

The Application Model of Cultural Capital in Conservation and Rehabilitation of Community Forest Ecosystems along the Chi River at Samet Village, Nongteng Sub District, Krasang District, Buriram Province

Samran Dhurata* Utit Tahom** Pichit Wandee*** and Ramet Pommasat****

Abstract

This study is a participatory action research (PAR) which data were collected through in-depth interview, group discussion, field trips, holding problem analysis meeting with the community, brainstorming, and participatory observation. The results showed that the application of cultural capital in the conservation and rehabilitation of the community forest ecosystems along the Chi River was divided into 3 following plans: 1) Development plan on society, tradition, and culture consisting of: (1.1) establishing understanding and a wildfire prevention system with forest utilizers, (1.2) organizing wildfire prevention activities every year, and (1.3) applying human capital to community forest conservation and rehabilitation;

* Thai Language Program, Faculty of Humanities and Social Sciences, Buriram Rajabhat University, THAILAND.
E-mail: Samranct57@hotmail.com

** Social Development Program, Faculty of Humanities and Social Sciences, Buriram Rajabhat University, THAILAND.
E-mail: arm.utit.tahom@gmail.com

*** Program Information Technology, Faculty of Science, Buriram Rajabhat University
E-mail: pichit.wandee@gmail.com

**** Program in Tourism and Hotel, Faculty of Management Sciences Buriram Rajabhat University
E-mail: mew4705967@gmail.com

2) Management plan of forest resource and community food resources consisting of: (2.1) applying belief of Pu-ta (the ghost village of ancestors) to the conservation and rehabilitation of the forest ecosystems, (2.2) providing areas for food resources within the forests, (2.3) organizing activities of afforestation and tree ordination; and 3) Community economy management plan for developing capacity of producers producing food from forest products: standardizing the production of Tam-Piang Songkrueng (processed bamboo shoots) with hygienically good taste.

Keywords: Application Model, Cultural Capital, Conservation and Rehabilitation, Forest Ecosystems, Participation

รูปแบบการประยุกต์ใช้ทุนทางวัฒนธรรมในการอนุรักษ์ และฟื้นฟูระบบนิเวศป่าชุมชนริมลำน้ำชีของชุมชน บ้านเสม็ด ตำบลหนองเต็ง อำเภอกระสัง จังหวัดบุรีรัมย์

สำราญ ชูระตา* อุทิศ ทาหอม** พิชิต วันดี*** และ ราเมศร์ พรหมชาติ****

บทคัดย่อ

บทความวิจัยนี้คณะผู้วิจัยใช้กระบวนการวิจัยเชิงปฏิบัติการแบบมีส่วนร่วม (PAR) เก็บรวบรวมข้อมูลโดยใช้วิธีการสัมภาษณ์เจาะลึก สทนากลุ่ม การเดินสำรวจ การจัดเวทีวิเคราะห์ปัญหาร่วมกับชุมชน การระดมสมอง และการสังเกตแบบมีส่วนร่วม ผลการศึกษา พบว่า เกิดรูปแบบการประยุกต์ใช้ทุนทางวัฒนธรรมในการอนุรักษ์และฟื้นฟูระบบนิเวศป่าชุมชนริมลำน้ำชี 3 แผนงาน ได้แก่ 1. แผนพัฒนาด้านสังคม ประเพณีวัฒนธรรม ประกอบด้วย 1.1 สร้างความเข้าใจและการสร้างระบบป้องกันไฟป่าร่วมกับกลุ่มผู้ใช้ประโยชน์ในป่าชุมชนริมลำน้ำชี 1.2 จัดทำกิจกรรมการป้องกันไฟป่าทุกปี 1.3 การประยุกต์ใช้ทุนมนุษย์ในการอนุรักษ์และฟื้นฟูป่าชุมชนริมลำน้ำชี 2. แผนการจัดการทรัพยากรป่าไม้และสร้างแหล่งอาหารของชุมชน ประกอบด้วย 2.1 การประยุกต์ใช้ความเชื่อเกี่ยวกับปู่ตากับการอนุรักษ์และฟื้นฟูระบบนิเวศป่าชุมชนริมลำน้ำชี 2.2 การสร้างพื้นที่แหล่งอาหารภายในป่าชุมชนริมลำน้ำชี 2.3 กิจกรรมปลูกป่า บวชป่า 3. แผนการจัดการเศรษฐกิจชุมชน ได้พัฒนาศักยภาพกลุ่มผู้ผลิตอาหารจากป่า คือ การผลิตตำเปียงทรงเครื่องให้ได้มาตรฐานและมีรสชาติสม่ำเสมอถูกสุขอนามัย

คำสำคัญ: ทุนทางวัฒนธรรม การอนุรักษ์และฟื้นฟู ระบบนิเวศป่า การมีส่วนร่วม

* อาจารย์สาขาวิชาภาษาไทย คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏบุรีรัมย์

E-mail: Samranct57@hotmail.com

** อาจารย์สาขาวิชาการพัฒนาสังคม คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏบุรีรัมย์

E-mail: arm.utit.tahom@gmail.com

*** อาจารย์สาขาวิชาเทคโนโลยีสารสนเทศ คณะวิทยาศาสตร์ มหาวิทยาลัยราชภัฏบุรีรัมย์

E-mail: pichit.wandee@gmail.com

**** อาจารย์สาขาวิชาการท่องเที่ยวและการโรงแรม คณะวิทยาการจัดการ มหาวิทยาลัยราชภัฏบุรีรัมย์

E-mail: mew4705967@gmail.com

Introduction

Samet Village, located 45 km. far from Buriram city and connected with Surin Province, has a fertile community forest along the Chi River. In the past, the villagers gained products from the forest throughout the years. Their way of life relies on the forest along the Chi River as the forest is the community's food resource. In addition, the villagers can earn income from selling forest products such as mushrooms, bamboo shoots, etc. Samet Village is a lowland plateau connected with the Chi River, so when it rains heavily, the village can easily get flooded. Formerly, the area of the village from the west to the east covered a forest area of 3,610.63 Rai (Aerial photo data from Buriram Provincial Forest Conservation Centre, 2013). The community forest along the Chi River has fertile ecosystems. This is because during a rainy season, the water in the river floods the forest, makes the soil moist and creates fertility of various kinds of crops and plants such as Siam Tulip (Krachiao), sweet potato, mushrooms, vegetables, bamboo shoots, and wild insects, etc. As a result, the forest provides crucial food resource for the community. According to a forum on the research proposal conducted with 50 community leaders, the seniors and general public, the researchers found that the forest along the Chi River is experiencing various problems such as the situation of wildlife hunting, the utilization of the forest by people inside and outside the community and the lack of awareness of people to conserve the forest. The details are as follows:

1. In terms of wildlife hunting, it was found that some villagers took the loophole of the governmental rules regarding the utilization of the forest to hunt wild animals such as fishing cats, jungle fowls, and hares. This has an impact on the ecosystems along the river bank.

2. In terms of the utilization of the forest by people inside and outside the community, it was found that the people collect forest products such as Siam Tulip (Krachiao), bamboo shoots, mushroom, sweet potato, and wild animals. They do not pay attention on the conservation and rehabilitation of the food resources. These forest products were dug, cut, sold and planted at home. This causes a decrease in the fertility of food ecosystems.

3. People lacked awareness to conserve and rehabilitate the forest, especially the people who took the benefits from the forest. They brought food, plastic bags, water

bottles, milk cartons with them when they were searching for the products, and did not take them back. This increased the garbage in the forest and affected the forest ecosystems (Community forum on September 9, 2015 at a community hall, Samet Village).

According to the above reasons, the researchers paid attention on the importance of solving the problem of community forest ecosystems along the Chi River at Samet Village. This was done by supporting collaborations between scholars and local people to apply the potential of cultural capital and local beliefs to solve the problems. It is true that the forest is considered a representation of uniqueness and identity in establishing value for the villagers and a process of learning and collaboration as well as supporting the youth to learn and carry on their tradition and culture. This has been carried out in order to build awareness of the importance of their community, to understand their origin and culture and to help each other through this participatory action research (PAR). This research aimed to conserve and rehabilitate ecosystems of the community forest along the Chi River and to encourage local people to take an action on developing their community sustainably.

Objectives

1. To study the knowledge of cultural capital to conserve ecosystems of the community forest along the Chi River at Samet Village, Nongteng Subdistrict, Krasang District, Buriram Province.
2. To find the application model of cultural capital in conservation and rehabilitation of community forest ecosystems along the Chi River

Literature Review

This study used the concept of cultural capital to analyze problems and to establish participation in the management of natural resources and environment of the community. Bourdieu, a French theoretician who introduced the concept of applied capital to study culture, defined the meaning of “Capital” that the thing that functions as social relation of power (see Keawtep & Hinwiman, 2008). He categorized types of capitals into four categories as follows: 1) economic capital that was the accumulation of income and asset in the form of money, buildings, jewelry, cars, shares and so on, and it could be exchanged for other types of capital at economic value, 2) social capital that was

a form of structure of institution, network, and relationship that individuals used to maintain and develop themselves as the part of a social group, and it could be used to bring social benefits to people in families, schools, villages, work places, business groups and so on, 3) symbolic capital that included status, reputation or recognition of people who gave the capital owner the advantage or benefits, and 4) cultural capital. Bourdieu stated that the cultural capital was accumulated in the individual's identity, objects and institution, and it was carried on through education system. The output of cultural capital accumulation was the taste that made a difference and a tool to preserve and maintain social hierarchies.

Besides that, Patmasirawat (2006) stated that "Cultural Capital" was an important issue for economic and social development and was highly dynamic connecting the world conveniently and rapidly.

Grisworld (2004, pp: 93-95), a scholar in social sciences and cultural studies, supported Bourdieu's concept (1984) that culture could be viewed as a type of capitals that could be accumulated and invested in a similar way as economic capital did, or could be transformed into economic capital. Cultural capital influenced the perception of cultural taste and the way of living. It was considered a type of capital accumulations that led to the perception of influential power in society.

Based on the studies related to cultural capital, local wisdom and participation in the management of natural resources and environment of the community, Tahom (2014) conducted a study entitled "Cultural Capital and Local Wisdom for Promoting Participation in Natural Resources and Environment of Tama Community, Buriram Province". The results revealed that Tama Community participated in managing natural resources and environment for 6 Rai of public area with the project entitled 'Reforestation, Given to Land' which emphasized planting teak, Yang, banana, and so on. Then the activity was expanded to 24 Rai of the public area. After running the project for a while, the community could not achieve the goal due to the lacks of management knowledge, such as water management system, maintenance of the area, and the problems in taking benefits of the area. As a result, there were 4 action plans for 24 Rai of the public area after doing the AIC participatory planning. These plans were: 1) water management plan, 2) establishment of awareness of natural resources and environmental conservation plan,

3) development plan for quality of life on community's economy, and 4) establishment of manure and seed bank plan.

Tahom and Dhurata conducted a study entitled "The Application of Local Cultural Knowledge in Conserving Community Forest along the Chi River in Ban Mara Community of Nongteng Sub-district, Krasang District, Buriram Province, Thailand" The purposes of this research were: 1. to study the development of the community forest along the Chi River in the Ban Mara community; 2. to study the local cultural knowledge in conserving the community forest; and 3. to apply local cultural knowledge in conserving the community forest of the Ban Mara community of Nongteng Sub-district, Krasang District, Buriram Province, Thailand. The process of the study was Participatory Action Research (PAR). The data were collected from the key informants, selected based on their utilization of the natural resources of the forest for consumption. The results revealed that there were 5 knowledge areas: 1. knowledge of the development of the community forest along the Chi River; 2. knowledge of the culture in receiving benefit from the community forest; 3. knowledge of the economical culture stemming from the community forest; 4. knowledge of the belief about Pi Poo Ta (ghost village of the ancestors); and 5. knowledge of the beliefs self-behavior for making use of the forest. This knowledge was applied to conserve the community forest along the Chi River, which led to regulations regarding the use of the forest, the changes in the behaviors of the villagers that are receiving benefits from the forest, and the building up of the sense of forest conservation. This was done through the activities of tree ordination and planning on 2 August 2016. Further, the findings from conducting the research will also help the villagers understand and be aware of the effect of burning the forest, leading to changes in their thinking in an effort to make the most utilization of the natural resources of the forest by growing wild bamboo, Siam tulip, wild potato, and so on, along the ridge of crop farms for building up the food base for the community in the future.

Research Methods

This participatory action research (PAR) was designed to provide in-depth and broad dimension by collecting data relevant to context of the community, tradition and culture, local wisdom, community participation, conservation and rehabilitation of the forest along the Chi River, including an operation of activities, exchange of knowledge

and pass on culture and local wisdom. The data were collected by following methods:

1. The researchers arranged a meeting with local people who are community leaders, key persons of community research, village health volunteers, local philosophers, and elders and youths, for brainstorming, analyzing problems and a focus group interview.

2. In-depth interview was conducted by collecting data concerning community context, tradition and culture, local wisdom, community participation, conservation and rehabilitation of the forest along the Chi River. The interview was about the relation of tradition, culture, beliefs and the conservation and rehabilitation of the ecosystem, such as, tree ordination, river's fate extension ceremony, and the application of forest wedding, together with the community who has the conservation and rehabilitation of the community forest along the Chi River. The interview was also done on the villagers' behavior in utilizing the forest in each season, for example, the collecting of mushroom, bamboo shoot, wild insects, Siam tulip, and wild potato, the hunting of wild animals, the cutting of trees. In addition, the abundance of the community forest affecting food resources for the community and the food-chain analysis were also studied. Those were studied to find out the relation of living things and non-living things on the forest ecosystem relation and to seek for the value of ecosystem and the management of the diversity of community forest ecosystem at Samet Village. Also, the interview was done on an operation of activities and exchange of knowledge and pass on culture and local wisdom from key informants comprising of local intellectuals, religious leaders, the seniors and the villagers in Samet village, and community leaders consisting of the village leader, the village leader assistant, the village committee and the villagers utilizing the community forest along the Chi River.

3. Group think was conducted through the technique of Appreciation-Influence-Control: AIC, brainstorming, mind mapping, analysis of weakness and strength including possibility and limitation of the community (SWOT Analysis) to collect the data about the arrangement of community forum for making community rules and prohibitions for forest utilization- the collecting of mushroom, bamboo shoot, wild insects, Siam tulip, and wild potato, the hunting of wild animals, the cutting of trees- the suggestions for forest blockade season for rehabilitation, and the setting of rehabilitation area and the forest utilization for food.

4. Analysis was conducted by collecting data concerning context of the community, tradition and culture, local beliefs and local wisdom, and studying the

problems of forest invasion, deforestation, burning farmland and the utilization of the forest along the Chi River in 12 months. Then the collected data were summarized and verified by the researchers, local researchers, community leaders, senior villagers, forest utilizers and local people in Samet village.

Target group

This participatory action research (PAR) approach allowed informants to involve and participate in all stages of the research procedures and the development of Samet community. Those informants were 230 people consisting of 10 local volunteer leaders, 57 villagers of Samet village, 20 formal and informal community leaders, 20 seniors with knowledge of cultural capital, 5 local intellectuals, 5 monks (developers), 98 forest utilizers and 20 officers from relevant local government agencies which included Buriram Provincial Forest Centre/Community Development Centre, Ban-Samet Samakkhirat School, Nongteng District Municipality and Academic Service Office of Buriram Rajabhat University. The target group consisted of the people living in the community and the forest utilizers. The data were collected from 40 informants of 5 target groups who were selected through a purposive sampling method. They were monks, local intellectuals, community leaders, seniors and general public who provided information of the changes of the forest along the Chi River. Moreover, all key informants were required to know characteristics of the forest utilization as well as the situation of problems concerning the forest management in the community.

The data concerning the forest utilization for consumption and for sale such as shrimps, clams, crabs, fish, forest products, hunting, farming, etc. were collected through a snowball sampling method. The researchers collected data from the forest utilizers in various aspects through in-depth interview and continued to search for the persons among those who could provide some information about the forest utilization. Only ninety-eight forest utilizers mentioned above were in-depth interviewed.

Results (or Results and Discussion)

1. The knowledge of cultural capital for the conservation and rehabilitation of the forest ecosystems along the Chi River at Samet village, Nongteng Sub district, Krasan district, Buriram province

There is a linkage between the cultural capital and the forest conservation and rehabilitation in the community at Samet village. This linkage consists of value and diversity of natural resources and beliefs that enable a good relationship among the villagers. According to the data obtained, the details of the knowledge of cultural capital for the conservation and rehabilitation of the forest ecosystems along the Chi River were as follows:

1.1 Value and diversity of natural resources along the Chi River

According to the data, the forest products were available all year round. Due to this reason, the villagers can reduce their expenses and earn more income for their families. The data from 68 households of the regular forest utilizers living in the community and 30 forest utilizers from outside the community showed that the way of life of those who have been living in Samet village from the past to the present time relied on the food resources from the forest. Sixty-eight families of the regular forest utilizers used the forest products for household consumption and for sale to earn extra income as shown in Table 1. The table of the forest utilization in each year showed that 60-70% was for household consumption and 30-40% was for sale. In addition, the data collected from 98 forest utilizers showed that the 9 most popular forest products for sale with different prices were: all kinds of fish (80-100 Baht/kg.), ant eggs (200 Baht/kg.), all kinds of mushrooms (200 Baht/kg.), chameleons (100 Baht/kg.) bamboo shoots (20 Baht/kg.), frogs/green frogs (100 Baht/kg.), Tio/Taew vegetables (20 Baht/bundle), Enoon/Sab vegetables (20 Baht/bundle), all kinds of yams (50 Baht/kg.).

Having considered the average amount of the products per household in a year, the average amount of each product per household was as follows: 80 kg. of fish, 50 kg. of ant eggs, 100 kg. of mushrooms, 60 kg. of chameleons, 80 kg. of bamboo shoots, 80 kg. of frogs/green frogs, 30 kg. of Tio/Taew vegetables, 20 kg. of Enoon/Sab vegetables, 80 kg. of sweet potatoe. Total amount of average income per family was 57,000-58,600 Baht as shown in Table 1.

Table 1: Income per Household of the Forest Utilizers from Selling Non-timber Forest Products

Products	Quantity (Kilogram)	Selling Price (Baht)	Income (Baht)
fish	80	80-100	6,400- 8,000
ant eggs	50	200	10,000
mushrooms	100	200	20,000
chameleons	60	100	6,000
bamboo shoots	80	20	600
frogs/green frogs	80	100	8,000
vegetables (Tio/Taew)	30	20	600
vegetables (Enoon/Sab)	20	20	400
wild yams and potatoes	80	50	4,000
Total amount of average income per household			57,000-58,600

Source: A community forum for analyzing the utilizers of the forest along the Chi River at Samet Village in Ban Samet Temple's hall on March 20, 2016.

1.2 Beliefs in the ancestors' spirit houses (Pu-Ta spirit house) related to the forest conservation and rehabilitation along the Chi River

The villagers in Samet village believe in ancestors' spirits that help protect them when they enter the forest or travel to other areas. They usually tell the spirits to acknowledge and protect them for safe journey. It is believed that an access to the forest without permission from ancestors' spirits will bring bad luck, saying that bad situations happen or cannot find the forest products. The ancestors' spirit houses represent the relationship between human and nature, human and superstition as well as human and human. This is to respect mutual forest utilization especially the superstition based on beliefs and rituals. The data showed that Pu-Ta spirit houses were located in 4 areas at the main entrance to the village, in Ban Samet Temple, Khok Pluang area and in front of the forest along the Chi River.

1.2.1 The Pu-Ta spirit house, located in the east of the village at the main entrance to the village, was built at the same time of the establishment of Samet Village to be a memorial to the villagers' ancestors for being the founder of the village. The worship ritual is held twice a year on the 3rd day of the waxing moon of the 3rd lunar month and on the 6th day of the waxing moon of the 6th lunar month. The villagers

believe that this Pu-Ta spirit house is a holy place protecting the villagers to live peacefully and preventing evils.

1.2.2 Pu-Ta spirit house of Takru Yai-Krouang at Ban Samet Temple was built in 1979, located under a Trad tree inside the temple. The villagers built this spirit house in the temple where rituals and activities are always performed in the temple. They also worship the spirit house in order that the rituals and activities run smoothly. So, this facilitates the offerings.

1.2.3 The Pu-Ta spirit house of Jabok in Khok Pluang area was built at the same time of the establishment of Khok Pluang village. This village was established by Mr. Nud Dasri who moved from Kham Village, Bukreng Sub district, Jompra District in Surin Province in 1950. The village was established in the area of the community forest along the Chi River, and later this village became Samet Village. However, the name of Khok Pluang community remains there for keeping the former name of the community before becoming a village. This Pu-Ta spirit house is used for the rituals by the beliefs of Khok Pluang people.

1.2.4 The Pu-Ta spirit house at the foot of the bridge across the Chi River is located at the entrance to the community forest along the Chi River. It was built with one post covered with zinc roofs in 1985 by Mr. Poon Chertsuk and his family who owns the area after occupying the land for agriculture. The spirit house is called Tasom spirit house. It is noted that Mr. Poon and his family worship this spirit house twice a year.

Those data presented that the belief in ancestors' spirit has a big influence on the way of life of the people living at Samet Village. It is believed to be morale for the villagers and a tool presenting ethnic and biological characteristics of the community. This is consistent with Ganjanapan (2000) who stated that "the ancestors' spirit house" was a symbol of management power of the community forest. In addition, Phongphit (2003) stated that Pi (spirit) represented the rules, culture, and good tradition of community and society. So, everyone needed to respect the rules. If anybody broke the rules, they would be called "Pid Pi". The spirit was considered an important mechanism for preserving the forest and helping the people live happily. Therefore, this belief focuses on "the establishment of mutual awareness". It is the power for a development in the same way as science is. Local belief is a symbol that transforms abstract belief to

concrete belief such as the belief in ancestors' spirits said by Phongphaibun (2001). Consequently, the ancestors' spirit houses were built to be a memorial to the villagers' ancestors, the founders of the village. In addition, this belief was a strategy to create harmony of people in the community.

1.3 Human capital and the conservation and rehabilitation of the forest along the Chi River

The collected data presented that 3 important local intellectuals were considered the human capital of Samet Village: 1) Mr. Phrae Krasaebua, 76 years old, living at 45 Moo. 7, 2) Mr. Yan Wangyoo, 67 years old, living at 100 Moo 7, and 3) Mr. Dua Wangyoo, 80 years old, living at 20 Moo. 7. These intellectuals are widely respected by villagers at their community and accepted by soldiers, police officers, government officers and general people in the aspects of their knowledge of herbs for the diseases treatment, hunting, and tracing wild animals, etc.

In the past, the villagers living at Samet Village relied on food resources from the forest: Herbs were used for medication; wood was used for house construction; and natural products were used for making clothes. Therefore, the persons who helped guide the way of making those things to get along with the tradition were the local intellectuals who played a big role applying local wisdom to solve problems occurred and transferring knowledge to link the knowledge from the past to the present time. This is because they are educated and understand the existence of human and nature, human and human, and human and superstition. Those 3 intellectuals became respectful and highly influential in the aspects of wisdom, tradition, culture and local beliefs.

1.4 The relationship between human and the conservation and rehabilitation of community forest ecosystems along the Chi River

The forest is the origin of biodiversity and a rich food resource of the community. Therefore, the learning process between human and the forest is essential for solving problems concerning the community forest issues by establishing appropriate forest management mechanisms including establishing understanding and awareness of ecosystems of the community forest along the Chi River. Puntasen (1996) proposed a guideline to preserve the forest. Since the understanding and the importance of the forest and other natural resources including the necessity of conserving the forest

should be supported. So, the villagers living around the forest are consistently aware of the value of water, soil, water and air to secure the benefit gained from the forest for themselves and for next generation in the long run. From the findings of knowledge of the village cultural capital, the researchers conducted an analysis and a synthesis in each aspect in order to conserve and rehabilitate the forest ecosystems along the Chi River. The details were as follows:

1. In terms of the belief concerning the forest utilization, it was found that the belief and the conservation and rehabilitation of the forest along the Chi River are the system of value in terms of the belief and the relationship of the villagers. There is not only unique characteristic in every ethnic group, but there is also an instrument to link good relationship among the villagers. This tool is called “Culture”. The villagers at Samet Village believe in coexistence between human and the forest. They respect superstition such as the spirits residing in the forest and the spirits of ancestors including Pu-ta. Before they enter the forest to find the forest products, they always ask permission from those spirits. These are some taboos for accessing the forest: 1) do not make loud noises to avoid disturbing the spirits in the forest so that they do not make the forest utilizers in danger or get sick, 2) do not say impolite words showing disrespectful manners to the spirits, etc. These taboos reflect smart tricks of the ancestors who teach their children to respect nature. Having analyzed the cause and effect, this teaches the forest utilizers not to make loud noises to avoid disturbing wild animals and nature including respect superstition such as the spirits residing in the forest, and the spirits of ancestors, etc.

2. In terms of establishing understanding of wildfire management, it was found that wildfires happen almost every year during March–April. They destroy a wide range of forest ecosystems such as wild animals, plants and trees, mushrooms, etc. Most causes of wildfires are due to the forest utilizers’ careless behavior such as dumping cigarette stubs while searching for the forest products or fish in the Chi River, etc. These problems obviously affect the forest ecosystems. To solve the problems, the community leaders make an announcement on the line during March–April for having wildfire surveillance. However, some villagers are not aware of that and lack understanding of the conservation of the forest ecosystems. Also, they have misconception about the process of finding the forest products and wildfire situations. Apart from this, long-term misbelief is one of the problems. Good beliefs must come together with “consciousness”

to aware that those beliefs are good and do not violate society and each other rights by respecting each other benefits. Thus, the key knowledge for the forest conservation and rehabilitation is to establish mutual understanding between the utilizers and the people who lose benefit as well as to search for guidelines to problem solutions. The establishment of understanding will raise awareness of the forest conservation and rehabilitation.

3. In terms of the forest that provided food and income for the community, it was found that the potential knowledge and also the pride of the people in the community consisted of the preserved bamboo shoot products such as boiled bamboo shoots, pickled bamboo shoots, etc. These products can be kept for consumption out of the season. Moreover, the processed bamboo shoots also known as “Tam-Piang Songkrueng” is an evidence of local wisdom in cooking skill that creates the unique food of the community and later becomes local food. It is also available for sale. Some people can earn some money from selling this local food: the persons who find the bamboo shoots and pickle them as well as the persons who produce Tam-Piang Songkrueng for sale. This creates a self-reliant economy which includes production, consumption and exchange at the regional level and responds to the demand of the community. Even though it can make profits or there are sufficient products for sale or not, this is still considered a self-reliant community economy at an early stage since the community applies their knowledge to the development of production, consumption and exchange,

2. The application model of cultural capital in the conservation and rehabilitation of community forest ecosystems along the Chi River at Samet village, Nongteng sub district, Krasang district, Buriram province

The researchers adopted a model covering the word “Capital” which means earning income and the word “Culture” which means the goodness and beauty of the community including aspects of society, resources and economy. Consequently, the action plan was based on the word “Cultural Capital”. According to the obtained data, the establishment of learning process in critical thinking, raising level of existing knowledge for real practice including conducting discussions motivated the villagers to realize value of the forest. This is the same way as the enlightenment of Lord Buddha who discovered existing truths and spread these to laymen and to create living guideline

in accordance with Ithappajayata (Specific Conditionality): when this exists, that comes to be; this happens, that comes to happens; everything happens because of causes and factors (BuddhadasaBhikkhu, 1972). Therefore, to conserve and rehabilitate the forest ecosystems along the Chi River, the researchers studied the knowledge of cultural capital existing in the community as well as the relationship, causes and factors for conserving and rehabilitating the forest. This is in line with cultural capital as the basis of Thai society in order to enhance immunity for individuals and society. This emphasizes Learning and Development, not Copy and Development until it made the application model of cultural capital in the conservation and rehabilitation of community forest ecosystems happen. The details of the action plan were as follows:

1. Development plan of society and culture is the plan that applies discovered cultural knowledge to the conservation and rehabilitation of forest ecosystems. The details were as follows:

- 1.1 Establishing understanding and wildfire prevention system in collaboration with the forest utilizers to raise awareness of the importance of wildfire prevention. This is because the wildfires destroy forest ecosystems and abundant food resources of the community. According to the data collected from 98 households of the regular forest utilizers, it showed problems and causes of wildfires in the last 5 years that most causes were from searching for forest products, hunting, fishing, etc. accounted for 70%, occurring 4 times in 2012-2013-2014 and 2016. The second cause of the wildfire was from burning farmland accounted for 25%, occurring 3 times in 2012-2013 and 2016. And the last cause was from recklessness of the forest utilizers such as lighting the fire, throwing cigarette stubs, accounted for 5%, occurring 2 times in 2012 and 2014. The result of learning exchange through this research raised more awareness of the villagers to understand problems and relationship between human and the forest. Most of the regular forest utilizers were buffalo caretakers and the persons who looked for forest products. The people who participated in the forum to analyze problems and find guideline preventing wildfires agreed that the buffalo caretakers would be watchmen for wildfires and coordinate with the village leader, the village leader's assistants and the community forest care committee. During April 2016, there was a wildfire and a buffalo caretaker was the first person who found the wildfire and stopped it as well as contacted the village leader's assistant. So the wildfire was not widespread.

The knowledge of cultural capital in wildfire prevention pointed the interest and awareness of the wildfire surveillance. Apart from this, a wildfire prevention method started with designating security guards for monitoring the wildfires. This created the mechanism based on the relationship between human and the forests. The researchers and local researchers agreed that the most suitable people for monitoring the wildfire were the buffalo caretakers and the persons who looked for forest products, etc. These people, especially the buffalo caretakers, who wander in the forest all day, enter the forest throughout the year.

1.2 For organizing the annual wildfire prevention activities with a cooperation with temples, households, schools, universities and Nongteng District Municipality, the following steps were carried out: At the forum on problem analysis and guideline for wildfire prevention conducted on June 23, 2016, the researchers together with local researchers, the villagers, monks, Ban SametSamakkhiratwitthayakarn School and Nongteng District Municipality agreed to have an action plan together. Buriram Provincial Forest Conservation Centre had an idea to organize the annual wildfire prevention activities in March. This research resulted in a collaboration of all sectors to deal with wildfires. It showed that the key to strengthen the community in a long run was the participation of the community through research process. When the villagers realized problem conditions of their community, these conditions would raise their feelings and awareness of the problems. This is because their way of life relies on local natural resources.

1.3 For applying a human capital to the conservation and rehabilitation of the forest along the Chi River, the research showed that Samet village had some respectful intellectuals with knowledge and experiences. The villagers came and visited them in order to ask for advice on hunting and herbal medication for the diseases treatment. The forest is the place for wildlife hunting and finding herbs. Therefore, the forest ecosystems get affected by herb hunting as some plants needed to be dug, cut, and pulled; some rare species of plants such as Phayasuekrong (Wild Himalayan Cherry), Matalairong, Yapanngukao, Krayung, Kramgrom, etc. were used as herbal medicine in accordance with their beliefs. For hunting, Mr. PhraeKrasaebua and his followers went to the forest to hunt fishing cats, birds and fowls. They put food on a trap, then those animals were caught while eating the food. For such reasons, the researchers collaborated

with local researchers, community leaders, and monks conducted a forum to discuss problems and established cooperation with those intellectuals. The abbot Supparuek Santagayo said that “You should learn the Buddha’s teachings and the 3 hermits, then you will understand how to talk to those intellectuals”. From the abbot’s words, the researchers found that the Buddha chose to teach those 3 hermits: Aruwelagasapa, Natheegasapa and Kayagassapa, because they had 1,000 followers. If those hermits changed their mind to respect the Buddha, Buddhism would be very prosperous (The VinayaPitaka, Volume 4 : Part One, item 37-55 : 36-50). So, the researchers visited those 3 intellectuals and told them that “We would like to invite all of you to join our team to find the way to preserve our forest, make it to be fertile and prevent illegal deforestation. And we would like you to be forest care committee”. As a result, they accepted the invitation to join the research team and willing to help.

2. For the forest resource management plan and community food resource, the data collected were discussed on April 23, 2016 to find knowledge of approaches in conservation and rehabilitation of community forest ecosystems along the Chi River. The result concluded that the belief in ancestors’ spirit house would be applied as a strategy to preserve and rehabilitate the forest. 1 of 3 plans would apply culture, local belief to be the strategy for conserving the forest. There would be a worship to the ancestors’ spirit house on August 3, 2016 under the name of “the activity to combine culture and local belief with the conservation and rehabilitation of the community forest ecosystems along the Chi River at Samet Village”. On that day, the food resources of the community, reforestation, traditional rituals preserving the forest to honor Queen Sirikit and the warship to the ancestors’ spirit would be organized and held annually. The details were as follows:

2.1 For the use of belief in the ancestors’ spirit house with the conservation and rehabilitation of the forest ecosystems along the Chi River, on April 23, 2015, the researchers set up an action plan at Ban Samet Temple’s hall. The discussion concluded that the belief in the ancestors’ spirit house would be applied to the conservation of the forest ecosystems. On May 4, 2016, the researchers conducted a community forum with 80 community leaders, the seniors, youths and public to brainstorm ideas on how to implement the social and cultural plan to conserve the forest ecosystems. A donation was made for the construction of an ancestors’ spirit house in the forest

with total amount of 3,100 Baht. Most people had a common opinion that the ancestors' spirit houses have been a long-term belief since the establishment of Samet village. The ancestors' spirit houses were the residences of ancestral spirits. The worships were held 2 times a year on the 3rd and the 6th months. The villagers believe that the ancestors' spirit houses are a holy place. Insulting, invading or destroying the spirit house area is forbidden. Violating those taboos would bring bad luck or sickness. Moreover, the trees and wild animals living in the spirit house area must not be destroyed because this area has been preserved from killing animals or cutting the trees.

On August 3, 2016, the warship to the ancestors' spirit, reforestation and traditional rituals to preserve the forest were organized by the following relevant organizations: Krasang district chief representative, Mayor of Nongteng Municipality, 9 schools in Nongteng sub district, monks from 9 temples, community leaders from 18 villages, BuriramRajabhat University and Buriram Forest Conservation Centre. These activities were to raise awareness on local culture that the ancestors' spirit house is a mysterious power that makes the villagers feel fear to violate the old belief. Apart from this, Pu-Ta spirit houses represent social norm and social engagement. The worship to Pu-Ta spirit houses is a powerful ritual through faith in superstition. The ceremony called Hid 12 Kong 14 (lunar festival and 14 laws) is also held together to conserve the forest. So, the area of the worship becomes a sacred place. The villagers believe that ancestors' spirit exist and have power over human to punish the persons who commit disrespectful manner. Therefore, the worship to Pu-Ta spirit houses are not an ignorant ritual, but it is the presentation of social system that consists of people, social institutions, social status, social roles and social norm.

3. For making development plan of community economy, the researchers organized a workshop to develop and standardize the capacity of the production of Tam-Piang Songkrueng and invited Ajarn Chuleepohn Bungthong, a lecturer of Food Science Program in the Faculty of Science, Buriram Rajabhat University, to be a keynote speaker and provide knowledge for 40 trainees at Ban Samet community hall. At the workshop, the villagers were encouraged to form a group for the production and to aware of the importance of hygienic production. This is an important factor that most consumers pay attention to. More importantly, each production requires the same standard of flavor, color, nutrition by standard quantity measurement to create

flavorful taste. The ingredients to produce “Pahoe Tam-Piang” (pickled bamboo shoot) are follows: 1) 6 kg. of wild bamboo shoots, 2) 2 kg. of rice flour, 3) 3 kg. of minced pork, 4) 1/2kg of garlic, 5) 200 g. of fermented fish, 6) 75 g. of pepper, 7) 1 litre of water, 8) 150 g. of seasonings. As a result of the workshop, the villagers formed a group of 10 people and designed a product logo that reflects their identity and makes the product easy to be remembered.

Discussion (or Results and Discussion)

Cultural capital is the skill of integrating the culture of community and value inherited from previous generations. The cultural capital is an intellectual property acquired from the past and it is valuable to human beings as well as the needs of society beyond economic value. So the cultural capital represents a natural mechanism to elevate learning process on the way of life of people and incorporate social, cultural, environmental dimensions as well as community economy. This is because faith is a spiritual centre that connects people in society. So, these people can behave properly. Belief is a mechanism to strengthen the community and a development integrating approach that links human, society, economy, environment, culture and religion and makes balance as well as enhances social immunity. The cultural dimension is a holistic view of things. All things are connected including the way people think that describes the phenomenon linking ecosystems with social relationship of people.

The major findings of this research have impacted on the change for the people in the community to learn how to solve a wildfire problem by themselves through an analysis of research data. In addition, it has created a system and mechanism for wildfire prevention through the forest utilizers that is buffalo caretakers and the persons who search for forest products, etc. Related organizations such as Buriram Rajabhat University, Nongteng Sub-district Municipality, Bansamet Samakkhirat School and Buriram Provincial Forest Conservation Centre agreed to organize activities of wildfire prevention in March every year and establish rules and regulations for annual reforestation. This is consistent with Tahom et al. (2014) who conducted a study on “The Model of Cultural Capital Identity and Local Wisdom for Promoting Participation in Natural Resources and Environmental Management in Community”. The study indicated that villagers living in Tama village managed natural resources and environment in the area of 6 Rai of public

area and named “Reforest to preserve the land” which concentrates on planting teak trees, rubber trees, banana tree, etc. After that the planting area was expanded to 24 Rai. Also, the forest utilizers were together to plan a guideline for conserving and rehabilitating the planted trees and came up with a mutual agreement that cattle are not allowed in this area until the tree grows strongly

Also, there was the other important finding; that is, the application of Pi Poo Ta belief (belief of ancestor ghost) by building the spirit house in 551.74 Rai of the ecosystem conservation and rehabilitation area of the community forest along the Chi River to make the fear and the cautiousness to the villagers in violating the rules and the reforestation because the villagers believe that they will get harm if they do something wrong in the area of the spirit house. The house is the symbol of peace as well as the symbols of power and superstition belief. Thus, the villagers’ belief is based on the respect of human being to human being, human being to nature, and human being to superstition, which reflects the giving of honor to each other and no persecution to each other. The application of Pi Poo Ta belief for conservation and rehabilitation of community forest ecosystem along the Chi River is not nonsense, but it is the taken of knowledge of social systems including of people, social institute, social status, social role, and social norms to be taken into account for the society.

Therefore, for the sustainable solution, the scholars, researchers, governmental officers, and private need to have a clear view on the dimensions of social capital and cultural capital in order to solve the problems all round because the economy and social development with western capitalism make more gap on economy, society, and culture between the rich and the poor. Farmers get poorer and have more debt; whereas, the rich get more money with more bargaining power (Baimai, 2014: 78). Due to the failure of modern community development paradigm, it leads to point of view and guidelines for development in 3 ways: 1. the demand for development businesses to pay more attention on villagers, local culture, local wisdom and village value, or which is so called ‘Indigenization’; 2. the demand for the study about civil society with the patterns of ‘Grassroots movements’; 3. The needs of social development private sector asking for the community-based development, the community-based research, and the villager participation in doing research called local researchers who are one of the instruments to strengthen the community. To make the community strong, it should start with the

essential point; that is, an obvious view on social dimension which is the integration of both new knowledge and old knowledge together. In other word, it is the seeking for the same points to lead to thinking process in driving the community development by building conscious mind of the community as the most important tool: know and tell yourself what the existing and new capital you have. The most important thing is the motivation of changes which will lead to have team or network for participation in driving a variety of development. In addition, the participation of thinking, doing, making decision, taking benefits, and taking care occurred, are based on the community learning process: building up knowledge, passing on knowledge, learning or perceiving knowledge, as well as the consciousness of thinking process. This is a holistic process. It cannot be separated from ways of life of villagers under the concept development with morality. The passing on knowledge concerning morality is merged with the development continuously and sustainably. This must be under the condition of morality of the rulers or community leaders who are the essential mechanism of fairness.

Suggestions

1. The study should be extended to the economic value creation of the local food called 'Tam-Piang Songkrueng' in order to develop career related to ways of life of people in Ban Samet Village.

2. The bodies concerned should take the model of conservation and rehabilitation of community forest ecosystems along the Chi River at Samet Village to other communities who are countering the same problems and they should learn the success lessons of the conservation and rehabilitation of community forest ecosystems along the Chi River to be the guidelines to practice for interested persons.

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