and the region. These species are often endangered and living in fragile local habitats that are increasingly coming under threat. Additionally, some villagers catch fish using destructive techniques, such as electric shock, chemicals and explosives. Therefore, these non-traditional techniques that are a response to the increasing demand put pressure on the food chain and the ecosystem. High demand for Non-Timber Forest Products leads to greater human encroachment into the forests. The sale of these products that were previously consumed by local households leads to greater food insecurity for local residents. The utilization of natural resources recently has shifted from household consumption to cash marketing. However, the KIO does not put much effort into the protection of wildlife due to its business in political activities. Villagers are concerned that valuable endemic species of wildlife will be lost forever if there is no action to counter the increasing wildlife trade.

Fifthly, the research investigates what could make local people loses control on their forest resources. There were two factors that have de-empowered local people regarding the management of their village Community Forest: 1) the unclear forest policy; and 2) the powerful external interests which have promoted the commercial exploitation of forest resources along with the expansion of market oriented economy along the border of China and Burma.

There are different perspectives between the state and the Forest-dependent Communities on the appropriate management of Community Forests. The longtime forest practices of the Forest-dependent Communities have been intensely impacted by the State forest policy which encourages commercial exploitation of forest resources. Without consulting the Forest-dependent Communities regarding

traditional, customary law or practices of the forest, small woodlots were allocated to villages as village Community Forest. Instead of strengthening the knowledge of traditional forest practices that was in the process of being lost in many communities, commercial cash crop plantation projects were put forward to the Forest-dependent Communities as the new forest policy. Nevertheless, the KIO Forest Department claims that it is attempting to improve forest policies that include a more comprehensive approach to sustainable forestry management. According to Breng Seng, the KIO Agriculture Department officer who oversees the Forest Department, the KIO stands behind the Community Forest model as a key policy towards reforestation and natural resource management. He has given interview as "*Initially, 25 villages accomplished the model of Community Forest that is recognized by the KOI within 5 years. Recently, 50 villages are engaged in reforestation activities.*"

According to Forest Department policy, there are two stages in the Community Forest certification process. Firstly, a village committee need to writes Community Forest rules and regulations including the demarcation of the boundary of the Community Forest. The size of the village Community Forest is permitted to be between 200 to 500 acres depending on the size of the village. The Forest Department will provide a Community Nursery and Community Forest (CNCF) facilitator in each village for consultation during the first stage. Secondly, the Community Forest application will be presented by the community to the KIO forest department. The community is allowed autonomy to manage their village Community Forest within the rules and regulations after the application is approved by the Forest Department. However, when certified community is evaluated as unable to abide the law, then the Community Forest certificate will be revoked. In this respect, this research could not find evidence that the Forest-dependent communities were able to ensure control and management of the forests.

In this respect, this research could not find evidence that the Forest-dependent communities were able to ensure control and management of the forests. However, this investigation has found that the "Mare Namkawn" which is Village owns forests as Community Forest. This is a concept that ensures that everyone who is depended

on the forest acts to protect the forest from external threats and only uses the NTFP for their own benefit, not for commercial uses.

### 5.3 State VS Community Forest

In 1995 the KIO allocated every Community in its area a plot of forest to use as a village Community Forest. After the village Community Forests were allocated, the ultimate management of the Community Forest was left up to the discretion of each village. Indeed, the KIO authorities encourage communities to exchange their forests for their community's development rather than sustainable management. Therefore, villagers are confused about which sorts of community development project will be received after they trade away their Community Forest resources.

Despite this process, in many cases, Community Forests were exploited for natural resources by outside interests. For example, in 1997 Nawn Ang village - which is located next to Mai Ja Yang - sold timber from their village Community Forest to a Chinese timber company in exchange for installing electricity lines and building roads into their village. Indeed, the community understood that they were exchanging their Community Forest resources in order to receive electricity, but this development had unexpected consequences.

Nawn Ang villagers thought that they wouldn't need to make any additional payment for the electricity aside from giving their village Community Forest resources to the company. In fact, they had to contribute their own money to pay for electric wire, posts, and meter boxes. Villagers use electricity for light and TV. The KIO authority had claimed to have fixed the electricity rate for 1 Yuan per 1 unit. However, villagers were charged 1.5 Yuan per 1 unit. Villagers now spend 30 Yuan per month for electricity.

In 2003, local authority allowed permission to Business Company to extract gravel in village Community Forest. The Company agreed that villagers would

receive compensation, however nothing was received. Thus, villagers are frustrated with the government's un-clear Community Forest policy. In reality villagers have been given Community Forest as a commodity but without any substantial rights to manage the resource.

5.3.1 *The commercial logging in village Community Forest*

The expansion of the logging industry since 1994 became a threat to the survival of their ancestors' community forests on Sin Lum Mountain range. The logging business has started from Mai Ja Yang first and then reached at Ma Htang in 1996. Indeed, the forests surrounding the Ma Htang village are recognized as village Community Forest by community members and were previously permitted by the KIO.

However, the position of the KIO has changed recently. In 2003-04, loggers came to Ma Htang village and began felling trees with a logging permit issued by the authority of KIO. The loggers gave pressure to villagers for extracting timber in village Community Forest by showing authorized document of logging concession. The villagers tried to refuse the logging activities in their Community Forest but were unsuccessful. The loggers insisted that they have rights to log the trees and began extracting timber from the area. In principle, the logging permits are to be issued to Kachin people only.

In some cases, those who get logging permits resell the permits to Chinese merchants at a profit. As part of the deal the original Kachin permit-holder facilitates with the local operations and deals with the concerns of the local villagers for the Chinese logging merchants. The use of Kachin middleman by the Chinese merchants creates more conflict among Kachin society, and the whole scenario is socially and politically tense due to the vested interests at play. Any refusal of the logging rights granted by KIO authority is considered to be a sign that the villagers do not support the Kachin peoples' independence movement. The argument is made that since the

income from logging will be used for the resistance movement, then any villagers who do not support the logging do not support the movement. Finally, when villagers to their grievances to the KIO authority they realized that they do not have any negotiation power, and they finally had no other choice but to accept the logging industry in their Community Forest.

The logging company claims to have paid compensation money to the villagers for extracting the trees form their Community Forests. The amount of compensation varies depending on the size of the trees in the area and the density of the forest itself. It is common for logging companies to pay very low compensation. The villagers spend the compensation money for village needs such as childcare centers, and primary school buildings at Ma Htang.

Between 2003 and 2005 villagers were told that the local roads will be paved by the company so that surrounding trees need to be given to the company in exchange even though the villagers were required to provide their labor to the project. Indeed, the company only put down new pavement on top of the old road which villagers had constructed by their labour. The pavement was of low quality, and the roads were destroyed or washed out during rainy season.

The KIO claims that none of its actions will be taken if villagers disagree, but this is clearly not the case. There is very often a stark double standard when it comes to natural resource extraction concessions in Kachin State. A villager at Ma Htang who does not want to reveals his name complained that, *"Community members cannot access to the KIO controlled forests but the KIO government can do everything in the village Community Forest"*.

Villagers have planned that, in 2010, ten communities will coordinate to propose that they receive the rights to totally control and manage their village Community Forests in order to stop the encroachment of Chinese timber merchants' into the village Community Forest.

### 5.4 The approaches and roles of local NGO in supporting Community Forest

The Pan Kachin Development Society (PKDS) is an independent organization which is working for the development of Kachin people and the environment in the Kachin state. The Kachin Environment Project is one of the PKDS projects. The overall objective of the Kachin Environment Project is rehabilitating the Kachin environment, people and culture through the participation of various sectors of people.

The young social workers of Kachin Environment Project are committed to their communities and environmental issues. They have seen first-hand the environmental degradation caused by commercial logging and rapid cash oriented economic development activities. They started to work on integrated conservation and development project in 2005.

In the beginning of the Kachin Environment Project, the strategy focused on campaigning and lobbying activities. They spoke for the environment as well as for the people, however, a small number of people aware of the Kachin Environment Project. After more than one and half year of working experiences, the social workers of Kachin Environment Project realized that they need to strategize new approach. The new focus became increasing the participation of local people in community level environmental work in order to empower local people to manage their natural resources and defend themselves from outsiders' encroachment to their forests.

The social workers began a strategy of integrating community-based and people-oriented development projects including: Enhancing Community Forest Practices, supporting herbal group, and assisting food security projects. All these projects have provided villagers with the opportunity to practice, learn, and analyze for their own benefit by themselves.

5.4.1 *Lesson learned from Community development projects*

In 2001, the Ma Htang community received development assistance from the Community Development Project of the PKDS. As all of the community members are rice farmers, the possession of a buffalo is very important for ploughing and other work. The Community Development Project initiated a buffalo bank project in order to support under-privileged people such as widows and those who are vulnerable in health. After two years of duration, when the female buffalo delivers a baby buffalo, the baby buffalo will be given to another person making the initiative sustainable. The community themselves makes all of the management decisions related to the buffalo bank project.

In 2002, Ma Htang received a grant to construct a piped water supply system for the local primary school from United Nations Children's Fund (UNICEF). During this time, the KIO authorities posted medics at the Ma Htang health center and schoolteachers at the Ma Htang School. These postings were part of the KIO lead village development plan. Due to the insufficient number of schoolteachers from KIO, teachers from the SPDC's education department were also posted at Ma Htang. This situation was far from ideal as villagers were required to pay subsidies to support the salaries of the schoolteachers. In addition, the young schoolteachers from urban areas couldn't cope with life in Ma Htang, which is a remote rural area. As well, the urban teachers were unfamiliar with the local culture and the local dialect. The teachers found their posting in Ma Htang undesirable and resigned after one year. New schoolteachers needed to be recruited each year, adding an extra burden on the local education system.

Following by the buffalo bank project, in 2005 the Community Development Project supported another agricultural development project. The 2005 Community Development Project was an income generation product aimed at doubling local crop output through the introduction of a new sweet corn variety along with a supply of chemical fertilizers. This project ended early due to a lack of experience and understanding of the community; the social workers simply understood and practiced

a relief approach rather than a sustainable community development approach. The project was discontinued after it was evaluated by community, development workers and the donor as non-sustainable and based on a flawed approach.

The Kachin Environment project collaborated with Ma Htang community in 2006 in an integrated forest conservation project. The project integrated the community development activities with a process of community participation. During implementation of the project traditional knowledge, community empowerment, sustainability, and democratization were prioritized and put into practice.

At the end of August of 2007, the local representative of the United Nation Development Programme (UNDP) conducted a village assessment at Ma Htang. After the assessment the UNDP proposed that it would support the construction of irrigation canals, as this sort of activity saw a fruitful outcome in the past when done by the Kachin Environment Project. However, in response to the request of the villagers, the UNDP agreed to support the construction of a drinking water supply system. Together with the villagers, the local staff of the UNDP surveyed the water catchment area to build the water storage area. After surveying, the budget was estimated and a proposal was written by the development agency. The project was approved by the higher levels of the UNDP at the beginning of 2008.

The villagers received the money for the project from the UNDP, and they spent the budget on materials such as plastic pipe, water taps, cement as well as an honorarium for the project engineer. The task of the engineer was to design the cement water storage tank. Masons constructed the tank. Villagers dug a 1500 meter trench to lay down the pipe. The project was completed in May 2008. During construction of the cement water storage tank the villagers suggested changing the location. However, without acknowledging the local knowledge, the engineer ignored the suggestion and has warned that villagers would be held responsible.

Villagers were happy when the drinking water from the pipe reached next to their houses. But, three months later, in July when the rain comes, the water stopped flowing from the pipes. The village committee and elders went to inspect the storage tank and found that the water storage tank was full of sand which blocked the water

drainage pipe so that water couldn't flow downward. The reason of the blockage is that the tank was built by crossing the stream which stopped the flowing of the water and piled up the sediment inside the tank. La Zing Tang, one of the villagers remarked, "*We recognize the expertise of the engineer, however, it is pity that he has been here only in the summer time and didn't know how the stream look like in rainy season.*"

The lesson learned from this project reminds community development workers to be aware and respect local and indigenous knowledge when implementing community development projects. This knowledge that has been received from their ancestors and through their life experiences. In addition, an opportunity for community members to exercise their capabilities and knowledge in the implementation of development projects in their own communities will lead to greater sustainability and efficiency of the project.

5.4.2 *Enhancing Community Forest practices for sustainable development*

The project activity was implemented at Nawn Ang village which is located next to Mai Ja Yang. Similar to Mai Ja Yang, the Nawn Ang village was also affected by the social and economic change through rapid cash oriented economic development and modernization initiatives.

Before the Kachin Environment Project was implemented in Nawn Ang, the local authority (KIO) had allocated a village Community Forest to all villages situated under the administration of KIO. However, the policy and its implementation by the KIO didn't provide any support to communities on sustainable management of the Community Forest. Therefore, villagers assumed that the allocated Community Forest should be cut and sold to fulfill the community's need.

The situation in Nawn Ang is repeated all across Kachin State where communities simply exchanged their Community Forests to install electricity and

constructing roads into the villages. While construction of this infrastructure can be seen as a benefit to the villages, this 'development' is also beneficial to the companies who are extracting natural resources from the area. In order to get timber from the village Community Forest, the Chinese logging companies paved the roads and installed electricity for the villages.

In response to this ill-conceived development policy, the Kachin Environment Project supports communities to evaluate the process of village Community Forest management in order to prioritize local people's involvement in forest activities. "Community Forest is not a system, it is a process. It represents people's involvement in managing and controlling the forest resources through participatory democratic process" is well defined by Regional Community Forestry Training Center (RECOFTC). After continuous meetings, Villagers at Nawn Ang realized that they haven't had enough power to control and manage their village Community Forest so that the Chinese timber company could not access easily and exploit the natural resources.

The goal of the Kachin Environment Project is to re-empower the villagers to properly manage their Community Forests. In the first stage Kachin Environment Project community workers initiated a process in which villagers from Nawn Ang surveyed the area surrounding their Community Forest. Information related to tree species, Non-Timber Forest Product, cultivation sites, degraded forestlands were recorded. In the second stage, the boundary line of the Community Forest was surveyed and drawn by villagers. Following the demarcation survey, a Nawn Ang Community Forest map was submitted to the KIO forest department. In the third stage, a village meeting was held and a village Community Forest committee was elected by vote. The first village Community Forest committee was formed in 2006. The Community Forest committee designed a set of written rules and regulations for protecting villagers' rights to manage and use the forest resources.

The rules and regulations also aim to protect the Community Forest from outsiders' encroachment. The village Community Forest rules in Nawn Ang are as follows.

- Trees at the catchment area (watershed) is prohibit to cut due to the purpose of maintaining the only water source to the village
- Clearing the land for upland cultivation needs permission from village committee
- Only dried fuelwood can be collected for selling by Naw Ang villagers
- Collecting trees bark are prohibited for selling (Cinnamon)
- Orchids are prohibited from extracting
- Timber can be cut for household use only
- Felling trees for selling will be fined 25 Yuan per tree
- Nearby communities can collect Non-Timber Forest Product for their own consumption only
- Nearby communities are not allowed to cut any trees

Villagers from Nawn Ang adjust themselves by practicing Community Forest under the change of social and economic condition too. In order to get income, villagers decided to plant fast growing trees inside certain parts of their degraded forestland. The reforestation will be done by both community and individuals. Individuals can grow the fast growing trees in their own land and they will get the benefit from their own grown trees. Dissimilarity to the individual, the collective reforestation would be done on degraded forestland and the outcome of the trees will be used for community social welfare purposes.

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จุฬาลงกรณ์มหาวิทยาลัย

Figure 28: Kachin Environment Project staff (NGO workers) and KIO forest officials discuss the demarcation of the Nawn Ang village Community Forest.

*Source: PKDS,2007*

Figure 29: Nawn Ang villagers transplant *Sha Mu* tree seedlings for a reforestation initiative inside their village Community Forest.

*Source: Theera Wanasanpraikhieo, February 2007*

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5.4.3 *Constructing irrigation canal to enhance local food security*

In 2004, a flashflood from the mountain washed out much of the farmland in the area including the traditional water irrigation canals at Ma Htang. The destruction of the irrigation canals was devastating to the local agricultural system. The rice production has declined from 200 baskets per hectare to 100 baskets per hectare. The loss of income from this decreased rice production pressured villagers to enter the local forests to extract forest products to sell to China. The traditional practice of collecting Non Timber Forest Products for household use only has changed, and Non-Timber Forest Products are now being collected for commercial purposes as well. This change might lead to mismanagement and over-exploitation of forest resources in the long term if the economic difficulties of the local villagers are not alleviated.

In 2006, the Kachin Environment Project selected Ma Htang village as a partner site for the implementation of a food security project. In the beginning, Kachin Environment Project social workers thought that the low yield of crops was caused by the low quality of soil, and determined that a project to soil improvement was needed. However, villagers disagreed, saying that the low yield was caused by the insufficient water in their terraced fields. They contended that the flash flood had washed out some parts of their irrigation canals meaning that less water reached their rice fields. There was not enough water to fill all level of the terracing, and unless the farmers from higher fields released more water the farmers from the lower parts did not receive enough water. This led to lower production and sometimes created conflict between farmers from the higher and lower parts of the terracing.

In order to solve the problem of food insecurity, villagers had cleared an area of land also known as community swidden farm.[1] Crops such as corn, maize, sesame, chili, sweet potato, pumpkin, cucumber, gourd, sponge gourd, mustard, yam, roselle, tomato, and eggplant are shared among the villagers while rice is stored at the community rice bank. A villager who is facing a shortage of rice can borrow rice from the rice bank, and return the loan after harvest time later in the year. In addition, the

[1] Approximately between 1 to 2 hectares

rice in the rice bank can be used in community activities such as New Year, Christmas, and other religious and traditional ceremonies.

During the project implementation period, the social workers found that the village committee takes high responsibility and accountability to the process of self reliance, people participation, local contribution, and local ownership, so that they decided to support them. During the interview, Hkaw Lwi, a community worker said, "*Villagers requested only the cost of cement which couldn't get in the area in order to fix the canals. The additional requirements such as rock, sand, bamboo, wood, food and physical labor were contributed by their community.*"

There were three damaged canals which drained water to 50 rice fields. Among the three, two canals were severely damaged and the third was only slightly damaged. The Kachin Environment Project and the community were willing to repair all three of the damaged canals however, due to a limited budget this was not possible. The Kachin Environment Project disclosed the available budget and left it to the village committee to prioritize the work. The canal which was chosen to be repaired first would provide sufficient water to rice fields belonging to 17 households. The 17 households were facing greater difficulties than the other families of the village. It is clear that the decision to prioritize this canal was done for the benefit of those in most need, as none of village committee members who made the decision were among the 17 households.

With the support from the Kachin Environment Project, villagers repaired 1500 meters of irrigation canals in April of 2007. At the harvest season in December, these 17 households received double the yield which they had expected. All of the beneficiaries gave 5 baskets each to the community rice bank. Furthermore, this grassroots development project improved the food security of the village and lead to a decrease of environmentally damaging practices. Kaw Bu, one of community workers said, "*Now, the villagers totally stopped the activity of pealing tree bark for selling.*"

Figure 30: Kachin Environment Project staff (NGO workers) and villagers discuss a local food security project.

*Source: Theera Wanasanpraikhieo, February 2006*

Figure 31: Villagers contribute their labor to repair a damaged irrigation canal (Food security project).

*Source: PKDS, April 2006*

Figure 32: When villagers really need, they accomplished their task by themselves.

*Source: Theera Wanasanpraikhieo, August 2006*

Figure 33: Efficient water allocation has doubled the yield.

*Source: Theera Wanasanpraikhieo, August 2006*

### 5.5 Intellectual Property Rights as a new challenge

Gauri communities will become under the controversial issue of Plant Genetic Resources System in the future if immediate action is not taken by various sectors of the society. During the research for this thesis, villagers acknowledged that the Shuyu (Ceterola Toora) plants gained the highest income among the Non-Timber Forest Product in the area. Shuyu is a tree which grows well in Gauri Communities. The Kachin ancestors have used it as an herbal medicine for hundreds of years. The collection and preparation of the Shuyu should be considered a part of Kachin traditional knowledge and culture. Shuyu oil can be extracted from the green tiny fruits through crushing or grinding. Diseases affecting the lungs and the digestion system can be treated with Shuyu oil. The oil is in high demand, and costs 4000 Kyats (4 US$) per bottle (760 cc) in Myitkyina. According to the villagers, Shuyu grows well naturally only at Grauri Krung, Sut Ngai Bum, Sin Lum and Mali Yang. At Ma Htang village of Grauri Communities, it is found in abundance in the fallow land.

In the beginning of 2008, villagers were approached with a request to lease 600 hectares of land per each village to a company from Myitkyina. The company planned to grow Shuyu trees as a mono-crop. The company's proposal was simple; in exchange for the right to lease the land inside the village Community Forest the company would build a road connecting the village to surrounding cities. Also a monetary compensation for leasing the land of one million Kyats (1000 US$) per 600 hectare would be given to each village. Myo Lat, facilitator who was negotiating on behalf of the Company said, "*Shuya trees will be planted under the natural trees. No trees are allowed to cut instead of growing the Shuyu trees. It is ecological supported project. Villagers will get better job as farm labor.*" His persuasion made the villagers dream of earning more cash from being labor at the mono plantation and living under modernization which will come with the road. There was also a proposal to construct a factory for manufacturing medicine from the Shuyu tree. According to the facilitator, the raw materials from the factory will be traded to a company in Japan which will produce medicine.

It is true that the villagers could earn money from the business according to the WHO report on traditional medicine. The WHO estimated that traditional medicine generated income of about $ 5 billion in 1999 from the international and $ 1 billion from the domestic market in China. However, there are many questions and issues which cannot be answered yet. For example, the Safety of Biodiversity, Bio-piracy issues, Intellectual Property Rights and the Protection of Traditional Knowledge/ Indigenous Knowledge.

Without any information and knowledge on the intension of International Bio commercial business, Mung Loi, Mazupa Edin, Bumwa, Chyahkai, Mung hka, Kadaw, and Lamai Bang agreed to lease the land but Ma Htang still resist to the process during the time of research in July 2008.

Indeed, there is tendency that the local people would allow the company to work in the forests in order to make a modern product, however, Ma Htang is concerning on the rights over the resources. Samlut Gam stated in his interview as, "*Now, we can still collect herbal oil from the natural grown Shuyu trees, but in future, when the company access to our forests, all of the natural grown plants will belong to the company and we might not have any rights to collect as before*".

Figure 34: Shuyu plant is becoming commercial purpose cash crop in Gauri communities

*Source: Theera Wanasanpraikhieo, July 2008*

# CHAPTER VI

# CONCLUSION

Major changes have occurred to Community Forest practices such as subsistence production systems, land use, customary law, cultural patterns and lifestyles of people living in, and dependent upon the forest resources of the Forest-dependent communities. These changes have transpired since the pilgrimage of western missionaries followed by the period of the armed conflict between the SPDC and the KIO, and they have continued in the post conflict era of modernization and development. Among the different periods of change, the post conflict era has contributed most significantly to the divergence of political, social and economic aspects of Forest-dependent communities.

According to the community perspective, this investigation has found that the "Mare Namkawn" which is village owns forests as Community Forest. This is a concept that ensures that everyone who is depended on the forest acts to protect the forest from external threats and only uses the Non-Timber Forest Product for their own benefit, not for commercial uses. Traditional forest practices of the Forest-dependent communities have proved that human beings can live harmoniously with nature when they know the value of the forest. There is a mutually beneficial relationship that has been developed between humans and nature which assists human livelihood and contributes to sustainable forest management. This interrelationship was outlined in Chapter III. However, it has been difficult to maintain traditional forest practices in the light of recent pressures resulting from changing political and socio-economic conditions. As far as these changes to traditional forest practices of Forest-dependent communities have been caused by external factors, the Forest-dependent communities themselves have changed in order to adjust to the changes in their political, social and economic situation. This evolving situation has invariably led to new controls on forest management which have jeopardized the livelihoods and security of Forest-dependent communities.

Indeed, the SPDC's ceasefire strategy has been a weakening of the opposition armies. There have been other effects as well. For example, all ceasefire groups engage in logging and some of the most serious deforestation has occurred in ceasefire areas. Many of these groups are aware of the problems related to uncontrolled deforestation, and would rather not be involved in logging, but they rely on this source of revenue to maintain their armed resistance. Therefore, this situation poses an obvious dilemma. In many cases, a lack of business expertise, a lack of political stability, a lack of environmental knowledge, coupled with economic pressure on both government and local communities have led to over-exploitation of forest resources and sidetracked the sound ecological practices of the past.

Samlut Gam said, "*If the ceasefire agreement were broken and war erupted again, we (villagers) have to escape to China or deep inside Burma because we don't have any dense forests in which we could take refuge as before.*"

This statement goes a long way to highlighting the core of the problems faced by the local villagers. Political stability is a significant and constant concern for people in Kachin State especially the forest dwellers. While the forests once gave them refuge in the past, these protective areas no longer exist to give any guarantee of safety and security. Unfortunately, the current situation raises many more questions than the current political processes in place can adequately answer. Moreover, it is necessary to question the meaning of political stability. Is it political stability rests on development that is based on policies to address the human and environmental condition? Or is it based on exchanging natural resources to achieve rapid economic growth at any cost? If this is the current situation, then what is the path forward? How to address the costs of this type of development in terms of increasing social problems and environment degradation? Where is the evidence of political dialogue to this end?

Similarly to many policy makers around the world, the KIO is enthusiastic to promote mainstream development - especially infrastructure construction and market-oriented production - based on the assumption that this trajectory can improve the socio-economic condition of the people. Indeed, the mainstream development approach has lead to negative consequences for grass-roots communities especially

the Forest-dependent Communities. Their traditional livelihood and culture, based on coexistence with nature, has been estranged once they started along the mainstream development trajectory.

This raises important questions regarding the sort of development desired by Forest-dependent Communities in Kachin state:

- Do villagers from Ma Htang outright reject social development and economic growth schemes provided under the current development plans?
- Do they prefer isolation?
- Is their situation a complex vicious circle from which it has become increasingly difficult to find a sustainable way forward?

There is no evidence to support the statement that the villagers are outright rejecting "development." They themselves recognize the importance of development opportunities to sustain their livelihoods in the post conflict era. However, the Forest-dependent Community villagers desire development opportunities that are in their interests and that suit their needs. At present, the development opportunities desired by Forest-dependent Communities are significantly different from the development path that the state has put in place. This brings us back to the original question raised at the outset of this thesis: it is development by whom, for whom and at what costs?

The contribution of this research has been to clarify our understanding that neither the residents of Forest-dependent Communities nor the forests are benefitting from the current development schemes in Kachin state. Villagers expected that in 2008 loggers would encroach on their Community Forest due to the claim by middleman of the logging business that three bridges between Mong Kha and Ma Htang needed to be repaired for better transportation. This means that the loggers will repair the bridges and cut down trees inside the village Community Forest as compensation. However, villagers disagree with the precieved need to repair the bridges, if it is being done only to facilitate the exploitation of forest resources from their community forest. Samlut Gam said "*We understand that there should be repairs done on the bridge for better transportation. But the repairs are not a*

*necessity right now because we can still use it. If there is real necessity, we better find alternatives.*" It is clear that Forest-dependent community villagers reject "development" schemes which in fact are simply meant to facilitate and expand commercial resource extraction activities.

The above example shows that the villagers do not have any objection to development plans in principle, however, they demand input into the decision-making processes regarding the development path for their communities. Villagers must be allowed to solve their problems by their own initiative, based on their traditional livelihood and culture. Villagers cannot accept development programs that do not take into consideration the needs of the community. Many development programs are done in the name of development, but are not based on actual needs at the village-level. Whether a specific development program creates unity or disunity among villagers needs to be evaluated before the decision to implement the development program is made.

This thesis has shown that local NGOs are a key 'change agent' which play a vital role in supporting community development through empowering villagers. Onyx & Benton (1995) have mentioned empowerment as "the process whereby decisions are made by people who have to bear the consequences of those decisions". This implies that it is not the *achievement* of goals, as much as the *process* of how a decision is taken that is important to ensuring success in implementing development. It is important to empower the Forest-dependent communities in order to help individuals within the society to improve the quality of their own lives and share equitably in the benefits of economic growth. Growth that depends on constant infusions of grants or subsidized financing from government or other donors is inherently unsustainable. Helping people unleash their creative and productive energies to achieve sustainable growth and continuous improvement in their living standards should be the ultimate goal of development.

It is true that development assistance programs are an opportunity for the village to improve the livelihoods of villagers. However, villagers need to fully examine the consequences of how a given project will impact the community.

Transparency and accountability for the villagers is an important aspect of development programs. Referring to development programs, La Zing Tang, an elder of Ma Htang said, "*For me, Development means that I can have something enough when I need and what I want.*" The concept is relevant to the philosophy of His Majesty King Bhumibol Adulyadej who gave speech on 4 December 1997 stating that "*Being a tiger is not important. The important thing for us is to have a sufficiency economy. A sufficiency economy means to have enough to support ourselves* (UNDP, 2007: p. 20)."

Finally, increasing the production of goods without addressing the sustainability of the resources on which production is based will sooner or later run into declining productivity, which could also have an adverse impact on poverty. This research has shown that an effective strategy for tackling the problems of poverty followed by the disempowerment of community, development and environment simultaneously should begin by focusing on resources, production and people. It should cover demographic issues, enhanced health care and education, the rights of women, the role of youth and of indigenous people and local communities and a democratic participation process in association with improved governance. Lastly, Community Forest cannot be truly implemented when resources are commercially exploited without addressing the local culture, wisdom and knowledge regarding forest management.

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REFERENCES


Agenda 21 (1992). Program of Action for Sustainable Development. New York: United Nations Department of Public Information.

Alternative Agriculture Network. (1999). The long way from the policy to practical, the paper for the seminar on "The strategies to develop Sustainable Agriculture". NESDB, September 1999.

Asia Development Bank, (2003). Energy 2000: Review of the Energy Policy of the Asia Development Bank. Philippine: Asian Development Bank

Aungli, Local businessman, Laiza. Interview, 20th April, 2005.

Aung Myo Min, Tea shop owner, Mai Ja Yang. Interview, 14th July, 2008.

Bawknaw, L. (2006). Biodiversity, Culture, Indigenous Knowledge Nature & Wildlife Conservation Programs in Kachin State, Myanmar. Yangon: U Tha Tun Oo.

Breng Seng, Agriculture department officer, Laiza. Interview, 16th July, 2008.

C. C. Hkawn Nan, Health worker of Local Health Programme, Ja Reng Yang. Interview, 9th July, 2008.

Correa, M. ( 2001). Traditional Knowledge and Intellectual Property. Geneva: Quaker United Nations Office.

Food and Agriculture Organization of the United Nations (FAO), (1978). Forestry for Local Community Development. FAO Forestry paper No. 7. Rome: FAO.

Gilmour, D.A. & Fisher, R.J. (1997). Evolution in Community Forestry: Contesting Forest Resources, in Michael Victor, Chris Lang, and Jeffrey Bornemeier, Community Forestry at a Crossroads: Reflection and Future Directions in the Development of community Forestry. Bangkok. RECOFTC.

Ganjanapan, A. ( 2007). Local Control of Land and Forest: Cultural Dimensions of Resource Management in Northern Thailand. Chiang Mai: Regional Center for Social Science and Sustainable Development.

Global Witness, ( 2003). A Conflict of Interests: The Uncertain Future of Burma's forests. London. Global Witness.

Global Witness, (2005). A Choice for China: Ending the destruction of Burma's northern frontier forests. Washington DC. Global Witness.

Good News Bible, (1976). The Bible in Today's English Version. New York: American Bible Society.

Gun Htang Lum, Deputy village headman, Mai Ja Yang. Interview, 11th July, 2008.

Hkaw Lwi, Project Coordinator of Kachin Environment Project, Mai Ja Yang. Interview, 25th July, 2008.

Hpungga Ja Li, Kachin Historian, Laiza. Interview, 16th May, 2006.

Htain Nan, Rice farmer, Myitkyina. Interview, 14th May, 2006.

Kaw Bu, Field worker of Kachin Environment Project, Mai Ja Yang. Interview, 26th July, 2008.

Kramer, T. (2005). Trouble in the Triangle. Chiang Mai. Silkworm Books.

Laha Hkawnglum, Herbalist, Myitkyina. Interview, 14th May, 2006.

La Lum, Assistant project Coordinator of Kachin Environment Project, Mai Ja Yang. Interview, 25th July, 2008.

La Zing Nawngbawk, Villager, Ma Htang village. Interview, 20th July, 2008.

La Zing Tang, Village elder, Ma Htang village. Interview, 20th July, 2008.

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Leach, E.R. (1965). Political System of Highland Burma. Boston: Beacon Press

Lintner, B. (1997). The Kachin: Lords of Burma's northern frontier. Teak House Publication.

Maily Awng, Field Coordinator of Kachin Women Association-Thailand based, Mai Ja Yang village. Interview, 10th July, 2008.

Maran Tu, Former Village secretary, Mai Ja Yang village. Interview, 10th July, 2008.

Marip Gam Hpang, Sugar cane cultivator, Mai Ja Yang. Interview, 11th July, 2008.

Mya Than, (October, 2005). Myanmar's Cross-border Economic Relations and Cooperation with the People's Republic of China and Thailand in the Greater Mekong Subregion. Journal of GMS Development Studies, Vol.2, No.1. Manila. Asian Development Bank.

Myo Lat, Church based community development worker, Bumwa village. Interview, 24th July, 2008.

Nangbawk, Non-Timber Forest Product collector, Prang Ngawn village. Interview, 9th July, 2008.

Onyx, J. &Benton, P. (1995). Empowerment and Ageing: Toward Honsured Places for Crones and Sages. Community Empowerment: a reader in participation and development, (p. 229), Graig, G. & Mayo, M. (Eds). London: Zed Books.

Oxaal, Z. & Baden, S. (1997). Gender and Empowerment: Definitions, Approaches and Implications for Policy. Brighton: Institute of Development Studies, University of Sussex. BRIDGE (development-gender) Report No. 40.

Peluso, N. (1990). State Forest Management in Java, (pp. 27-53), Poffenberger, M. Keepers of the Forest. Hartford, Kumarian Press.

Poffenberger, M. (ed.) (1997). Communities and Forest Management in Southeast Asia. Geneva. IUCN.

Samlut Gam, Village elder, Ma Htang village. Interview, 20th July, 2008.

Santasombat, Y. (2003). Biodiversity: Local Knowledge and Sustainable Development. Chiang Mai. Regional Center for Social Science and Sustainable Development.

Sen, A. (1999). Development as Freedom. New York: Alfred A. Knopf, INC.

Singh, N. & Titi, V. (Eds) (1995). Empowerment: Towards Sustainable Development. Winnipeg, Manitoba: ZED Books.

Taylor, J. (1998). Community Forests, Local Perspectives and the Environmental Politics of Land Use in Northeast Thailand. Land conflicts in Southeast Asia, Indigenous People, Environment and International law, (pp. 20-55), Magallanes, C., I. & Hollick, M. (Eds). Bangkok: White Lotus Press.

United Nations, United Nations Development Programme (UNDP), (1993). Human Development Report. Oxford University Press: UNDP.

United Nations, United Nations Development Programme (UNDP), (2007). Thailand Human Development Report 2007. Sufficiency Economy and Human Development. Bangkok: UNDP.

Welford, Richard (1995). Environmental strategy and sustainable development: the corporate challenge for the 21st century. London. Routledge.

Wood, H., McDaniel, M., & Warner, K. (eds.) (1995). Community Development and Conservation of Forest Biodiversity through Community Forestry. Bangkok. Regional Community Forestry Training center.

Zahkung Zungbawn, Herbalist, Myitkyina. Interview, 14th May, 2006.

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# APPENDICES

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# Appendix A

## A NOTE ON TERMINOLGY

In 1989 the military government changed the official international name of the country from "Burma" to "Myanmar". It also changed the international (English) names of some ethnic groups and geographical entities, including cities and rivers, to remove any legacy from the colonial past or because it felt the new names better reflected the Burmese pronunciation. "Karen" thus became "Kayin", "Rangoon" became "Yangon", and "Irrawaddy" became "Ayeyarwady". Opposition groups have rejected these changes, and the new usage has become the subject of a heated political debate. However, there is not intended to make any political statement and not to make the reader confusion, "Burma" will be used throughout this paper including the pre 1989 names of ethnic groups, places and rivers.

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# Appendix B

## GLOSSARY OF TERMS

| | |
|---|---|
| Agroforestry | Interplanting of farm crops and trees. |
| Biodiversity | Richness of plant and animal species and in ecosystem complexity. |
| Biomass | Amount of living matter in a defined area. |
| Bum | Jinghpaw for mountain, used in highland place names |
| Catchment | A river basin, sometimes referring only to its upper part. |
| Closed canopy | Canopy which is effectively complete, rather than consisting of scattered trees; in practice, canopy cover 40% or more. |
| Dipterocarp | Member of the Dipterocarpacae, a family of old-world tropical trees valuable for timber and resin. |
| Duwa | Tribal Kachin Chief, later used to address military officer |
| Ecosystem | A natural unit consisting of organisms and their environment. |
| Endemic | Native or confined to a particular area. |
| Fauna | Wildlife in a particular area of time. |
| Forest-dependent people | Rural people who use forests for domestic purposes and as an integral part of their farming system. |
| Flora | Wild plant life in a particular area or time. |
| Gauri | A Jinghpaw sub-tribe living in the hills around Bhamo |
| jaiwa | Senior animist priest and story teller |
| Jinghpaw | The main Kachin tribe; called Jinpo in China and Singpho in India |
| Kachin | Word of uncertain origin which does not exist in any local dialet |

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| | |
|---|---|
| Monoculture | Cultivation of a single crop. |
| NTFP | Non Timber Forest Product. |
| Old-growth forest | See PRISTINE FOREST. |
| Outsiders | A term used by communities to describe people that are not part of their geographical or cultural group. |
| Primary forest | See PRISTINE FOREST. |
| Pristine forest | Forest in a primary, virgin or undisturbed state. |
| Production forest | Forest designated for the production of goods, usually timber. |
| Rain forest | Closed canopy forests in a seasonal climate; may be found in tropical and temperate latitudes. |
| Secondary forest | Forest containing fast-growing trees which flourish after disturbance. |
| Shan | A people who call themselves *tai* or *dai*, and who are closely related to the Thais and the Laotians. They inhabited most of the plain areas of today's Kachin state before the arrival of the Kachins |
| Shifting cultivation | System of agriculture that depends on clearing and burning an area of forest for farming over a temporary period. |
| Silviculture | The cultivation and management of forests and woodland. |
| Slash and burn | See SHIFTING CULTIVATION. |
| Swidden agriculture | Shifting agriculture carried out in the traditional, sustainable way, i.e. with periods of fallow to restore soil fertility. |
| Virgin forest | See PRISTINE FOREST. |

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Appendix C

MAPS

**Map of Burma/ Myanmar**


**Map of Kachin State**


**Research Area**


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# Appendix D

## Time Line

| | |
|---|---|
| 1700 | Ma Htang village was established by seven families lead by La Zing Nali. The house of La Zing Nali was built by Ma Htang (Local name) tree so that the village was called Ma Htang |
| 1837, February | Eugenio Kincaid - the first missionary - arrived in Bhamo |
| 1837-1890 | Active missionaries' worked in Bhamo district |
| 1882, March 19 | First 7 Kachins were baptized at the place called Bumwa which is close to Ma Htang, the research village |
| 1890 | The family of missionary Ola Hansons arrived in Bhamo. Ola Hansons transcribed Jinghpaw dialect into Roman script. As a result of Hanson's transcription many Kachins were then able to read and write, and Kachin texts were used in school throughout northern Burma. |
| 1902 | Roman Catholic missionary arrived at Ma Htang and established primary school |
| 1932 | Mere Namkawn (Community Forest) was announced by villagers from Ma Htang at present place |
| 1942-43 | During WWII Ma Htang village suffered severe damage by aerial bombing as a result of fighting between the British and Japanese |
| 1948 | Burma gets independence from the British |
| 1948-1958 | Burma under Unitary System (Parliament democracy system) |
| 1962 | The military coup lead by General Ne Win formed Burma Socialist Programme Party |
| 1962 | The KIO formed and armed resistance initiated |
| 1966 | Villages from Gauri communities were relocated to Prang Hku Dung village |

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| | |
|---|---|
| 1969 | The Burma military allowed villages to go back due to food shortages at Prung Khu Dung |
| 1970 | The opium cultivation as a cash crop was booming in Kachin state |
| | The KMT was driven by the China Red Army into Kachin territory |
| | The KIO became member of the National Democratic Fronts (Ethnic armed groups of Burma) |
| 1988 | Student uprising and the abolishment of BSPP |
| 1989 | State Law and Order Restoration Council was formed |
| | The NDF together with political parties and the ABSDF formed Democratic Alliance of Burma (DAB) |
| 1989 | General Khin Nyunt (Prime minister of SLORC) established Ceasefire policy |
| 1991 | The KIO officially banned opium cultivation |
| 1992 | Economic cooperation between Burma and China initiated under the GMS programme |
| 1994 | The KIO signed ceasefire agreement with the Burma military regime |
| 1995 | The KIO allocated every Community in its area a plot of forest to use as a village Community Forest |
| 1996-2000 | Large-scale logging operations initiated in Kachin state |
| 2005 | Global Witness launched report on massive deforestation in Kachin state |
| 2005 | Civil society awareness on environment is increasing |

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# BIOGRAPHY

Theera Wanasanpraikhieo an ethnic Karen voluntarily worked as schoolteacher in a remote village school along Thailand and Burma border between 1987 and 1990.

From 1993 to 1996, he organized a people's environmental awareness forum which gave the opportunity for local people for thinking, analyzing, criticizing what is happening to the communities and livelihoods.

In February 1997, he attended to the Community Forestry Certificate course at the RECOFTC, Kasersart University.

Between 1997 and 2001, he worked with SWISSAID (Switzerland) as Field coordinator responsible for monitoring projects, organizing training courses to various ethnic groups in Burma for promoting human rights through integrating community development projects.

In 2002, he worked as Education Coordinator with ZOA Refugee Care Organization (The Netherlands) in refugee camps along Thai Burma border.

Since 2005 until now, he have been working in the field of human rights and environmental issues through doing research, conducting various trainings, producing publications, developing forest policy for people, promoting indigenous knowledge and culture, lobbying the ban on dam construction and networking with different human rights and environmental organizations.

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