

Community-creative Economy Enterprises of Silk Weavers Using Natural Dyestuffs (Case Study of Surin Province, Thailand)

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Abstract

This research aimed to investigate natural dyestuffs found in local communities of Surin province, Thailand, and to develop community-creative economy enterprises of silk weavers in order to create their knowledge and skills in production and marketing. This research process was designed as the following steps: 1) Brainstorm meeting of researcher team, 2) Setting up criteria for selecting a community/research area, where was developed for natural dyestuffs, 3) Development of curriculum of natural dyestuffs, including theory and practical training, 4) Selection of research/community area, where was developed for natural dyestuffs, 5) Training of natural dyestuffs, and 6) Evaluation and monitoring using PDCA (Plan, Do, Check, Act) process. The research tools were the dyeing stuffs training and the questionnaire for evaluation. The results showed that they were 58 participants participating in the training project with bringing many dyestuffs such as Brazilian pepper leaves, *Argusianus argus* peel and Cassia leaves etc. Most of the participants responded that natural dyestuffs could reduce cost when compared to the synthetic (88.9 percent), would like to continue training of natural dyeing stuffs (61.1), and needs an expertise to visit their home and advise them about natural

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dyeing. Especially, the participants would like to learn more how to transform silk clothes to varieties of products such as cloths and bags etc. Most of them sold silk product only in Surin Province (86.1 percent) and they would like to have a chance to sell abroad.

Keywords: Community-creative Economy

Introduction

Surin is one of the most famous provinces in silk, which silk weaving process is a Thai cultural heritage, inherited for ages. There are many silk weaving processes and patterns, expressing unique and dominant of Surin province, especially “Hol” silk cloth illustrating the silk weaving group of Thai and Khmer race. Presently, local dyeing process emphasizes on synthetic dyestuffs because of convenience and short-time usage. From our preliminary study, natural dyeing is infrequently found in Surin province because the dyeing process is complicated. Besides, the dyeing process using natural dyestuffs as raw materials found in communities is fading down (Achara Phanurat, and Kruajit Sriboonnak, 1995).

Generally, synthetic colors are more used in dyeing when compared to natural colors from natural dyestuffs because of reducing time and being convenient in dyeing process. Then, local people use the synthetic colors more than the natural colors because of lower price and simplicity. However, the natural dyeing silk has higher price in silk market when compared to the synthetic dyeing silk as well as the natural colors are good to the environment.

Hence, in order to preserve the dyeing process of natural dyestuffs as local wisdom of Surin province and for creating a strength of communities as occupational development and income increasing to villagers, it is important to investigate knowledge and skills of silk dying process from natural dyestuffs and then transfer them as cultural heritage to descendants. Besides, development of community-creative economy enterprises of silk weavers using natural dyestuffs

would create their income and strengthen production base, connected as a network of silk weavers using natural dyestuffs in communities.

This research focused on community-creative economy enterprises of silk weavers using natural dyestuffs and would create benefits to people who produce silk in both natural and synthetic dyeing silks. Moreover, this research aimed to create natural dyeing silk network, share natural dyeing stuffs, and create marketing distribution to increase their income as well as preserve the dyeing process of natural dyestuffs as local wisdom of Surin province.

Objectives

1 .To preserve natural dyestuffs emphasizing on local materials for developing community silk weaving natural dyeing stuffs in Surin province.

2.To enhance natural dyestuffs' process, and create natural silk dyeing network and marketing contribution in Surin province.

Conceptual framework

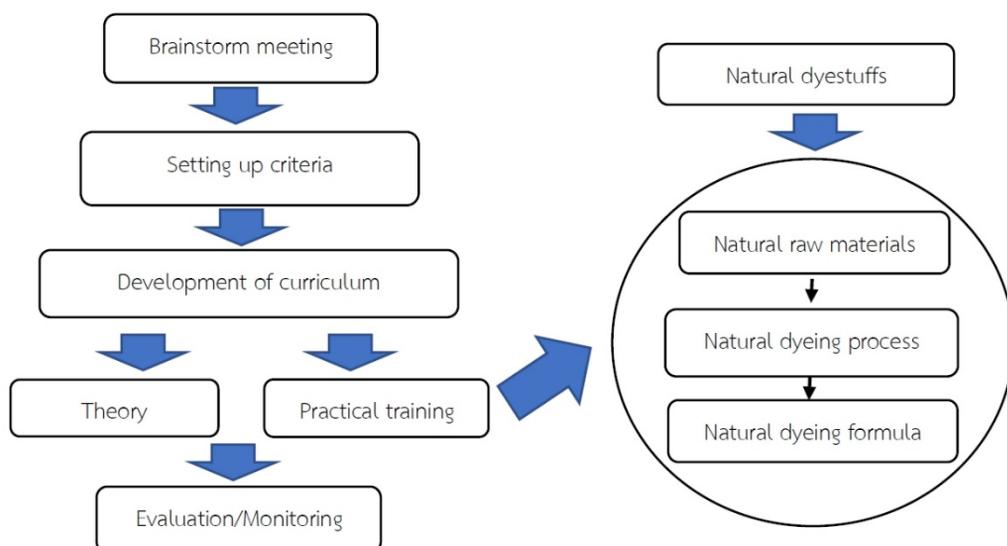


Figure 1 Conceptual Framework

Natural dyeing stuffs

In the past, we looked for sources of raw materials as natural dyeing stuffs which were divided into 3 items as follows:

1. Mineral dyes: this natural color came from steel, chromium, copper, etc. in the past, they were very important but today most people use colors from mud and red soil, consisting of metal compound for dyeing.

2. Animal dyes: the colors came from animals, such as the small insect "*Laccifer Lacca*". Lac presented red color for dyeing, it was used in both local and industrial dyeing with good quality of red color.

3. Vegetable dyes: the colors came from vegetables were most used from extraction process for dyeing. Every part of vegetables could be extracted for dyeing such as root, leaf and shell etc.

Table 1. Natural materials for dyeing

Color shading	Natural materials
Yellow	Turmeric, Zedoary, Garcinia
Brow	Crust, Pomegranate peel, Nonsi shell, Padauk shell
Blue	Indigo, Pea flower, Red roselle
Green	Anchor shell, Cassia leaves, Malabar leaves
Black	Ebony, Banana rhizome
Red and pink	Shellac, Laterite,
Grey	Mud ash

Research Methodology

This research process was designed as the following steps: 1) Brainstorm meeting of researcher team, 2) Setting up criteria for selecting a community/research area, where was developed for natural dyestuffs, 3) Development of curriculum of natural dyestuffs, including theory and practical training, 4) Selection of research/community area, where was developed for natural

dyestuffs, 5) Training of natural dyestuffs, and 6) Evaluation and monitoring using PDCA (Plan, Do, Check, Act) process.

Particularly, the sampling group in this research was selected as two following steps. The first step was the selection of areas, where have local wisdom and popular about silk weaving using natural dyestuffs, comprising four experts (two areas in Tatoon district, one area in Mueang Surin district, and one area in Khwao Sinarin district). And, the second step was the selection of target group, who was the weavers being interested to be developed as community-creative economy enterprises with totally 58 participants. They must pass the criteria of selection, have experiences in silk weaving and dying (synthetic or natural dyestuff), and have communication skills for transferring knowledge to other weavers.

In this research, primary data collection was conducted by training natural dyestuffs and interviewing the participants who were selected to participate in training natural dyestuffs. Secondary data was collected by using natural dyeing process, literature reviews from previous researches, including mineral dyestuffs, animal dyestuffs, vegetable dyestuffs, and techniques of natural dyeing. Qualitative analysis was collected by using observation method and interviewing the opinion of participants. Additionally, percentage was used for quantitative analysis.

Research Results and Discussion

1. Tatoon district was selected as the area of natural silk dyeing stuffs training and there were totally 58 participants in the training. The criteria of joining project was as follows: 1.1) All participants were in Surin province, 1.2) The participants had experiences of dyeing and silk weaving, 1.3) Some of the participants had experience of natural dyeing, and 1.4) All participants cooperated and agreed with our research to develop natural dyestuffs.

2. From the training of natural dyestuffs, some of the participants provided their own natural raw materials for dyeing from their villages as illustrated in Figure 2.



Figure 2 Raw materials as dyestuffs

There were many dyestuffs brought in the training, such as Brazilian pepper leaves, *Argusianus argus* peel and Cassia leaves etc., and their colors were soft tone, while there were some participants providing raw materials which had colorful shades, such as red from shellac, yellow from core jackfruit etc. Some of participants had first time experience of natural dyeing and persuaded the youths from their villages joining the training. The training procedure was as follows: 1) The participants were divided into 2 groups: the first group already prepared extract dyeing water from natural stuffs and another group prepared natural raw material for extracting dyeing water. The dyeing expertise explained how to understand scientific method for natural dyeing stuffs by using weighing machine, water ratio, and water boiling timing. Furthermore, they were some youths in the villages and the nearby villages joining the project and average age was around 10-12 years old.

1. The opinion from participants after training found that they would like to continue training of natural dyeing (61.1 percent) and would like an expert to supervise at home (27.8 percent), would like to have a natural dyeing school in Surin province (16.7 percent), and would like to have an activity to exchange knowledge among participants (13.9 percent). For benefits, the participants found that natural dyestuffs could reduce cost when compared to the synthetic (88.9 percent), the silk products were easier to sell when compared to the synthetic (55.6

percent), the silk products were higher price when compared to the synthetic (50.0 percent), the silk products created put more values in community resources (16.7 percent), and markets had higher demand when compared to the synthetic (11.1 percent). Furthermore, the participants would like to have varieties of silk products such as cloths and bags etc. For silk marketing and distribution, it found that most of the participants sold silk product only in Surin Province (86.1 percent), to other provinces (33.3 percent) and abroad (5.6 percent).

Table 2. Opinion of participants of natural dyeing stuffs training

No.	Topic/detail	Percentage
1.	Continue training of natural dyeing stuffs	61.1
2.	Need an expert to visit their home and advise about natural dyeing	27.8
3.	Promote natural dyeing at school	16.7
4.	Exchange knowledge among participants	13.9
5.	Reduce cost of buying synthetic color	88.9
6.	Higher market demand than the synthetic	11.1

2. Evaluation and monitoring

Most of the participants were from Tatoon district and the highest number of participants were from Tato and Sadao sub-districts. Moreover, the participants had experiences of traditionally natural and synthetic dyeing with the highest number at 86.1 percent, of only natural dyeing at 11.1 percent, and of only synthetic dying at 2.8 percent. The highest number of joining this research was to learn a new method and found out new materials of natural dyeing and would like to share and visit other villages where produce natural silk. Furthermore, beside raw materials which participants provided for training in this project, there were some dyestuffs that they would like to extract such as pandanus, Butterfly Pea and water hyacinth etc.

After the training of natural dyestuffs, we monitored the participants who took the natural dyestuffs as fabric from the training day and continue doing natural

silk weaving. The results showed that one of the participants who joined the training continued doing natural silk weaving. Moreover, she created and supported the villagers who are interested doing natural silk weaving. She explained us that, in the villages, there were different skills of doing natural silk both dyeing and weaving; therefore, they could work as a team and help each other to finish one fabric. Moreover, the benefit of natural dyeing stuffs training, they could share experiences about natural and synthetic dyeing, seek a new method or silk pattern, and share marketing opportunity both domestic and abroad distributions. The natural dyeing fabrics are illustrated in Figures 3 and 4.



Figure 3 Sa-Long fabric



Figure 4 Mudmee fabric

Figures 3 and 4 show that Sa-long and Mudmee fabrics were woven and their colors were soft tone. The weavers said that some customers preferred more colorful shade than soft tone colors, which the result was consistent with as Naphat Yodyingyong (2014), who studied the improvement of color fastness and shades of cotton fabric and natural dyes. In addition, to increase the values of fabric, the natural color must improve color quality of dyeing stuffs as well as the variety of colors of natural should be developed. Moreover, the story of colors from the villages was very interesting then we should add information for each fabric in order to convince the costumers interested in soft tone colors. For

instance, these fabric colors were more environmental-friendly because the materials of these colors were from local resources.

Conclusion

This research combined the training and preserving of natural dyestuffs as local materials, and investigated the natural weavings by selecting the villages where produce both natural and synthetic dyestuffs in Surin province, Thailand. Also, an establishment of the working network for natural dyestuffs was very important. The research found that the natural dyestuffs can be used as local resources. After training of natural dyestuffs, the participants got many benefits; for examples, natural dyestuffs could reduce cost of dyeing when compared to the synthetic dyestuffs. They could share experiences about natural and synthetic dyeing, seek a new method or silk pattern, and share marketing opportunity both domestic and abroad distributions. Furthermore, the participants would like to learn more how to transform silk to variety of silk products such as cloths and bags etc. Most of them sold silk products only in Surin Province and they would like to have more chance to sell product abroad. In addition, the natural dyestuffs and weaving process were interesting for youths in the villages and the nearby villages, these would create an awareness of local wisdom preservation for the next generation.

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