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COMMUNITY ENVIRONMENTAL EDUCATION AND THE ROLES OF
INTERNATIONAL AID AGENCIES: A CASE STUDY OF
MAI JA YANG COMMUNITY, KACHIN STATE,
MYANMAR

Ms. Nang Thinn Thinn Tun

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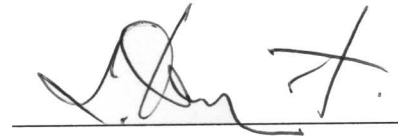
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งานวิจัยฉบับนี้ได้ศึกษาผลกระทบของงานด้านสิ่งแวดล้อมศึกษาระดับชุมชนที่ดำเนินการโดยโครงการด้านสิ่งแวดล้อมของ Pan Kachin Development Society ในพื้นที่ชุมชนมาย จา ยาง รัฐคะฉิ่น ประเทศพม่า งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาบทบาทขององค์กรช่วยเหลือระหว่างประเทศในภูมิภาคหลังความขัดแย้งทางการเมือง มีการใช้กระบวนการมีส่วนร่วมและการประเมินผลลัพธ์ ประกอบกับแบบจำลองเรื่อง การวางแผน-กระบวนการ-ผลิตผล เพื่อวัดผลกระทบของการดำเนินงาน การวัดผลมาจากการเก็บข้อมูลเชิงคุณภาพจากกิจกรรมต่างๆ ในหมู่บ้าน ปราง งวาน และ เซง ไหม่ ป่า ผู้มีส่วนร่วมให้ข้อมูลในการวิจัยที่จำนวน 48 คนที่เป็นตัวแทนของผู้มีส่วนได้ส่วนเสียในระดับต่างๆ ข้อค้นพบในการวิจัยชี้ให้เห็นว่า ผู้ให้ข้อมูลมีความรู้ความเข้าใจในเรื่อง ความตระหนักในการอนุรักษ์ทรัพยากร การระบุปัญหา และการปฏิบัติการจัดการของเสียในชุมชน ด้วยเหตุนี้จึงมีการพัฒนาศักยภาพเจ้าหน้าที่โครงการเพื่อแน่ใจว่ากิจกรรมต่อเนื่องในอนาคตจะตรงตามความต้องการของชุมชน จากหลักฐานที่ได้ในการวิจัย พบว่าองค์กรช่วยเหลือระหว่างประเทศมีบทบาทหลักในภูมิภาคหลังความขัดแย้งทางการเมือง ในการให้ทรัพยากรต่างๆแก่องค์กรพัฒนาเอกชนในพื้นที่ เพื่อนำไปใช้ในการจัดกิจกรรมด้านสิ่งแวดล้อมศึกษา การพัฒนาศักยภาพนักสังคมสงเคราะห์ และแกนนำเยาวชน และเป็นสื่อกลางระหว่างชุมชนกับรัฐบาลท้องถิ่นในการป้องกันความขัดแย้งในอนาคต พร้อมทั้งทำให้เกิดผลลัพธ์ด้านบวกต่อสิ่งแวดล้อมท้องถิ่น และการพัฒนาชุมชน

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NANG THINN THINN TUN: COMMUNITY ENVIRONMENTAL
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CASE STUDY OF MAI JA YANG COMMUNITY, KACHIN STATE,
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This research investigates the impacts of the community environmental education program implemented by the Pan Kachin Development Society Environmental project in Mai Ja Yang, Kachin State, Myanmar. The study aims to ascertain the role of international aid agencies in this post-political conflict region. A participatory approach was employed in field research, and an outcome-based evaluation comprising the planning-process-product model was applied for measuring the impacts of the program. Measurements were derived from the qualitative data collected based on the activities of two key villages, namely: Prang Ngwan and Seng Mai Pa. There were 48 participants in the research representing several key stakeholders. The research findings revealed that the participants obtained more knowledge and understanding in: conservation awareness, problem identification, and community waste management practices. As a result, staff capacity building took place to ensure that further activities corresponded to community needs. Based on the evidence acquired from this research, international aid agencies have a key role in post-conflict regions to provide resources for the local NGO to: facilitate environmental education and activities, conduct capacity building for social workers and youth leaders, and continue mediation between communities and local government to prevent future conflicts while ensuring positive local environmental outcomes and the development of the community.

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ABBREVIATIONS

CBO	Community-based Organization
CEE	Community Environmental Education
ECI	English Language and Computer Science Institute
EE	Environmental Education
EPA	Environmental Protection Agency
FAO	Food and Agriculture Organization
GDP	Gross Domestic Product
GMS	Greater Mekong Sub-region
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
IEP	Intensive English Programme
IUCN	International Union for Conservation of Nature and Natural Resources
MJY	Mai Ja Yang
MJY-BEHS	Mai Ja Yang Basic Education High School
NHEC	National Health and Education Committee
NGO	Non-governmental Organization
KDNG	Kachin Development Network Group
KDDC	Kachin Constitution Drafting Committee
KESAN	Karen Environmental and Social Action Network
KIO	Kachin Independent Organization
KNO	Kachin National Organization
KRDC	Kachin Relief and Development Committee
KWAT	Kachin Women's Association, Thailand
OSI	Open Society Institute
PKC	Pan Kachin College
PKDS	Pan Kachin Development Society
PKDS-EV	Pan Kachin Development Society Environmental Project
SLORC	State Law and Order Restoration Council
SPDC	State Peace and Development Council

TTS	Teacher Training School
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Program
UNEP	United Nations Environmental Program
UNESCO	United Nation Educational, Social and Cultural Organization
WRI	World Resource Institute

CHAPTER I

INTRODUCTION

This research examines the effectiveness of the Community Environmental Education (CEE) program recently implemented by the 'Pan Kachin Development Society-Environmental Project' (PKDS-EV) in Mai Ja Yang (MJY), Kachin State, Myanmar.

The main goal of the PKDS-EV is to develop conservation programs that focus on forest areas. Specifically, the goal is to 'conserve the remaining forests and to recover degraded forests in the Kachin area' (PKDS-EV). The activities of the project focused on: community-based natural resource management; environmental awareness and campaign; a variety of communication and information dissemination. Within those, the environmental awareness and campaign program is managed by project education team. There were critical questions on the reasons behind the recent application of environmental campaign as education to MJY community and the potential of the program. This research thus examined the community environmental education (CEE) program during the initial stage of 2008 project phase based on the two key CEE activities that were implemented during this phase.

In addition, the role of international aid agencies in tackling environmental problems, particularly in post political conflict areas, was studied. Input from external agents towards local agents was vital, as they had to tackle many problems with insufficient resources. However, there were challenges for both agents due to various restrictions working in post conflict areas of Myanmar. The strategies and programs of PKDS-EV project and its implication were studied in order to reflect the role of international aid agencies.

1.1 Background of the Study

Environmental education has been a key endeavor to manage environmental concerns while continuing to achieve development. The reason is that development in mainstreaming scheme has mostly been measured by progress in economics, technology, productivity and infrastructure. Improvement in human livelihood was also considered as a development beneficiary. To achieve that development, activities were growing with competitive-free market system and open trade in global cooperation. It cannot be denied that efficiency of technological progress, economic growth by natural resource exploitation, and growing population have put pressure on the capacity of the environment. As results, directly and indirectly environmental degradation has happened such as pollution, deforestation, land degradation, natural disasters and scarcity of biodiversity. The time that environment is in crisis, concept of environment as a resource for livelihood security has been no longer valid. Environmental education, in this stage, has been significantly acknowledged as a key learning process to bring a shift to balance between development and environmental sustainability of the world's community.

This study was focused on the environmental education program for communities in post conflict areaa that is currently implemented in one border place in Kachin State, Northern Myanmar. This environmental education program is one of the project efforts by the Pan Kachin Development Society Environmental Project (PKDS-EV). The PKDS-EV project was initiated in 2002 following rapid environmental degradations within Kachin State due to natural resource exploitation activities both in legal and illegal ways.

Geographically, Myanmar is the largest country in Southeast Asia and it borders Thailand, Lao, China, India and Bangladesh. It is natural resource-rich and agriculture is the main livelihood activity of the majority of Myanmar people. According to statistics provided by FAO, in year 2002-2003, the agriculture sector contributed 44% of the country's GDP; and the statics for populations working in the agriculture sector was updated in 2008 as 75% of the country's population. Besides agriculture products, forests also play an important role in the country's economy

since colonial times, particularly in timber exporting. Thus, forest products have been the important trading goods of Myanmar. The country's forest type is ranging from sub-alpine forests in the north to semi-deciduous broadleaf rainforest in the south (Global Witness, 2005: 14).



Figure (1.1) Map of Myanmar

Furthermore, Myanmar is one of the most ethnically diverse countries. This diversity in ethnicity plays a major role in the country's history, politics, and demographics. Significantly, over half of the country's territory is covered by seven ethnic minority States.¹ Amongst the seven States in Myanmar, Kachin State is the second largest and famous for its diverse biological hotspots, subtropical moist forests, sacred herbal plants, gold, jade and minerals. The Irrawaddy, the country's biggest river, is confluence in Kachin State by the combination of two rivers, Mai Kha and Ma Li Kha. The Irrawaddy is recognized as a major vein of the country because it

¹ Seven ethnic States in Myanmar are Kachin State, Kayah State, Karen State, Chin State, Mon State, Rakhine State, Shan State.

flows through the whole country, beginning from the North, Kachin State to the South, the Indian Ocean. The majority of people along the Irrawaddy river basin depend on the Irrawaddy for transportation, cultivation and fishing. Hence, in geographical and environmental perspectives, Kachin State is an important resource area for the livelihood of people living in the Kachin area as well as in Myanmar.

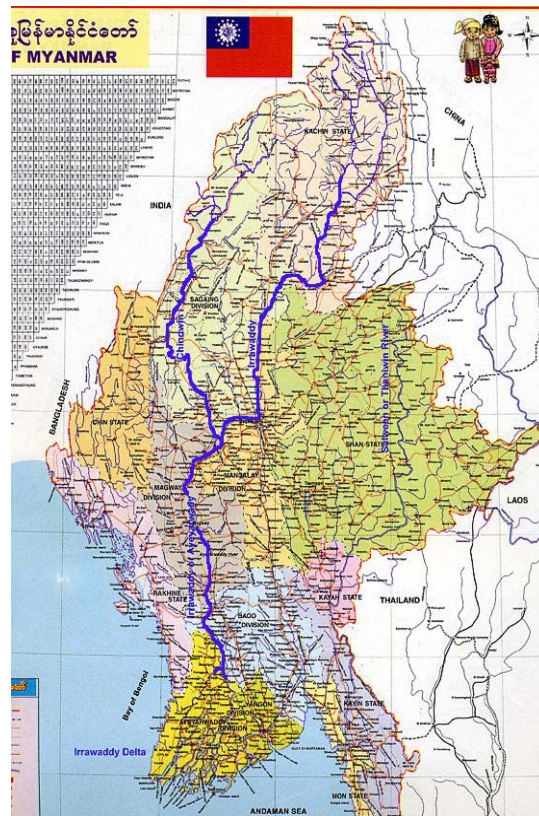


Figure (1.2) Irrawaddy River that flowing through the country (highlight with blue)

Recently, environmental conditions in Myanmar including Kachin State are in crisis. Deforestation has gradually increased due to over exploitation of natural resources. According to the FAO country report, forest covering area which had 293,269 square kilometers in 1989 were degraded at the rate of 0.64% in 1990 due to shifting cultivation, illicit cutting and encroachment for agriculture purposes. Between 2000 and 2005, the annual deforestation rate was increased to 1.19%.² In Kachin

² Country deforestation statistics according to environment science and conservation news site MONGABAY. Retrieved from <http://rainforests.mongabay.com/deforestation/2000/Myanmar.htm>

State, according to various research reports³, environmental degradation such as deforestation, loss of biodiversity, changing river system and unusual flood, soil erosion, and pollution are widespread in Kachin State. Reports revealed critical impacts of the environmental crisis at the local and national levels, resulting from environmental destruction activities such as intensive logging and mining.

The environmental crisis in Kachin State is associated with changes in the political situation between Myanmar military government and the Kachin Independent Organization, KIO. KIO is a Kachin ethnic armed group which was found in northern Shan State in 1961. KIO initiated armed resistance against inequality and discrimination, including the government's attempt to make Buddhism the state religion (Zaw Oo and Win Min, 2007; 6). The majority of Kachin people are Christian. KIO operated armed forces in several areas within Northern Myanmar including Bahmaw area where Mai Ja Yang is situated. Armed struggling has been longed over four decades; however, political solution had had no sign. There were periodical conditions which leading KIO to take ceasefire.⁴ In February 1994, the Kachin Independent Organization (KIO) signed a ceasefire agreement with the Myanmar military government, State Peace and Development Council (SPDC⁵) (Zaw Oo and Win Min, 2007:20). Since then, various economic activities such as logging, gold and jade mining and hydropower projects have grown within Kachin State

³ There have been several reports about environmental degradation in Kachin State. Some those referred in this study are "Destruction and degradation of Burmese frontier forests" reported by Pan Kachin Development Society, and Karen Environmental and Social Action Network (2004); "At what price: gold mining in Kachin State, Burma" reported by Image Asia and Pan Kachin Development Society (2004); "A Choice for China: Ending the Destruction of Burma's northern frontier forests" reported by Global Witness (2005); "Identifying Conservation Issue in Kachin State" by Tint Lwin Thaug (2007); "Valley of Darkness: Gold mining and Militarizing in Burma's Hugawng Valley" & "Damming the Irrawaddy" which were reported by Kachin Development Networking Group (2007).

⁴ There were several factors that made it happen to take ceasefire by KIO. In 1968, KIO engaged with Communist Party of Burma (CPB) which was located along the China-Myanmar border. After 1985, Chinese Communist Party withdrew supports to CPB. In 1988, military government seized power after cracking down the pro-democracy movement and many activists and students fled to border areas that ethnic armed groups were active. In the same year, China-Myanmar Border trade agreement was signed. With lost in supports from Chinese backing, CPB collapsed in 1989. Pressures were increased towards ethnic armed groups such as increasing armed force by SPDC and harder living of local population. On the other hand, ethnic armed groups were persuaded to do peace negotiation by giving incentives in access to development projects both national and international, trade, and controlling power to particular area. In 1990, Kokang army joined with SPDC and fight against KIO. In addition, in 1992 January, over 1000 troops of KIO split from the KIO took ceasefire and renamed as KDA, Kachin Defense Army (Kivimaki (2007); Kahrl (2004); Kudo (2008); Zaw Oo and Win Min (2007)).

⁵ SPDC – State Peace and Development Council was previously named as SLORC – the State Law and Order Restoration Council.

including at the border area with China under the title of income generation for development projects.

Actually, logging activity in Kachin State is not new. Before the ceasefire, logging activities in Kachin State had been practiced but no huge activity could be done because of political instability. On the other hand, deep forests were important places for armed operation and hiding. For the income generation, KIO controlled Phakant, which was major jade land. However, in agreeing to the ceasefire, KIO lost control over that jade land. In turn, KIO got opportunities to control two border areas: Laiza and Mai Ja Yang, and to participate in logging activity as income generation for the regional development activity. Along the border with China, logging activities were processed by migrant workers and Chinese companies operating along Yunnan's border with Kachin State (Kahrl, et al, 2004). Logging activities in the Kachin State including border area were processed in both legal and illegal way. According to the Global Witness 2005 report, in 2003-04, two thirds of the timbers compared to the legal quantity were exported to China illegally. In fact, loggings including other natural resource extraction activities were speeded up due to political stability. Geographical situation as border with China as main economic partner of Myanmar is another background factor. As results, environmental degradation such as deforestation occurred rapidly inside Kachin State, and along the border areas with China where the lack of forest monitoring has been excluded.

Development achieved by local communities is questionable even if development and peace-talks were designed for improvement of local communities' livelihood and regional development. In terms of ceasefire benefits, the Kachin community could have stable living conditions, more access to education and opportunities to participate in economic activities. However, profits from rapid economic growth were gained mostly by companies owned by Chinese and peace-groups (ceasefire groups), and the military government. While development for communities was uneven, communities get more suffering from environmental degradation and impacts of development activities. For example, due to gold mining activity in Hugawng valley in Kachin State, changes in the river system caused

unusual floods and people downstream were killed.⁶ Forests were also depleted and the community suffered health impacts from chemicals used in mining activity. There were also a number of critical research reports that stated concern situation of Kachin environment and various forms of impacts to both people in Kachin area and river dependent people.

When environmental degradations increased, in 2002, Pan Kachin Society environmental project, PKDS-EV was initiated. The project is mainly working in Mai Ja Yang, post conflict, border area. In the 2005-2007 project periods, project teams worked on three main areas: community-based natural resource management, environmental awareness and campaigns, and communication and information. In Oxfam Novib's 2008-2010 funding period, environmental campaign as environmental education program focusing on the community was integrated as a new approach of the project's education program.

According to project proposal, the goal of the education program in PKDS-EV is to empower community towards participation in sustainable natural resource management and in development activities that integrated with conservation (PKDS-EV Project document). The program would be one supportive activity to meet the goal of the whole project, 'to conserve the remaining forests and to recover degraded forests through people's participation.' For that reason, empowering the local community to protect their environment and for problem solving is a fundamental concept of the project. Education as a process of empowering the community is thus designed in the form - to learn from, to exchange and to communicate with community. Detailed information on project's activity would be discussed in Chapter IV.

For the purpose of environmental education, the important concept to recognize is that education enables the community to solve environmental problems themselves. Education for enhancing community capacity is important for the people in post conflict areas. It is because, there have been several complexities due to

⁶ "Valley of Darkness: Gold mining and Militarization in Burma's Hugaung Valley," A report by the Kachin Development Networking Group (2007).

uncertain political condition within the post conflict area and war-torn communities are in weak nature. In these circumstances, PKDS-EV as a local NGO, proposed activities to fill the gap by providing community education. It is to help community manage their environmental concerns via empowerment; the fact that both local and national governments have rarely considered as important. Thus, the study was determined to examine how these learning or CEE activities provided by PKDS-EV can help effectively to the war-torn community in the initial stage.

If the program can be examined from its inception and recommendations can be formulated, there should be three principle benefits: (1) to improve the program to meet the needs of the community;(2) to improve the capacity of the project's staff to manage the program efficiently; and (3) to meet the needs of donor agencies in better spending aid funding by generating effective outcomes at the end of the funding period. Essentially, these three points should enhance the sustainability of the project working in once of Myanmar's post conflict areas. To this end, the study will be useful for other environmental projects which provide environmental education at the community level, particularly in Myanmar.

1.2 Statement of Problems

Rapid environmental destruction has threatened war-torn MJY communities to live with difficulties. Kachin communities are traditionally forest dependent communities. They depend on the forests for multiple purposes: land for cultivation, firewood for cooking, herbal plants for health, vegetables for food or to sell for additional income. Precisely, forests have been important resources for livelihood of MJY community who has limited plane areas due to geographical condition. Thus, rapid depletion of forests and inaccessibility to forests for common goods cause economic hardship and miss management to available resources.

1.3 Research Questions

This research answers two key questions:

- (1) What are the impacts of community environmental education implemented in the area of post political conflict?
- (2) What is the role of international aid agencies in providing community environmental education to meet the necessary situation of local environmental concern?

1.4 Research Objectives

To answer the research questions, the objectives are identified as follows:

- (1) To identify the impact of community environmental education implemented in the area of post political conflict.
- (2) To understand the role of international aid agencies in helping local communities tackle their own problems in the area of post political conflict.

1.5 Hypothesis

Community environmental education might assist in the prevention of local environmental problems in a post-conflict area and the role of aid is important in environmental matters of post-conflict area, but with certain conditions.

1.6 Conceptual Framework

Balancing development on conserving the environment highlights the advancement in preventing harmful environmental situations. It is because environment is the main resource which contributes goods and services not only for human being, but also to all living existing in it. Thus, if carrying capacity of the environment was insufficient, there would have lack of secure and better livelihood. In addition, as mentioned in sections (1.1), when carrying capacity of the environment was destructed in terms of constructing development, not only development as a

change for better livelihood was hardly to get. All the livings in the environment have also faced several concerns. In order to get secure livelihoods including development of no destructive growth; necessary approach has been placed to control matters and factors which destructed environmental capacity. This approach includes putting in policies to ensure development patterns in sustaining carrying capacity of environment and in preventing from harmful practices by every participant in local to global society. It is to provide a better quality of life for citizens and taken as a vital function at the policy making level. Another effort is empowering communities in managing environment sustainably through understanding, awareness, skills, effective participation and responsible action.

The conceptual framework used for this study, therefore, is mainly focused on the factors and actors which influence to environmental problems and environmental solutions in the Kachin post-conflict area. Factors including in environmental concerns in the Kachin post-conflict area are lack of specific environmental policy, market oriented development policy, less awareness and participation of community in natural resource management. Towards environmental solution in MJY area, PKDS-EV as local NGO plays an important role. PKDS-EV stands in central to focus to the local government (KIO) and to the community. The extent of action towards environmental solution may depend on the strategies and efficiency of PKDS-EV dealing with political restricted government and war-torn community which has weak capacity in nature. Additionally, efficiency of PKDS-EV may rely on the external forces that would support for required intellectual and financial resources. Therefore, this study focused on three critical aspects: efficiency of CEE program; strategies applied by PKDS-EV project and role of external aid agencies towards solving environmental concerns in the Kachin post conflict area.

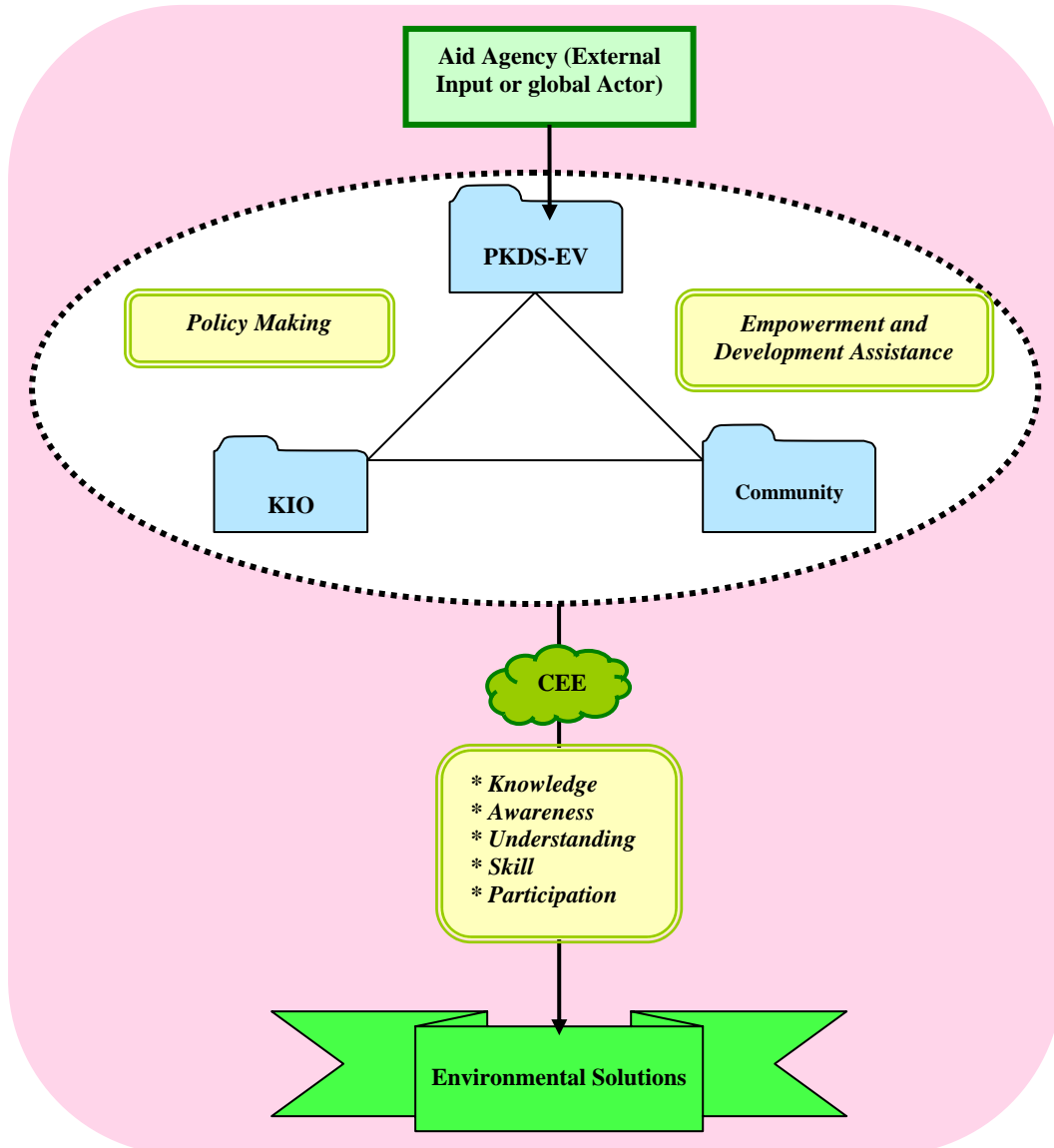


Figure (1.3) Research Conceptual Framework

1.7 Research Methodology

By employing a participatory approach, this thesis evaluates the effectiveness of the current CEE program implemented by PKDS-EV project in its initial stage. This evaluation concentrated on three points. First, how the community was enabled to solve their environmental concerns through the CEE program and what the efficiency of the program is. The researcher focused on CEE activities that implemented in two villages: Prang Ngawn and Seng Mai Pa. Second, how PKDS-EV project was able to deal with the restricted situation in post-conflict area. Finally, how

external input such as aid from international agencies can and should take a role for the community and environmental matters in a post-conflict area.

Due to the fact that the study is focusing on the effectiveness of the CEE program implemented by the PKDS-EV project, an outcome-based evaluation with the planning-process-product evaluation model was applied. The term evaluation represents the notion of judging merit through systematic assessment of the operation and/or outcomes (Thomson, G. et al, 2004). Jacobson, K. S. (1991) describes that “evaluation provides accountability in demonstrating a program’s worth – to funding sources, the community, and other groups. Therefore, doing evaluation research is an appropriate way to measure effectiveness of CEE program. That is, as Michela Mayer (2002) noted that the necessary step was thus an evaluation of the initiative – to help it grow and develop.

The study included two types of data collection: literature research and field data collection. The literature research included both printed and electronic sources such as books, journals, research papers, working papers, discussions, and reports. Literature research focused on environmental education, information on geopolitical and environmental situation of the Kachin State and the KIO-controlled area, types of actors and their role in global environmental cases.

Data collections in the field for this research were done in July and August 2008. The techniques included incorporated observation, focus group discussion, open-ended interviews, participation and collecting secondary data. Observation technique provides understanding of the context of which people live through observing behavior (Sullivan, 2001: 325). All participants were provided an explanation of the research purpose of the study. They were regional administrative samples, lecture of TTS, village leaders; environmental education conductor, project teams and nurse. Respondents provided personal experiences, opinions, and perceptions related to CEE activities and impacts of rapid changing of the regional situation. Those primary data were recorded. Further expended activities brought after initial two activities were collected via phone interviewing to the project. Outcomes of the program were justified by data from observation and interviewing.

Questionnaires were given to coordinators of local NGOs/CBOs. Data such as input level from the aid agencies and local government, aid assisting process and collaborative organizations were collected. Information related to aid support to Myanmar were collected from two aid agencies working on Myanmar issue. Data collected were supporting issues, pattern, minimum achievement contrast to expectation, and perceptions towards strength of local NGOs/CBOs.

Qualitative data were generated from interviews, observations and document. Data were categorized in the theme from the response. Responses included factors that concern environmental problems and changes of the environmental resource management system; design and process of CEE program, indicators of effectiveness and success such as awareness, knowledge, skills and participation; changes in organization and relationship with aid organization.

1.8 Significance of Research

This research will contribute to the improvement of community environmental education programs for Myanmar. The expected benefits are:

- 1) Analysis of potential factors improving the capacity of community as well as the possibilities towards solving environmental problems themselves; the study can be useful to improve the CEE program, in particular, for post conflict areas in Myanmar.
- 2) Furthermore, the result can be useful for the future design of CEE program in Myanmar based on the situation of local government, civil society and the local community.
- 3) Analysis on the roles of international aid agencies can contribute to the possible access of aid agencies and aid works to be effective in the context of post political conflict area and Myanmar.

1.9 Limitations of the Study

There were three major limitations in this study. Firstly, the effectiveness of education programs are often evaluated based on three criteria: outputs, outcomes

and impacts. This study also intended to investigate the impacts of the program. However, impacts' measurement, in reality, requires longer time assessment. Since the research focused program is in its initial stage, it could not be reliable to investigate the program's impact. In addition, due to time constraints in conducting field research, change within the community could not be fully assessed. Therefore, impacts of the program were measured in terms of immediate impacts such as achievements and changes by communities as well as project. Secondly, the current donor agency could not be accessed to get agency's perception in supporting PKDS-EV and perspectives on aid support to Myanmar. In this case, some information related to PKDS-EV's funding agency was accessed via a director of PKDS-EV's umbrella organization. Thirdly, with consideration to the security of the community, name of the person and organization could not be acknowledged. Another minor limitation was the language barrier. It was sometimes difficult to get appropriate answers in most discussions and interviews. That caused shortage of information in evaluation.

CHAPTER II

LITERATURE REVIEW

2.1 Introduction

This chapter is a review of literature regarding to indicate knowledge, ideas and concepts which related to this study or which this study was grounded upon. Further analysis justifies the ideas, key concepts, and processes of which have been done by some academics and organizations. It starts with a brief overview of environmental education and global framework of action for environmental education. Characteristics of community-based education are followed by the next section. At the third section, major actors in environmental arena and their roles towards solving environmental concerns are examined.

2.2 Environmental Education

The history of environmental education (EE) has been evolving over three decades. The first landmark of environmental education in the international constitution was the United Nations Conference of the Human Environment held in Stockholm, Sweden in 1972. In this conference, the need for EE was emphasized to protect and improve human environment. In addition, recommendations of the conference called for an imperative goal to pursue together in harmony with the acceptance of responsibilities by all citizens, communities, enterprises and institutions at every level.

Stockholm conference was the first terminal that made features and roles of environmental education grow up gradually. According to this conference, concern over environment and global interest to environmental education were mounted. As result, in 1975, United Nations Environment Programme (UNEP) was established. UNESCO also formed UNESCO/UNEP international environmental education programme (Palmer, 1998). From that UNESCO and UNEP organized important workshops and conferences such Belgrade first international workshop on EE in 1975 and Tbilisi first Inter-governmental Conference on Environmental Education. Global

framework of environmental education was developed from those two events and recommended UNESCO Member States to individually adopt national policies to promote EE both in formal and non-formal education system. In 1987, UNESCO and UNEP sponsored an International Congress in Moscow, USSR to determine an international strategy for action in EE and training for the 1990s. With effort to develop and implement environmental education worldwide, the “World Decade of Environmental Education” was intensified from 1990 to 2000.

The integrated framework of EE responsible for both development and environment was emerged in 1992, in the United Nations Conference on Environment and Development (UNCED). The Conference was held in Rio de Janeiro and recognized as Rio Earth Summit. Rio Declaration documented the global blueprint of action for sustainable development. Parallel with this conference, comprehensive educational framework for development of responsible societies was proposed on Treaty on Environmental Education for Sustainable Societies and Global Responsibility. Some important principles of EE were proposed as:

1. Environmental education, whether formal, non-formal or informal, should be grounded in critical and innovative thinking in any place or time, promoting the transformation and construction of society.
2. Environmental education must involve a holistic approach and thus an interdisciplinary focus on the correlation between human beings, nature and the universe.
3. Environmental education is both individual and collective. It aims to develop local and global citizenship with respect for self-determination and the sovereignty of nations.

2.2.1 Definition of Environmental Education

The definition of EE has been formulated, and adopted by IUCN (International Union for Conservation of Nature and Natural Resources)/UNESCO, since 1970. It was defined as “the process of recognizing values and clarifying concepts in order to

develop skills and attitudes necessary to understand and appreciate the interrelatedness among human, his culture and his biophysical surroundings. Environmental education also entails practice in decision-making and self-formulation of a code of behavior about issues concerning environmental quality.” (ICUN, 1970 cited by Palmer, 1998:7)

In 1977, Tbilisi Declaration redefined EE as “a learning process that increases people’s knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action.” (UNESCO, 1978)

The definition of EE has then been developed by various scholars and activists. Generally, the definition of EE highlights to improve the awareness of mutual relationship between human and environment. Through educative tools, humans are better able to be aware of how to interact with impacts of their actions towards nature and the environment. Therefore, EE can be concluded as a learning process which enhances the knowledge and skill of individual in critical thinking, problem-solving, effective and responsive decision-making skills. To this end, it is individual to collective participation to enable better livelihood.

2.2.2 Key Events of Environmental Education in Global Framework

As aforementioned, the global framework of EE has been based upon Belgrade Charter and Tbilisi Declaration. In this global framework, specific **goals** of EE described in Tbilisi Declaration are as follows:

- To advance clear awareness of ecological interdependent;
- To provide every person with opportunity to acquire knowledge, values, attitudes, commitments, skills to protect and to improve the environment; and
- To create new patterns of behavior of individuals to society as a whole.

In order to reach the goals, **objectives** of EE are to help individuals and social groups acquire awareness, knowledge on basic understanding of environment, its problem and attitude of concern for environment. Furthermore, helping to acquire skills to solve environmental problems and ability to evaluate overall related environmental are inclusive for tackling problem critically. To this end, participation is taken account to develop a sense of responsible citizenship in environmental protection, and towards appropriate action. In short, the perspectives of EE in action plans can be seen that ‘acquiring knowledge’ as the first, ‘developing skill to understand the problem and the way to tackle it’ as the second. The final stage is ‘taking action by participating as responsible citizen as the ultimate action for effective environmental solution.

Toward systematic approach to reaching the goals, the guiding principles of the EE have been stated in the Tbilisi Declaration that Environmental education should:

- be a lifelong learning process;
- be with approach to holistic, interdisciplinary, education rather than as a subject;
- concern the totality of the environment – natural and man-made, social, political, economic, technological, moral, aesthetic and spiritual aspects;
- emphasize active participation in learning process to preventing and solving common environmental problems with different responsibility;
- enhance development of sensitivity, awareness, understanding, critical thinking and problem-solving skill;
- be supported by organization, structure of the learning situation and institution, from local to global dimensions.

2.3 Model of Community-based Education and Definition of Community Environmental Education

According to educational organizations and scholars those focus on community, community-based education has characteristic of learning process in entire community. It is to becoming empowered in solving the problem and a mean to development. A California non-profit organization, Earth System Science described community-based education as people-to-people shared learning. The "teachers" and "learners" are all community members of all ages. This practice is claimed that would motivate people to acquired knowledge, skills and willing to share these with others. The ultimate achievement is the empowerment of learners.

Similarly, United Nations Environmental Protection agencies mentioned the meaning of community-based education that “community-based education means involving and educating a community’s adults and youth to help empower them, as citizens and local officials, to identify and solve community environmental problems. It also means that education results in *actions which stem from the community*” (EPA: 1998).

Wilawon Buahoong (2002) also stated that local community plays important role in knowledge delivery among the youth and elder. Besides the formal education at school, education based on community should take an important role on cascading local knowledge. Practice of cascading knowledge can form a learning process of exchanging experiences and building social relations. Furthermore, the best example of community-based education is part of a broader community development strategy of “building the capacity of people to work collectively in addressing their common interests” (Maser, 1997).

Perhaps, numerous education programs in environmental arena that specific on community apply this community-based environmental education. It is because practices in community-based education work through community collaboration for better solution. Tilburi, et al (eds) (2002) described that community environmental education is concerned with improving community’s ability to participate, to share

vision and knowledge. To this end, it is to make decisions and to take responsibility for actions which affect the local ecology and their daily live. Thus, community environmental education can be defined as:

“Community environmental education is a learning process that helps empower local citizens and officials, to identify and solve the environmental problems by exchanging experiences, knowledge, visions and concerns.”

2.4 Actors in Environmental Problems Solving and their Roles in Taking Action

In general, everybody living in the environment is the responsible actor in environmental arena. Nonetheless, three general groups of actors are found in taking action. They are states actors, non-state actors and general public participants. Among those actors, the state actors play most important role in formation or tackling rules, regulations and policies for economic, trade and development directly or indirectly (Chasek, 2006). Non-state actors include international organizations, non-governmental organizations (NGOs), multinational organizations and recent new actors, community-based organizations (CBOs) (William, 1998). These actors play a role in setting global environmental agenda, initiating and mediating the regime formation, cooperating in projects and programs effecting environment, and shaping the environmental policies of donor agencies which have influential power to environmental regimes and environmental policies through donations to implement programs.

According to Marc William (1998), non-state actors also play an important role in the form of aid regimes in taking action in environmental arena with three key features. First, the role of aid agencies is to assist locality with aid which is perceived as a supplement to private finance. Second, policy framework of aid provision is determined by the donors. In this feature, political conditionality emerged as key principle in the geo-political space in aid provision such as where, whom and whether or not due to interests of donors. Third and lastly, regime governs the place to invest aid. Current emphasis on local participation is stressed in social development. Nonetheless, aid regime is commonly still in the driven position.

Aid assisting systems have seen in different forms. Generally, aid agencies such as NGOs, bilateral and multilateral grant agencies and development banks carry out grants/loans for humanitarian aids and development aids. Development assistance can be provided by both bilateral agreements – providing aid or technical assistance from one country to another – and multilateral effort. Bilateral agencies also provide humanitarian aids based partly on notions of rich nations’ obligation to assist poor. The process of providing aid consists of two ways: donors directly deliver aids to beneficiaries or aid agencies take the function of organizing aid from donor and deliver to recipients (Martin, 2004; PBDD, 2007). Non-state actors, NGOs and CBOs have been added to the recipient community (William, 2008).

In combating global environmental problems, specific roles of aid agencies were stated in the integration process of development. For instance, OECD Development Assistance Committee formulated guidelines for aid agencies in action toward conservation and improvement in forest management. In the process, bilateral donors’ actions were highlighted to co-ordinate multilateral activities. Provisions of appropriate financial and technical assistance addressed to help in sustainable management of forest and degraded lands. Policy and program interventions were guided to develop in a way that local community can participate effectively. In addition, participatory planning process should be accounted in implementation process to incorporate the local knowledge and interests of affected groups. Furthermore, for tropical countries which are weak in human and technical resources, donor agencies were appointed to arrange for financial priorities, plan that strengthening available expertise and field experiences. Actions to remove inadequacy of existing capacity for project preparation and appraisal for short term, and long-term research program were stated as the highest priority of the donor community.

The third actors involve intellectual participants such as academics, environmentalists, ecologists and philosophers, and general public such as workers, teachers, students, private business people, local leaders and community. The role of intellectual actors is to study and propose policies, theories, concepts and to suggest factors related to environmental issues; whereas, the general public involve in the

activities created and implemented by actors from the state, non-state and intellectual actors.

Reasons of considering general public like communities as important participants in tackling environmental concerns have seen in various perspectives. Firstly, resource conservation in terms of quality and quantity requires the actions to change behavior and management capacity on environment. From the geographic perspective, local communities are recognized as the direct users of the resources and local activities affecting the quality of the local environment. Generally, local people have common interest in protecting and improving their community's quality of life (EPA, 1996). All types of communities exist their local folklore concerning with landscape, endangered species, toxic waste and contamination, which are acknowledged as local or traditional ecological knowledge. This kind of knowledge requires support and cooperation in environmental assessment and management (Usher, 2000). In the local initiatives, however, greater awareness on global environmental problems through networking is also remarked necessarily as which the slogan of 'thinking globally and acting locally.'

In educational perspective, while regarding children as 'tomorrow leaders and stewards of the Earth,' adults are also consumers, industrialists, community leaders, educators, policy and decision-makers in all walks of life (Uzzel, 1999). Therefore, educational institutions were guided to help community in changing behavior after raising awareness and improving potentials for environmental management. The inclusiveness of community in education process is hoped to bring about many environmental, educational and social advantages. For instance, children can learn from local existing knowledge about environment with adult community. Because of learner-centeredness of community education, it can affect on traditional education system and community gets opportunity of lifelong learning. Community education system thus can improve the social relations between all participants through sharing visions and knowledge, and collaborating in solution finding (Kilpatrick, 2002). Xue et al (2006) also concluded that community participation and public environmental education are the key factors for better environmental management.

In the critical social-political perspective, local communities should be the right holder of benefit sharing and tackling to environment rather than being accused as major problem makers of the natural resource depletion. In reality, it can not be denied that deforestation and degradation of the environment are the result of large-scale development project, expanding agriculture frontiers, illegal logging and hunting, fuel wood collection and high natural resource demands from rapid population group. In this sense, as Brandon (1995) argued, saving 'biodiversity' and conserving natural environment should not put on the shoulder of the grass-root rural poor. There must address essentially the external influences such as macroeconomic policy, incentives and corruption, which affect the resource uses in rural areas.

Similarly, Clark C. Gibson (1999) suggests political approach that toward fruitful environmental management, the role of community must be improved in decentralization, meaningful participation and shaping decision-making process. Moreover, everyone has the right to express their concerns and interests over common property. Taking account of the important role of community participation in environmental conservation and management reflects the transparency and accountability in public-policy making process.

2.5 Summary

In summary, this chapter provided a literature review of environmental education, community-based education and roles of each actor in the environmental arena. The idea and concept behind solving environmental problems with the community learning process has been presented to enable the community in managing the environment or environmental solutions with advanced knowledge, skills and experience. The potential of the process will depend on how the process managed to deal with the problems existing in the specific area. Different approaches will have to apply according to the distinct types of problems occurring. Similarly, the roles and responsibilities by various actors are formed to be flexible with the problems and possibility to perform in the local context. Global knowledge and the integrated strength of international partners are acknowledged in advancing actions for environmental solutions. Grounded on these tenets, this research looks at the

empirical performance of the learning process to solve environmental problems in the Kachin post political conflict along the China-Myanmar border. To help readers understand the nature of the area and problems which have been on going in that area, the next chapter will provide an overview of the geo-political and socio-economic situations and problems facing the community in the area.

CHAPTER III

MAI JA YANG AND PROBLEMS TO THE MAI JA YANG COMMUNITY

3.1 Introduction

This chapter provides overview of Mai Ja Yang (MJY) and the problems the Mai Ja Yang Community faces. MJY is important to study because of rapid changes towards development that the village experienced following political progress in ceasefire between KIO and SPDC. The historical background of MJY is looked at from the political situation. Features of development projects in MJY area were examined because main titles of ceasefire negotiation and border area development program were 'to build development'. On the other hand, activities in development projects were also directly concerned with problems facing MJY community. Problems were examined comparatively, pre and post ceasefire, to reflect the livelihood of the community in war-affected areas along changes in political situation. The study also examined the benefits in political progress after a ceasefire in Myanmar.

3.2 Overview of Mai Ja Yang

Mai Ja Yang is a Sino-Burma border town that is situated in Bahmaw district of Kachin State, northeast Myanmar. 'Mai Ja Yang' in Kachin means 'flat land that may contribute good health, success and development.' MJY is surrounded by Sin Lum mountain range in the west and shares border with Yunnan Province of China in the east. The plane areas with wet land cultivation can be seen more in southern villages. Villages situated at northern part of MJY have more hills.

3.2.1 Historical Background

Before 1994, MJY was isolated and underdeveloped. This was not only due to geographic difficulties of transportation and communication, but also because of armed conflict between Burmese military and KIO, a Kachin ethnic armed-group.

Figure (3.1) Below: Kachin State and Sinlum Mountain Range Area



Likely due to the deep forest coverage, there were not many people staying in MJY area. ‘A village’ might be recognized even if that was having only 3 to 4 households. For several generations, Shan people were living at the flatland plane area close to the border,

whereas Kachin people were living at hilly areas called Nam Lim Bum (Terra Wanasanpraikhieo, 2008: 61).

In 1961, KIO troops arrived to Bahmaw area for a military operation. Due to fighting between the Burmese military and KIO after 1962, the communities in MJY area faced difficult living conditions. The worst years were in 1967, 1968 and 1969, when villagers had to survive by eating strange fruits they were unaccustomed to. According to a local middle school teacher and local elders, intense armed pressures increased in 1984 and 1992. KIO negotiated with government authorities in 1963 and 1980 (Kachin Post, 2008). However, there was no success. After several years of fighting, ceasefire agreement was signed between KIO and SPDC/SLORC on 24 February, 1994.

The ceasefire agreement did not offer political concessions for federal autonomy. It was only offering opportunities to continue holding arms, administration

power in specific territory until the new constitution is formed, and participation in economic activity towards building regional development. Since the ceasefire agreement, MJY has been classified as a special region¹ development process.

3.2.2 MJY under development project

Development projects in MJY are influenced by the national development scheme². Border areas development program was instituted in 1989 for the ethnic areas (Hlaing, K. Y., Taylor, R. H. and Than, T. M., 2005: 58) and it is included in national development programs. Progress in national development was described in terms of education, health, infrastructure and agriculture. Under the Ministry for the Progress of Border Areas and Races, border area development projects were focused to improve infrastructure such as roads, bridges, hospitals, schools, and hydro-power plants. Peace building in ceasefire areas was officially recognized as a dialogue towards building regional development while maintaining political stability and the goal of the country's development effort was: 'Towards new modernized nation.'

Following the national development scheme, there were several development projects in MJY managed by KIO. Those include modernization to MJY in the agriculture sector and developing educational resources. In 1995, MJY was urbanized by resettling communities from nearby hilly areas with KIO's urbanization policy. Ung Lung reserved forest owned by local Shan people was selected as the development site, and Shan villagers were resettled to the place called Loi Ying Hkai (Terra Wanasanpraikhieo, 2008: 61). After that, villagers from the Nam Lim Bum hilly areas were relocated to MJY and nearby villages such as Prang Ngawn, Ngawn Aun, Ja Ring Yang, and Pa Ka Htawng. The resettlement was an attempt to civilize, to improve livelihood of the communities to get more access to education, health care, and economic opportunity. However, when resettled families were allocated some

¹ In the process of Myanmar ceasefire agreement, military government (SPDC) permitted each ethnic-armed group to control previous armed operational territory as special development region. KIO got power to control two border places: Laiza and Mai Ja Yang.

² In Myanmar, there are three national development programs (2001-2006) including in national millennium development goals: (1) Border area development program; (2) Plan for 24 special development zones; and (3) Integrated Rural development plan. Source: <http://www.mrtv3.net.mm/open/mgoal.html>

plots of land for their livelihood, native community decreased farm land areas. In addition, resettled families were difficult to manage their livelihood in the low land place due to they are traditionally forest dependent community.

In terms of education, MJY can be recognized as an educational resource area for Kachin people. Pan Kachin College opened in 1999 in MJY. In order to strengthen the learning of English, the Intensive English Programme (IEP), English Language and Computer Science Institute (ECI) were located at Mai Ja Yang. TTS, Teacher Training School for Kachin primary school teachers, was opened in 1997.³ TTS is a training center for school teachers who are teaching or going to teach at schools under KIO's administration. In academic year 2006-2007, 1,236 teachers were teaching 17,254 students in 239 schools.⁴ In order to improve the education capacity, outstanding teachers were sent to teacher trainings abroad. According to the deputy in-charge of KIO education department states that their vision is for 'every Kachin person to graduate and be educated.' Their present educational effort is to adapt a Child-Centered Approach in all the KIO-controlled schools in the year 2009.

KIO is also introducing modern agriculture to promote production and economic opportunity for the community. Rice seeds from China have been used by farmers around the border since 1995. Farmers said that these miracle rice seeds can have three times production rate compared to local rice seeds and the traditional cultivating system. However, various pesticides and chemical fertilizers were required to get high yield. Subsequently, in 2004, market-oriented sugarcane was initiated to cultivate in MJY area, and their cultivation is expanding due to high prices. Another cash crop such as corn and fast growing trees were also cultivated.

³ Interview: A1, A2, T1

⁴ Educational Statistics are given by KIO education department.



Figure (3.2) Paddy field and sugarcane farm near Seng Mai Pa Village

Another development activity is promoting private investment. Areas near the border with China were allowed to operate as special zones for the Chinese business sector. The projected 80 acres of land area is full of massive buildings such as hotels, casinos, disco bars, karaoke shops, beauty saloons, wildlife food restaurants, and massage parlors connected with sex workers. This private investment was said to contribute income revenue both for the local government and community. But the extent of contribution towards local people from this private investment is in question because just a small number of local people can be employed and negative social impacts, such as prostitution and drugs, are being experienced.



Figure (3.3) one development project: Casino Complex Area

The relationship between Myanmar and China has historically existed as a sibling, 'paukphaw,' relationship. Myanmar introduced market economy in 1988 and Cross-border trade agreement was signed between China and Myanmar's SPDC, leading the way to significant economic ties. Relationship between China and

Myanmar was further improved when sanctions to Myanmar's military government were imposed by Western countries in 1990. Additionally, the environmental crisis in China increased due to economic growth; from 1982-1987, only a third of the country's forest area was left (Eades, 1999:12). Thus, as Kachin State shares a border with China's southwest Yunnan Province, Kachin State became an important source for Yunnan's housing, food, energy and forest raw material resources.

In addition, emergence of the Greater Mekong Sub-region (GMS) economic cooperation program established in 1992 advanced the economic relationship between China and Myanmar. China played a role of major export and import partner of the Myanmar military government. While cross-border trade depends on political situation of the countries, political stability at border areas became important. Therefore, ceasefire agreement between SPDC/SLORC and KIO in 1994 was important in providing political stability along the border. The implication has included increased access to natural resources which are main export goods of Myanmar to China. Moreover, Border Area Development Program that focuses on socio-economic development and security of people living at the border areas provided development and stable life to community near border as MJY community.

3.3 Mai Ja Yang Community

General

In this research, the MJY community case study includes people from 10 villages according to the project's target community.

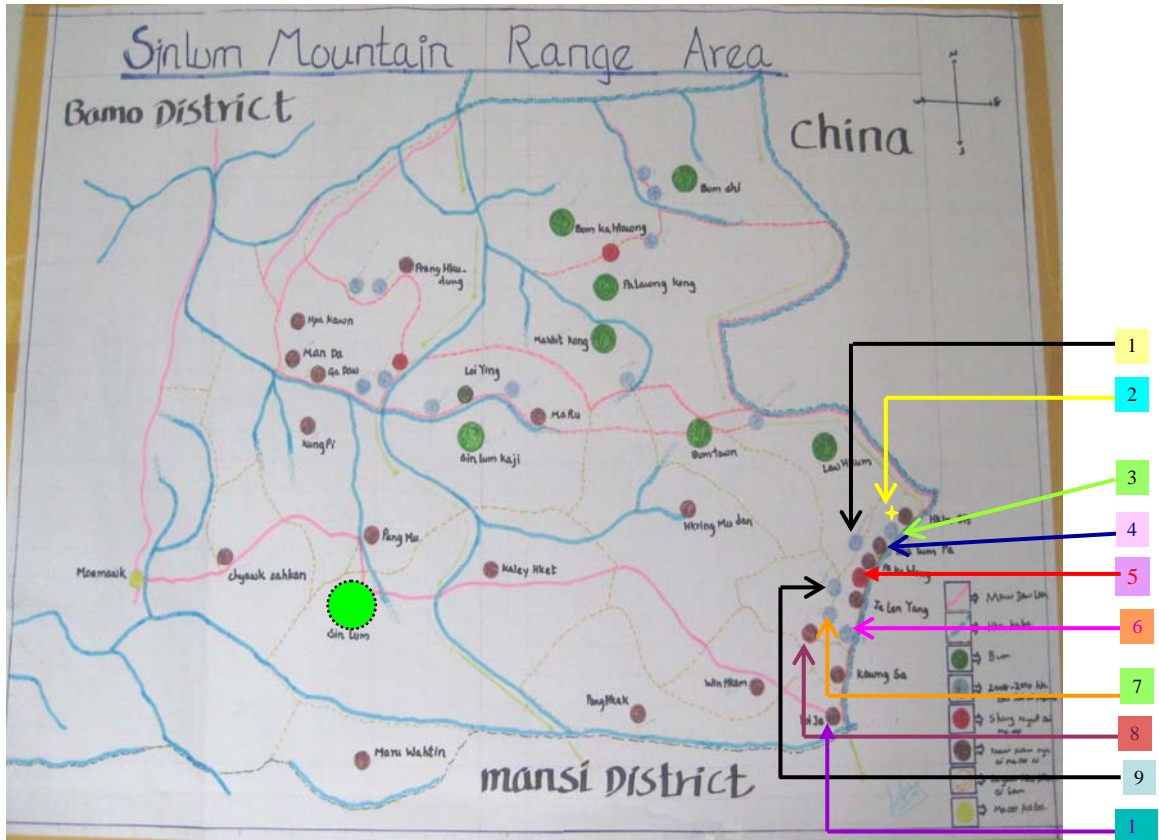


Figure (3.4) Map of PKDS-EV project targeted SinLum Mountain Range Area

References on Sinlum Mountain Range Area and Mai Ja Yang Community

Pink line...track

Light blue line...river

Orange dotted line ...Path

Green ball ...High Mountain

Yellow ball ...town

Grey ball ... 2008/10 project expanded place

Red ball ...2005/07 implemented place

- | | |
|-----------------------------|-----------------|
| 1. Sut Rayang | 6. Ja Ring Yang |
| 2. Bum Lim and Bum Ring Zup | 7. Prang Ngawn |
| 3. Seng Mai Pa | 8. Ngawn Aun |
| 4. Hka Lum Pa | 9. Dum Bau |
| 5. Mai Ja Yang | 10. Lweje |

Note*** Stated ten villages closed to China-Myanmar border line (1 to 9) are grouped as Mai Ja Yang Community. Lweje is not included in Mai Ja Yang Community

In MJY community, there are 4 villages to the south and five villages in the north. The southern group includes the villages of Prang Ngawn, Ja Rin Yang, Naung Aun, and Dum Bau. Participants from these four villages were involved in CEE activities held on 8 July 2008 at Prang Ngawn village. This group of villages will be referred as “Prang Ngawn Group” in this research. Northern villages situated around 10 miles from MJY, including Seng Mai Pa, Bum Ring Zup, Bom Lim, and Hka Lum Pa, will be referred as “Seng Mai Pa Group.” Communities from these villages participated in the CEE activity implemented on 12 July 2008.

Administration

In colonial times, the Duwa, Kachin tribal chief, had absolute administration power in the area. The Duwa centralized all matters for collecting taxes, social-economic and religious affairs, problem solving, property rights, and managing forests and resources. Each Duwa was assisted by village headmen. The Duwa administration system was ended after KIO’s political revolution in the 1960s.

Under KIO reign, each division is managed by division administration department. MJY is included in the eastern division. Development matters in MJY area are under the responsibility of the eastern administration office which is situated at north of MJY. Every group of villages is controlled by a middle-aged [35 – 40 years old] KIO administration officer. Every village included in a group of villages is managed by village leaders. Elected village leaders (chairman, secretary and members) take responsibility for security, village affairs, and social networking of the villagers. Villagers are allowed to report to KIO’s central administration if there are any unsatisfactory cases.

Socio-economics

The population of MJY community is estimated at 2,500 people in 407 households. The majority of local populations are Kachin and include other groups such as Shan, Chinese and migrant people. The migrant populations in MJY economic zone are estimated to be more than 10,000 people.

Generally, the socio-economic situation of MJY community depends on the individual village's location. Villages situated at the southern part of MJY are close to both MJY economic zone and Lweje, which has a border-trade office. In addition, more development planning areas can be seen in this part. Therefore, the southern villages such as Ja Ring Yang have a greater population than northern Seng Mai Pa village, which has a hilly geographical feature.

In terms of education, progress has occurred. Due to political stability, progress in income activity and provision by local government, most of the Kachin children can go to school and many youth can continue to higher education. Nonetheless, according to a 2003 survey, only 20% of youth from Prang Ngawn and Ja Ring Yang area could continue to higher education. Other students dropped out because of increasing education costs and other social problems. Adult villagers also have low education levels depending on civil war impacts. From 1960s to 1980s, schools could not open regularly. Teachers and education materials were insufficient. Other issues related to this included transportation difficulty, armed conflict, and poor living condition. Furthermore, government schools rarely accepted students from armed conflict areas.

Later, in 1979, KIO education department was founded. Progress included children in MJY being able to attend school until high school. However, the school was burnt down by the Burmese military under heavy armed fighting in 1986, and only reopened in 1998. Therefore, the current majority of adult villagers could learn Primary Education.

Public infrastructure is limited in terms of health, transportation, and information distribution. According to villagers, access to MJY hospital is rare because of a lack of medicine. Villagers are not able to get basic health worker provisions. There is only one NGO-based community health center in Ja Ring Yang. Two community health workers from the community health center provide health service to communities near the clinic as well as to the villagers in the hilly areas. It is only a slight relief that for minor illnesses the Kachin community has traditional

knowledge of herbal medicine and some villages may have private home clinics opened by nurses.

Infrastructure for communication is still poor. Transportation facilities such as roads to the villages are not in good condition. Facilities to access information are sparse. There is only one sub KIO's television station which disseminates local government activities and entertaining programs. Some families which have good income may access Chinese telecommunications and entertainment programs. There is no book shop in the developing area; and there is no public library in the village and less documentary resources in the school can be seen. The important updated news resource is only radio which 20% of villagers can access various radio channels that broadcast in Myanmar language.

MJY is a central place for Kachin civil society. Mai Ja Yang Baptist Church organizes youth activities and Sunday School programs. Church leaders, Sunday school teachers and students actively participated in environmental activities such as a basic environmental education program and World Environmental Day. Church leaders are powerful people in village's affairs traditionally. Women and youth associations in MJY are active in social and environmental activities. Youth association sometimes takes political action, such as, against unsatisfied policy or decision done by local government. The branch office of the Kachin Women's Association, Thailand (KWAT) is also based in MJY and expands its network to the Kachin community at other areas.

Agriculture is basic livelihood activity of the Mai Ja Yang community, however, it is diverse in composition due to the geographic and economic situation. MJY, Prang Ngawn and nearby areas have wide lowlands. Therefore, villagers mainly cultivate wet paddy. In the past, every household had a small garden to grow vegetables for household sufficiency. Currently, home gardens have shifted into growing cash crops such as sugarcanes and corns. As sugarcane cultivation gets higher income than rice, many paddy fields have been replaced with sugarcane in this area. Mushrooms, vegetables, fruits and bamboo shoots from the forest are additional income-sources for the villagers. Generally, at MJY and southern villages, most

people working on agriculture but villagers are also farmers, teachers, health workers, labor, NGO workers, and merchants.

Since the geographic terrain of Seng Mai Pa Group is mountainous, one-third of the households cultivate wet paddy and others depends on highland cultivation. Recently, highland cultivation was banned with the reason of preventing forest degradation. Thus, villagers switched to sugarcane cultivation in the highlands and in the paddy fields. The average annual income of one farmer's family is 6,000 Yuan. Families with less expenditure can have an annual savings of 1,600 to 2,000 Yuan. The major livelihood activity in Seng Mai Pa group is farming, home gardening, and family livestock. Only 3% of villagers are school teachers.

3.4 Problems Facing to Mai Ja Yang Community

The MJY community may be getting relief from some problems after establishing political stability. However, the MJY community has faced many problems following the development activities that exploited natural resources. Problems related with environment were huge concerns for the MJY community. The main problems facing the MJY community have been environmental or natural resource management, environmental degradation (deforestation, loss of biodiversity or wildlife depletion, soil erosion), pollution, and a collapse in social institutions.

3.4.1 Problems in Environmental or Natural Resource Management

Progress in political stability and subsequent development projects effort by policy makers has contributed some benefits to MJY community. For example, owing to improvements in economic activities due to political stability and relationship with China, families in war-affected areas can have better livings. Some families can use modern facilities such as motorbikes, cell-phones, TV/VCD, and better houses. More children can go for schooling and higher education. However, problems for community that mainly depends on the natural resources was occurred due to concentrating economic growth as the only opportunity for development, complex

extraction of natural resources, and poor planning and practices in natural resource management.

Community forests have been decentralized to villagers by KIO over a decade. However, recent pattern of KIO decentralization in forest sector weakened the forest management. At previous Duwa administration era, traditionally, forests nearby villages were determined as community forests and managed by Duwa, chief of the villages. In that traditional management system, villager could access community forests for household subsistence. The traditional system did not allow logging the trees for private benefit. In recent developing period, state-owned forests were logged with the claim of income generation for development projects. Villagers have said that most of the forests have been logged rapidly and caused deforestation.

On the other hand, due to economic opportunity was priority for development, it became a chance for resource exploiters. Chinese businessmen or local middle men persuade village leaders to exchange community forests for building of village infrastructure. Sometimes, although villagers did not exchange community forest for village's goods, villagers had no voice to stop if business people came to log with a KIO official letter. No clear management power was given by KIO to community, and the community was disempowered by corrupt leaders.⁵ Additionally, the community has no tradition of making complaints or reports to the authority if there were no satisfaction or unclear in taking their resources without their agreement. There is one statement in the KIO's administration policy to hear community's concern that 'anyone can complain or report to the central office if they are unsatisfied'.⁶

Other problems in forest management sector have been unsustainable practice and inequality in resource allocation. To recover from deforestation, KIO were relocated previous logged areas for reforestation; some to private sector, some as community forest. Moreover, some areas given were for reforest after charcoal extraction. It has been huge concern that when forests were given for logging, only

⁵ At some places, business people get involved with village leader and control the road to collect tax to people from other villages for using that road. That road in reality was used to carry logged woods and the road that KIO leaders hoped for community would get good transportation.

⁶ Discussion from one Kachin graduate student

big trees were cut down. The new practice in charcoal extraction cut all the trees no matter the size. As a result, high land becomes bare and cannot grow anything on the burnt lands. Charcoal extractions are still increasing due to fuel demand from neighboring Yunnan province. Furthermore, only rich people could access the relocated lands near the community forest. Since forests were became private ownership, poor people had a lesser chance to access the forest as common resource. At this moment, poor people even have to buy firewood for daily consumption. Management problem related with inequality in resource allocation is especially seen at MJY's southern villages which face more economic and social pressure.

The economic pressure turned to agriculture sector. Since high land cultivation was banned due to causing deforestation, MJY community has had to depend on low-land agriculture. At this geographic position, cultivated lands have been quite limited. Additionally, dependent populations increased according to urbanization and migrants in economic zone. Improving agricultural productivity or getting more income from agriculture sector was the only solution both for local government and community. Therefore, traditional cultivation system in agriculture sector was replaced by modern high yield agriculture that also would cultivate profitable cash crops.

It is not argued that community of limited resources in preferring crops of high production and good incomes are necessarily problems. The main problem was practices in cultivating systems that lead farmers to risks. In cultivating Chinese miracle rice seeds as well as sugar cane, there was a need to apply pesticides and chemical fertilizers intensively. Since no technical supports were offered, farmers applied chemical fertilizers with their own judgment. Farmers likely thought higher production would require more fertilizer application in rice farming. Some farmers mentioned that, "domestic animals in the rice fields have disappeared. But we don't know what actually is going on by using chemical fertilizers." Other risks include bottles of pesticide being kept together with drinking water and children playing with pesticide-spraying tools.

Practices in sugar cane cultivation are a bit more risky. At beginning, farmers just cultivated sugar cane at free spaces. Later, owing to double income compared to

rice cultivation and incentives given by Chinese Company⁷, farmers grew sugarcane increasingly in the rice farms and on the slope around the hills. Concerns were environmental and social impacts. From land clearing until canes are growing fully, chemical fertilizers and many kinds of pesticides are required. These practices lead to risks because cultivation of cane crops with intensive application of chemical fertilizers affects soil quality and quantity, water and air pollution (Cheesman, 2005; Hartemink, 2008). Soil quality will be decreased in such loss of soil organic matter and soil acidification. Soil acidification happens by declining of soil chemical property, soil pH (soil acidity) level decreases from native neutral range; the general measurement of pH level as neutral is 6.2 to 7.0. In a Fiji case that noted by Chessman (2005) and Hartemink (2008), soil pH level declined from 5.5 to 4.6 after 6 years of sugar cane cultivation. It was mainly caused by the use of acidifying nitrogen fertilizers such as urea and ammonium sulphate, and mineralization of organic matter (Chessman, 2005). The impacts of soil acidification happen in declining soil organisms, soil erosion that will be followed by decreasing soil nutrient availability (See Figure 3.5). Cultivation of sugar cane on the slope can cause more soil erosion.

⁷ If one farmer wants to cultivate sugarcane, lands will be ploughed and required facilities such as seedlings, insecticides and pesticides, chemical fertilizer would be given by Chinese company. Company also gives a loan based on the area of sugarcane farm if farmer need to buy rice or others. Most of the local people understand that sugarcane cultivation needs no investment. Actually, the equal amount of money for those farming facilities and loan money are deducted when harvested sugarcanes are sold to the company. In the rule, farmers have to sell sugarcane to the company that gave their initial investment for cultivation and sugarcane price has been decided by the company.



Figure (3.5) Some pesticides using in sugarcane cultivation in MJY



Figure (3.6) Sugarcane cultivation at high land area and a sense of soil erosion (In China side, opposite to Seng Mai Pa Village)

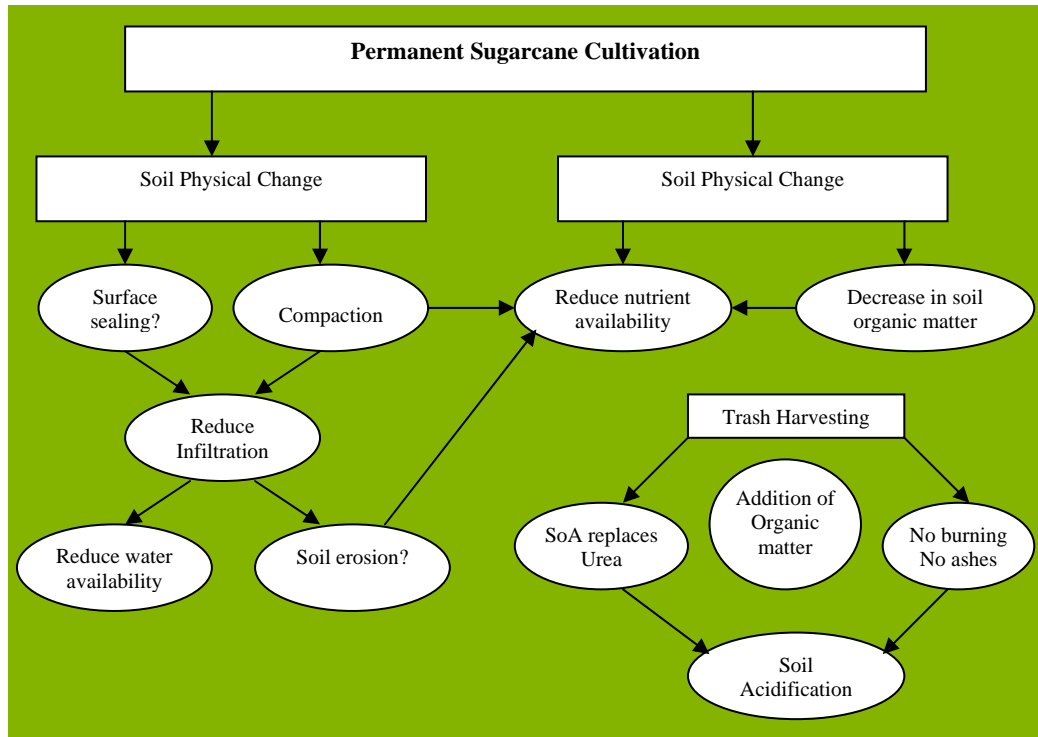


Figure: (3.7) Summary diagram showing major changes to soil under sugarcane cultivation in Papua New Guinea [Source: Chessman, 2005]

There were other concerns. Required pesticides given by a company are with references in Chinese; sometimes a few lines of English are included. Local farmers could not understand information accurately since they have no education to understand English or Chinese. Thus, sometimes, pesticides to kill weeds were applied instead of pesticides to kill insects and sugarcane plants were destroyed and had to grow again. It is a risky situation for local farmers and environment though getting high income.

Forest is both source of MJY community's subsistence and shelter for security⁸ whereas farm-lands at tiny plane areas are valuable resources for cultivating rice for basic food. Thus, for MJY community, managing forests and agricultural

⁸ Deep forest is only detective area during armed violation. Whenever armed-violation was happened, villagers had to leave their farms, houses, schools; and had to hide in the deep forest area. The heavier the armed- force by Burmese military, the longer time that was villagers to stay in the forest. Sometimes it took over a month. Since there were no enough rice, villagers had to survive with food that cooked with a hand full of rice, wild taros, banana tree, and a little amount of salt. If no rice was left; people had to eat wild vegetables and available fruits which were available plenty in the forests. Therefore, deep forests with plenty of natural resources have been main resource that provides important subsistence and defensive shelter for people in MJY area.

resources' sustainability is important. Unlike people in urban areas, community has no alternative income opportunities due to lack of educational potential and employment activities besides traditional farm-work. It will be hard for community if forests and agricultural resources were depleted.

Indeed, described forest management system in reforestation mainly with mono crop is a concern for environmental or ecosystem impact. Naturally, forest is not a farm of mono trees. Kareng Gawng, an elder of the Seng Mai Pa village explained that the disappearance of wild animals in MJY area have occurred not only because of deforestation, but also because of replanting different forests that wildlife are not used to. It is undeniable that reforestation is essential to recover degraded forest. Similarly, progress in income generation is also important for the improvement of community living. However, widespread growing of mono cash crop as reforestation can have negative environmental impacts such as scarcity of biodiversity and loss of land fertility and fertile soil (Altieri, 2000). In the agriculture sector as well, since it is basic livelihood activity, improving productivity of soil, water, livestock, and vegetation are central to better livelihood of resource dependent MJY community. Nonetheless, practices in intensive usage of pesticides and chemical fertilizers have led to environmental, social and economic impacts which will threaten the livelihood of the community.

3.4.2 Environmental Degradation

Environmental degradation such as deforestation has occurred since the period of armed conflict. Political instability is one reason beyond the traditional agricultural practice. Shifting cultivation is traditional farming activity of Kachin people. Traditional farming must work with seasons, in certain periods and appropriate places. Selecting appropriate place comprises key practices such as avoid cutting forests situated at the head of the river to maintain water resources, and accessing land that may good for farming. For the community in armed conflict area, however, traditional farming practice could not be done properly. Sometimes community had to leave farms that were ready to cultivate due to fighting. Sometimes, farms had been destroyed when they came out from hiding in deep forests. Villagers had to farm

again or did farming with no time to choose. This caused deforestation. In addition, due to opium growing, there was impact such as lands became naked but much impact was not happened because villagers did small-scale growing merely for cash to survive if it had to run in fighting and if crops could not collect due to fighting.

Environmental disasters increased in later 1990s and after. The disasters comprised a degradation of abundant natural resources: deforestation, loss of biodiversity, and soil erosion. According to the local elders, around 1960s, MJY and surrounded area were covered with deep forests that growing big trees and plenty of herbal plants. Many kinds of wild animals: bees, birds, bears, deer, tigers, monkeys and snakes were living even closed to the villages. In the low land fields, fishes, frogs and snails were plentiful in the rice farms. Community hunted animals from the forests and farmed only for subsistence. Weather was cold for the whole year; and in the winter, roads were full of snow.

Previous varieties of natural resources have been depleted due to many factors. Firstly, big trees disappeared from the forests with logging activities. Later, leftover trees were taken for charcoal extractions. However, statistic measurement of deforested areas could not access from any resources. Relative to: deforestation, trade wildlife trade including consumption from China, and application of pesticide in the farms; wildlife were depleted rapidly. In addition, non-timber forest resources such as various vegetables, fruits and bamboo shoots became scarce due to booming in daily demands by over 10,000 migrant people from economic zone and local families. Domestic animals in the rice fields have been very hard to see after using intensive pesticides.

In terms of farm-land quality, farm-lands became unproductive unless chemical fertilizers were applied. On the other hand, current sugarcane cultivation has not shown any environmental impacts except causing pollution and health impacts. However, according to officer of KIO forestry department, it is critical concern that if sugarcane is grown for a long term, rice fields may become dry and high lands turn bare. The director of Shalom foundation, Dr. Saboi Jum also pointed out that dead-lands after a long period cultivation of sugarcane in high-lands used to happen at the

place which is just far about 27 miles from Myitkyina, the capital of Kachin State. That place was significant as the one of the seven largest forest areas in the world. After sugarcanes were cultivated in that area for the Numptee sugar mill project, forests were depleted and the lands were unable to cultivate any crops.

Land degradation and soil erosion have happened due to over two decades of deforestation. Recently, Soil erosion was occurred by dissolving top soil from hills to take to China. This action was not understood clearly by the local authority and community. From that soil dissolving, rice fields at lower areas were covered by eroded soil. Land slides or soil erosion were the consequences of non-terrace cultivation and mono crop cultivation at high land. This has not happened in MJY yet; but there have been many eroded features on the China side.

3.4.3 Pollution

Pollution becomes another environmental and social concern that faces the community. Currently, there are two main sources causing pollution. One is waste issue due to population growth, changing living style in community and lack of systematic waste management. To be precise, there are many tons of various kinds of waste produced by economic zone. Those daily wastes are disposed on the top of the hill. A challenge of this waste disposal is especially difficult for people living at down stream in terms of water pollution and health impacts.



Figure (3.8) Varieties of waste dispose on the high hill without management

Another pollution problem is associated with sugarcane farming. This happens due to sugarcane farms spraying pesticides intensively. Since sugarcane farms are surrounding to villages, some even growing in its own yard; spraying pesticides around the crops caused serious pollution. Researcher felt that the smell of the pesticide is too strong and quite difficult to breathe even for adult people when it is spraying. It is truly concerning for children. Farmers and daily laborers told that when spraying pesticides, people suffer symptoms of breathing difficulties, skin burning, dizziness and sometimes shock. According to health workers from the community health center, health problem such as Acute Respiratory Infection becomes growing. It is serious concern for many reasons. While people suffered growing health problems from pollution and pesticide application, there is inadequate medicinal resource to be provided. Poor people also could not afford to go to hospital. Growing health concerns facing the community are required to be reported to administration office. However, it has not happened yet. There was no occasion to discuss public health issues between administration level and health workers, less confidential role of basic health worker to access to local government, and conditionality that have to work in the restricted area. Public health education related with this pollution and

impact assessment of current sugarcane cultivation is necessary for the safety of the community to prevent growing impacts.

3.4.4 Collapse in Social Institutions

Aside from environmental devastation, collapse in social institutions is another dilemma facing the MJY community. According to Mr. Wa Na Yaw Htung, secretary of KIO education department, at the time KIO arrived, community in Bhamaw area (including MJY) had strong social mores. Theft never used to happen and villagers just left their home with no lock. In a time sufferings of the war, a teacher at MJY School told that people helped and took care of each other despite everybody having difficulty within heavy fighting. It might be that people hold feeling of the same life and that made people more unified in war time as a KIO officer, Salang Hpau Maw discussed. Inversely today, social norms which integrated with traditional system have almost disappeared, and social ties within family as well as society have been loosened in various ways.

Traditional resource sharing system has been broken in the MJY community. In the past, farms products and forest resources were shared together within and between villages. Similarly, family members worked together and shared products from family's farm lands. As discussed above, no one accessed common resources for private benefit. This social custom has almost ended among the community, particularly among those facing complex socio-economic pressure and inequality in resource allocation. Moreover, conflict to relocate family's property such as cultivated land became increasingly common. The main reason was that family's members had different interest in cash crops cultivation or hiring or selling lands to Chinese people who persuaded land sales by paying double price. Many people have changed to private lifestyle rather than traditional norm of take caring and helping each other. As a consequence, it led to less community involvement to protect or to conserve natural resources and favored attitudes for individual profit. For example, to protect and to conserve Kachin forest, the Prang Ngawn group's respondents were told to manage forest individually, whereby everybody was allocated equal land area.

Community's attitude on farming practice has changed. When income requirements were mounting next to rises in commodities' price, children's education fees, and number of populations; farmers over-used lands to get higher productivity. In reality, although rice production increased, MJY community still faced livelihood concerns.⁹ Fewer farmers only were aware of the environmental impacts caused by recent agricultural practices. Moreover, generational cascading of local knowledge on resource management has disappeared because adult people only focus on modern agriculture when youth and children have less participation in farming than in the past. Therefore, most of the community has preferred the modern agriculture system rather than traditional agricultural practices.

Perhaps, illegitimate political conditions are one factor that affects people's attitude to concentrate on short term benefit in approaching resources. Ceasefire in Myanmar is just military agreement to stop firing. Administration power that given to ceasefire group was not legitimated, and had limitation in controlled power. No one can guess how long the ceasefire can last. This uncertain condition is understood simply even by local people in the MJY area. Thus, business people approaching to the resources in the ceasefire area might act with doubts. Unnamed respondents explained their living situation: "I cannot guess when anything will happen. We found forests are degraded under our eyes in a short time. We can do nothing despite knowing that protecting forests is important. However, in our current situation we are just struggling to fill our own stomach."

Following the development and complex impacts, drugs, crime and HIV/AIDS became serious issues. Public employees - teachers, social workers, nurses, church leaders – and some KIO officers expressed that drug addiction has increased among youth and adults. In one of the MJY's southern villages, only one family was saved from having drug addicted people. It is mostly young and adult men using drugs. Some people used drugs because of extra income; but, some used drugs due to depression from becoming poorer. In the father-drug-addicted family, mothers had to

⁹ Primarily, rice was exported to China. Later, Chinese stopped buying and now even import back to Myanmar. When rice price was decrease, Chinese chemical fertilizer was increase the price.

manage family routine, farming and village's affairs. Children lacked good caring, resulting in early drug addiction by male children or dropping out of school by female children. Theft in homes and in the village has happened frequently. Also, prostitution thrives in the development zone. Because of no education for sex workers and lack of protection, HIV/AIDS infection rate also increased among Kachin youth. Moreover, since gambling area was developed, crime rate increased 5 times in the year 2005.¹⁰ Local administration power had no chance to interfere activities in the gambling zone and crimes or fighting among youths were mostly originated in MJY.¹¹

3.5 Summary

The community in the Sin Lum mountain range area which is a post political conflict area along the China-Burma border has faced several problems related with geo-political and socio-economic matters. Before the armed conflict ended, the community suffered from a livelihood characterized by instability and intense underdeveloped conditions due to a lack of socio-economic opportunity. After the armed conflict halted, development projects were processed by the local government (KIO) via exchanging available natural resources for development infrastructure. Environmental problems have resulted due to unsustainable natural resource management, social-economic pressure, poor capacity and awareness of the community, and uncertain political conditions. The impacts of natural resource depletion and environmental degradation negatively affected the livelihood of the resource dependent community in the war-torn area. As environmental problems have been increasing and threatening the local community, there is a growing need to take action for solving the problems. Since political nature of the post political conflict area is different from other areas, there may be conditions in taking action for environmental solutions. This assumption can be reflected by the ways that PKDS-EV takes action towards solving environmental problems in Kachin post political conflict area, presented in the following chapter.

¹⁰ Interview...TTS lecture

¹¹ Interview...Ja Ring Yang village leader

CHAPTER IV

PKDS-EV PROJECT AND ITS IMPLICATIONS

4.1 Introduction

This chapter describes Pan Kachin Development Society Environmental Project (PKDS-EV)'s strategies and its implication in MJY as well as in Kachin State. PKDS-EV is one sub-project team of Pan Kachin Development Society (PKDS) which is a Kachin independent organization. In this sense, both background information of Pan Kachin Development Society (PKDS) and PKDS-EV will be described in order to reflect the reasons behind their formation. PKDS-EV project's selection of Mai Ja Yang and working approach in post political conflict area in Myanmar will be presented.

4.2 Development Limitation vs. PKDS

There were limitations for development in post conflict time although to implement development project was permitted to KIO by central government according to ceasefire agreement. It is due to KIO's major income source, HPakhant jade land was monopolized by central government. Limitations for development process could be seen via troops' surviving and development construction to rely mainly on forests resources which may not assure for long term. The extent of development assistant from national scheme was also unsure because of national policy for development programs have been guided to rely on its own resources. Those development limitations were aware by some Kachin leaders, scholars and business people who are interesting in politics.

A plan to take part in development matter after considering development limitations lead to form PKDS. In 1994 June 11, PKDS was organized as an independent organization in Chiang Mai, Thailand by those people who discussed the matter of development limitation in Kachin area. The aim was to help provide development opportunities for the Kachin communities particularly in war-torn area. Working for ethnic affairs such as in culture and language revival were also planned

to provide for Kachin people in Yunnan province of China and in India. Later in 1996 PKDS registered as non-profit organization in Dallas, Texas, USA (Kachin News Group, 2004).

PKDS addresses civil responsibility for the communities which have suffered prolonged civil war. PKDS mainly focused on pilot projects in education, human rights, and HIV/AIDS in the KIO controlled area. The significant accomplishment of PKDS was establishment of Pan Kachin College (PKC) in October 1999. PKC was famous in teaching English as foreign language and computers; more than two hundred students, local and foreign teachers were engaged in PKC education project. Unfortunately, in 2004, there was a clash between KIO leaders and the head of the PKDS. After the clash, Pan Kachin College was taken under KIO control and renamed as English and Computer Institute (ECI) in 2006 October and in 2008, it was renamed as Institute of English Program (IEP).¹

In order to generate those pilot projects, financial support for projects was provided by Kachin leaders and Kachin business people. Later, financial support from international donors was included. Owing to significant geo-political and project achievements, project was successful in finding funding supports. It could expand the community development project in 2001. However, after problems occurred within leaders and ill project's achievement, community development project was stopped due to insufficient funding.

4.3 Environmental Crisis vs. PKDS-EV

As mentioned in Chapter I, environmental devastation in Kachin State occurred rapidly after ceasefire. Specifically, logging and large scale mining concessions were initiated throughout the State in the mid-1990s. In the logging activity, local people also engaged by paying tax to KIO and SPDC. But, starting in 2000, mostly Chinese companies got logging concession and forests were cleared rapidly by intense logging. Forest depletion rate was reported as double at the Kachin

¹ Information given by one Kachin Master Degree student in Thailand

and Shan State border with China in 1998 by World Resource Institute (WRI) based on satellite data (KESAN & PKDS, 2004).

Environmental destruction in Kachin State was not only limited to forest depletion by logging. Mining has been another key factor. There have been two main mining activities, jade and gold, for decades. Traditionally, gold mining operated in the river or in the stream. But, local community didn't practice gold mining on a huge commercial scale and gold was collected by hand-held pans. According to research done by PKDS-EV, gold mining concessions by companies started since 1997 and huge scale were operations in 1999. The critical concerns were practices in mining that most of the mining activities operating in major watersheds: Nmai Hka and Mali Hka which are two head rivers of Irrawaddy; and Chindwin River which is a biggest sub river that flowing into Irrawaddy. Mining in the river and at river banks caused water pollution with chemical and oil, soil erosion and changes in the river system. On the other hand, forests were clear in the on-land gold and jade mining processes. Mining with high machineries caused rapid effects in resource extraction and environmental impacts. Related with those logging and mining activities, environmental crisis were not consequent alone. Social crises such as human right abuse, drug, prostitution, HIV/AIDS and gambling were arising throughout Kachin State.

To solve those problems related to environmental crisis in Kachin State, PKDS-EV was formed in 2002. Beyond the environmental matter as a main reason, there have had other supportive matter to form PKDS-EV. The office-location of PKDS was one key supportive factor. Owing to office was cited at Chiang Mai, Thailand, PKDS has had better communication with other international non-governmental organizations. Forming environmental project in Kachin State was encouraged especially by Image Asia Environmental Desk. It is a media branch of Images Asia, a NGO based in Chiang Mai. No organization had yet to notice that environment in Kachin State was in crisis. In order to fill that gap, PKDS was established to work for the Kachin environment and Kachin community. PKDS-EV thus can be recognized as the first Kachin environmental project.



Figure (4.1) PKDS-EV project team (8.7.08)



Figure (4.2) PKDS-EV office at MJY (2.7.08)

Field activities of PKDS-EV have been mainly focused on ceasefire Sin Lum mountain range area including MJY. The reason on choosing MJY as field area was the lack of NGO reaching to war-torn area; it was found that projecting of PKDS-EV in this area is essential. It is because environmental destruction has happened faster along the border since ceasefire and several pressures for resource extractions have occurred after. In addition, war-torn communities have been facing again various kinds of problems as described in Chapter III.

In terms of funding resource, initial 2002 one year funding for PKDS-EV was given by IUCN. In the following year, OSI provided one year grant. Currently Oxfam Novib Netherland started its financial support for 2005-2007 periods, under the umbrella organization Karen Environmental and Social Action Network (KESAN). Oxfam Novib Netherland also supported the current 2008-2010 project period.

4.4 PKDS-EV Project's Key Elements, Activities and its Implications

PKDS-EV has been employed as the conservation project in Kachin border area over 6 years. PKDS-EV aims to rehabilitate the Kachin environment, culture and livelihood of the Kachin people through encouraging participation of various stakeholders. The goal of the project is to conserve remaining forests and to recover degraded forests. To achieve the goal, strategic interventions have included enhancing community forest and sustainable natural resource management, enforcement policy formation, capacity building and raising awareness. Attempt in forest recovery is to regenerate natural forests rather than commercial forests in forest recovery process. It is an effort to maintain ecosystems truthfully for forest-dependent Kachin community; but challenges have been market pressure, and communities' lack of awareness and participation.

Like other conservation projects around the world, community involvement in resource management and conservation matters is vital in the PKDS-EV conservation process. From discussion with project consultant and coordinator, project is based mainly on the concept that *conservation cannot take place unless people participate*.

It is thus people participation, in particular, community participation to be built up by empowering local community to participate in conservation. In managing environment, community must take a role in decision-making and taking responsibility to manage their resources in sustainable way which is not harmful and strengthening capacity of resources for current as well as for future.

In short, PKDS-EV uses participatory methodology in facilitating for participation and empowerment as central process. In PKDS-EV project's activities, it is through encouraging local knowledge. Shukla (2004) noted that this kind of approach is a key to sustainable conservation and development in the community-based conservation. It is poverty reduction and biodiversity education that strengthening community potential will meet through enabling locals' own knowledge, sharing of power and welfare. Important question is how it is managed to be worked by the environmental project in the post political conflict area of Myanmar.

'Empowerment' in literature has given various meaning. It is defined as increasing - authority, control over the resources, capacity and self-confidence, and decisions of one's life (Sidorenko, 2006). By Narayan (2005), it was defined as 'expansion of assets and capabilities of poor people.' 'Improving capabilities to articulate its problems and needs using available local resources, and equitable power sharing,' it is stated by Mason, S., McNulty, J. and Aubel, J. (2001). *For the PKDS-EV, empowerment is meant as improving community's capacity, capability, and accessibility to manage their resources and to solve its problem.* Empowerment and participation are inter-related in the PKDS-EV's working process as in diagram below.

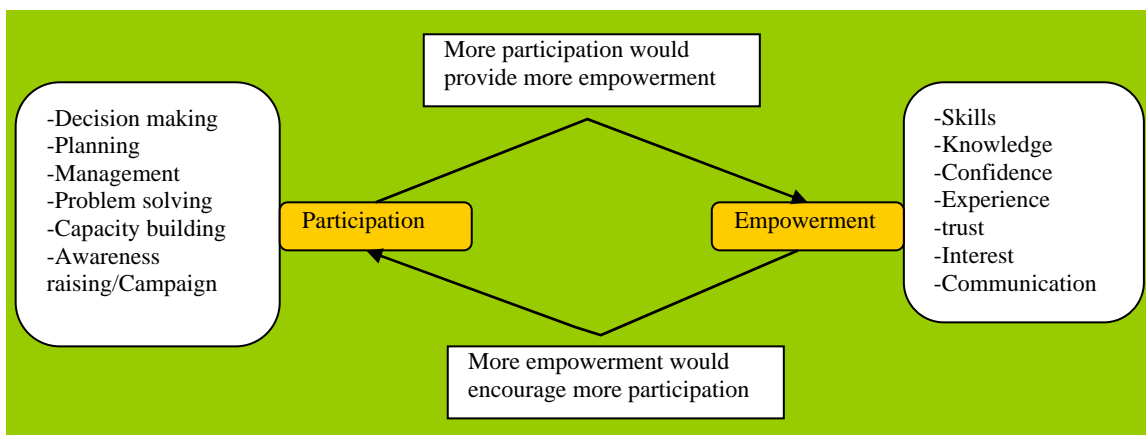


Figure (4.3) Inter-relationship between participation and empowerment using in PKDS-EV project

Applying a people-centered approach came from the project's lesson learnt. In the beginning 2002-2004 period, project mostly focused on lobbying and campaigning. However, just a few people were aware about environmental issue. Project team realized that working directly with community was needed to ensure community participation in the environmental effort. In this reason, community-centered or people-oriented, community participation method was initiated to integrate in project activities since 2005-2007 project periods.

Regarding to conservation via community participation, PKDS-EV has conducted several activities by using varieties of tools relevant to the project activities. Based on the project document, five major activities are program of:

- 1) Community-based development initiative;
- 2) Communication and Information;
- 3) Alliance building and Networking;
- 4) Staffs Capacity building;
- 5) Environmental Education and Awareness Campaign.

1) Community-based development Initiative

Community-based development initiative activity is a form of integrated conservation and community development activity. It included issues to cope with environmental and social problems faced by the community. Project team has facilitated for establishing community forest and official recognition of village community forest; enhancing practices for sustainable natural resource management by supporting community-based herbal medicine project and bio-gas project; sustainable management in agriculture sector such as irrigation system to enhance food security followed after buffalo bank and rice mill project.

Along the working process, the project team seeks trust and confidence building with villagers by ethnography process initially. Observation and open discussions with villagers were carried out to investigate villagers' needs, problems and existing potential to project team. Later, project workers collaborated and facilitated community in problem identification, problem analysis and seeking solution, decision-making and sharing responsibility in solution. PKDS-EV privileges local knowledge to encourage confidence of the community. Project team also used stakeholder engagement between KIO and villagers in facilitating to establish community forest, forest area demarcation, formation of rule and regulation for forest management and if there was problem related with forest management.

Some potential benefits were seen from 2005-2007. Firstly, community forest could be established in Ngawn Aun village as a model of community forest formation in 2006. By the facilitating of project team, elected village committee processed for community forest demarcation with officers of KIO forest department. Written rules and regulations to manage community forest were developed by the village committee. In addition, forest lands have been managed in sustainable way by dividing into three parts: forestland for agriculture, reforest area for economy like growing commercial trees and conservation area to maintain water and endangered

forest resources. At the end of year 2008, community forests were formed in other three villages: Mahtang, Mungloi and Mai Chyu.

Secondly, in Mai Chu and Ma Htang village situated at the high mountain range, food security program could be implemented in 2007. The program is to solve problems in low crop production. PKDS-EV project team facilitated community in problem identification, solution finding, planning, and decision-making. Result included repairing of traditional irrigation canal that was destroyed by flash flood in 2004, to support sufficient water for terraced fields of the most in need households. In the implementation process, project was requested only to support required costs of cement which cannot be afforded by villagers. All the labor force, additional construction materials such as sand, rock, wood and food were provided by villagers. Several problems could be solved from this irrigation canal renovation. First, conflict of farmers in sharing irrigated water ended. Second, beneficiary 42 households could get double crop production. Subsequently, villagers could share more rice for community rice bank and exploitation of forest resources caused by poor income was reduced.

Other activities like buffalo project, rice mill project and herbal medicine project have contributed in solving livelihood problems of targeted community and social development of related community. For example, in the buffalo project, families lacking buffalos could get buffalo for farming and they contributed back rental fees to support nursery school teachers of the village. Promoting traditional knowledge, formation of herbal forest, awareness on sustainable management of forest resources and improvement in socio-economy were formed in herbal medicine project. Vitality of forest conservation was promoted through hydropower rice mill project. Generally, community-based development initiative activity has implied to promoting ownership of the community in decision-making, designing, choosing beneficiary families, implementation and maintaining. Those activities have encouraged community participation in its socio-economic development as well as in sustainable management of the natural resources.

2) Communication and Information

This activity has taken important roles in connecting communities in Kachin State with the global community. It is not only an attempt of developing record that revealing environmental impacts and social unrest due to politics in Kachin State. It is also promoting local environmental knowledge and information contribution which may help communities to be aware and more knowledgeable. Conducting research, documenting and information disseminations are involved in communication and information activity.

Since project started in 2002, PKDS-EV has concentrated on conducting research on impacts of mining and logging in Kachin State and has published reports on impacts. Two research reports, “*At what prices? Gold mining in Kachin State, Burma*” and “*Destruction and Degradation of Burmese frontier forests*” were published in 2004. Both reports were documented in English by collaboration with Image Asia and KESAN. Those reports have shown global readers the: voice from local people, actual situation happening in war-torn area, resources as political tool of central government to tackle ethnic armed group, and serious impacts to local communities. Moreover, reports were also published in Kachin language in order to help community know about environmental degradation and its impacts in Kachin State. PKDS-EV team has also helped other individual researchers who interested in environmental issues in Kachin State.

From 2005-2007, research on herbal medicine was included to encourage traditional knowledge. There were several publications and information disseminations in this project period. Lists are as follow:

- ◆ Kachin herbal knowledge books, 1500 in quantity, have been published in 2005.

- ◆ Kachin Environmental Magazine, “Grupyin Shanan” is published two times a year, 2000 books per time. Volume 1 was published in 2006 and volume 6 was published in 2008.
- ◆ 1000 Basic Environmental Education manual for school children were published in 2007. This manual was based on the books published by UNESCO and local knowledge of environmental management. KIO controlled schools have been using basic EE manual books.

In addition to publication, news letter training was organized to strengthen community participation in information distribution and to develop community-based news publication. Besides news and magazines, video documentation on case studies related with project activities and environmental degradation such as gold mining have been produced and distributed to the Kachin communities.

Communication and information activities are keys to encourage maintaining local culture and contributing environmental knowledge. It is not only support for socio-economic development and management of natural resources sustainably. Information activity is also implied for environmental impact assessment that can contribute to rethinking the development process in Kachin State if local government was aware of current development and impact situation.

Information distribution is vital for communities to get more knowledge and to know more things happening outside their society. However, language gap in information for environmental issues is a difficulty. It is because documents to raise environmental awareness are mainly recorded in Kachin language while non-Kachin people are also living in Kachin State. Participation and awareness of those communities are also required. It is a worth to recognize that Guha (2000) stated, “Nature can never be managed well unless the people closest to it are involved in its management.”

3) Alliance building and Networking

Alliance building and networking has been a key strategy of any organization to strengthen capacity and area of work. It may have in several levels – national, regional and local – and various partners. Alliance building and networking of the PKDS-EV in this section refers to its partnerships with other organizations to supplement project activities.

PKDS-EV has been collaborating with NGOs and CBOs working both inside and out of the country. Major partner organizations inside the country are Kachin Relief and Development Committee (KRDC), Kachin Constitution Drafting Committee (KDDC), Kachin National Organization (KNO), and others local and international organization inside Myanmar². As mentioned before, PKDS-EV has strong relationship with Image Asia E-desk and KESAN. Kachin Women Association/Thailand (KWAT) is also a partner organization of PKDS-EV.

The goal of this activity is enabling opportunities, resources and capacity of PKDS-EV towards implementing project activities. Indeed, it is a huge challenge to work for environment in the area administered by authority surviving with natural resource extraction and always unease for society movement that would be related to political issue. Nonetheless, there is collaboration with organizations under local government. For example, KRDC allowed PKDS-EV in getting trust and official support from local government. This also allowed for project implementation areas to be enlarged through out Kachin State with fewer obstacles to get permission³. Not only with KRDC, but also partnerships and advocacy work with other Kachin local NGOs provided an opportunity to develop forest policy drafting paper for 2010. It is a progressive effort to ensure environmental protection and sustainable management of environment in Kachin State. The central power of implementation, capacity of

² The names of the organizations were avoided to mention in order those organizations not to get difficulties in working inside Myanmar.

³ In Myanmar, it must be informed or asked for permission such as in to do activity and to publish information document. If something that were not got permission and operated, it can be stopped whenever or can be received punishment unless the activity can be proved that not concern with political issue and not goes against rules and regulations of the country.

project team and financial resources is achieved by networking with organizations, especially those based in foreign countries.

4) Staffs Capacity building

Staffs or social workers capacity building is the central tool to achieve strong efficiency towards sustainability of the project. *'Sustainability' is defined as a state of having ability, capacity to stand independently at present and to continue process for the future.* The activity is aimed to improvement of staffs' capacity in understanding, skills and attitude to work in development of community integrated with conservation. Training, exposure trips, coaching by consultants and encouraging 'doing and learning' with communities are used as capacity building tools. Specific activities by year were:

- ◆ In 2005, project team attended environmental training to understand sustainability, ownership, empowerment, people participation, critical and analytical thinking over three weeks. Computing, photography, accounting and Chinese language were also learnt.
- ◆ In 2006, training related with documentation and publication such as layout and design was learnt by two staff members. In addition, another 2 staffs participated in exposure trip to learn organic agriculture in Thailand for three weeks.
- ◆ In 2007, computer layout and graphic design training was attended by 3 staff members. As exposure trip to Thailand for capacity building, 2 staffs learnt traditional weaving and natural dying. Similarly, 3 staffs were provided video documentation training and In Charge of project publication attended article writing training in Thailand. Writing and speaking of foreign languages in English and Chinese were also learnt by most staff.

As to ensure staff's capacity in project activities, capacity towards project cycle management and the nature of relief and development work were coached and monitored by project consultant two times a year. In capacity building programs, the

staff learnt from both local and international resource persons to achieve local as well as global knowledge.

From staying at the project office while conducting research, it was found that project team can manage their individual field. Confidence in work, commitment for community and environment, and dedication to improve their capacity could be seen from discussion with them and by observation. Indeed, capacity building program has promoted capacity, attitudes and commitments working in community towards development including efficient resources for sustainability of both parties – social worker itself and community

5) Awareness Campaign and Environmental Education

For 2005-2007 project periods, basic environmental training was used as key activity for raising awareness and supporting program for community development integration in conservation. PKDS-EV organized youth leaders and communities' representatives from different areas within Kachin State and some from Shan State to participate in basic environmental training. Training issues concentrated on inter-relation between environment and livelihood, and conservation versus community development. To support the idea of sustainable development, training on alternative energy (bio-gas) and local knowledge on managing irrigation systems were also provided. The trainings were planned to imply cascading knowledge and actions in sustainable natural resource management. The formation of community-based development initiatives in individual communities was encouraged. In practice, however, according to discussion with project coordinator, it was likely that trainings are not as effective as originally proposed in reaching consequential benefits to the majority of communities.

On the other hand, environmental workshops and campaigns were to stimulate motivation of communities in environmental issue. Inclusion of various stakeholders in the workshops and trainings were organized to include KIO officers, church and women organizations, village leaders and villagers, teachers and school children,

youth, and local NGOs, local resource people in environmental issue. Encouraging more women participation was emphasized in workshops.

Additionally, activities operating in environmental campaign are supportive for people participation in environmental activity and interest in environmental issue. As campaign activity, World environmental day has been held at 5th July of every year since 2005-2007 project periods. At big cities in Kachin State and Northern Shan State, the ceremony was organized by local church groups. At that day, various activities such as competition in drawing, singing contest, and debating environmental issues were arranged. Thousands of different kinds of trees were planted by participants in various places. Campaign materials like T-shirt, posters and calendars with environmental message were distributed by PKDS-EV. KIO leaders were also invited to attend and to give the messages. This would reflect extent of policy makers' awareness and concerns over the environment and development matters in Kachin State.

Besides training and campaign, basic environmental education program is an activity that initiated with various obstacles but with gradual progress for long term. Prima program implementation was giving EE at Mai Ja Yang Basic Education High School (MJY-BEHS) in 2005. It took time over 5 months and had to convince heads of KIO and of education to get permission for teaching EE in proposed school. In reality, the program is simply to provide opportunity for school children as growing generation to learn environmental issue and to encourage valuing the environment. Although several difficulties existed, 135 students from MJY-BEHS and MJY Sunday Schools participated in 8 days environmental education including in class and outdoor activities. The ultimate achievement was that teaching methods and issues, children's motivation in environmental activities were conveyed to local authority and heads of the schools. Since then, authorities of education department encouraged to teach EE in KIO controlled school as the best program for Kachin children to protect environment. In 2006, 154 of grades 5th to 8th students from Nbapa Middle School and other children from nearby villages learnt basic EE. In 2007, the EE program was continued at Nbapa School. Target students were 5th grade and 6th grade. In addition,

one day basic EE program was held in MJY-TTS for primary school teachers and EE manual book that finish in March 2007 was contributed.

It cannot be comparable the extent of working potential in providing environmental education to school children in MJY, ceasefire area in Myanmar with other countries. For example, in Thailand, environmental education program is included in national policy and provision EE program from local to university level is standardized to ensure conformity. In brief, every school student has opportunity to learn environmental issues formally with effective learning techniques and efficient materials. In Myanmar, on the other hand, environmental education for school children is not clear although Hla Hla Win (2001) described environmental awareness and environmental education program in Myanmar as efficient to some extent. Environmental issues are included in science subjects in school curriculum. But critical thinking on environmental issues has never been encouraged since education system lacks student-centered teaching strategies. For example, school environmental activities are focused on tree planting.

However, in case for children in KIO ceasefire area, there is a light for children to learn environmental education through a specific program. The number of students that could learn within 3 years was few. Total teaching time might be 2 to 3 hours a week over 4 weeks for one year at most. Nonetheless, according to discussion with students and teachers who participated in EE program, their interest in teaching strategies, understanding of the relationship between environment and livelihood, and willingness to participate in EE activity was evident. Lack of restriction by local government in project's provision on EE activity to schools under KIO has been an advantage. Moreover, students from KIO controlled area would have opportunity to learn EE through PKDS-EV and its manual book, and through child-centered teaching guide book for EE developed by National Health and Education Committee (NHEC-Burma) in future.

Project activities and capacity of the team members were monitored two times a year by the project consultant. Project's consultant who is also a coordinator of

PKDS-EV's umbrella organization, KESAN, helps guiding and coaching the project process. The consultant has significant experience in community-development work particularly with the Karen in Myanmar, expertise in environmental issues and capacity building, and understanding the community's culture and nature of political situation in Myanmar.

4.5 Activities Proposed for years 2008-2010

Achievements and experiences gained in three years represent key foundations for PKDS-EV to continue an effort for conservation and development of community in Kachin State. Official support by local government and interests of various stakeholders in environmental issues has been key achievements to press on future environmental activities. Improvement in networking with local NGOs, INGOs both working in Kachin State and overseas have increased to advance project capacity and integrated efforts to form environmental policy started from community forest policy. A community forest managed sustainably by villagers was formed as model at Ngawn Aun village, where some community development activities which also focused on conservation and sustainable natural resource management have been established. Education and information programs are inclusively constructed.

To face ongoing threats of environmental degradation in Kachin State, proposed activities for subsequent 2008-2010 project periods seems to advance previous project activities. According to action plan for 2008-2010, project activities will be focused mainly on 10 communities which have severely effected by impacts of logging since civil-war time and faced social destruction by huge number of village populations have been victims of drug. There were five activities: community development initiatives; environmental education and awareness campaign; environmental media and research; advocacy for environmental policy; and staff capacity building.

The programs are arranged to empower community role and capacity in managing natural resources sustainably while building community development. For

example, project team would facilitate to form community-based development project in food security program, herbal medicine and weaving initiative in the development initiative activity. It is expected to focus on preserving environment, promoting local culture, traditional livelihood and strengthening local institution. Farmers would be encouraged to participate in farmers' dialogue program and exposure trip to neighboring country. Active participation in conservation effort, formation of farmers' center and formation of environmental advocacy group in community are expected to be achieved. Communities would be encouraged in taking their role as decision-maker and owner in managing their own as well as common natural resources, in their development work and in activities that they participate. In addition, communities would be given a role in drafting forest policy which will be presented in the 2010 meeting of local NGOs. The project also plans to provide newsletter training to representatives of 10 communities and to form a community-based newsletter.

4.6 The New Education Approach for Community or Community Environmental Education

Education program for 2008-2010 project periods could no longer focus merely on school children. Since activities have planned to promote community roles both in managing environment and development, it had to consider to improving awareness and understanding of communities vis-à-vis conservation and managing environment or natural resources sustainably. For that reason, the education program was pioneered to encourage empowerment and participation of communities. But, the new education approach is rather informal.

The goal of the new education program, community environmental education (CEE) has been stated in Chapter One. The CEE implemented by PKDS-EV is informal to go through campaign. According to project consultant, campaign that would apply is not a campaign to persuade people. It would be providing a space to voice and to exchange knowledge on environmental concerns towards solutions for managing environment sustainably.' The activity is titled "**Identifying solution of**

environmental impact through exchanging local knowledge and experience.’ In Kachin Language, this title is “Shingra Grupyin Makhye Machyang Mahkrum Madup Ginlen Bawngban Lamang.” In the implementation activity, CEE program would aim to:

- ◆ learn with community rather than to teach to community
- ◆ exchange with community, not to inform community
- ◆ communicate with community, not to order it

The idea was based on the belief that though efficient knowledge would not exist, communities already have had environmental knowledge and experience in managing natural resources to some extent. In addition, communities are the right holders to access common resources, to manage their own problems and their development. For this reason, communities must be empowered to have more capacity and experience related with tackling environment problems and development issue.

The design of the CEE program is more specific by using a problem-based approach. Every issue, discussion and activity would be facilitated by raising three questions: (1) what is the problem [what problems have been found]; (2) who made the problem; and (3) how can we solve that problem. This approach is a key to help the community to acquire skills of problem-solving towards solution finding. In order to promote freedom of participation, voluntary participation in the activity was guided to ensure the education team. It avoided the conventional ordering system in participation, to ensure the interests of participants in environment issue and participation of various stakeholders.

According to the proposal, education program would take dual role and will be hosted for broader work field. CEE would take a leading role in promoting community’s awareness, understanding and participation before community-based development project can be formed by individual community. Among the project activities, CEE would be a supportive program especially in development initiative

activities, and in environmental research and media activities. Target communities are broader than previous project periods. Overall project activities would mainly be focused in 10 communities. However, education program will host in most of the communities. In the 2005-2007, 20 communities (villages) were covered in project activities. In 2008-2010, another 15 communities would be included to implement project activities, initiated in July 2008.

4.7 Towards Examining Efficiency of New Education Approach: Evaluation Methodology

Aims to study efficiency of CEE program that would be implemented in the first phase of years 2008-2010 funding period has been described in Chapter one. The efficiency of the program at the initial state would be sought by evaluating two CEE activities which were implemented in July 2008. The first CEE activity was implemented on July 8 at Prang Ngawn village. Villagers from nearby villages such as Ja Ring Yang, Ngawn Aun and Dum Bau participated in the Prang Ngawn activity. On July 12, second CEE activity was implemented at Seng Mai Pa village. Villagers from nearby villages: Bum Ring Zup, Bum Lim and Hka Lum Pa were involved in the activity.

In order to conduct this research, researcher stayed at the MJY almost four weeks. Researcher arrived to MJY on 31st June. Before activities were implemented, the social economic background and political situation in MJY were assessed before and after ceasefire. Project activities and working approaches were learned through staying in MJY office. To understand the whole process in CEE initiation, researcher observed since planning, and participation in both implementation activities. A week after activities were implemented, researcher made a trip to villages involved in the activities. Group discussions were organized and interviews with the selected participants in each village were conducted to evaluate the situation.

Towards systematic investigation and analysis, the 'Planning-Process-Product' evaluation model was selected (Figure 4.1). The reason is that this model is useful in

step by step analysis and ensure valid because the emphasis on planning and process data as well as product data helped a mean to judge (Jacobson, 1991). In addition, the model was used to evaluate the benefits and needs to improve the program of conservation education.

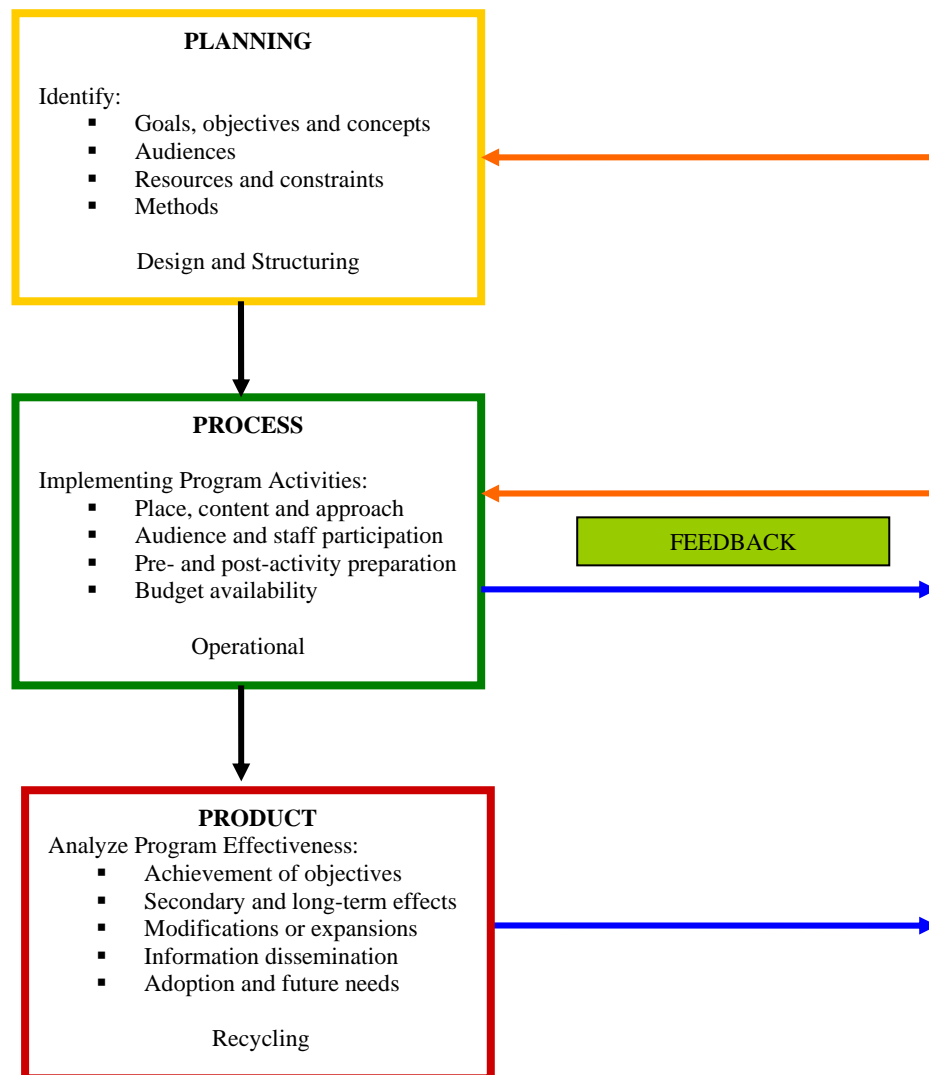


Figure (4.5) Planning-Process-Product Evaluation Model [Adopted from model Applied by Conservation Education in Costa Rica and Belize]

Evaluation process was organized with five steps. In step one, the PKDS-EV project's missions, goals and objectives of the CEE program were documented. Based on goals and objectives of the program, in step two, outcomes to examine were

chosen such as knowledge, skills, understanding, attitude (value to environment), participation and perceptions of the program. In step three, outcome indicators were selected as increasing knowledge, understanding of importance of conservation and sustainable management of environment, getting problem identification skills, and positive attitude in valuing environment, community's perceptions on participation and program implementation, and changes in the project. In step four, data and information were collected by observation, participation, interviewing, and access to report documents. In the final step, collected data were analyzed and reported.

4.8 Summary

PKDS-EV, formed in 2002, has operated several programs cited at MJY. Based on the main concept, 'processing conservation with people participation,' 6 years of hard work have accomplished community-based, conservation and integrated development projects such as community forests, a hydropower rice-mill project, traditional irrigation canals, a buffalo bank, and an herbal medicine project. State project activities promoted sustainable natural resources, participation and capacity of the community to manage their own resources. In addition, environmental publications and basic environmental education promoted awareness and knowledge among Kachin adult communities and children. To strengthen community participation in conservation and development projects, a new education activity, CEE, was proposed to begin in 2008. This new activity was to be a process to empower the community to solve the problems with their knowledge and experience. The education program was found to be a key foundation for long-term solutions. Evidence from literature has shown the advantages of the community-based education program in attaining environmental solutions. Two issues were studied: firstly, can the PKDS-EV succeed in its community empowerment goal via a community education program, and secondly, what is the nature of a successful program in the post political conflict area in Myanmar. The CEE program of PKDS-EV was evaluated based on two initial activities. Analysis of the results and discussion are presented in the next chapter.

CHAPTER V

COMMUNITY ENVIRONMENTAL EDUCATION AND THE ROLES OF INTERNATIONAL AID AGENCIES IN ENVIRONMENTAL SOLUTIONS: A CASE IN KACHIN POST POLITICAL CONFLICT AREA ANALYSIS AND DISCUSSION

5.1 Introduction

This study examines the potential of education programs that aimed to help communities in the Kachin ceasefire area that have faced several difficulties since civil war, and recently facing new hardships due to environmental and social concerns. The study also examines the ways that the key agents took part in the function of helping marginalized communities through the education program. In this study, geo-political factor might be specific to Kachin post political conflict area in Myanmar. Thus, this chapter is composed with analysis and discussion of answering two research questions:

- (1) What are the impacts of community environmental education implemented in the area of post political conflict?
- (2) What is the role of international aid agencies in providing community environmental education to meet the necessary situation of local environmental concerns (in the post political conflict area)?

5.2 Impacts of PKDS-EV's Community Environmental Education Activities

The goal of the education program in PKDS-EV is empowerment of community towards participation in conservation and integrated development activities. The specific objectives of the CEE activity are to help communities understand the value of the natural environment and importance of conservation, and to give empowerment to the community to participate in environmental protection.

Although impacts of the CEE program were intended to be analyzed for this study, it was not possible due to the program being in its initial stage. Thus, the impacts of CEE program were examined in the scope of achievement as well as changes in the perspectives and actions of individuals, communities and project activities brought by this initial stage of implementation. The impacts which referred long-term cumulative effects of this CEE program are worth studying after the completion of the project. The reason is that process in the CEE activities has potential to generate effective outcomes since its beginning stage and it seems to be a potential support for long-term changes.

In order to evaluate the initial impacts of the CEE activities, the researcher undertook informal group discussion and individual interview with participants a week after activities were implemented. Participants included the KIO officer, village leaders, farmers, teachers, nurses, youth and students. There were three main themes in discussion: things that have been achieved or learnt; consequences or benefits of that achievement; perceptions on participation in the activities and comments for the future improvement. Based on those informants, it was revealed that CEE activities could contribute the following potential outcomes in the initial stage.

- Improving knowledge, awareness, understanding on importance of conservation and waste management
- Achievement of skill and experience in critical and systematic thinking to investigate root of the problems
- Improvement of confidence and interest to participate in environmental activity

5.2.1 Improving knowledge, awareness and understanding on importance of conservation and waste management

Gaining more environmental knowledge by participants was the most significant outcome of the CEE activities. In the group discussion and individual interview, the first and common answer reported by all respondents was that getting more knowledge and the program is useful. The program activities helped them to be

acquired with new knowledge and information related to environmental issues both local and global scale. Some of their responses were noted as follows:

- I got new knowledge about maintaining forests: it is important to conserve wildlife and to get fresh air.
- It is really interesting to discussion with the elder how trees can maintain water, soil and how it is related to flooding. That is the thing we never used to know.
- I could learn new knowledge about waste issue: how other countries manage it and how we can do it as well.
- Related to agriculture, I got knowledge about what problems farmers from other countries faced due to mono agriculture, and the way they solved those problems.

It may see that areas of knowledge gained by participants included that of ecology, environmental management, agriculture, and problem solving.

Using case studies in the CEE implementation process is the main strength. The issues used as program planning were waste management through community participation (case study in Thailand), wildlife and deforestation (case study in Indonesia), modern agriculture and impacts to farmers (case study in Thailand), flooding (case study in India and China). PKDS-EV project team selected case-study issues that had similar environmental and socio-economic problems. From those case studies, participants could get more knowledge and information about other countries with similar experiences related to environment, socio-economy and managing the problems. At the same time, local knowledge on environmental management, ecology and suggested solutions came up after reflecting the local cases. That contributed more knowledge and fulfilled the expectation of the participants of the CEE activity. Respondents explain that their expectation to participate in the CEE activity was 'to get some knowledge' and that awareness may be useful in some way for them who have poor education.

Creating awareness through CEE activities is a main factor that also provided broader affects in terms of environmental matters. Firstly, increasing ecological

knowledge supported participants' awareness to protect the natural environment. This awareness was achieved by more understanding of forest conservation for their livelihood. It also resulted in understanding that the ecosystem is not composed with monoculture, and varieties of species and climate are interwoven with each other. It could not assure gaining this type of knowledge can lead to action for sustainable management of natural resources. Nonetheless, this knowledge helped promote the community's attitude to value the natural environment and to consider conservation as a matter for their livelihood.

Secondly, participants acquired knowledge and practice to manage environmental problems. It was consequences to taking action. In Prang Ngawn CEE activity, researcher participated as facilitator in knowledge exchange about waste management. Participants were facilitated to express their understanding on waste, its causes and effects, the way to manage it and to envision a future with or without managing waste. These discussions were facilitated while giving presentation about 'Community Participation in Waste Management: case studies from communities in Thailand.'¹ Respondents from Prang Ngawn and Ja Ring Yang said that from participating in waste management discussion, they got awareness to dispose waste systematically not to cause pollution and health problems. More over, two families said that they started to apply the practice of reuse, recycle and disposing waste systematically. School teachers also reported that students now dispose waste carefully. Selecting waste management issue to facilitate in the Prang Ngawn activity helped build foundation of knowledge to take action in one of their environmental problems.

This empirical evidence showed that attention of community to participate in the CEE activities and to manage natural resource in sustainable way resulted with improving knowledge, awareness and understanding on the environmental matter. In addition, it can be said that practice in environmental management comes along with adaptability of contributed knowledge. For instance, waste management is related with one's daily practice and the practices can be adapted from the individual to the

¹ The presentation was developed by researcher classmate, Ms. Tassanee Surawanna.

community. Thus, Xue et al (2006) also argued that development of public environmental awareness is the key to the success of community-based conservation management.

5.2.2 Participants achieved skill and experience of systematic and critical thinking to investigate root of the problems

Beyond providing awareness and knowledge related to environmental issues, there is another key principle in environmental education. It is, as noted in the literature review, to help people acquire **skills** to solve environmental problems and the **ability** to evaluate overall environmental and related factors. Helping citizens to investigate or evaluate cases in environmental matters is needed to form citizens of 'thoughtful decision-making' (Johnson and Mapping, 2005). In this sense, environmental education programs that provide participants the opportunity to improve their skills and ability to make decision or take action are the most efficient.

The outcomes of two CEE activities reflected that the community was able to make decision-making and act effectively. PKDS-EV's education conductor facilitated the community's skill in investigating or evaluating the root of problems by the CEE activities; but with limitation. Participants who could investigate problems, finding root of causes and solutions were mostly the ones who have high education such as KIO officers, teachers, and nurses. They also responded that problem identification and solution finding helped people to think critically. Schools teachers expressed that thinking problems critically was a good strategy that they can apply in teaching to improve students' learning skill. They suggested that the CEE activity will be more effective if it can encourage Kachin communities to be aware of the problems that face them.

Although the fact that getting skills in majority of participants could not be measured in the short time, there were some impacts that resulted from getting experience in problem identification. Most of the participants told that it is their first experience in thinking about problems and solution in various ways. They explained

that comparing problems analyzed from case studies made them understand about their own problems. For the majority of communities in war-torn areas, the skill to think through problems critically is necessary; and it may require time and efficient information. The reason is that communities are not familiar with the practice of thinking critically. Communities have low education, and the education system itself needs an enhancement for critical thinking. A lack of critical thinking became an opportunity for resource exploiters. Additionally, communities themselves also exploited own resources as they think in order to solve their livelihood problems. Thus, getting critical skill to solve the problems could help the community in war-affected area aware the problems and decision needed to take action.

A case in point, farmers who participated in Seng Mai Pa are interested in modern agriculture and requested to discuss that issue in the CEE activity when CEE conductor went to the village beforehand. Thus, as it is a topic related to impacts of market economy to the cash-oriented farmer, a case in Thailand was used to facilitate participants to think critically. When researcher went for evaluation, farmers from Seng Mai Pa said that they have discussed what crops should be grown alternatively as opposed to practicing mono cultivation. Village leader who is also farmer said that he had decided to manage his farms to grow enough rice for consumption and will grow sugarcane only at free space for extra income.

Lack of information is another factor that causes communities to believe exploiters and repeat negative practices. For example, communities believed the discourse from the government that development would be attained by modern agriculture and they hoped to get modern agricultural techniques. Farmers adapted Chinese high yield agriculture techniques. Farmers felt unease due to the need for chemical fertilizers without knowing its impacts. There have been no information resource that communities can read such as newspapers or articles related with modern agriculture and scientific information about chemical fertilizers and its impacts. Therefore, in order to build ability of community in problems identification and solution finding, the villagers may need a bit more time and frequent action for long term benefits. Provision of relevant information is required as well.

5.2.3 Improving participants' confidence and interest in participating in environmental activities

According to the findings through observation and evaluation, improvements in confidence and interest of participants are another potential outcome. While doing group discussion for evaluation, respondents were asked their perception on participation in CEE activity. Most of the respondents mentioned that they were happy in participating in the activity, especially in the event of poster creating.

It must be acknowledged that poster creating was the most significant event which put in evidence the participation of the community. It was also an event which integrated with factors in empowerment of the community. Poster creating was an activity which aims to provide opportunity for community in creating a poster with their environmental messages to be shared with others. In the activity, participants were organized in groups and given photos of wildlife, agriculture, waste, and flooding. It was observed that participants of all levels were working together and tried to present their messages. The potential of this activity was enhancing collective action with different responsibilities; exchanging local knowledge, concerns, and ideas to solve the problems; and developing skill in creativity. Respondents mentioned that they feel more confidence in presenting their knowledge. According to their explanation, it was because of their own knowledge and ideas being expressed freely in the activity. Respondents told that they became more interested in participating in poster creating activities.

The term 'confidence' is one indicator of empowerment. Thus, achievement in improving confidence of one's own knowledge and skills may encourage personal capacity of the individual. That may again support participation, decision-making and taking responsibility. Fleming (2007) noted that putting ideas to practice depends on people's confidence in their own knowledge or ideas while the confidence becomes a source to be involved in taking action or to work with others. Similarly, community's interest is a factor which may stimulate future participation in activity or taking action. Thus interest factor was included in the planning for effective community

environmental education programs by organizations such as Environmental Protection Agency (EPA).



Figure 5.1 Participants in Prang Ngawn Group Activity (July 8, 2008)



Figure 5.2 Participants from Seng Mai Pa Group (July 12, 2008)



Figure 5.3 Group work in developing poster to share environmental message
(Prang Ngawn Group Activity – July 8, 2008)



Figure 5.4 Primary Students explain their group message about environment
(Seng Mai Pa Group, July 12, 2008)

5.2.4 Summary of Initial Impacts and Future Improvement

The goal of education program in PKDS-EV has been stated as the empowerment of community to participate in conservation and integrated development activities. Specific objectives of the CEE activity are to help communities understand the value of natural environment and importance of conservation, and to give empowerment to the community to participate in the environmental protection.

It can be said that the CEE program managed by PKDS-EV project was succeed in helping war-affected community to understand the value of natural environment and conservation. It was generated some initial effective outcomes and foundation for future. In both CEE activities, the participants got acquainted with new knowledge related to the environmental issues. That supported participants' awareness and understanding of conservation as being vital to their livelihood. This factor affected to the participant's attitude in valuing the environment and seeking alternative solutions to overcome negative impacts to their natural resources and livelihood. In addition, CEE activities encouraged participant's happiness, confidence and willingness to be involved in future environmental activities. From the problem identification and solution finding by group, participants got experience of decision-making in collective feature.

For long term impact, the changing attitude and improving interests of the community in environmental matters are significant for changing behavior in managing the environment and natural resources in a sustainable way. This finding is consistent with Kilpatrick (2002)'s contribution on best practices for facilitating change in sustainable natural resource management. Xue, X. et al (2006) also stated that if interest of the community was lacking, environmental management could not be operated even it was formulated and implemented according to government policies.

Another consequence for future impacts was improvements within project. There was progress in implementing three more activities by the project's education team within 2008. More specifically, initial CEE activities were implemented with the direct supervision of a project consultant who has potential experiences and capacity to manage community forest and community development issues. His careful guidance in planning, sharing concepts in environment, role of educator, community education pattern; and practical facilitating strategies in initial two activities were foundation for project team. Based on experiences from initial two activities, education team could implement three more activities as described before. It was known that communities had more interest in the CEE activity and participant numbers had been higher than expected. In addition, villagers became more awareness to social-economic and environmental impacts of chemical fertilizers and pesticides. As a result, villagers changed attitude to use natural fertilizers and pesticides, and requested if project could helped in production. Due to demands from community to provide CEE activity were increased, to improve capacity PKDS-EV's education team was arranged to advance skill and knowledge related to CEE.

In terms of direct beneficiaries of the CEE program in 2008 are concerned, around 300 people from 11 villages had the opportunity to participate. Project team itself could build confidence and knowledge to improve the CEE activity from experiences gotten in each CEE implementation. Communities in Sim lum mountain range area are now more curious to be involved in CEE activity. For the coming year 2009, communities in 15 villages were targeted.

In coming years, if the CEE program could increase knowledge and experience for accessibility towards sustainable natural resource management, it would be more beneficial for communities looking for environmental solutions. It is because environmental crisis in MJY and communities' involvement in exploiting natural resources as discussed in Chapter IV are related to lack of accessibility to natural resources as well. Communities did appreciate the knowledge contributed by project's CEE activity. Nonetheless, their ultimate expectation was how the project can help them to access forest resources which their livelihoods depend on. Since

project aimed to enable communities in solving their concerns, CEE program should consider providing communities in knowledge and experience relevant to accessibility to the resources. At the same time, knowledge, awareness and understanding of sustainable management of natural resources should be advanced to ensure management of resources in a sustainable way.

5.3 Community Environmental Education (CEE) towards Solving Environmental Concern in Kachin Post Political Conflict Area in Myanmar: Role of International Aid Agencies

Community environmental education (CEE) program can be seen in a key role of tackling environmental concerns in post political conflict areas. From the above discussion, it has been shown that marginalized communities were empowered through various activities applied in CEE activities. The CEE program provided not only benefits for conserving the environment and sustainable management of natural resources in the sake of community development. It also provided an educational opportunity which communities could not access in the time of armed conflict. Thus, it can be seen that consequences of the CEE programs are integrated in broader aspects: empowering the local community at the ground level, stakeholders' negotiation, support for development, sustainable management of natural resources and conservation.

In order to achieve this goal as well as to go further for extensive efforts in solving environmental concerns in Kachin post political conflict area, PKDS-EV has played an important role. The extent and scope of CEE program that could help to community by PKDS-EV in war-affected area has been discussed in above sections. In addition, all the activities which could be done by PKDS-EV since 2002 to 2007 have been expressed in Chapter IV. This evidence also points to the crucial role of international aid agencies in helping community in war-affected area through supporting local NGO.

It must be said that without support from external aid agencies, significant activities in helping war-affected communities could hardly be accomplished. In the case of PKDS-EV, when environmental crisis and its impacts were discovered, social workers had only a willingness and commitment to work for change. Technical and intellectual knowledge related to environment and environmental activities was not understood by social workers. Until the project was initiated, little knowledge and only one year of financial assistance were available to manage environmental activities. Project activities at initial two years showed less significant achievements. Nonetheless, two years experiences contributed awareness to change the project approach to meet the need for local community participation in conservation efforts. Efficiency of the project activities increased due to long term financial assistance, improving intellectual and technical knowledge relevant to environmental activities. In order to advance capacity of project team, opportunities for integrated learning with overseas organizations were arranged in an annual capacity building program. In this capacity building process, funding agency provided important financial resources. As a result, potential activities related to community and environmental matter in Kachin post conflict area could be implemented as stated.

Aid assistance to help communities in Myanmar post political conflict areas are relatively important. The requirement of aid assistance to ceasefire or post political conflict areas in Myanmar has been discussed by some scholars and INGOs working inside Myanmar. Smith (1999) discussed that many communities in ethnic regions are disrupted in the educational progress due to decades of warfare. The extent of needs has been confirmed to include problems of sanitation, drug addiction, HIV/AIDS, malnutrition, highest rate of maternal and infant mortality, refugees and internally displaced people, and illnesses like diarrhea and malaria. Those problems are only records in the health field by INGO working inside the country. The ICG 2004 report also noted a case that helps communities in border areas, places devastated by armed conflicts, isolation, and extreme poverty.

Although conflict time has passed, communities in post conflict areas still face many dilemmas to get aid assistance. Dilemmas of aid to post conflict areas are related to geopolitical factors. Firstly, most of the international agencies are based in capital of the country, Yangon. Direct access to ethnic conflict areas by INGOs and NGOs was extremely restricted by the military government. Fortunately, in 1994, the military government allowed NGOs to go to ethnic States. However, those organizations were just allowed at the capital city of the State. Thus, assistance to conflict-affected ethnic areas has provided through cross-border programme partnership with local organizations since direct aid could not be reached to those areas.

Second dilemma of scarcity of aid to ethnic armed conflict-affected area has been the political issue. The amount of aid that reached to national level itself is one critical condition. According to Paller (2007), Myanmar received little aid compared with countries of similar economic standing both in global and regional scale. The reasons behind this included poor governance and human rights violation record. INGOs have boycotted Myanmar in the wake of 1988 uprising and 1990 election. Whether aid should or should not be provided to Myanmar has depended on donor interests in political matters. In addition, providing aid assistance to war-affected communities became controversial due to concerns over the increasing number of refugees on the Thai-Myanmar border, ongoing conflict inside the country, difficulties of aid monitoring and resumption of international pressure on military government. Ashley South, a consultant of humanitarian and political issues in Burma and South-East Asia noted that total amount of aid provided by international organizations inside the country is approximately \$250 million while the budget directed to the Thailand border is about \$50 million for a refugee population of approximately 150,000 people. In that amount, some \$7 million was spent on cross-border funding [include assistance to war-affected area] (South, 2008). Scarcity of aid to help communities at post political conflict area has been tied with complex effects.

Thirdly, constraints faced by aid organizations working inside Myanmar have been an additional case of the aid dilemma. Several factors are included in this matter. Martin Smith (1999) pointed to a number of difficult issues: shortage of skilled or experienced persons for development on the ground; dearth of accurate information and influence of many institutions and organizations such as variety of civil society groups, government organizations and government-backed NGOs in the field. It has been a mess that led to failure of the tasks and complexity in working process. Marc Purcell (1999) also noted that the entire process required the government's facilitation. Connection with the government cannot be avoided since all the working processes need approval of authorities from various levels controlled by the central government. Political restrictions have been a common hindrance to INGOs and NGOs working inside Myanmar. For this reason, Purcell (1999) noted that patience, perseverance and great care are needed to operate an aid work project inside Myanmar.

Moreover, another constraint faced by the aid agencies is financial matters. This issue is related to currency exchange rate and difficulties of donor agents to assess aid effectiveness. Official exchange rate in Myanmar is quite different with the unofficial rate. Officially, US\$1 is equivalent to 6 kyats in Myanmar while unofficial market price of US\$1 is over 1000 kyats. This factor causes relatively decrease in financial value, more expense in office infrastructures and fewer benefits reaching to needy communities. During the discussion with donor agents of Myanmar issue, challenge for funding to Myanmar mainly is security [of aid]. It includes difficulties to get funding in, to know capability of management persons and the way of distributing aid to targeted communities. Dilemmas of cross-border funds were time consuming with communication and information relied only on third parties or representatives who communicate with the aid recipient organizations inside the country. In this kind of situation, aid effectiveness can hardly be realized. This matter applies to concerns of donor agencies providing aid to organizations working in political restricted area. Even if aid was provided, it was only annual funding. This short term funding system threatened extra financial concern over various challenges for local recipient organization in managing aid effectiveness and in working with

government restriction. Sometimes, aid recipient organization was overwhelmed by the mediating organization. Two Kachin local organizations mentioned that sometimes projects were very hard to manage if the financial assistance were supported less than the required amount and could not fully address the needs of communities.

It can be seen that aid limitations for communities in post political conflict area resulted from several factors. Before armed conflicts were halted, no opportunity and no security blocked aid to enter war-affected areas. After political stability, development assistance was called from local ceasefire groups. It was not for political reason. It was looking for the organizations which can help for the development of underdeveloped communities in war-affected areas. Several activists and academics have proposed the needs of development inputs for war-affected communities. In addition, it was noted that there is more freedom of mobilization and association in those ceasefire areas. However, geopolitical constraints, interest of donor agents and dilemma for aid effectiveness still becomes a burden for communities in post conflict areas to get aid distribution.

Insufficient resources for development process in post political conflict areas has likely caused broader destruction of its own natural resources. A case of problems faced by MJY community can be seen as an example. Natural resources which are highly relied on for the livelihood of the community were exchanged for the sake of development. To maintain the resources could not care for long because community merely had to try to get rid of poor livelihood when stable situation was given. As a result, natural resources degraded rapidly and social destruction occurred. Over a decade of political stability has passed by. Problems facing to community are increasing. But, development which community hoped for is still in question.

Although challenges might exist to contribute aid assistance and to get effective outcomes, international aid agencies should think of obligation and possibility to reach aid to communities in post political conflict areas. In order to operate project in post-political conflict areas generally in Myanmar, the way that

PKDS-EV and related parties – aid agency and umbrella organization - has been managing to get better outcomes is a case to learn.

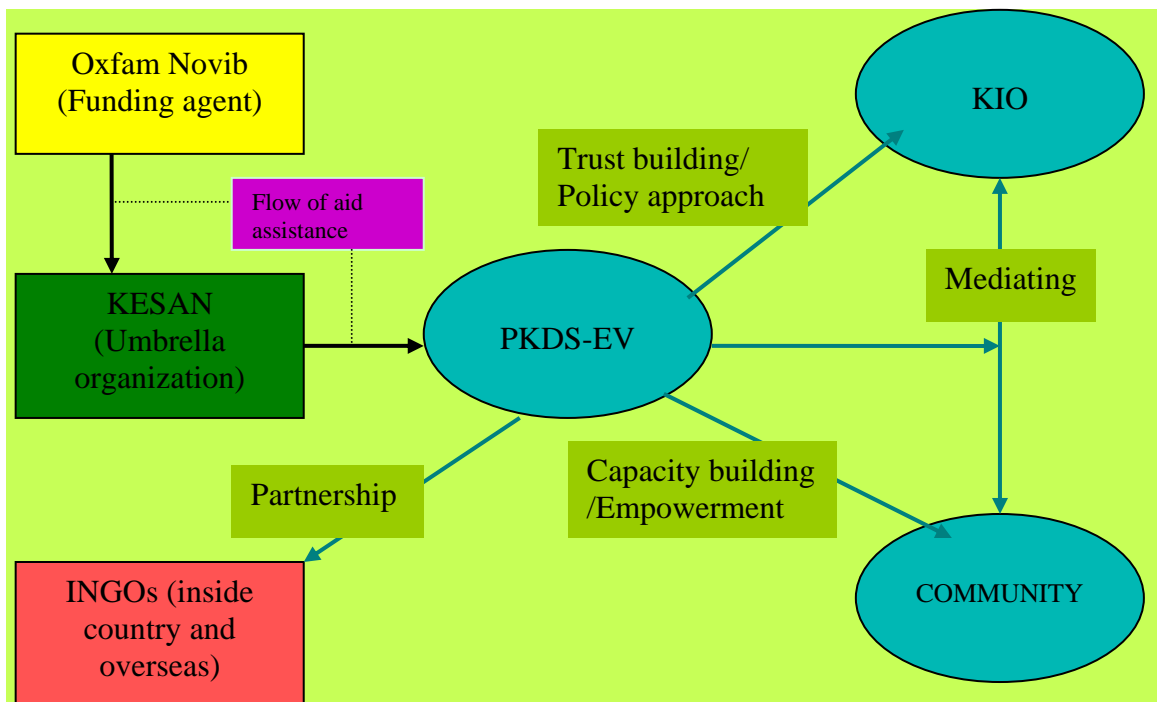


Figure (5.5) Aid assisting process and operation strategies of PKDS-EV

In terms of aid assistance, to implement the project, PKDS-EV was not achieved direct financial assistance from aid agency since the time that Oxfam novib started to support. According to the project’s coordinator, the case of indirect funding was due to some factors. Those are PKDS-EV as a mini project, less experience of the project and difficulties to realize and monitor the project implementation by donor agent in the restricted area. Thus, it was funded through KESAN as its one sub project.

KESAN is a well known Karen organization working alongside local communities in Karen State and refugees on the Thai-Myanmar border. Its activities are supporting local knowledge, culture, capacity, and awareness of local communities in environmental issues. It also advocates rights of local community in natural resource management, environmental policies and development priorities that may ensure sustainable ecological, social, cultural, and economic benefit. Due to

efficient working process, significant achievements and potential capacity of the project team, KESAN has been outstanding among donor agencies. Hence, the condition that KESAN stood as partner or umbrella organization has been a great encouragement for PKDS-EV not only to get aid assistances from donor agency. It was also huge support to improve from the situation that had less experience in environmental and community development project through collaboration with organizations at all levels.

Moreover, the way that KESAN took a role for PKDS-EV enhanced development of the project. Even though funding was passed through by KESAN, PKDS-EV was given ownership in programs operation, financial management and project management. Due to PKDS-EV still has weakness in foreign language, KESAN helped sharing knowledge and skill of developing project proposal and reports. In order to improve capacity of PKDS-EV project team, KESAN also sought and arranged for PKDS-EV in integrated learning with other overseas organizations. In addition, a coordinator who has expertise in community development and environment helped as a consultant of the PKDS-EV. Advantages of consultant supports have been discussed in Chapter IV. To the end, KESAN has been helping PKDS-EV to become independent organization to achieve direct development assistance by donor agency and to managing the project after this 2008-2010 project periods.

Working strategies of PKDS-EV was seen in three forms: trust building to local government; capacity building or empowerment of community; and facilitating stakeholder engagement or mediating between KIO and community. Specific working function to tackle challenges can be seen below.

PKDS-EV faced many challenges from the local government mostly concerned with working against their activities which can affect political stability. In particular, both local and military governments cannot allow organizations that conduct political activities. Information dissemination is another concern. Therefore, PKDS-EV had challenges such as difficulty to get permission for organizing environmental activities

at the beginning. To solve that burden, PKDS-EV informed to the local government leaders their plans, focus issues, approach, expected outcome, previous activities which benefited to community. Officers from local government were also invited to participate in most of the activities. After continuous approval of apolitical focus, project activities could have operated smoothly. Evidence of real benefits to do project in community development and environmental conservation resulted in getting local government's trust and official support. These outcomes led to promote the role of PKDS-EV as a mediator in solving environmental problems of local community. Currently, PKDS-EV facilitated developing community forest policy drafted by local community. PKDS-EV also advocated formation of environmental policy. However, opportunity to get access to oversea expert persons to advance the program and access by donors was not possible due to national policy of restriction to post conflict areas.

Using an informal approach is one major tool of PKDS-EV project to work in post conflict area. Environmental problems were undeniably caused by local and national government practices in logging. Some of the communities also participated in logging and getting rich. Nonetheless, discussing about logging can be linked to political issues and conflict between communities. It is because logging and conservation work are explicitly opposite. Therefore, the project's approach focused on stimulating discussion about the importance of conservation for their livelihood rather than against the case of logging. In this approach, environmental education activities were implemented firstly as with a focus on awareness raising, knowledge exchanging, and to understand the importance of conservation. Education process was particularly based on local knowledge in order to empower community.

The CEE activity provided by PKDS-EV project for Kachin community is also influenced by both formal and informal approach. In the literature presented by Guevara, J., Flower, R. & Whelan, J. (2004), formal education is that characterized by a defined curriculum while informal education is characterized by educators' planning for informal learning. Informal learning is that learned from a learner's experiences with no formal instruction involvement. In the CEE process in PKDS-EV project, contents such as case studied issues were including modern knowledge and modern

technical management. This is similar with content in formal approach while informal approach is focused on local or indigenous knowledge. In addition, informal or local pedagogy in environmental education is sharing knowledge and raising awareness through local folklore, story telling, and songs. Pedagogy in PKDS-EV, however, used the facilitating with instruction even if local experiences were focused as major inputs for sharing knowledge. From those reasons, CEE activity provided by the PKDS-EV project is a combination of formal and informal approach.

PKDS-EV has managed programs not for a political agenda. As stated at the beginning, empowering communities to be confidence to its own knowledge and experiences, having more knowledge as well as skills by learning and working together were principally the background of every program. The evidence from community's response also proved that project workers tried to manage in their working concept in order to achieve the objective of the program. Ideas of to work and to learn with communities, initiating with communities' existing capacity – what communities know and have – are main events to promote capacity of the staffs. Those events are firmly took care in planning the activities, monitoring and evaluation process.

Overall, although there were challenges due to the geo-political situation in the post conflict border area, PKDS-EV could continue the projects. The stand point of the PKDS-EV has been an independent organization; this project has less outside pressure such as from local government or donors. The organization is locally driven and donor organizations supported it with interest to the environmental case and community or social justices. It was a match with the interest of the project team and donor. Therefore, project could implement education program to match with local situation. Providing support for integrated learning with other organizations by the donor agencies was also a crucial opportunity for the project team to advance personal and program capacity.

The strategies and working pattern of PKDS-EV give the general sense of possibility to work in politically restricted, post conflict areas in Myanmar. It also reflected the individual role of aid agencies, mediating organizations and recipient organizations in working together to operate programs effectively. Program arrangements, operating strategies, and initial outcomes achieved by CEE program showed the broader picture of CEE program in development pattern. Purcell (1999) also described that ‘undertaking education activities with communities is the key for INGOs to making transition from humanitarian relief to community development.’ Therefore, aid assistance to help war-affected community should go beyond humanitarian assistance merely in health and education. Capacity building and empowering focused on civil society and leadership may not be enough. The majority of the community must be included directly in the capacity building and empowering process rather than a top-down approach from the trained representatives or leaders. Undeniably, there are several challenges in supporting aid assistance to Myanmar. Nonetheless, development assistance to war-affected communities should be considered. If it was willing to operate aid to Myanmar, concerns over restrictions can be overcome by trust, patience and flexibility. Similarly, aid effectiveness can be managed by ‘carefully considered, attentively applied, closely monitored’ action as Paller (2007) suggested. In addition, efficient or helpful partnerships must be encountered.

5.4 Summary

The CEE activities implemented by the PKDS-EV with the goal to empower the community to participate in environmental solution activities in the Kachin post political conflict area has shown potential results. The initial impacts of the activities showed that the participants of the CEE activities improved their capacity by acquiring more knowledge, understanding, experience, confidence and skills to solve environmental problems. In addition, participants became more understanding of the value of the natural environment and importance of conservation for their livelihood. After the activities, some farmers have changed their attitude of favoring mono agriculture to favor alternative agriculture, and waste management practices have

been adopted by some families and students. Communities became more interested in the CEE activities as well as in environmental issues and demanded to implement more activities. To help communities in war-torn areas solve environmental problems by providing CEE activities; international aid agencies played a crucial role in supporting PKDS-EV with required resources.

CHAPTER VI

CONCLUSIONS AND PERSPECTIVES

6.1 Introduction

This chapter provides conclusions and perspectives based on the findings of the research. Field research for this study was carried out in July 2008. The researcher applied a participatory approach in examining the impacts of the community environmental education program implemented by PKDS-EV in MJY community. Literature, observation, participation and interviewing supported data to examine two main research factors of this research: impacts of community environmental education program and roles of international aid agencies with regard to the case of war-affected communities in Myanmar post political conflict area. Thus, perspectives on those two main factors are described in this chapter.

6.2 Community Environmental Education: Impacts to the Community of the Post Political Conflict Area in Myanmar

The hypothesis was posted in the first chapter as “community environmental education might assist in the prevention of local environmental problems in a post-conflict area.” Key findings of this research pointed to some potential results. According to those results, it was found that the CEE program implemented by PKDS-EV can help not only for prevention from environmental problems. It could also contribute for conservation of the environment by empowerment of community. Overall achievements of the CEE activities implemented by PKDS-EV in the area of Kachin post political conflict can be seen in below.

Various stakeholders in MJY area actively participated in the CEE activities facilitated by the education team of PKDS-EV. The participants analyzed the problems and the solutions of the environmental problems systematically from the study cases. From that, participants reflected on the problems they were facing and discussed the solutions. After the activities, MJY community and other communities

around the Sin Lum mountain range became more interested in CEE activities and demanded to provide activities of these kinds more frequently in the communities.

During the CEE activities, a voluntary approach allowed the involvement of various stakeholders from different ages and genders. This approach again took a key role in giving freedom to participate in activities and to encourage open views and opinions without hesitation. This factor was found to be one condition that provided participants with satisfaction and the opportunity to share existing knowledge among them. At the same time, problem-based approach enabled participants the experience to investigate problems critically. This helped participants to understand existing problems from various perspectives and to find proper solutions. Seeking problems and solutions in a group encouraged participants to collectively analyze the problems and share responsibilities. Moreover, discussion in a group with various stakeholders provided experience of stakeholder engagement in problem identification, solution finding and decision-making. It also gave an occasion to share participants' knowledge and concerns over environmental issues.

Discussion on environmental issues was initiated among villagers. Normally, villagers rarely discussed the matter of what to do with environmental concerns. This was related to the pressure of daily livelihood problems which they had to consider over environmental cases. In addition, due to large scale environmental problems caused by State economic activity, communities thought that tackling environmental concerns is a State matter. Communities had perception on State responsibility in post conflict area to settle certain rule and regulation. They also hoped for the allowance of community participation in resource management. Nonetheless, familiarity of traditional top-down social institutions and feelings of insecurity caused the communities to hesitate to ask for change. In this state, non-traditional practices experienced in CEE activities stimulated community's interest to discuss environmental issues and to participate in effort to managing natural resources. By PKDS-EV facilitating, three more community forests could be established in Mahtang, Mungloi and Mai Chu villages at the end of year 2008 in order to strengthen community-based sustainable management.

Communication between local authority and villagers became more open and direct. Villagers expressed their concerns and opinions while KIO officers also proposed their opinions. Both parties have participated as partners in decision-making in the CEE activities. The KIO officer who participated in the CEE activity noted the case study to investigate the social impact of current mono-crops by the local authority and suggested requirements to reduce problems faced by community.

CEE activities helped to improve the local community's capacity. Participants from MJY community acquired more knowledge and confidence. Participants could make a choice to solve their livelihood problems related to environmental management. Participants of CEE activities became more aware in constraints of cash-oriented agriculture. They have changed their attitude to practice alternative or sustainable agriculture and asked PKDS-EV for ways in helping to produce natural fertilizers and pesticides.

The case of changing farmers' attitude was an important if looked across to the current unsustainable agriculture practice that needs to apply intensive chemical fertilizers and pesticides. It is a matter related to the livelihood security of the community and sustainable management of the natural resources. For the project, it was a good chance to initiate community-based sustainable agriculture program in the form of community development. The process in this program will integrate with developing both intellectual and technical skills. For instance, project might require providing community to understand well about sustainable agriculture, technical support for alternative farming, and related knowledge, information and news. The activity might require specific time, resources and participation of community to ensure in improving ability of community to practice effectively and sustainably. For PKDS-EV, however, project team could only manage in giving the training for doing natural fertilizers and pesticides. This highlighted project team to look changing in community in the broader perspectives and to improve the knowledge and capacity of the staffs related with alternative agriculture. In addition, knowledge on the way that the CEE involves as a key role in the alternative agricultural program should try to

look forward. Needless to say, challenges and requirements of the project would be managing or seeking to improve the required intellectual, technical and financial resources.

The experience of initial CEE activity was a great foundation for PKDS-EV team to increase more activities. Three more CEE activities could be implemented in the year 2008. The number of voluntary participants was reported as more than expected. Nevertheless, the education team of PKDS-EV has faced several challenges such as difficulties in collecting required factual information to share with the community, less knowledge on facilitating strategies, and various forms of social-economic problems associated with environmental cases. They have also taken extra care not to go against political concerns of local government by using neutral language, issues and facilitating strategies.

The researcher strongly felt that CEE activities were a great support to the community to value natural environment and the promotion of community development projects for natural environment conservation, particularly, in Myanmar. In addition, CEE program was found to be one effective program to empower communities in post political conflict area according to some potential outcomes proved from the initial activities. However, the extent of community participation in conservation and integrated development activities for the long-term may need to ensure the precise effectiveness of the program.

In conclusion, PKDS-EV has initiated CEE activities with the main objective, to empower the communities in the Kachin post political conflict area to participate in solving the environmental problems in the Kachin area. It can be said that the education program of PKDS-EV was succeed in empowering the war-affected Kachin communities in some extents. It means that communities who participated in the CEE activities increased their capacity - improving awareness, knowledge, and understanding on environmental issues as well as solving the environmental problems. In addition, confidence on its own knowledge and interests to participate in environmental activities was increased. However, critical skill towards solving the

environmental problems was not significant yet. It is because the participants got just experiences of decision-making, problem identification and solution finding. In helping community to solve the problems by themselves, critical skill in decision-making, investigating, understanding the problems' situation, and finding better solution is to be improved till able to use practically. It is also the skill necessarily by individual to practice or to implement in making-decision and solving the problems independently as well as collectively. In this reason, agents that proposed to give empowerment of the community should be concentrated to improving the critical skill of the communities to be able to use practically. Undoubtedly, it will be a great support for the communities in the Myanmar war-affected area, communities of self-autonomy and self-reliance in managing their livelihood since long period.

In terms of future improvement, some recommendations are going to suggest for PKDS-EV which planned to help the war-affected communities by empowering to participation.

1. Planning and process of PKDS-EV have shown potential in improving environmental awareness and understanding of the community but not in problems solving skill yet. As stated above, improving critical skill to be able to use practically is a key for community to solve problems themselves, project should be focus more to improve problem solving skills beyond giving the experiences.
2. Unsustainable management of the natural resource management and unaware to the politic of market economy is key matter that cause the livelihood difficulty of the community. Therefore, the CEE activity should help community to key factors of understand sustainable management: what is it, why it is important, and how to manage it sustainably. Similarly, communities will be required to help aware to the market politics and associated problems to the natural resource dependent communities.
3. Project should encourage community participation in planning, process and evaluation of the CEE activities. If do so, communities can learn the whole process of CEE activity and can be sustained the activity in future. At the same time, project team can improve CEE activity according to inputs of the

communities such as interest, opinions, suggests and their needs. In addition, education team should evaluate the program with the communities to understand communities' perception to the activity and to ensure future improvement.

4. PKDS-EV project team is suggested to advance capacity of: well understanding to the form and advantages of community-based education, key strategies of empowerment, understanding on level of participation, integrated activity of CEE and sustainable natural resource management.

6.3 Role of International Aid Agencies in Helping Community of the Post Political Conflict Area in Myanmar via Community Environmental Education

The geo-political landscape of Myanmar post political conflict areas has not been in favor of development. The hardship of living in the post political conflict environment is not only due to uncertainty of political stability. An over extraction of available natural resources for development construction has brought about the scarcity of natural resources, difficulties to manage available resources and other socio-economic impacts of environmental deterioration. Under the limit of access to natural resources and development assistance by local and national governments, the livelihood of war-torn communities is not much better despite it was political improvement.

In the stated circumstances, it has been shown that an environmental NGO can be one resource for an improved livelihood of war-torn communities. An organization which may provide community environmental education can be effective for development of the community as well as for conservation. However, political restrictions on direct assistance to the post conflict area and limited capacity of the social workers are great challenges to ensure the effectiveness of the aid assisting organizations or aid agencies. Therefore, the role of international aid agencies will be crucial in helping war-affected communities via assisting required intellectual,

technical and financial resources to local organizations. Seeking possible aspect to distribute aid assistance to war-affected area has been a great challenge thought.

Aid or resource distributions for organization projected in Myanmar post political conflict area can be in two aspects. If the agency could afford direct assistance, it may require patience, careful planning and an informal approach in the early stage. After the stabilization of communication with government authorities and communities, gradual expansion of programs can be managed in the form of development assistance. If direct intervention cannot be reached, international aid agencies can be: key supporters as capacity-builders, partnership facilitators and advocates for development of civil society or local organizations. If, again, the direct assistance could not be reached to the local organization by donor agent, the alternative approach is to manage via intermediate or umbrella party which can communicate with donor agent and local organization. Importantly, the righteous supports and well understanding to the social-political culture inside Myanmar by the intermediate party is the key letting the local organization to manage the project effectively. Potential results or effective work will be achieved by harmonious effort of three mainly parties: recipient local organization, intermediate or umbrella organization and donor organization.

6.4 Perspectives: Community Environmental Education and the Role International Aid Agencies for Myanmar Post Political Conflict Area

The purpose of this study is to contribute knowledge and suggestions for the development of the CEE program which can help communities in the Myanmar post conflict areas solve environmental problems by themselves. Based on the empirical and theoretical knowledge, this section provides the perspectives of the CEE program and the roles of aid agencies. Suggestions relative to the social-political condition of the Myanmar post political conflict area are also discussed.

It has been seen that CEE program provided by PKDS-EV in Kachin post political conflict area is composed of both formal and informal features (see section

5.3). The program attempts to heighten the capacity and role of communities to take responsibility in environmental management and development. Based on the community-based conservation and development approach, the expected outcomes of the program are the empowerment and participation of the community. To do so, the education process is designed in a problem-based approach and knowledge exchange activities to empower the community.

The CEE program driven by PKDS-EV also takes a part in the social change process. The purpose of environmental education is to develop the understanding, values and skills necessary to work with others; to improve the quality and sustainability of the natural as well as social environment. In addition, learning experiences was arranged for participants to make a better place for society by caring, by speaking out and acting against social and ecological injustice. It is the process encouraging people to realize their potential of the past and to transform the society or capacity of the society towards development of the future.

Theoretical aspects of environmental education in the social perspective can be considered as a potential approach to managing the environmental crisis in Myanmar post political conflict areas. This is because the cases to solve the environment crisis and associated problems mainly depend on strengthening capacity of society. As we have seen in Chapter III, the expanding environmental crisis and impacts around post conflict areas has been due to intensive resource extraction. In the local government aspect, creating economic opportunity is the only process which can be done for the development of the community. In the scheme of solving the environmental crisis, government action did no more than a reforestation project which mainly allocated resources to the private business sector for growing cash-oriented forests. The community, in reality, needs the opportunity to manage environmental resources sustainably as hardships increase. Nonetheless, war-affected communities have been disempowered in society for several decades¹. Community mostly stands as informed citizens and they are rarely included in the decision-making

¹ War-affected community could not have good education due to long term civil war. Thus, majority of community recognize themselves as powerless in the society in terms of lack of higher education and advanced knowledge. Government attention to capacity development of adult community is rarely considered and capacity building or education development is mainly focused on children and leaders.

process. Therefore, the education process which intends to initiate social change is relevant to strengthen the capacity and the role of community in the post conflict area to participate in environmental management and development project.

However, political restrictions in Myanmar cause difficulties for social change. A case in point, the term “empowerment” cannot be used openly in Myanmar. In this situation, working for social justice will be difficult. Social justice in the process of development deals with poverty and inequality. In practice, it would deal with public debating, discussion, and basic civil rights and political freedom. Among those, issues related with human right and political freedom are never allowed to be discussed or practiced directly in Myanmar due to security. These restrictions affect international agencies as well as target communities. Therefore, the performance of global standards can rarely be practiced in any area of Myanmar in the mean time.

In researcher’s idea, CEE in a social change perspective can happen in Myanmar post political conflict areas; but based on some critical factors. Firstly, careful planning must be a priority. One must be aware of the nature of political restrictions. Language usage is really important and it is better to be low profile. For example, using the term ‘stakeholder dialogue’ is sensitive and seems going against politics. It is better to use ‘community discussion’ to avoid the political tension. Similarly, the process of realizing injustice can be managed by using similar case studies of other countries to avoid direct criticism of its own government policy or practices. It must be said that the processes and practices which experienced by the community from the activities, to solve the problems are more important than the significance of the title of the activities. Patience, an informal approach for alternative education, and keeping low profile will be key tools both in planning and practice.

Secondly, CEE as an empowering process in post political conflict areas will be more efficient if the culture of local community is well understood by the facilitator. In reality, every local community has had traditional education about environment and managing environmental resources. This is usually in the form of handed down local environmental knowledge learned practically while working,

and/or story telling from generation to generation. For this reason, local community has traditional knowledge based on their daily experience. But, with no recognition to local knowledge, majority of local community thought of themselves as being powerless owing to a lack of higher education and advanced knowledge. In this sense, empowerment may be required to encourage local knowledge as a main tool in constructing development project and activities. At the same time, new knowledge should be provided for more understanding while facilitating local knowledge for self-confidence. To this end, empowerment of the community to participate in the change activities would result. The extent of achievement in empowerment may depend on the existing capacity, experiences, and participation of the community.

Thirdly, the facilitator should have to be careful to capacity to adapt for change of the community. This factor relates to the awareness of the social structure of war-affected communities. Sample social structure of community in post political conflict area can be seen in Chapter III. It was traditionally religious leaders who were the most powerful in social matters while today the local authority is the highest in the administration. Educated people such as teachers and nurses can communicate with religious or administration leaders. The majority of villagers such as farmers the ones are normally informed participants in the decision-making process. They always take a complementary role in accomplishment of village affairs through collective action. War-affected communities may rarely display their concerns although they suffer oppression, trying to avoid direct arguments with authorities for the sake of self-security. In this sense, encouraging community participation in development process, for example, to take part in decision-making process is certainly a form of breaking the traditional hierarchy. It needs to well manage by facilitator, to help all stakeholders aware the process including advantages to avoid social conflict. Additionally, facilitators have to encourage non-conflict sense in problem solving. For example, in a democratic country like Thailand, citizens may demand accessibility to resources by demonstration or protesting. Communities in Myanmar post conflict area can learn from this case; but truthfully cannot allow adapting this practice because of their security risks. Facilitator should encourage the community with alternative

practice like report to the administration office about the case happening and their concerns over it.

Finally, the researcher would like to propose to international aid agencies to take a role in providing assistance in the form of development process, directly or indirectly, especially for the community in post political conflict area. It is the only effective way to help communities under oppressed and long-term underdevelopment. Several challenges will have to be faced, without doubt due to the geo-political and social conditions. Nevertheless, positive effects can happen with flexibility and specific learning to the situation in terms of social-political and possibility to make a change or to processing the action. Based on the lessons learnt in this study, the working process which can gain potential outcomes in implementing projects for environmental management and development of war-affected communities in Myanmar are as follows.

Local Organization:

- promotes understanding on key concepts and processes relevant to focus issue including development of the community
- initiates trust building with community and authorities
- tries to understand characteristics of problems facing the local community from various perspectives
- gathers local knowledge, community's culture and capacity of local community to be included in the activity
- be familiar with alternative strategies in program implementation
- encourages community to acquire experience of participation and opportunity to participate in managing cases related to their livelihood and development activities
- evaluates carefully the project achievements and weaknesses to promote working capacity including to ensure effective outcomes in terms of sustainability
- improves staffs' capacity to balance the changes in project activities according to the needs demanded by the community or to advance required capacity of the staffs based on their weakness in implementation process

- closely monitors the project with the help of consultant who possesses efficient experiences and knowledge on community development, and understanding on cultural, social and political nature of the post conflict area

Umbrella organization or intermediate organization encourages recipient organization via:

- giving ownership for project management and implementation
- helping annual project monitoring and evaluation
- providing required inputs for project management to process activities efficiently and to achieve effective outcomes
- bringing opportunity to learn with other organizations to promote partnerships and capacity of the project team
- promoting to become independent organization in receiving and managing aid assistance
- liaising with government officials to allow activities to take place

Role of international aid agency:

- gives ownership to local project
- provides financial assistance both to implement project activities and to promote capacity of the local staffs
- encourages local organizations to learn intellectual and technical knowledge in international scale in order to advance project activities via improving broader knowledge and skills of local staffs
- supports extending financial assistance in case project activities have to expand according to increasing demands from local community.

6.4 Summary

The CEE activity in the social change perspective is a great support for development of the community in Myanmar post political conflict area. A community of oppressed can improve their capacity and their roles in making change from this learning experience. From that, it will lead to improving the quality and sustainability of the natural as well as social environment. However, the process requires time and capacity of the operation agents to conduct the activities to be flexible with the political restrictions and the social nature of war-affected communities. Factors such as patience, a deep understanding of the culture of war-affected society, processing activities improving empowerment and participation of the community, and monitoring staffs' capacity efficiently are the keys to achieve effective results in development work in the post political conflict areas of Myanmar.

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APPENDICES

APPENDIX A: DEFINITIONS OF TERM

Aid: A supplement which provides to communities or countries in the event of crisis with the form of humanitarian in order to get emergency relief or with the developmental form to create long-term socio-economic development.

Community: A group of people who live and work together in the same geographically local area, form social relationships within all inclusive residents and do network with outside communities.

Community environmental education: A learning process to help empower citizens and local officials, to identify and solve the environmental problems by exchanging experiences, knowledge, visions and concerns.

Community Participation: The participation of inclusive local community in local economic, social, environmental and security programs facilitate by local government or voluntary organizations.

Effectiveness of Community Environmental Education: The state that achieves the objectives of the environmental education, objectives of the setting environmental education program for community, and useful for further.

Empowerment: Giving or acquiring controlling power and strength of someone to steer own life and tackle the influence situation.

Evaluation: A systematic assessment of the operation and/or outcomes to judge the merit and to improve for future.

International aid agencies: International organizations dedicated to distribute aid of which financial, material, intellectual and technical to provide communities or countries which having outside the donors political constituency, in terms of relief effort to

emergency crisis or socioeconomic objectives to achieve long-term development with aim of poverty reduction.

Livelihood: The activities, assets and access to resources that determine the living gained.

Post Political Conflict: 'Political conflict' refers to revolution movement or armed struggling in terms of political disagreement. The term 'post conflict' may describe the era aftermath of violence is halted by one party got win or by negotiation between two parties in the context of peace building. 'Post political conflict area' therefore is a place that used to be a terra of conflict violation due to political reason and now it has reached stability after negotiation between two parties.

Post Political Conflict Area: 'Post political conflict area' refers to the specific area which is under ceasefire ethnic armed-group's autonomy (local government) that was allowed as a reward of stopping armed struggling by Myanmar military government. The autonomous power hold by ceasefire group is not legitimate; it is come by negotiation between both army leaders. Thus, the last long period of political stability in the area will depend on the tolerable of the ethnic ceasefire group to the power interference and opportunity limitation given by central military government.

Sustainability: A state of having ability, capacity to stand independently at present and to continue process for the future.

APPENDIX B: LISTS OF KEY INFORMANTS IN THE STUDY

NO.	Interview Date	Name	Occupation	Instead indicator
Mai Ja Yang				
1	5.7.08	Daw Aye Nun	Lecture, TTS	T1
2	14.7.08	Daw Htoi Lu	Middle school teacher	T2
3	=		Middle school teacher	T3
4	=	4 students	MJY School	
5	27.7.08	Tsawm Tawng	Sunday school teacher	T4
6	16.7.08	Khun Nawng, Chyin-yu	Deputy ,in-charge, KIO education department, Laiza	A1
7	16.7.08	Mr. Wa Na Yaw Htung	Secretary, KIO education department, Laiza	A2
8	16.7.08	Mr. Shan Lum	Secretary, KRDC, Laiza	A3
9	16.7.08	Mr. Gam Ba	Staff, KRDC, Laiza	A4
10	16.7.08	Mr. Brang Seng	Secretary, KIO Forest Department, Laiza	A5
11		Ms. Roinu	University Student	
Prang Ngawn Group				
12	18.7.08	Salang Naw Lum	Village leader	D1
13	=	Salang Naw Seng	Village leader	D2
14	=	Salang Hpau Maw	KIO administration officer	P1
15	=	Salang Zawra	Daily worker	P2
16	=	Salang Bawk Mai	Youth	P3
17	=	Jan Zing Htung Tawan	Farmer (paddy, cash crop)	P4
18	=	Daw Nang Doi	Elder	P5
19	=	Daw Mwhpu Roi	Village Women Asso:	P6
20	=	Mr. Kareng Gam Mun	Village leader/farmer	P7

21	19.7.08	Ma Rau La Hkam	Teacher (grade IV)	T5
22	=	Daw Lhtaw Yun Ra	Teacher (grade VI)	T6
23	=	Daw Nhkum Yun Ra	Teacher (grade V)	T7
24	=	Daw Dashi Hkaun Ra	Teacher (grade III)	T8
25	=	3 male and 3 female students	2 of grade (V) and 4 of grade (VI)	
26	=	C.C. Hkawn Nan	Nurse	N1
Seng Mai Pa Group				
27	23.7.08	U Yaw Han	Secretary, Seng Mai Pa village administration	S1
28	=	Ma Rau Tu Ja	Chairperson, Seng Mai Pa	S2
29	=	U Kareng Gawng	Farmer	S3
30	=	Sr. Sau Bawm	Elder, former headmaster	S4
31	=	Daw Htu Lum	Headmistress, Primary school	T9
32		Sum Lut Doi Ling	Teacher	T10
33		Lahtaw Nang Bang	Teacher	T11
Three Kachin CBOs and two donor agencies				
34	21.8.08	Shirley Seng	Coordinator, KWAT	C1
35	=	Mr. Naw La	AKSYU	C2
36	12.11.08	Rev. Dr. Saboi Jum	Director, Shalom Foundation	C3
37	=	Liz Tydeman	Project coordinator, Burma Project, OSI	D1
38	=		BRC Coordinator	D2
KESAN, PKDS-EV & Shalom Foundation				
39	20.8.08	Mr. Paul	Coordinator, KESAN	K1
40		Mr. Frankie	Consultant, PKDS-EV	K2
41	8.7.08	Ms. Hkaw Lwi	Coordinator, PKDS-EV	E1
42	8.7.08	Mr. La Lum	Co-coordinator	E2

43	3.7.08	Mr. Naw Mai	EE conductor	E3
44	7.7.08	Mrs. Seng Nan	EE conductor	E4
45	9.7.08	Ms. Lu Seng	Media	E5
46	9.7.08	Ms.Kumhtat Doira	Financial	E6
47	26.7.08	Ms. La Mung Kaw Bu	Field worker, Community-based Natural Resource Management for Environmental Conservation	E7
48	26.7.08	Ms. Dau Lung Seng Hkam	Field worker, Community-based Natural Resource Management for Environmental Conservation	E8

BIOGRAPHY

Nang Thinn Thinn Tun graduated from University of Yangon in 2002 with an Honours degree in Physics and in 2004 with a Master of Engineering Physics. She has volunteered in many social works. She has been volunteering for the Shan Literature and Culture association, Bago Division, Lower Myanmar since 1993. In the regional red-cross association, she participated as a section commander.

While studying at the University of Yangon, she served as vice secretary of the Shan Literature and Culture Association, Universities of Yangon. In those years, she encouraged Shan students to participate in ethnic students' activities such as the annual ethnic-students funfair, culture exchange, and organized a Shan Literature Course. Every summer, she volunteered for Shan Literature Campaigns in Bago Division as well as in Yangon. She has been volunteering for Yangon, Shan Literature and Culture Association since 1998 as in-charge of Shan Literature, budget inspector, treasure and youth organizer. She has also volunteered for many years as a teacher, and later as a trainer of the primary school teachers in Shan State.

To hone her leadership skills, she was selected to study in the Youth Leader Capacity Building Program for 18 months and Cascading Knowledge Course in 2005 sponsored by the British Council Burma. Based on these experiences, she felt that developing her knowledge in education and development would become valuable in the effort for the development of Myanmar rural communities. Therefore, she applied for scholarships to study this Master of Arts in International Development Studies and achieved the support mainly from Prospect Burma and Supplementary Grant Program Burma. She hopes to use her degree to work effectively for her communities, particularly in Myanmar.