

Sustainable Community Environmental Management Based on Social Capital and Cultural Capital of The Karen Community in Ban Huai Pong Lao, Mae Ki Sub-district, Khun Yuam District, Mae Hong Son Province

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Abstract

The research aimed to 1) Study the context of social capital and cultural capital of the community 2) Study the community environmental management under the context of social capital and cultural capital of the community. It was Qualitative Research, consisting of data analysis and field survey through in-depth interview, focus group, and participant and non-participant observation. The key informants included 31 network committee members, leaders, civil society, the elderly, government officials, community outsiders, and local residents. The tools included semi-structured and unstructured interviews and data analysis according to the Qualitative Research. The research findings revealed the following: 1) In terms of social capital and cultural capital of the community in Ban Huai Pong Lao, it was a very abundant community, with peaceful and simple ways of life, and high level of love and unity among community residents. Moreover, community leaders had potential, community members held religious belief with regular religious practices, network with other communities, eco-system management based on local wisdom

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and belief, use of local wisdom for hand-woven cotton clothes since the ancient times, bond with nature, and rituals were accompanied by traditional beliefs

2) Sustainable community environmental management based on social capital and cultural capital of the community in Ban Huai Pong Lao principally practiced subsistence economy by relying on beliefs, culture, and traditions that were linked and connected with nature and the environment with respect, for example, water source management based on local wisdom, rice cultivation and cattle raising as supplementary occupation to generate income, and outstanding “peaceful and happy” village based on the Sufficiency Economy at the provincial level.

Keywords: Sustainable Community, Karen Community, Environmental Management

การจัดการสิ่งแวดล้อมชุมชนอย่างยั่งยืน บนฐานทุนทางสังคมและทุนทางวัฒนธรรมของ ชุมชนชาวกะเหรี่ยงบ้านห้วยโป่งเลา ตำบลแม่กิ อำเภอยางชุมน้อย จังหวัดศรีสะเกษ

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บทคัดย่อ

การวิจัยมีวัตถุประสงค์เพื่อ 1) ศึกษาบริบททุนทางสังคมและทุนวัฒนธรรมของชุมชน 2) ศึกษาการจัดการสิ่งแวดล้อมชุมชนภายใต้บริบททุนทางสังคมและทุนวัฒนธรรมของชุมชน เป็นการวิจัยเชิงคุณภาพ ประกอบด้วย การวิเคราะห์ข้อมูลและการสำรวจภาคสนาม โดยการสัมภาษณ์เชิงลึก การสนทนากลุ่ม และการสังเกตแบบมีส่วนร่วมและไม่มีส่วนร่วม ผู้ให้ข้อมูลหลัก ได้แก่ คณะกรรมการเครือข่าย ผู้นำ ภาคประชาสังคม ผู้สูงอายุ ข้าราชการ บุคคลภายนอกชุมชน และประชาชนในพื้นที่ จำนวน 31 คน เครื่องมือประกอบด้วยการสัมภาษณ์แบบกึ่งโครงสร้างและแบบไม่มีโครงสร้าง และการวิเคราะห์ข้อมูลตามการวิจัยเชิงคุณภาพ ผลการวิจัย พบว่า 1) ในด้านทุนทางสังคมและทุนทางวัฒนธรรมของชุมชนบ้านห้วยโป่งเลา เป็นชุมชนที่อุดมสมบูรณ์มาก มีวิถีชีวิตสงบสุข เรียบง่าย มีความรักความสามัคคีในชุมชนสูง ผู้อยู่อาศัย นอกจากนั้น ผู้นำชุมชนยังมีศักยภาพ สมาชิกในชุมชนมีความเชื่อทางศาสนาและปฏิบัติศาสนกิจสม่ำเสมอ สร้างเครือข่ายกับชุมชนอื่น ๆ การจัดการระบบนิเวศตามภูมิปัญญาและความเชื่อในท้องถิ่น การใช้ภูมิปัญญาท้องถิ่นในการทอดผ้าฝ้ายทอมือที่มีมาแต่โบราณ มีความผูกพันกับธรรมชาติและพิธีกรรมประกอบกับความเชื่อดั้งเดิม 2) การจัดการสิ่งแวดล้อมชุมชนอย่างยั่งยืนบนพื้นฐานทุนทางสังคมและทุนทางวัฒนธรรมของชุมชนบ้านห้วยโป่งเลา ยึดหลักเศรษฐกิจพอเพียงโดยอาศัยความเชื่อ วัฒนธรรม และประเพณีที่เชื่อมโยงและเชื่อมโยงกับธรรมชาติ และสิ่งแวดล้อมด้วยความเคารพ เช่น การจัดการแหล่งน้ำตามภูมิปัญญาท้องถิ่น การปลูกข้าว การเลี้ยงโคเป็นอาชีพเสริมเพื่อสร้างรายได้ เป็นหมู่บ้านดีเด่นเรื่องเศรษฐกิจพอเพียงระดับจังหวัด

คำสำคัญ: การจัดการสิ่งแวดล้อมชุมชนอย่างยั่งยืน ทุนทางสังคมและทุนทางวัฒนธรรม ชุมชนชาวกะเหรี่ยง

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Background and Significance of the Problem

The past national development from the 1st–7th Development Plans focused on economic and industrial development with the hope of employment growth followed by the growth of other sectors or unbalanced development but resulted in the financial crisis or “Tom Yam Kung Crisis” which caused damage and closure of financial institutions and many businesses in Thailand. There was also debt restructuring with many sales of businesses to foreign companies. The Thai government then announced the floating baht and foreign loans in view of economic recovery. Thailand experienced more foreign debts due to the 1997 financial crisis. At the same time, there was disastrous and widespread destruction of natural resources and the environment. The past development exploited natural resources in particular land, forests, water sources, coastal resources, and underground resources at a very high level and without efficiency. As a consequence, these natural resources degraded quickly and impacted ways of life of rural people who mainly relied on the resources for their subsistence. Afterwards, the 8th National Development Plan was greatly modified with focus on economic rehabilitation, financial institution rehabilitation, and assistance to those affected by the crisis to continue their existence. The modified National Development Plan focused on adjusting the macro economy and maintaining economic stability, reducing impacts of the crisis on people, society, and the environment, and accomplishing success in participatory process to drive the social force on development of various fields such as expansion of the “community” network which promoted people participation at the community, sub-district, district, and provincial levels in brainstorming for rectification and local development. It was the starting point to develop and strengthen the community for self-reliance. In particular, the issue of community attracted interest from the United Nations leading to cooperation projects between Thailand (National Economic and Social Development Board and Ministry of Interior) and the United Nations called Thai UNCAP to expand the development of community which met with success, served as a good example, and was recognized at the global level.

The 9th National Economic and Social Development Plan (2002-2006) determined social capital as a national agenda. Office of the National Economic and Social Development Board was assigned as a main agency to formulate the strategies of the development of social capital to serve as the forceful base for the holistic national development (Office of the National Economic and Social Development Board, 2005). The National

Economic and Social Development Board held brainstorming sessions with experts, academics, and those relevant to the development field to create and compile knowledge sources on the concept of social capital to ensure clear direction of the national development. The brainstormings discussed the concept and pinpointed the importance of social capital to develop community in case of the crisis of economic recession. What remained and could be continuously accumulated for people at the grassroots level, the country, and the world was “social capital” which was the inheritance long established and widespread in Thailand from one generation to the next. In particular, the value of wisdom, aggregation, love of families and friends, and love of hometown constituted the factors that made people aware and decide to help one another. These were collectively called “social capital” (Anek Nakhabutr, 2002: 7). Social capital was the foundation of sustainable development (Sansern Wongcha-um, 2003). Therefore, national development placed importance on natural resource management to enhance sustainability and sought to revive natural resource capital. However, the development of social capital needed time as it was sensitive, requiring knowledge, and understanding for careful and cautious operation. At the same time, it must instill natural awareness. The development of social capital must be undertaken to create balance with the development of other domains leading to sustainable development.

Therefore, the community environmental management under the context of social capital and cultural capital was the management which was principally based on beliefs, customs, and traditions linked with nature and the environment. It was the concept that accorded with the Thai society and it was considered the key concept to be driven as part of national sustainable environmental management in tandem with the importance placed on social capital and cultural capital, as well as good and sustainable national resource management. In particular, the Karen community in Ban Huai Pong Lao, Mae Ki sub-district, Khun Yuam district, Mae Hong Son province had long history, outstanding social capital and cultural capital, management and development which were unique to the community, especially community environmental management based on social capital and cultural capital in view of sustainable community development. Due to the importance, the researcher was interested in studying the issue of community environmental management based on social capital and cultural capital with the identity of the ethnic Karens such as wisdom, traditions, beliefs, and rites existed in the community

with community environmental management. The information from this study would be used to develop the Karen community in Ban Huai Pong Lao and other communities under the similar context.

Objectives

1. Study the context of social capital and cultural capital of the Karen community in Ban Huai Pong Lao.
2. Study the community environmental management based on social capital and cultural capital of the community in Ban Huai Pong Lao.

Literature Review/Relevant Research Documents

In terms of the background of social capital, based on the past evidences, there were numerous meanings. For the Chinese, it meant the existing object that could be re-exploited such as knowledge and ability, including assets. During the time of Buddha, there was a mention of wealth consisting of external assets such as servants, fields, houses, and internal assets such as goodness, diligence, positive attitude, and beautiful mind notably 7 noble treasures namely Faith as logical belief, Attention to manners and words, Shame of evildoing, Fear of evildoing, Knowledgeable persons or knowledge on ways of life, Sacrifice and generosity, and Intelligence as knowledge and understanding of reason, goodness, difference between right and wrong, and duty mindfulness. These constituted valuable assets which were within good minds rather than external assets as no one could take them away and no harm could damage them. Thus, they calmed the mind. At the same time, the external assets supported doing good deeds which would greatly benefit oneself and others. Similarly to someone with a lot of assets, the person could support himself/herself and make others happy (Worawut Romratapun, 2005).

Hirschman (1984) compared social capital with moral resource that was inexhaustible. This resource would not be beneficial at all if it was not used. On the contrary, other physical capitals would be exhausted if they were used. He also compared social capital with public goods that were accessible to anyone such as pure air, good environment, and safety in public areas. Social capital derived from the private sector who jointly participated in social activities, with attachment, common customs, traditions, and culture,

mutual trust, as well as possible change according to different environment and social contexts.

World Bank (1999) discussed social capital and used the concept of social capital in the form of capital necessary for development by striving to answer the question of what social capital was and how to proceed in order to acquire the maximum sustainable development for the country and the community. It was the concept that led to setting up a useful organization. According to the definition of World Bank, social capital presented the evidence that pointed to the increased social affiliation, economic development, and sustainable development.

Sunderlal Bahugana, Chipko movement leader, stated that “The only way to solve the crisis in life and development is for people to return to their cultural roots and the eastern society by focusing on rehabilitation of nature, meaning people must return nature, society, and culture to the economic system through sustainable development” (Preecha Piampongsan, 2006, p. 50).

Robert Putnam, (1993) pointed out that the levels of economic growth and quality of the familial and communal institutions in the north of Italy were higher than in the south. This was the result of Norm of trust and reciprocity, and Civic engagement which were higher and which Putnam defined as social capital.

Narayan and Pritchett, cited from Sinad Treevanchai (2003) gave the opinion that social capital was a kind of “capital” as it could increase household income. They measured social capital from the number of groups/organizations that the household members were members, the level of cooperation in the groups, and the diverse characteristics of the members of the groups. The households with a higher level of these indicators tended to earn more.

Anek Nakabutr (2002) stated that social capital as community strength did not take place recently in Thailand but it was the old value that had already existed in the country. It included kindness, sharing, and generosity, social affiliation, organizational grouping to set up various networks such as savings groups, integrated farmers groups, and network of community mills, etc. The social capital was a major force that drove various communities to be able to increase the value of social capital for their own community, keep abreast with problems, increased ability to handle problems, and

finally ability of self-reliance in the long run.

Ammar Siamwalla (2001) stated that social capital was the use of community resources to solve the problems of the most important resources meaning wisdom and generosity. These resources constituted social capital. They were considered the dimension of community resources consisting of norm, generosity, as well as community wisdom which should be applied to social development.

Therefore, social capital reflected the balance of livelihood which suited people in society and which had long disappeared from society. The re-establishment of social capital as the foundation of sustainable social development was therefore the request for society to realize the importance of social capital which linked to social development in various dimensions such as politics, government, environmental management using social capital and cultural capital as the basis of development, with awareness of strong participation of the people sector and the general public's interest in major public issues, leading to trust among one another, respect of law, transparent operation, with contribution to robust and sustainable social development.

Relevant Research Works

Arthit Buddaduang (cited from Suwit Khongsong, 2019) studied the ability to use social capital in the community of Ban Bang Prai, Bang Kon Tee district, Samut Songkhram province. The objectives included the following: 1. Study the status of social capital in the community of Ban Bang Prai 2. Study the methods to use social capital in the community of Ban Bang Prai, and 3. Study the problems in using social capital in the community of Ban Bang Prai. It was a case study mainly using qualitative research process. The study findings revealed that the most evident social capital of the community of Ban Bang Prai was "social network" which was strong, with numerous performances and awards. It was followed by "knowledge and wisdom" especially on occupation. The 3rd ranking was "empathy, reciprocity, generosity, and mutual assistance" which was shown from the past to the present. Social capital was used in 3 levels namely 1. Useful to one's own life and family 2. Useful to group or network of occupation and operation, and 3. Overall group or network of community development. The problems or obstacles in using social capital included conflict of business interests and discriminatory support, small number of social workers, and safety problems in outside communities. In order for the community to

have relationship and desirable conditions, a driving process was required such as raising awareness for community residents to start to think of joint community development, search for appropriate potential and social capital in community, creation of more leaders or core persons, coordination of cooperation with government agencies and the private sector, action through participation between the community, the public and the private sectors, continuous performance assessment, and extension of results.

Department of Health, Petchaburi Provincial Public Health Office (2000) studied strong social capital in local community as factors that created social capital with the following composition:

1. Value system, ideology, belief which rested on the basis of respect of nature or determination of oneself as part of nature such as belief in sacred objects, protection of nature, rendering close-knit community of environmental protection, and contentment as the foundation of religion. Therefore, it constituted the conscience of munificence.

2. Local wisdom and learning process created and accumulated by the community for subsistence such as agricultural wisdom, folk medicine, resource management, arts and handicrafts, as well as livelihood. These were the community's wisdom with continuous dimensions and details. Moreover, the experience of the community through hard times was also considered social capital.

3. Community wise leaders who possessed wisdom in various aspects of livelihood such as community elderly, spiritual leader, folk doctor, farmer leader, and learned person with major roles in the strengthening process of the community.

4. Structure of linear social relationship facilitated mutual assistance such as family institution, seniority system, cooperation system in all sectors in community.

5. Ownership and joint management system such as rights of community in resource management which were the rights of care and maintenance of common assets in community.

6. Community institutions such as customs, traditions, culture, shared conscience, as well as community organization that controlled the community to follow the existing systems of value and thinking.

7. Cultural diversity resulting in wisdom, different ways of thinking according to eco-system, and social, economic, and political conditions, leading to exchange of experience and strengthen overall society.

8. Groups, organizations, and networks which organized public activities in the civil society such as villager organization, network of people sector, NGO, professional group, and academics who strengthened the community in various issues.

The community of Ban Huai Pong Lao was in possession of unique social capital and cultural capital with the value system and belief in sacred objects that provided protection by nature. As a consequence, the community could closely preserve nature, equipped with agricultural wisdom, folk medicine, resource management through participation process, clothes and household appliances as arts and handicrafts, unique form of habitation construction, community leaders' possession of wisdom on various aspects of livelihood and major role in the process to strengthen community, mutual assistance, ownership right and joint management, customs, traditions, culture, shared conscience, groups, villager organization and network of the people sector, various professional groups, coordination with government officials and academics to strengthen community concerning various issues, as well as sustainable environmental management.

Methodology

The study of “Sustainable community environmental management based on social capital and cultural capital of the Karen community in Ban Huai Pong Lao, Mae Ki sub-district, Khun Yuam district, Mae Hong Son province” was a case study mainly using the Qualitative Research, In-depth Interview with Key Informants together with Participant Observation and Non-Participant Observation, as well as Literature Review from documents to ensure that the study was clear and inclusive by using the Triangulation Technique to inspect the data and use the Rapid Rural Appraisal (RRA) Beebe, J. (1987) to identify the key informants and the researcher determined the methodology with the detail as follows:

1. Document Study and Literature Review such as books, research reports, dissertations, term papers, articles, and relevant academic reports.

2. Field Study through the method of participant observation and non-participant observation as well as interviews

As the study was Qualitative Research and the area was specifically prescribed to reflect the detail of the issue of the study, the researcher determined the key informants by using the technique of Rapid Rural Appraisal (RRA) to acquire the list of a group of key persons from the survey to find the key informants accounting for 50% of the households. Then, 15 persons were selected according to the determined qualifications for accuracy and prevention of bias. Afterwards, the necessary qualifications of the key informants were determined in order to acquire diverse information by dividing the target group and the key informants into 3 groups as follows:

1. The network administration committee for community environmental management in total 5 persons with the following qualifications 1) Must possess detailed information of the network of community environmental management and community organization groups since the establishment until the present 2) Must be committee member or member for at least 5 years and 3) Must be willing to provide information.

2. Members of the network of community environmental management and community organization groups in total 4 persons with the following qualifications: 1) Must be member for at least 1 year and 2) Must be willing to provide information.

3. The members residing no less than 1 year in the community based on the urgent survey and selection in total 15 persons with willingness to provide information.

4. Those outside the network of community environmental management and community organization groups such as community residents who did not join the network, community organization groups, and relevant government officials in total 6 persons who possessed the qualifications and assumed the roles relevant to the network of community environmental management and community organization groups (but who were not committee members or members), and were willing to provide information.

5. Executive of government agency responsible for social and community policy in total 1 person.

The data compilation consisted of 2 methods namely: 1) Informal interview such as interview on the basic information of general contexts and conditions of the community and In-depth Interview by using the guideline of conversation or in-depth interview with knowledgeable persons or key informants on the issue of the usage of social capital which

would ensure more information and enable wider interpretation, benefiting the analysis and prior to every interview, the researcher would explain the objectives of the research and the interview methods so that the key informants fully understood them and were willing to provide information in order to prevent the violation of personal rights of the key informants and 2) Observation divided into Non-Participant Observation in the study of basic information, general contexts and conditions of the community, as well as behavior of community residents and Participant Observation in living in the community to learn about the ways of life, as well as participate in activities with the community residents such as meeting to learn of the activities of groups, organizations, and learning centers, etc.

Data Analysis

The researcher used the method of data analysis in parallel with data compilation according to the Qualitative Research. The information acquired from conversation, in-depth interview, informal interview, participant and non-participant observation would be inspected for its accuracy using the Triangulation Technique to inspect the information acquired from different people, time, and locations. Then, the analysis was conducted to link the congruence of the content by adhering to the logic principle compared with the theoretical concept in parallel with the contexts and research works relevant to the literature review of various documents to ensure that the study results were in line with the set objectives.

Presentation of Information

The descriptive research was presented according to the principle of qualitative research based on anthropological methods in order to have the overview of the sustainable community environmental management based on social capital and cultural capital.

Research Findings

1. The context of social capital and cultural capital of the Karen community in Ban Huai Pong Lao revealed the following:

Context of social capital

1.1 Background of the community of Ban Huai Pong Lao Started with the gathering of workers of a famous foreign company dealing in timber business who was awarded with timber concession in the very lush area of Ban Huai Pong Lao as it had many streams, many small hills, plains for rice and other cultivation which was suitable for habitation. After the company closed down, the group of the workers of approximately 5 households moved in and leveled the area for habitation. Later, friends and families continuously moved in. The community members also produced their own offsprings for the past 70 years. At present, in Ban Huai Pong Lao, there were 57 households and the population of 316. They belonged to the Karen ethnic group and were mostly Christians. They practiced other religions as well but not many. They lived in harmony as they were related. They mainly followed the Karen's beliefs and traditional ways of life. They used the local language (Karen) in their daily lives. The village head and the community leader were natural leaders and jointly built this village. Each was also spiritual leader and leader of community development.

1.2 Good and simple lifestyle The Karen community in Ban Huai Pong Lao had good and simple livelihood. They found food from the vast forests which were preserved forests commonly exploited by many communities. The forests were situated in a national park. The area of Ban Huai Pong Lao, Moo 4, Mae Ki sub-district, Khun Yuam district, Mae Hong Son province covered 6,794 rai. The forests were rich. The community members practiced rice farming, agroforestry, and terraced rice farming. Moreover, they were hunters-gatherers for their own subsistence. The household utensils were materials from the forests. They also weaved their own clothes for use in the community.

1.3 Solidarity, unity, and harmony of community residents The community in Ban Huai Pong Lao had strong solidarity, unity, and harmony. At the family level, most families were extended families. As Ban Huai Pong Lao was a remote community, when the children of the community members grew up and reached the marriageable age, they would mostly marry people in the same community. Some did marry people in distant communities. So, the community members were close through marriages, similar to relatives one way or another.

1.4 Community leaders as natural leaders At the community level, the community leaders were natural leaders. They became leaders for the sake of relatives in the community. The community leaders included belief or spiritual leader, political leader, education leader, and traditional medicine leader and had to bear the full burden of work for relatives in their own community. At the same time, they must have knowledge, ability, and potential as they continuously upgraded their knowledge especially the Karens' culture and traditions. When they were free from seasonable work, the Karens would visit their relatives faraway. As a consequence, the Karens had robust, natural social network with close relationship. The Karen society had a very high level of unity which constituted social capital within and outside the community.

1.5 Morals, ethics, and good conduct In terms of morals, ethics, and good conduct, the community members were religious and regularly and strictly practiced all activities of religious rites such as wedding, observance of religious precepts, and conversion to Christianity. Importantly, all families would attend daily religious meeting to read the Bible. In the morning, religious rites were regularly practiced in a location used for religious practice right in the middle of the village, ensuring that all could join the activities. Moreover, the traditional beliefs of the Karens' general ways of life included respect for nature such as forests, rivers, exploitation of water from rivers and wood from forests with optimal value. This was similar to the teaching that when they exploited the forests, they must respect them and when they exploited water, they must respect water and rivers, etc.

1.6 Mutual support in participating in activities related to community and members There was mutual assistance in activities related to the community and the members such as construction of dam for terraced rice farming, rice harvest one plot after the other until the harvest was finished in the entire village. Moreover, there were gatherings in community such as the housewife group for making community products such as weaving, souvenirs, herbal medicine, and utensils from natural materials, from the vast forests and from the wisdom of the community residents, as another channel of supplementary income for the community members.

1.7 Network with other communities The gathering for the establishment of network with other communities included forest fire surveillance network with the role

of extinguishing forest fire. In the dry season, the community leaders would assign time for both children and adults to build firebreaks to prevent forest fire during the season. It was cooperation based on love and unity of the people in the community and those from other communities. It was the network of people from different areas at the provincial level. Moreover, there were village health volunteers who monitored the health of the community members and those in adjacent communities. There was cooperation with the public and the private sectors to prevent forest fire in order to assist and ease the burden of government agencies.

1.8 Livelihood of the Karens The Karens' livelihood was managed by the eco-system based on long-standing wisdom and beliefs. The attachment between people and nature reflected in nearly all ways of life such as agroforestry, terraced rice farming, water management using wisdom from one generation to the next, and wisdom for cattle husbandry (cows and buffaloes in the forests). All the food source management constituted the way of life with reliance, and harmonious and seamless relationship connecting people and the forests. For example, the Karens believed that terraced rice farming would capture water for higher rice yields. The form of farming relied on the eco-system with water from watershed forests, nutrients from agroforestry, crop rotation farming for animal husbandry and burning of weeds. The characteristics of terraced rice farming with small plots depending on the hill slopes would efficiently serve as a weir, increasing soil humidity and ensuring soil dampness, accumulating underground water, as well as providing habitats for small animals, and food sources for the community residents.

1.9 Wisdom of hand-woven cotton clothes since the ancient times The Karens in Ban Huai Pong Lao liked to wear hand-woven cotton clothes since the olden days. They would either grow or buy cotton, spin the cotton into yarn, then dye the cotton with natural dyes, and design patterns derived from nature. For example, the pattern of python on women's clothes was thought that the wearer must be intelligent and swift like pythons, and the embroidery with cotton threads and hem embroidery. The Karen women would transfer the wisdom of weaving process to their daughters. They would start the process with simple pattern until they were skillful and could design their own patterns. For the dyeing of cotton, they would use natural colors or from barks. The Karens created the patterns and colors of woven clothes from nature and surrounding

environment. The clothes were therefore beautiful and retained the uniqueness of the Karens. The woven Karen clothes were on sale and supported by the community development department of Khun Yuam district as the province's renowned product.

1.10 Beliefs In terms of their beliefs, the Karens were very attached to nature. They also respected nature and sacred objects. Moreover, they also practiced spiritual rites relevant to their ways of life such as respects for the spirits of field crops, rice, forests, and mountains. As the Karens were attached to nature all the time, they performed diverse ceremonies and traditions for their livelihood such as ceremony of offering sacrifices to spirits, worshipping spirits, alcohol brewing, ritual chicken killing, and tying raw cotton around participants' wrists which were connected to the New Year tradition. The village head would set the date in advance. The ceremony marked the beginning of the season to make one's living and ensure peace and happiness in the community.

In terms of marriage tradition, the Karen young people would choose their own spouse. The bride would weave clothes, pants, and bags for the groom. The bridal couple had to perform ritual killing of pig and chicken to inform their ancestors and as food for the wedding guests. Once married, the groom came to live with the bride's family. With the harvest season, they would move out to build another house nearby. This was the way of expanding the Karens' families. As a result, society had good livelihood based on unity, concern, and mutual support leading to robust society and forceful cooperation for community development in view of future progress.

1.11 Ritual practices The rituals of the Karens in Ban Huai Pong Lao were combined with traditional beliefs such as the Karens respected spirits, with strict ceremony of offerings and sacrifices. Later, after conversion to Christianity, the old beliefs persisted. As could be seen from the belief of spiritual life force, activities required offering to the guardian spirit to seek support from their ancestors. It would ensure progress at work, high agricultural yields, peace and happiness, protection of the descendants, as well as forgiveness from sacred objects for any offense.

2. Sustainable community environmental management based on social capital and cultural capital of the Karen community in Ban Huai Pong Lao constituted community economic management mainly for subsistence by relying on beliefs, culture, and traditions connected and related to nature and the environment with respect towards forests and rivers such as rice farming and livestock farming.

2.1 Water and water resource management were conducted based on the Karens' wisdom. At the arrival of the rainy season prior to the annual rice farming, the villagers would join hands in repairing and building additional dam to prepare for the annual farming and sowing. Rituals would be practiced to respect the spirit of the dam prior to farming by offering the sacrifices such as alcohol, food, chicken or pig. The objective was to inform and beseech the spirit of the dam to provide abundant rice, sufficient water, and protect the farmers with good health and safety. The Karens' ceremony did not only show gratitude towards water but also reflected close familial relationship. Moreover, it forged unity among those who shared the water in the community. It was the Karen community's upland water management that derived from learning to live with nature and preserved old wisdom of the old generations. This was highly beneficial as it would benefit the forest eco-system. The watercourse would provide humidity. Prior to terraced rice farming, the Karens would survey the watercourse from the watershed forest to the farming area in order to use the water for the terraced rice farming. This would consist of 3 parts namely small irrigation channel dug by the villagers to connect large water sources in the watershed forest and along the contour of the hillside to bring water from the upland area to be used in terraced rice farming which was cascading along the plains between the valleys and served as the aquaduct. As for the farming areas which were higher than the main streams or the rivers, the villagers would use the method of bringing water by building a weir made from natural materials such as stones, tree branches, or bamboos in intertwining layers using wood as the main supporter to heighten the level of water and divert the main watercourse to flow into the weir and to be used for terraced rice farming. The weir would also be useful in slowing down the water flow, capturing sediment, enhancing humidity to the soil which was suitable for farming and also provided habitat for aquatic animals. The terraced rice farming that received water from the weir system would appropriately facilitate the farming.

2.2 Rice farming of the Karens in Ban Huai Pong Lao consisted of rotational agroforestry and terraced rice farming in the watershed forest by releasing water and natural nutrients into the farming area without using any chemical that would damage nature. Rice from the farming would be truly natural rice. The area around the streams would be left to serve as the forest belt to prevent the collapse of the embankment. Crop rotation was practiced as terraced rice farming provided insufficient farming area.

It was therefore necessary to adopt rotational agroforestry to increase the rice farming area in order to have sufficient yields for the consumption of the community members. In terms of the terraced rice farming on the hilly area around the community residences, most rice farming areas were inherited from one generation to the next. On the average, each family owned up to 2 to 8 rai depending on the size of the members of each family. The smaller the number of the family members, the bigger the farm land.

2.3 In terms of cattle husbandry of the Karens in Ban Huai Pong Lao, the animals would be left to graze in nature. During the rainy season and during the entire farming season, the cattle owners would monitor their cattle from time to time. Afterwards, the villagers would bring the cattle to graze in the forest area which was adjacent to the village and the farming area. The cattle husbandry provided additional income. Each family owned at least 5 cattle, or 35 was the maximum cattle raised by a family. The nature of raising and selling the cattle depended on a family's spending needs. Sometimes, the cattle were killed for food to limit their population. When the food in the forest was insufficient for the number of the cattle, the community in Ban Huai Pong Lao had very little problem about the issue. Cattle husbandry according to the wisdom of the Karens involved no costs. The mating and the birth of the calves were natural.

Discussion

Sustainable community environmental management based on social capital and cultural capital of the Karen community in Ban Huai Pong Lao consisted of agroforestry, terraced rice farming, and cattle husbandry. It was community environmental management that understood and had access to the eco-system of the forests, rivers, and other natural resources until it became wisdom, tradition, custom, culture which were accumulated from one generation to the next. It constituted the social capital and cultural capital that could live in harmony with nature similarly to a same large family. The village members did not have economic problems. They earned income from cattle raising (cows and buffaloes) in nature, income from forest products, sales of souvenirs by the housewife group. All income came from sustainable community environmental management based on social capital and cultural capital. So, all the household members in the community had no debt and the village was awarded with the outstanding "peaceful and happy" village based on the Sufficiency Economy at the provincial level according to the project

to honor village leaders in 2016. This was in line with the concept of Robert Putnam (1993) who pointed out that the levels of economic growth and quality of the familial and communal institutions in the north of Italy were higher than in the south. Ammar Siamwalla (2001) stated that social capital was the use of community resources to solve the problems of the most important resources meaning wisdom and generosity which constituted social capital. They were considered the dimension of community resources consisting of norm, generosity, as well as community wisdom which should be applied to social development. This was the result of Norm of trust and reciprocity and Civic engagement which were higher and which Putnam defined as social capital. The Karen community in Ban Huai Pong Lao had a very high level of solidarity, unity, and harmony among the community residents as most families were extended families and community leaders would work for the sake of the relatives in the community. For example, faith leader or spiritual leader, political leader, education leader, traditional medicine leader would bear the full burden of work to ensure that their relatives in the community had a very high level of trust and reciprocity, resulting in networks in their own community and adjacent communities such as forest fire surveillance network, housewife group network, village health volunteer network, etc.

This was also in line with the concept of Narayan and Pritchett (Sinad Treevanchai (2003) who gave the opinion that social capital was the “capital” that could increase household income. They measured social capital from the number of groups/organizations that the household members were members, the level of cooperation in the groups, and the diverse characteristics of the members of the groups. The households with a higher level of the indicators tended to earn more. Similarly to the community in Ban Huai Pong Lao, groupings were formed for mutual assistance, based on the characteristics of each member of each family with different, various capital within the member himself/herself and with strengths and weaknesses. The gathering and mutual assistance efficiently enabled the community to rely on itself. The group of housewives made community products to earn income as supplementary occupation when free from field crop farming, rice farming, and searching for forest products. The grouping of village health volunteers took care of the health of the community residents. The group for the preservation of community environment cooperated with other Karen ethnic communities for the management of the vast and sustainable forests to ensure abundant forests.

As a result, the community could find more forest products and earn more income.

Moreover, Sunderlal Bahugana, Chipko movement leader, stated that “The only way to solve the crisis in life and development is for people to return to their cultural roots and the eastern society by focusing on rehabilitation of nature, meaning people must return nature, society, and culture to the economic system through sustainable development” (Preecha Piampongsan, 2006, p. 50).

Suwanee Kamman argued that if Thailand could use the existing social capital for appropriate preservation, rehabilitation, development, enhancement, and utilization, it would raise the quality of life of people in the country to be happy, and make the country balanced and sustainable (Suwanee Kamman et al., 2008: Pp. 1-2).

Moreover, in Thailand, there were numerous examples which demonstrated that social capital particularly the grouping or congregation for own resource allocation of people in a community with mutual trust could make them reap many economic benefits such as setting up of saving group as funding source, grouping for allocation of water sources, forests, public land of the community, alternative farming group, etc. The more diverse these groups or networks could connect with outside groups, the wider social capital.

Conclusion and Recommendations

Based on this research, the researcher found the key and interesting issues as follows:

The sustainable environmental management based on social capital and cultural capital of the Karen community in Ban Huai Pong Lao, agroforestry, terraced rice farming, and cattle husbandry constituted community environmental management that understood and had access to the eco-system of the forests, rivers, and other natural resources until it became wisdom, tradition, custom, and culture. The villagers could live in harmony with nature similarly to a large family. They did not have economic problems as they earned income from cow raising in nature, income from forest products, and sales of souvenirs by housewife group. Subsequently, all family members in the community had no debt and the village was awarded with the outstanding “peaceful and happy” village based on the Sufficiency Economy at the provincial level according to the project to honor village leaders in 2016. This was in accordance with the concept of Anek Nakabutr (2002) stated

that social capital as community strength did not take place recently in Thailand but it was the old value that had already existed in the country. It included kindness, sharing, and generosity, social affiliation, organizational grouping to set up various networks such as savings group, and network of integrated farmers group. The social capital was a major force that drove various communities to be able to increase the value of social capital for their own community, keep abreast with problems, increased ability to handle problems, and finally ability of self-reliance in the long run. Furthermore, Following the concept of Sunderlal Bahugana, Chipko movement leader, who stated that “The only way to solve the crisis in life and development is for people to return to their cultural roots and the eastern society by focusing on rehabilitation of nature, meaning people must return nature, society, and culture to the economic system through sustainable development” (Preecha Piampongsan, 2006, p. 50).

In terms of the context of social capital and cultural capital of the Karen community in Ban Huai Pong Lao, the community leader and the faith leader had knowledge, ability, and network of the Karen ethnic groups. They were unified as the community was like family. They adhered to beliefs, tradition, and culture according to the old ways of life and strict practice. They managed to preserve the community awareness according to the ethnic ways amidst changes from the outside society. This was in line with the concept of Pornchai Preechapanya and Warin Jirasuktaveekul on the wisdom of the Karens and the sustainability of the eco-system of the watershed forest such as wisdom of the Karens on cattle raising in the forests, practice of agroforestry, and eco-system management of field crop farming and rice farming (Pornchai Preechapanya and Warin Jirasuktaveekul, 2001, Pp. 10-15).

In terms of recommendations, the community should drive together with other ethnic groups for the rights of community to live with the forests under the context of social capital and cultural capital of the Karen community and undertake sustainable community environmental management through the beliefs and respect for nature according to the ways of the Karens. If the social capital was seen truly as important, the government should modify their perception towards the congregation of people to have a part to play in the resource allocation of their own community.

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