## The Impact of the Geographical Indication Protection on Socio-Economic Aspects of Lamphum Brocade Thai Silk's Producers, Silk Enterprises and Community

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#### ABSTRACT

This research aims to study impact of the geographical indication protection of Lamphum brocade Thai silk on socio-economic aspects to Lamphum brocade Thai silk's producers, silk enterprises and community. Research questionnaire data were collected from 118 producers and enterprises under geographical indication(GI) product and 82 from non-GI product in Lamphun Province. The data were analyzed by descriptive statistics and t-test. The findings revealed that protection of GI provide direct impact on economics aspects. The farmers/producers under GI protection, earned average income with 116,621.19 baht, showed significant higher an average income than non-GI producers with average income of 58,882.93 baht. However, the production costs of different types of silk fabrics between GI and non-GI producers showed non significant different. In terms of social aspects, the results showed that GI protection concept stronglyy affects to the community through their carrier(3.58), participation to their community(3.70), family relationship(3.74), conservation of local wisdom and proud of their occupation(3.81). Farmers indicated that GI manual and control system under GI regulation were acceptable with high level.

**KEYWORDS :** Impact, Geographical indication, Economic aspect, Social aspect

#### **1. INTRODUCTION**

Silk fabric and silk products are play an important role to development of Thai economics from downstream to upstream of value chains. Sericulture seems to be almost ideally suited to small scale farming patterns in Thailand because it is highly

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labour-intensive and can provide a vast number of jobs and supplementary income in form of cottage industry. Thai silk export value approximately

1,000 million baht annually to more that 50 countries around the world. Thailand known as the most famous silk producers in the world. Thai silk is famous in the world in term of their unique characteristics and beauty. Silk fabrics reflect the traditional artistry in weaving techniques, color and patterns of locality in which they were produced .Therefore, Thai silk fabrics are shown highly linked to their geography through raw materials, local wisdoms culture and life style of local people. Lamphun brocade Thai silk, is the one of silk fabrics from the northern(Lamphun province), was registered under geographical indication product in Thailand and was permitted to use Thai GI logo on May in B.E 2552(2009).

The objectives this research are to (i) study impact of the Geographical Indication Protection on Lamphum Brocade Thai Silk's Producers, Silk Enterprises and Community (ii) impact of GI protection on economic aspects such as production, cost, price, ,sale volume, income etc (iii) impact of GI protection on social aspects such as appreciation for occupation, community 's participation, refreshment of sericulture and relationship within community (iv) examine problems and major constraint against to GI's administration and quality control under geographical indication regulation.

#### 1. MATERIALS AND METHODS

This study was designed the research base on qualitative and descriptive methods through the research procedure as following ;

- 1. The secondary data collection : The secondary resource has been undertake to gain an isunderstanding according to the research topics .
- 2. Sample selection and population : Target respondents of the research these are (i) silk producers in area of 8 villages from meaung district and lea district in lamphun province 172 households (ii) 6 silk entrepreneurs under geographical indication protection.

The samples were sampling by purposive random sampling. Sample size is computed by Yamane formula [7].

$$n = \frac{N}{1 + Ne^2}$$

N = 800, e =0.05

- 3. Instrument and data collection : Structured interview and questionnaire was used for quantitative method. In-depth interview, focus group discussion and observation were used as the tools of qualitative method.
- 4. Structured interview and questionnaires were tested for validity and reliability. Validity test consists of content validity and construct validity in order to cover all research 's purpose . Reliability test was conducted through process of pre-test of questionnaire, then calculated for reliability coefficient alpha.

5. Primary data collection and data analysis ; Personal interviews were used to collect from the target respondents of this research study. The data were analyzed through SPSS at  $\alpha = 0.05$ . The data analyzed according to the purpose of the research by descriptive statistics and t-test.

## 2. RESULTS AND DISCUSSION

# I. General information

#### **1.1 Profile of respondents**

Lamphun brocade Thai silk producers were dominate by female (99.0 of percent). There is 59.0 percent was registered under GI producer A mean of age was 46.7 years, ranged from 30.0 to 66.0 years. In terms of educational attainment, a majority of the respondents (50.5 percent) had obtained primary school level. The most of them (67.0 percent) woven Lamphun brocade Thai silk as secondary occupation beside of paddy field (Table 1). The average family members were 3.8 persons. Their experiences in silk weaving was 9.8 years in average, with the range of experience from 2.0 to 50.0 years. An average loom number was 3.67 looms/household with maximum of 50 looms and minimum of 1 loom/household (Table 2).

## 1.2 Silk production

This study found that types of Lamphun brocade Thai silk were produced in 5 categories as silk set, sarong, piece of silk, scarf and shawl. The most of silk products was produced was silk set (68.04 of percent) with average production 31.85 sets, follow by silk sarong (18.26 of percent) with average production 67.91 units, silk piece (8.68 of percent) with average production 73.34 pieces, scarf (2.74 of percent) with average production 148.33 units and shawl (2.28 of percent) with average production 140.40 units per year(Table 3).

## 1.3 Cost of Lamphun brocade Thai silk production

The main production 's cost of Lamphun brocade Thai silk consist of 2 sectors (1) silk yarn and (2) labor cost for weaving. The other cost in term of tools and equipment etc.

<u>Silk set</u> : Average production cost of silk set was 4,602.98 baht (silk yarns 2,084.22 baht, silver thread 192.73 baht, gold thread 157.61 baht, labor cost 1,940.45 and others materials and equipments 746.84 baht)

<u>Silk sarong</u> : Average production cost of sarong was 2,413.73 baht (silk yarns 1,070.40 baht, labor cost 1,187.80 and others materials and equipments 186.81 baht)

<u>Silk piece</u> : Average production cost of silk piece was 2,360.80 baht (silk yarns 1,148.47 baht, labor cost 1,170.31 and others materials and equipments 120.00 baht)

<u>Scarf</u>: Average production cost of silk scarf was 1,100.00 baht (silk yarns 725.00 baht and la bour cost 375)

<u>Shawl</u> : Average production cost of silk shawl was 1,163.33 baht (silk yarns 646.67 baht and la bour cost 516.67)

## 1.4 Marketing

The average price of Lamphun brocade Thai silk in the market as following ; <u>Silk set</u> : Average sale price 8,409.52 baht per set.

<u>Silk sarong</u> : Average sale price 3,786.05 baht per unit.

<u>Silk piece</u> : Average sale price 4,661.54 baht per piece.

<u>Scarf</u> : Average sale price 1,750.00 baht per unit.

Shawl : Average sale price 2,180.00 baht per unit.

## II. Impact of GI protection on economic aspects

## 2.1 Unit cost

The results shown that production cost of Lumphun brocade Thai silk set, under GI registration, with average 4,722.76 baht/set was higher than non-GI product with average of 4,432.92 baht/ set. The cost of production of Lumphun brocade Thai silk sarong under GI registration was higher than non-GI sarong, with average 2,543.36 baht/ unit and 2,303.00 baht/unit respectively. However, the results from T-test analysis found that there were not significant different cost of production between GI and non-GI products (Table 4).

## 2.2 Selling price

The research revealed that there were not significant different selling price between GI and non-GI products. Selling price of Lumphun brocade Thai silk set, under GI registration, with average selling price of 9,202.13 baht/set was higher than non-GI product with average selling price of 7,789.47 baht/ set. However, . In contrast, the selling price of Lumphun brocade Thai silk sarong under non-GI registration was higher than GI sarong, with average selling price of 3,315.00 baht/ unit and 4,181.82 baht/unit, respectively.

## 2.3 Quantity

The research shown that production number of of Lumphun brocade Thai silk set and sarong under GI registration were more quantity than non-GI group with highly significant (at  $\alpha = 0.05$ ). GI silk producers produced Lumphun brocade Thai silk set average 35.92 meters/year, while non-GI producers produced silk set average 26.22 meters/ year. Similar to Lumphun brocade Thai silk sarong, GI products were

more quantity than non-GI products with an average of 104.18 meters/year and 31.64 meters /year, respectively (Table 5).

#### 2.4 Income per household

The results shown that average income of GI silk producers was significantly higher than non-GI producers 'income. An average income of silk set producers under GI registration was 175,454.24 baht /household, while non-GI producers average income was 84,502.44 baht/household.

Similar to Lumphun brocade Thai silk sarong, GI producers had average income 116,621.19 baht/household that was higher than non- GI registration with average income of 58,882.93 baht/household (Table 6).

## **III. Impact of GI protection on social aspects**

The results shown that silk producers found that protection of Lumphun brocade Thai silk under GI registration had impact on high level to their community family and careers as following;

-Impact of protection of Lumphun brocade Thai silk under GI registration on their careers at high level with average 3.58.

-Impact of protection of Lumphun brocade Thai silk under GI registration on participation of community to their careers at high level with average 3.70.

-Impact of protection of Lumphun brocade Thai silk under GI registration on relationship within family at high level with average 3.74.

-Impact of protection of Lumphun brocade Thai silk under GI registration on community's relationship at high level with average 3.81.

-Impact of protection of Lumphun brocade Thai silk under GI registration on their proud of their careers and products at high level with average 3.41.

-Impact of protection of Lumphun brocade Thai silk under GI registration on appreciation of their careers at high level with average 3.55.

#### DISCUSSION

The study of impact of the geographical indication protection of Lamphun brocade Thai silk on socio-economic aspects of lamphun brocade Thai silk 's producers and silk enterprises shown the positive effect on cost of production, selling price and income. Even though, there was additional control system under GI process, the cost was not significant different from non-GI products due to at the beginning of the GI operation local authority as Lamphun provincial administrative office can absorb some cost of quality control. Impact on social aspect, we found that under GI protection environment provide the dramatically positive effect on producers, family, community, career conservation and participation among people in community. This results follows the main purpose of protection of local wisdoms to be the community 's properties and use as tool to develop community and provide job opportunity to the local area to reduce immigration from rural area. In order to develop implementation of GI's producers group, the Queen Sirikit Department of Sericulture and concerning agency should support GI producers to form as association of GI producers. This association will strongly enhance GI activities and future development of GI products.

## 3. CONCLUSIONS

This research shown the results that Geographical indication protection of Lamphun brocade Thai silk has widely impact to producers and community particularly in term of social aspects. The major findings from this research are summarized below.

- 1. There is no impact of GI protection on cost of silk production and selling price of Lamphun brocade Thai silk.
- 2. Quantity of silk production under GI group is highly significant more production than non-GI producers.
- 3. An average silk income of GI producers are significant higher than non-GI producers' income.
- 4. GI Protection of Lamphun brocade Thai silk has high impact on social aspects such as :

on their careers at high level with average 3.58, on participation of community to their careers at high level with average 3.70, on relationship within family at high level with average 3.74, on community's relationship at high level with average 3.81, on their proud of their careers and products at high level with average 3.41, on appreciation of their careers at high level with average 3.55.

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# Annex

# Table 1. Profile of respondents

Variables	n	Percentage (%)	Remark
1. Producers 'condition			
GI	118	59	
Non-GI	82	41	
2. Sex			
Female	198	99	
Male	2	1	
3. Age (year)			
26 - 45	56	31.10	Max = 66
46 - 65	106	58.90	Min = 30
66 - 85	18	10.10	Average = 46.70
4. Education level			
Lessthan primary school	89	44.50	
Primary school	101	50.50	
Secondary school	9	4.50	
Bachelor degree	1	0.50	
5. Silk weaving			
Main occupation	66	33	
Secondary occupation	134	67	
6. Secondary occupation			
Paddy	24	17.60	
Annual crop	110	80.90	
Animal husbandly	1	0.70	
Others	1	0.70	

 Table 2.
 Profile of respondents

Variable	n	Min	Max	Average
1. Family member (person)	200	1	8	3.8
2. Work on silk (person)	200	1	4	1.22
<b>3. Experience on brocade silk (year)</b>	200	2	50	9.8
4. No. loom (unit)	195	1	50	3.67

Table 3. Types of Lamphun brocade Thai silk were produced

Production of Lamphun			Average production
brocade Thai silk	n	percentage	
Silk set	149	68.04	31.92 set
Silk sarong	44	18.26	66.93 unit
Silk piece	19	8.68	73.34 piece
Scarf	6	2.74	148.33 unit
Shawl	5	2.28	140.40 unit

Table 4. Impact of GI protection on Economic aspects : unit cost of products

Type of product	Type of product / Average cost unit (baht)	
	Silk set	Silk sarong
GI	4,722.76	2,543.36
Non-GI	4,432.92	2,303.00
T-value	0.757	2.698
Sig	0.386	0.108

Table 5. Impact of GI protection on Economic aspects : quantity of products

Type of product	Type of product / Average quantity of products (m)	
	Silk set	Silk sarong
GI	35.92	104.18
Non-GI	26.22	31.64
T-value	8.184	20.447
Sig	0.005**	0.000**

Variable	Type of product / Total income per household (baht)	
	Silk set	Silk sarong
GI	175,454.24	116,621.19
Non-GI	84,502.44	58,882.93
T-value	5.889	5.038
Sig	0.016*	0.026*

# Table 6. Impact of GI protection on Economic aspects : total income

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