



“Sustainable solutions for self- sufficient people”, shifting cultivation as an integrated and self-sufficient system

The experience of Huay Hin Lad Nai

REPORT

Systematization and sharing of good practices in rural development
Huay Hin Lad Nai, Chiang Rai Province,
Kingdom of Thailand

Kingdom of Thailand
International Fund for Agricultural Development (IFAD)
PROCASUR Corporation
Asia Indigenous Peoples Pact (AIPP)



ACKNOWLEDGMENTS

This report presents the successful experience of the Karen community of Huay Hin Lad Nai, Northern Thailand, in the sustainable management of forest resources. It describes the integrated system of shifting cultivation, traditionally practiced by Karen people, as a self-sufficient and sustainable system, as Huay Hin Lad Nai community recognizes.

The systematization of this experience has been made possible with the cooperation of the community of Huay Hin Lad Nai, the International Fund for Agricultural Development (IFAD) and PROCASUR Corporation. They provided technical and methodological support in the process of documentation of the experience. We express our sincere thanks to them.

The Asia Indigenous Peoples Pact (AIPP) partnered with PROCASUR Corporation and provided methodological support in the on-field activities of the systematization process of the Learning Route.

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1. INTRODUCING THE EXPERIENCE

1.1 The Uplands of Northern Thailand

The Northern region of Thailand is mostly mountainous, with almost 20 percent of the region located above 1,000 metres and the 60 percent above 500 metres. The uplands include different landscapes: high mountain peaks and ridges, being Doi Inthanon (2,565 m) the highest pick; upland plateaus; mountain slopes and small intermountain valleys with irrigated rice terraces. In the Northern region, the raining season typically starts in May and lasts until October, while the dry season usually commences in November and from December to March there is minimal rainfall. The dry season is also the coolest time in the year, with temperatures falling under 10 degrees Celsius in the mountains.

In the Northern region, the first Thai settlements (called *muang*) were located in intermountain valleys where irrigation systems supported abundant rice production on the flat riverside plains. These large alluvial plains, the “lowland” areas, became the centre of the main settlements, administration and commerce and today all the current provincial capitals in the North (such as Chiang Mai and Chiang Rai) are located in lowland areas. In the northern Thai culture, the lowland *muang* was spatially and symbolically distinct from the upland *pa*, a word that can be translated as “forest” but which continues to carry with it the older connotation of wildness and lack of domestication, outside the civilized control of the lowland *muang*. Of course, over the course of the years this perception of *pa* has shifted. Today the forest represents for many an attractive contrast to the chaotic life of the lowland cities. Furthermore, the uplands are the site where the most of the natural resources are conserved thus its protection has become crucial to the welfare of the lowland *muang* as well. In this sense, the distinction between *muang* and *pa* still remain but this last has taken today more desirable connotations.

The Huay Hin Lad Nai community lives in Moo 7, under Wieng Pa Po district in Chiang Rai Province. Their ancestors moved from Mae Chang Khao watershed to Huay Hin Lad Nai watershed where they formed the current community. This is organized into one administrative unit called *Moo*, comprised of 3 settlements: Hin Lad Nai, Pha Yuang and Hin Lad Nok. Settlements are located between the National Forest Reservation Area and the Khun Jae National Park. Hin Lad Nai community is located in a hilly forest area from where more than 14 small streams originate and flow into the Huay Hin Lad stream that ends into the Mae Chang Kao river.



Figure 1. Huay Hin Lad Nai community

Box 1. Karen People

The Karen are indigenous to the Thailand-Myanmar border region in Southeast Asia, i.e. to South-eastern Myanmar and Western Thailandⁱ. The English term “Karen” thereby refers to a heterogeneous lot of ethnic groups, comprised of at least 20 sub-groupsⁱⁱ. In Thailand, the majority of ethnic Karen can be divided into two main sub-groups: Karen Sgaw and Pwo. In Thai language, they are referred to as “Kariang”, while the Karen call themselves “Pgaz K’Nyauz”, with the term “nyauz” meaning “person” or “human being”ⁱⁱⁱ. Estimated numbers of Karen largely vary in decency of the source - in Thailand, there are approximately 400.000 ethnic Karen^{iv}. They mainly live in the provinces of Mae Hong Son, Tak, and the western part of Chiang Mai^v. Traditionally, they live in villages nearby a stream or river in thatched bamboo houses on stilts, and chickens, pigs and cattle are kept under the house^{vi}. The majority of Karen in Thailand are Buddhists, approximately 28% are Christians (only 2% evangelic), and around 22% practice ethnic religions^{vii}. By tradition, most of the Karen are paddy farmers. Particularly in Northern Thailand, however, state forest regulations – such as a ban of shifting cultivation in many national parks and wildlife sanctuaries - have led to a dramatic reduction of their traditional rotational cultivation practices, and the majority of the farmers has turned to cash crop cultivation.

Community forest covers 3119.68 ha, while agricultural land is approximately 567.52 ha. The community's livelihoods mostly depends on natural resources. Upland rice farming is a substantial activity for Hin Lad Nai people. Community grows rice, wild tea, bamboo, fruits and some crops for both consumption and sell. Wild tee is native of the forest. Bamboo, instead, was not originally found in the village area. In the 1980s, the community transplanted some species from the neighbouring forest close to the village as they recognized in the bamboo a good potential for the development of new income generating activities (e.g. the selling of bamboo shoots). Another source of income for the community is honey.

Over the past two decades, National Parks and other protected areas have been established in Thailand to promote sustainable forest management. However, this policy created increasing conflicts with the people who have lived in the designated protected areas for generations.

1.2 Learning from Huay Hin Lad Nai

Huay Hin Lad Nai considers its long-term practice of shifting cultivation as a sustainable and self-sufficient model to ensure food security. Being deeply embedded into the cultural context, it is also crucial for the protection and transmission of the local spiritual and cultural patrimony. The active inter-generational exchange at village level ensure that this bulk of knowledge and practices are transmitted from elders to youth.

In the course of the last years, the village has become a "learning centre" for those people that want to improve knowledge and skills in the sustainable management of forest resources. As Huay Hin Lad Nai representatives affirm *"we offer sustainable solutions for self-sufficient people"*.

In the light of the above, this experience offers the opportunity to learn on:

1. Sustainable strategies for self-sufficiency, including diversification of local products and access to market;
2. The intimate connection between environmental, social, spiritual and cultural practices as key for sustainability;
3. Community self-organization and mobilization, lessons learned in policy dialogue with local government for the recognition of community rights over land and natural resources.



Figure 2. Women, Huay Hin Lad Nai

1.3 The story of Huay Hin Lad Nai

The story of Huay Hin Lad Nai starts riding an elephant. The ancestors of the current inhabitants of Hin Lad Nai used to live in the area that today is part of the Mae Chang National Park (Chiang Rai Province), moving inside the area according to the rotational farming system they were practicing.

During the first half of the 1900, Mr Suka left the forest to join a logging company as elephant trainer; the company, in fact, used elephants to transport the trees. In one of his trip in the region he met with Ms Norkue and he married her. Soon the young couple started suffering hungry and they decided to try the fortune and find a better place to live.

Mr Suka remembered the richness of the forest of the to Huay Hin Lad Nai watershed he had visited during one of his expeditions for the logging company. Thus the couple, together with 3 other families, decided to move to the region. However, they had to change location for 9 times before settling down in the area where the community of Huay Hin Lad is placed today (See figure 3. Previous settlements are depicted as triangles in the upper side of the map).

The first place was abandoned because of the presence of bad spirits, or ghosts; the second location was scarce in food; during the permanence in the third settlement, the spreading of serious virus (probably malaria) forced the group to leave; the fourth time, the lack of water resources pushed the group to move; the fifth location was inhabited during five years. However, the increasing presence of drug sellers and thieves in the area convinced the families to abandon it and to move to the seventh settlement, which was soon abandoned for the scarcity of water. It was the 1957 when the group settled for the eighth time. This year is remembered for the negative events that occurred in the group: a tiger killed several people in the area while a serious illness killed the father of Mr Suka. The group moved again. But, also this time, the scarcity of water and the spreading of malaria forced the families to leave. Finally, in 1966, the group settled down in Hin Lad Nai and from that time they have not moved anymore.

At that time there were not infrastructures and the forest was rich of wild life. Hunting was one of the main source of food. In 1979, the Government started the construction of the road. On the same year, Huay Hin Lad Nai inhabitants received the renewed Thai ID card from Thai Government.

In 1986 the Chiang Rai logging company started its operation in the area, causing the destruction and loss of natural resources. The road, used by the company to traffic the wood extracted in the forest, was expanded passing over the local school, which was demolished. The deforestation of the area also affected the watershed system; streams got dried and the water supply diminished. To face this situation, villagers started formulating rules for the management and restore of forest resources. As part of a governmental project, they also received training about how to

create fire break lines to decrease the incidence of fire in the forest. One year later, the Government built a new school in the community and provided some water supply to villagers.

In 1992 the area was declared part of the Khun Jae National Park and villagers were ordered to leave the community. In response to this, villagers joint force with other ethnic groups facing similar problems and formed the Northern Farmers' Network (NFN) to fight for their rights over land. At the same time, the community needed to prove to Government that their traditional life style would have not negatively impacted the environmental balance of the territory. On the contrary, their traditional management practices could have been used to restore forest resources. In order to do that, villagers established common regulations for forestry management to regenerate degraded forestry areas.

In 1999 Huay Hin Lad Nai was awarded with a prize for their work and the environmental services provided in the restoration and sustainable management of the forest. The community was appointed as "sustainable village". In 2000 they started selling bamboo shoots and four years after the first solar cell were set up in the community to have clean energy.

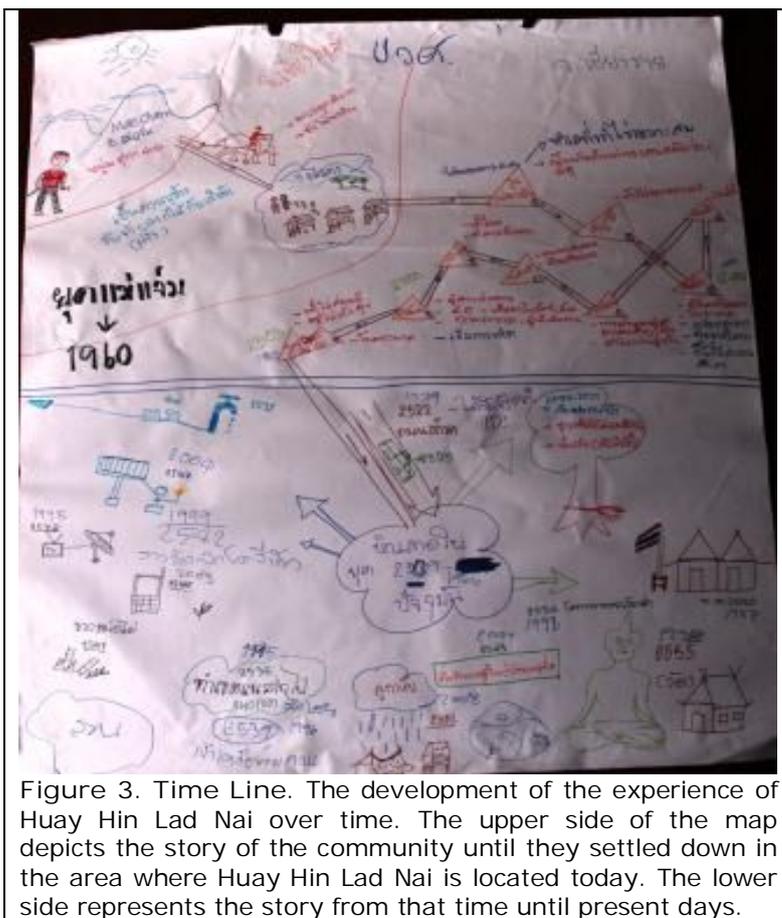


Figure 3. Time Line. The development of the experience of Huay Hin Lad Nai over time. The upper side of the map depicts the story of the community until they settled down in the area where Huay Hin Lad Nai is located today. The lower side represents the story from that time until present days.

Today the community is considered a model for the environmental friendly life style of its inhabitants. Huay Hin Lad Nai receives many visits and a touristic circuit has also been created to show visitors the main area of interest in the forest, related with the management of the common resources.

The village is composed by 20 households, counting with a population of about 103 individuals. However, if after the settlement of the first groups population greatly increased for due to the migration of other groups that joined the area, in the course of the last two decades the number of people remained almost the same. This is because Karen marriage occurs traditionally between people of the same ethnic group and after the marriage the husband moves to live with the family of the spouse. For this reason, many young men left the village to follow their spouses. In addition to that, the governmental policy previews a maximum of 3 children per family. Spiritual leaders also don't get married. For these reasons Hin Lad Nai has remained relatively a small community, which also limits the human impact on forest resources.

2. INTEGRATED SYSTEM

Despite of the initial conflict with Thai Government, nowadays Huay Hin Lad Nai represents as a model for other villages in the sustainable management of forest resources. Currently the community is in the process to get their collective rights over land recognized by the State. At the moment, in fact, Huay Hin Lad Nai is still part of the National Park and the land belongs to the Government. They are worried about new concessions to logging companies that might be given in the future, which would put at risk the environmental balance of the region and their own livelihoods. Huay Hin Lad Nai people, in fact, rely upon natural resources for their daily subsistence.

The system of Hin Lad Nai is an "integrated system" as its villagers wanted to show by drawing the map of the future of their community (Figure 4). The external part of the map represents the territory outside the community and the National Park. Starting from outside and moving towards the map's centre, the first ring depicts the forest and its biodiversity. Community wants to continue the process of reforestation and regeneration of the forest, to have more wildlife in the future, as it was in the past. The first circle then represents the area devoted to conservation and to shifting cultivation.

The second ring is the occupation and production area, which includes organic gardens as well as that part of the forest closer to the village. This is the farming area where fruits and crops are found. In the future, community would like to increase farming production and to grow more bamboo, in which they see a good potential for the development of new income-generating activities. At the same time, they would like to plant coffee.



Figure 4. Map of the Future. The map shows the 3 rings of the Huay Hin Lad Nai integrated system

Box2 . Commercial forestry products



Figure 5. Bamboo forestry management

Wild tea is main product commercialised by the community. The same area of Hin Lad Nai was firstly selected by villagers for being rich of Assam quality tea. Tea needs 4 or 5 years before its leaves are good to be collected. The community harvest it 3 times per year. In the past they used to sell 1 Kg for 2 Bath while now they are selling the same quantity for 100 Bath (approx USD 3). Every family is able to sell between 200 and 600 Kg per year of both raw and dried tea. During one year the community sells around 30.000 kg. The tea farming involves the community during five, six month per year.

Honey is available from March to May. They started producing and sell honey about 10 years ago when, thanks to the improvements in reforestation, bees started to come back in the area.

Bamboo is another resource Hin Lad Nai people were not used to sell but that nowadays constitutes one of the sources of income. There are 5 different qualities of bamboo growing in the forest, of which 3 are edible. The community is able to sell up to 20.000 Kg of bamboo shoots per year. Bamboo leaves and pools are also used for making mats, handicrafts and other small objects for the house but they are not commercialised.

The third ring represents the community's area, including houses, school and infrastructures. Their wish is to have a Karen educational system in the future, where traditional language and knowledge could be integrated into the curriculum. Their aim to strike a balance between "tradition" and "modernity", being able to take advantage from Western science and new technologies without losing their traditional culture, language and believes. For this reason, *"we want to proceed slowly, step by step, we don't want all the modern commodities in one time"* villagers remarked. However, they hope that exchange visits will increase, so to be able to learn from other people, enriching their own patrimony of local knowledge. At the same time, the aim is to find a balance between conservation and management of forest resources.

Box 3. Paddy rice

Rice is the main food supply for Hin Lad Nai families. Specific rituals are followed before preparing the land for the cultivation of the paddy rice. The spiritual leader of the community is responsible to identify the suitable area for cultivation and to ask permission to the spirits that govern that place before undertaking any farming activities.

Rituals are offered to the river and to water sources, that are fundamental for the cultivation of paddy rice.

Once rituals have ensured the possibility to start the cultivation in that area, the first activity is to dig small canals to bring water to the fields. Then the community prepare the soil. This is done during the raining season. Rice seedlings are grown elsewhere and then planted in the paddy field. Once the rice has been planted, the community prepare another ritual to bless the rice and ask spirits to ensure its good growing. Rice takes up to 6 months to grow, being the harvesting season between November and December.



Figure 6. Paddy rice field in Huay Hin Lad Nai

2.1 Shifting cultivation as a self-sufficient system

Rotational Farming/Shifting Cultivation (RF) is a cultural and physical integration of forest and agriculture; it is indigenous agriculture. The shifting cultivation cycle (the fields become fallow, the fallow land then begins another cycle of farming) aids the regeneration of fauna, flora and consequent biodiversity, conserving both animals and plants^{viii}.

Continuing prejudices against shifting cultivation by some academics, governments and other authorities have created a negative image of RF among the public, further fuelled by other prejudice against indigenous peoples^{ix}: swidden agriculture is perceived as one the main sources of forest degradation in Thailand. Thus, even though other factors, such as agricultural extension or logging concessions in the course of rapid economic growth are largely contributing to the continuing deforestation of landscapes, nowadays ethnic groups are still held responsible for environmental destruction^x. However, various researchers have identified this form of agriculture as environmentally sound, able to preserve biodiversity and to secure livelihoods, i.e. as a sustainable resource management practice that even contributes to climate change mitigation^{xi}. The trend of RF in the future centers on its transformation into other types of cultivation - adaptive solutions such as a "transformation with a combination of livelihood alternatives" – as in the case of Huay Hin Lad Nai^{xii}.

In Thai, the Karen system of shifting cultivation is called "*Rai Mun Wian*" ("rotating upland fields"). The *Rai Mun Wian* farming system is focusing on upland rice cultivation combined with a multiple vegetable cropping system, ensuring high biodiversity within the agricultural and fallow fields. Traditionally, the Karen shifting cultivation cycle consists of 1-2 years of cultivation, and swidden plots are circulated between different land parcels after long fallow periods.

Two major issues are dominating the discourse on Karen shifting cultivation. The first one centers around the idea that genuine traditional Karen agricultural practices are ecologically beneficial and sustainable: for example, farmers ensure extensive fallow periods and short cultivation phases, they select sites carefully, avoid the clearance of primary forest and preserve watershed forest cover. Besides that, the sustainability of these practices is seen as rooted in Karen culture and identity, such as in a strong cultural preference for self-subsistence, as well as in beliefs, taboos, and rituals that reflect a tight connection between Karen people and the forest. The second main theme refers to the impact of externally imposed development - such as commercialization, market penetration and state intervention - which is seen as disrupting the traditional, environmentally sound Karen livelihood, leading to social and environmental destruction.

Often, the return to a more subsistence-oriented livelihood is considered as crucial to ensure a better future for the Karen communities in Thailand^{xiii}.

Box 4. Shifting cultivation cycle in Huay Hin Lad Nai

Before undertaking any activity, the spiritual leader asks permission to the spirits to access the area and use it for farming. The rituals will show if the field is suitable for cultivation; if not, a new area will be selected and the rituals will be undertaken until identifying the right place. Grass and trees are cut and fire breaks are created around the area chosen for farming. Once the land has been burned, community install some ritual pools/ sticks to shown to the spirits that the area now belongs to them. Once the soil is ready, they start farming.

"For the practice of shifting cultivation, we don't use the whole mountain area but only a part of it. The highest part of the mountain is for conservation. We cut the trees to prepare the land, but not their roots; in seven year the trees will be grown again. We also do not cut trees along water sources or water spring", community representatives point out.

The whole cycle of shifting cultivation takes eight years. The first year only small vegetables, chilli, herbs and mountain rice are planted. During the second and third year more crops are cultivated, such as pumpkin, corns, watermelon, papaya and banana. Any period related to sowing or harvesting is celebrated by a specific ritual. In the following years the community continue planting crops and trees. At the end of the eight year the field is abandoned to allow land to rest.

During the process of planting and harvesting, women and men have complementary roles; for instance, man is the one that makes the hole in the soil, while women puts the seed in it. Shifting cultivation therefore is strictly related to community's traditional culture and believes, encompassing other important aspects of indigenous culture, such as gender relations and differentiation of roles at village level. The process also involves the whole community, strengthening the collaboration and unity among its members.

"People from lowland usually don't understand the system in which people and nature are bond together, they think we are just doing deforestation", Mr Nu, spiritual leader of the community says.

"If people will keep practicing rituals, the system will work. Otherwise it will not".

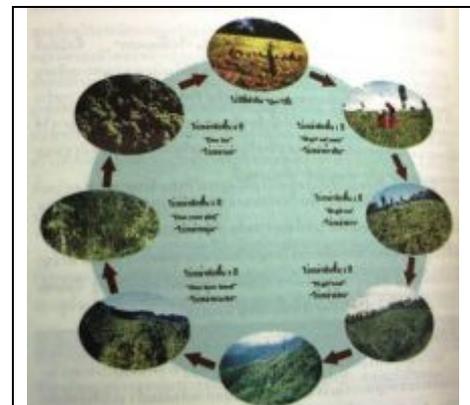


Figure7. Shifting cultivation Cycle

3. NETWORKING

Huay Hin Lad Nai maintains a wide and diversified network of relations with several organizations, institutions, public and private sector as well as neighbouring communities.

Organizations: among the organizations, one of the strongest connections is with the Northern Farmers Union of Thailand, which counts with a specific unit for Karen people. After the emanation of the displacement law that forced many communities to leave the forests, in 1992, the Northern Farmers Union played a crucial role in the process of negotiation for the recognition of Karen's rights over land. As part of the same process, the Northern Development Foundation NGO supported the community by the provision of legal assistance.

The Northern Karen Youth Group, part of the Northern Farmers Union, plays an active role in the valorisation and transmission of Karen cultural system among the youth, while, at broader level, the Ethnic Development Foundation collaborates with the community for the revitalization and spread of indigenous culture.

At governmental level, the district administrative office provides support to Huay Hin Lad Nai through the construction and maintenance of infrastructures (road, electricity, water supply) in the area. The Asia Indigenous Peoples Pact (AIPP) works together with the community in the development of research and supports communication and knowledge dissemination; finally, OXFAM contributes with research and analysis (as, for instance, studies on forestry management and carbon sequestration).

Private Sector: in 1986 the Chiang Rai Logging Company started its operation in the region, negatively impacting the area (see paragraph 1.3). At that time the community didn't have the possibility to make its voice heard by the Government. Nowadays, new regulations are in act; private enterprises need to obtain community's consent in order to undertake any activity in the village area. As part of its environmental-friendly activities, PTT Plc, Thailand's national energy company, is promoting the Green Globe Award to outstanding individual and communities for their work in the environmental conservation. PTT supported Huay Hin Lad Nai in their advocacy process for the recognition of community's active role in the protection of forest resources, awarding the community for 3 times with the "Green Planet Award".



Figure 8. Map of Actors. The map depicts the network of relations the community maintains with different actors from the public and private sector. In a separated side of the map, left corner, the community represented the negative relation with neighbouring communities.

Universities: the community maintains an extended network with public universities in Thailand. Some of these, such as the Chiang Rai Ratchapat University and the University of Chiang Mai, partnered with the community to develop thematic researches (on Karen culture or rotational farming). Others, provided funds to the community for the improvement of local infrastructures (road, water system, construction of small dams, school infrastructure). Among these are, the Rankhamhean University and the Thammasat University of Bangkok, the Phrajouyao University, the Mahidon University, the Chulalongon University and the Math Yo University. The Commercial Institute of Chiang Rai, instead, supported the community in the organization of fire breaks and training of fire-breakers.

Neighbouring Communities: with some of them the relation is controversial. People from the Lishu village that borders with Huay Hin Lad Nai area, are used to enter the Karen's forest area to hunt, extract natural resources and cut down trees. Karen people affirm to have tried many times to sensitise their neighbours on the importance of respecting the regulations and the environment, but with not success.

4. COMMUNITY'S STRENGTHS

Unity of the community and a shared commitment towards common goals are among the main strengths Huay Hin Lad Nai people recognize. The harmony and unity at community level finds its roots in the shared patrimony of local traditions and wisdom. The strong cultural system Karen people shared, in fact, allows good cooperation and organization among community's members and the respect for common rules and regulations. The will to maintain Karen culture alive and flourished also brings elders and youth to collaborate together to ensure the transmission of local knowledge and believes through generations.

The integration of "people and forest" is what Huay Hin Lad Nai people recognizes to be the key of their sustainable and self-sufficient model. "If we take care of the forest", they say, "the forest will take care of us in the future". Furthermore, Karen traditional agricultural practices are ensuring food security at village level: their good natural resource management system, in fact, has proven to be effective for the provision of food supply during the whole year.

Today, the integrated system Huay Hin Lad Nai people maintains, which is fully interlinked with local believes and traditions, makes this community one of the best example of self-sufficiency in Thailand.

ⁱ Graber, 2006; Hiyami and Darlington, 2000, in:

<http://www.cdc.gov/tb/publications/guidestoolkits/ethnographicguides/burma/chapters/chapter2.pdf>).

ⁱⁱ Institute of Medicine (IOM), 2006, in:

<http://www.cdc.gov/tb/publications/guidestoolkits/ethnographicguides/burma/chapters/chapter2.pdf>).

ⁱⁱⁱ Buergin, R. (1992). Die Karen: Ideologie, Interessen und Kultur Eine Analyse der Feldforschungsberichte und Theorienbildung.

http://www.sefut.uni-freiburg.de/pdf/MA_92.pdf

^{iv} Delang, Claudio O. (Ed.) (2003). *Living at the Edge of Thai Society: The Karen in the Highlands of Northern Thailand*. London: Routledge.

^v Hiyami & Darlington, 2000, in:

<http://www.cdc.gov/tb/publications/guidestoolkits/ethnographicguides/burma/chapters/chapter2.pdf>).

^{vi} <http://ethnomed.org/culture/karen/karen-cultural-profile>

^{vii} <http://www.joshuaproject.net/people-profile.php?peo3=12587&rog3=TH>

^{viii} Trakansuphakon, P. (2010). Strategy Workshop on Rotational Farming/Shifting Cultivation and Climate Change.

^{ix} Ibid.

^x Tomforde, M. (2006). The Hmong Mountains: Cultural spatiality of the Hmong in Northern Thailand. LIT Verlag Hamburg.

^{xi} Trakansuphakon, P. (2010). Strategy Workshop on Rotational Farming/Shifting Cultivation and Climate Change.

^{xii} Ibid.

^{xiii} Forsyth, T. & Walker, A. (2008). Forest guardians, forest destroyers. The politics on environmental knowledge in Northern Thailand. Silkworm Books, Chiang Mai, Thailand.