

Expansion of Cottage Industry in Northeast Thailand: The Case of Triangular Pillows in Yasothon Province

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I Introduction

Since the late 1980s, the Thai economy has been growing very rapidly, but at the same time income inequality has also increased rapidly. The Gini coefficient, which is the most popular measure of income inequality, increased from 0.474 in 1988 to 0.515 in 1992.¹⁾ This was partly caused by the widening income gap between rural and urban areas, particularly between Bangkok and other regions, because the rapid economic growth was led by the manufacturing sector, which is centered around Bangkok. However, this does not mean that the rapid economic growth has not benefited the rural areas. Even though the income gap between rural and urban areas may have widened, in absolute terms the income level in rural areas has also increased. Actually there were many channels through which the benefits of economic growth were transferred to rural areas, possibly the most important of which were the workers who migrated from rural areas to Bangkok. Although the economic boom provided many job opportunities to rural migrants, this paper will examine another channel, that is, cottage industry. During this economic boom some cottage industries prospered because the economic growth stimulated the demand for their products. There is a wide variety of cottage industries from modern to traditional. Suranart [1993], who uses the term *village industry* rather than *cottage industry*, summarizes these industries as follows:²⁾

- (1) Subcontracted industries, which are under subcontract to urban factories. Examples of this type are the fish-net industry in Khon Kaen Province and the silk industry in Pak Tong Chai District, Nakhon Ratchasima Province.

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- 1) [Ikemoto 1993: Table 5, 155]. These figures refer to the distribution of household income. The higher the Gini coefficient, the more unequal the income distribution is.
- 2) Suranart [1993] briefly mentioned the production of triangular pillows in Ban Si Than, stating that "they (entrepreneurs) could have their own factories with 30-60 employees." This is not true, however: there are no triangular pillow factories. The only factories in the village are those making kapok, which is used for stuffing the pillows, and these have only about 10 employees.

- (2) Imported-skill industries, where skills have been imported by villagers who once worked in urban factories. One example is gemstone-cutting at Mueng Samsip District, Ubon Ratchathani Province.
- (3) Traditional industries. Examples are the brassware industry in Ubon Ratchathani Province, the pottery of Mahasarakham Province, and the cushion-making industry at Ban Si Than, Patiu District, Yasothon Province, which is the cottage industry examined in this paper.
- (4) Tourist industry, where produced goods are sold as souvenirs. An example is the pottery of Ban Chieng, Nong-Han District, Udon Thani Province, where pre-historic pottery has been found. Other examples are umbrellas, fans, and bamboo products.
- (5) Raw material-based industries, which process local products. These include canneries of agricultural products.

Thus there are many types of cottage industry. But this classification is not necessarily clear-cut. For example, not only (4) but also (1) (2) and (3) are often related to tourism. Their products are often sold at souvenir markets in tourist spots not only in their own province but also in other provinces. For example, the triangular pillows of Ban Si Than are sent to souvenir shops in Chiang Mai and the cotton cloth of Prae Province is sold at the historical park of Sukhothai Province and so on.

Many kinds of cottage industries come and go, revealing the short-lived character of such industries. In a good sense, this indicates the flexibility of cottage industry, which is due to its low fixed cost. An example of this type is gemstone-cutting. Unlike the short-lived cottage industries, the production of triangular pillows (*mon khit*) in Yasothon Province is an example of successful geographical and organizational development. By studying the case of the triangular pillow industry we can learn about the emergence and development of a cottage industry.

The triangular pillow of Yasothon Province is very famous, being shipped to all parts of the country and sometimes exported.³⁾ This type of pillow has a tradition of hundreds of years in Thailand, but its commercial production at Ban Si Than in Yasothon Province started only in the early 1970s.⁴⁾ Production expanded gradually until the late 1980s, since when it has been expanding very rapidly due to the economic boom. In this period, the subcontracting (putting-out) system was established, in which merchants at Si Than took the key role. They responded to the expanding demand by establishing a geographical division of labor. Si Than concentrates on sewing and finishing of the product, while the weaving is subcontracted to the surrounding villages. In this

3) According to Suranart [1993: 16-17], it has been exported to Middle Eastern countries and Japan, which have a tradition of sitting on the floor.

4) Mr. Suranart stated in an interview that triangular pillows were formerly used mainly in North Thailand, but in the years since commercial production started in Yasothon they have become more popular in the Northeast Thailand than in the North.

subcontracting system, the merchants keep the interests of the Si Than villagers in mind. The operations conducted at Si Than are more profitable than the other parts of the process, at least in the eyes of Si Than villagers. The merchants are thus seen as protecting the profits of their own villagers.

In the context of prototype industrialization, the cottage industry emerges as a measure to gain marginal income by utilizing the underemployed labor in rural areas. In Northeast Thailand, a single rice crop is raised annually in the predominantly rainfed fields. In the slack season, some people go to Bangkok or other places to work and some people, mainly female, use their time for weaving and sewing, staying in the villages. The production of the triangular pillow is based on this practice in rural areas. Whether a cottage industry can be commercialized depends on the emergence of an organizer. Si Than village was lucky in having people who were keen on doing business. In general, villages lack such a personality, and in this case the role of the government or a non-governmental organization (NGO) is crucial to cottage industry.

II History of the Triangular Pillow

There are mainly two kinds of traditional pillow (*mon khi*). One is a square pillow which is used for sleeping, the other a triangular pillow which is used as a reclining cushion (see Photo 1). The former is used and produced much more widely than the latter because the former can be made more easily and is more necessary. There are many village factories producing the former. But the subject of this paper is mainly the latter, because its production is concentrated in Yasothon Province and has a unique form.



Photo 1 Triangular Pillows at a Village Festival
in Mahasarakham Province

The triangular pillow has a long history, perhaps of several hundred years. In olden times, production was widespread in the area but its purpose was very limited, for example, as presents for honored guests and offerings to temples for merit-making. Demand was consequently limited and there was no sizable market for triangular pillows. People, mainly women, made them for their own use and sometimes for exchange with neighboring people. Rural people had enough time to make their own pillows and did not need to rely on the market. The triangular pillow was a self-supplied good.

This situation began to change in the early 1970s, when a few people in Si Than began to produce pillows for the market. The history of commercial production of triangular pillows in Si Than is thus fairly short. In around 1960, a villager visited a temple in Bangkok and found a very beautiful triangular pillow there.⁵⁾ When he came back to Si Than, he looked for someone who could make such a beautiful pillow. He found only one such person, and he asked her to teach his wife the method. Until 1964, Si Than villagers made these pillows for their own use. In 1964, a visitor from another province saw a triangular pillow at a temple in Si Than. He was impressed by its beauty and asked the villagers to make one for him with materials he had brought. Once its beauty became known in other villages, people came to Si Than bringing materials and asked the villagers to make triangular pillows for them. As the number of such people increased, Si Than villagers began to make pillows for sale with their own materials. In this way, commercial production began, though for a very small market. And some women's groups were established to produce and distribute pillows.

Another occasion for the production of triangular pillows to expand was the establishment of Yasothon Province in 1972, which separated from Ubon Ratchathani Province. Following the national policy of promoting rural industry in order to reduce the income gap between rural and urban areas, Yasothon provincial government also set about promoting rural industries, one of which was the triangular pillow production. In this period, it lacked the budget to provide financial supports, but it did send triangular pillows to exhibitions and competitions of local products in Bangkok and elsewhere. In this way, information about the triangular pillows produced in Yasothon spread all over the country. Dissemination of information ceased to rely on word of mouth among travelers in rural areas, and as the information network intensified, orders for triangular pillows from Bangkok, Chiang Mai, and other cities increased. In some tourist spots, triangular pillows were sold as souvenirs to foreigners as well as Thai people. The number of households engaged in making triangular pillows also increased. In 1977, nearly half of the households in Si Than engaged in production, and there were three merchants and one producers' union involved in trade and the organization of production

5) *Daily News* (in Thai), 4 March 1994. Special article on the making the biggest triangular pillow in the world to celebrate the 22nd anniversary of the establishment of Yasothon Province.

through a kind of putting-out system within the village.⁶⁾ By the end of the 1970s, nearly all households in Si Than engaged in production.⁷⁾

Thereafter, production increased gradually. The turning point in production came in the late 1980s, when the Thai economy entered the phase of economic boom. With the appreciation of the yen after 1985, foreign direct investment (FDI) from Japan flooded into Thailand. The FDI increased manufacturing capacity in Thailand. This increased employment in not only the manufacturing sector but also the tertiary sector through an indirect effect. Employment opportunities were concentrated in Bangkok and the Central region and many people from rural areas, including the Northeast, migrated to the Bangkok area either temporarily or permanently.

These changes had an impact on the production of triangular pillows on both demand and supply sides. The demand-side effect arose through the growth of purchasing power, which increased the demand for triangular pillows for personal use and for donating to temples. On the supply side, the economic boom eliminated the marginal producers of triangular pillows, for whom the many job opportunities created by the boom became more attractive than the production of triangular pillows. People no longer needed to spend their time making a triangular pillow when they could simply buy one with the income from other sources. In other words, the opportunity cost of making triangular pillows became so high that the marginal producers stopped making them.

For Si Than, on the contrary, the production of triangular pillows became more profitable because of the increasing return to scale due to rapidly increasing demand. The problem was how to respond to the rapid increase in demand. The solution was by division of labor. The opportunity cost of labor also increased in Si Than, with the result that labor was divided such that the more profitable process was retained at Si Than while the less profitable process, that is, weaving, was put out to surrounding villages. The merchants (or the organizers) went around the surrounding villages looking for women who would weave for a low wage. Cheap labor was usually found in the remote areas, from which it was not easy to go to the cities to work. The high transportation cost lowered the cost of labor in the remote areas. Labor was thus underemployed, and the merchants went around remote areas in order to employ the underemployed people at a low cost. This is the process of division of labor in the production of triangular pillows that we will focus on in this paper.

III The Production Process of Triangular Pillows

The production process can be divided into three stages: the first is weaving, the second is sewing and the last is finishing.

6) According to the author's interviews with villagers.

7) *Daily News* (in Thai), 4 March 1994.



Photo 2 *Pha khit* of Pho Si Village



Photo 3 Hand-weaving of *pha khit*

III-1 Weaving

The most important part of the triangular pillow is the cloth, which is called *pha laai khit* or *pha khit* for short (see Photo 2). This cloth is hand-woven with beautiful geometrical patterns which are made by use of a continuous supplementary weft.⁸⁾ *Pha khit* is a traditional cloth in Thailand, the pattern having cultural and religious meanings. It is still woven today in remote areas, where women have free time in the slack season for farming. Some of them may go to towns to work, but others stay in the villages, and for them, weaving is a source of income.

Weaving is work for women and not for men. The technique used to make a pattern is simple, but the operation is complex and it takes time to acquire the necessary skill. Younger people prefer to go to work in town, and it is mostly elder women who engage in weaving *pha khit*. Even though the weaving of *pha khit* is widespread in Northeast Thailand, this does not mean that every woman possesses the necessary complex skill. This skill is transferred personally from mother to daughter and from person to person and is therefore more easily transferred within a village than between villages.⁹⁾ As a result, many women are able to weave in some villages, while in other villages only a few can weave. This contrast became clear after villagers began to weave on a commercial

8) "Continuous supplementary weft is the process of placing a supplementary yarn into the web of plain weaving in order to create a pattern that floats on the surface of the weave. . . . The supplementary yarns are placed into the weaving by the assistance of special heddles that raise the warp to a certain pattern allowing the supplementary yarns to be placed alternately to the plain weave yarns" [Songsak 1993: 26].

9) This does not mean that the transfer of technology between villages is impossible. It occurs by a villager or villagers going to a weaving village to learn how to weave. This transfer seems to be open to both relative and non-relatives.

basis rather than for their own consumption (see Photo 3).

The investment needed for weaving *pha khit* is limited mainly to the cost of cotton yarn. The wooden frame of a loom is available at very low cost, while cotton yarn is more expensive. Therefore, the cost of cotton yarn is a risk factor for the weavers if they buy cotton yarn, weave it and sell *pha khit* on the market by themselves. Usually, villagers do not want to weave at their own risk, preferring to rely on someone else to take the risk when they weave *pha khit* on a commercial basis. In the case of triangular pillows, the risk-takers are the merchants living in Si Than. These merchants are mostly women, because of the history of *pha khit* weaving. Only women engaged in production of triangular pillows, and the merchants emerged from among the producers. Some of them became pure merchants, giving up producing by themselves. After the experience of selling to Bangkok and other big cities they established a market network for selling. They are enlarging their network as the market for triangular pillows grows.

III-2 Sewing

Sewing the triangular pillow needs more skill and capital than weaving. For this process, a sewing machine is indispensable. Both electric and treadle-driven sewing machines are now in use. Electric sewing machines are more expensive, costing about 20,000 baht, while treadle machines cost 3,000-4,000 baht. The former allow higher productivity.

The skill of sewing the triangular pillow is more complicated than it might seem. To make a strong pillow, the inside structure is composed of smaller triangles. Usually 10 smaller triangles with a side of about 8 cm are combined to make a triangular pillow with a side of about 30 cm. The size of the triangular pillow varies according the number of the small triangles. A small pillow is made of 3 triangles, and a large one is made of 15, 21, or more. On special occasions, such as for donation to a temple, a triangular pillow may be made with a side of more than 100 cm (see Photo 4).



Photo 4 Special Triangular Pillow for Donation to a Temple

As this process is more capital- and skill-intensive, it is not easily transferred to other villages. Besides this technical difficulty, there is an economic reason: the people engaged in this process are unwilling to transfer it to other villages because it is more profitable than other processes. These two factors forced the merchants to allocate this process to Si Than only. And as a result, Si Than monopolize this process.

III-3 *Finishing*

This process involves stuffing the pillow with straw and kapok, and hand-sewing the open side of the triangle. (The other sides have already been sewn by machine.) The tools and skill needed for this process are very simple. The tools consist of a stick, which is used to stuff the kapok inside the pillow, and a needle and thread. The skill required is simple enough even for a little girl. After coming back from elementary school, little girls sit beside their mother and grandmother and help with stuffing and sewing. Some years ago, when many children did not go to junior high school, children spent some years in villages helping their parents until they were old enough to go to cities to work. Girls in Si Than helped their mothers with finishing the triangular pillows. Nowadays more children go to junior high school, and fewer girls have time to help (see Photo 5).

In Si Than, pillows are stuffed with straw and kapok. Straw is used to save kapok, which is more expensive. This makes a less comfortable but cheaper pillow. In some villages which are trying to compete with Si Than in production of triangular pillows, they use only kapok and claim that their pillow is of much better quality than that of Si Than.

IV The Geographical Division of Labor

Until the late 1980s, the commercial production of triangular pillows was found only in Si Than and had not spread to the surrounding areas through subcontracting. Only after the Thai economy began its rapid growth in the late 1980s did subcontracting and



Photo 5 Finishing by a School Girl

division of labor begin. The rapid economic growth increased income and also the demand for triangular pillows. This increase in demand was so rapid that, within a few years, the production in Si Than alone could not satisfy the demand. When the shortage of production became clear, the merchants (or the organizers of triangular pillow production) sought a way to increase the supply. The bottleneck was the shortage of *pha khit*. As mentioned in the previous section, weaving *pha khit* needs not only skill but also time. Therefore, the production of *pha khit* could not increase so elastically according to the demand. The way to eliminate this bottleneck was to look for people who could weave *pha khit* in surrounding villages. When they found such people, the merchants negotiated conditions with them. Once a villager began to weave as subcontractor, others in the same village followed the first subcontractor as long as they found it profitable. Thus, in these villages, the weaving of *pha khit* became popular among women. Even in villages not visited by a merchant, the villagers have the chance to become subcontractors. If they know about the subcontracting from a neighboring village or a village with which they have a close connection, they can themselves offer to work as a subcontractor. Sometimes they go to Si Than personally and sometimes they offer through a subcontractor. In the rural areas of Northeast Thailand, people have long been moving around. This movement has established a network of information in rural areas and it was through this network that the subcontracting of *pha khit* weaving spread. In this sense the development of an information network is important to economic activity in the rural areas.¹⁰⁾

On the contrary, some villages have no subcontractors. One reason is that the merchant failed to make contact, another is that the villagers were not willing to work as subcontractors. In the villages where they have better job opportunities such as going to work in cities or a more profitable cottage industry, they are not willing to engage in such time-consuming and tiring work as weaving. They weave just for their own consumption.

10) The older villages generally have a better information network. Old villages form the core of an area from which villagers move out for marriage or to look for new rice land. When villagers of old villages visit their relatives in new villages, they get information on the relative's village. Through this channel merchants emerge in rural areas, especially in old villages. For example, women of an old village may go to relatives' villages to sell their products, such as pillows. Once they have begun to sell their product and know its marketability, they visit not only their relatives' villages but also other villages to sell. This is how vendors get started in rural areas and also the origin of merchants. A famous case is a vendor of silk cloth from Chonnabot District, Khon Kaen Province.

Vendors from remote villages usually have to sell goods which cannot perish, such as preserved foods and products of cottage industry. This is why cottage industries grew up in remote areas. Another reason is that in villages near a town, villagers can find a job such as in construction in the town. Sometimes they grow vegetables to sell in the town. In remote areas, however, job opportunities in town require migration to town in the slack season for farming. If they have no channel for migration to a town or are unwilling to migrate, they stay in their villages and engage in cottage industry.

V The Role of Merchants

Merchants are indispensable to the production of triangular pillows. In this section we will discuss the role of merchants as organizers of production of triangular pillows.

Merchant-producers emerge in two ways. One, as in the case of Si Than, is through a producer becoming a merchant. The other is through a merchant becoming a producer. This occurs when a merchant realizes that it is cheaper to produce the goods that he or she deals in than to buy them.

An example is the production of square pillows by a merchant in Sing village. She began her business by buying square pillows in town and selling them in villages. When she found that it was more profitable to make square pillows by herself and sell them, and began to operate in this way, she became a merchant-producer. When she learned how to produce square pillows profitably, she asked her neighbors to join the production. They each produced square pillows at home and brought them to the merchant, who would sell them in other villages. At this stage, production was organized by the merchant on a personal basis where friendship was important. A close relationship was important to control the quality of the product on the one hand and to retain a good position in the village to conduct her business on the other. The merchant began to take the role of organizer or entrepreneur and take the risk of producing on a larger scale. When her business turned out to be successful, she expanded production through a putting-out system. She visited the villages where she had been vending and looked for subcontractors (weavers of *pha khit*).

The relationship between merchant and subcontractors is less personal and more commercial. When the merchant subcontracts production to other villages, she deliberately allocates the work between her own village and other villages. If, in organizing production, she takes only profit into consideration and not her relationship with her villagers (or the profit of her own village), she may subcontract all of the work to other villages in an extreme case. This is usually not in the interests of her own village, and in this case, it will become increasingly difficult for her to secure the cooperation of her own villagers. Thus, generally speaking, merchant-producers take the interests of their own village into consideration when organizing production.¹¹⁾

At Si Than the merchants also have to take the interests of their villagers into

11) This is a general rule and there are some exceptions. At a village there is a merchant family who are very profit-oriented. They subcontract the production to other villages and not to their own. The villagers are dissatisfied with this, believing that a merchant in their village should give them precedence over other villages. Therefore, it is not easy for the merchant to do business in the village. Being unable to rely on her own village, the merchant is forced to do business over a much wider area, namely, the whole of Northeast Thailand. In other words, the merchant can do business freely.

consideration, and this is why such a geographical division of labor has been established. As mentioned earlier, only the process of weaving was subcontracted to surrounding villages. This process is generally less profitable than other processes and the labor more tiring. Of course, if a weaver works much harder and more efficiently than others she can get much higher earnings from weaving. But under the same conditions of working hours and work intensity, weaving is less profitable. This, at least, is the perception of villagers of Si Than. When asked why they stopped weaving, they replied that it brought less income than sewing and finishing and that they had no time to weave. Thus, they agreed to allow the merchants to subcontract the weaving to surrounding villages.

The only exception is Nikhom village, which is located beside Si Than at the exit from Si Than to the main road between Yasothon Province and Amnard Charoen Province. Villagers here are subcontracted for the same process as Si Than villagers. The reason for this exception is that both the merchants and villagers of Si Than think that two villages belong to the same community because many of the people in Nikhom came from Si Than. The two villages are like parent and child, so people take it for granted that Nikhom villagers should receive the same privileges as Si Than villagers.

As a result of their activity, merchants establish a subcontracting territory. Fig. 1 shows some of these territories. At the center of each territory is a village where merchants live, such as Si Than, Sing, Nong Hin, and Nong Pet. These central villages

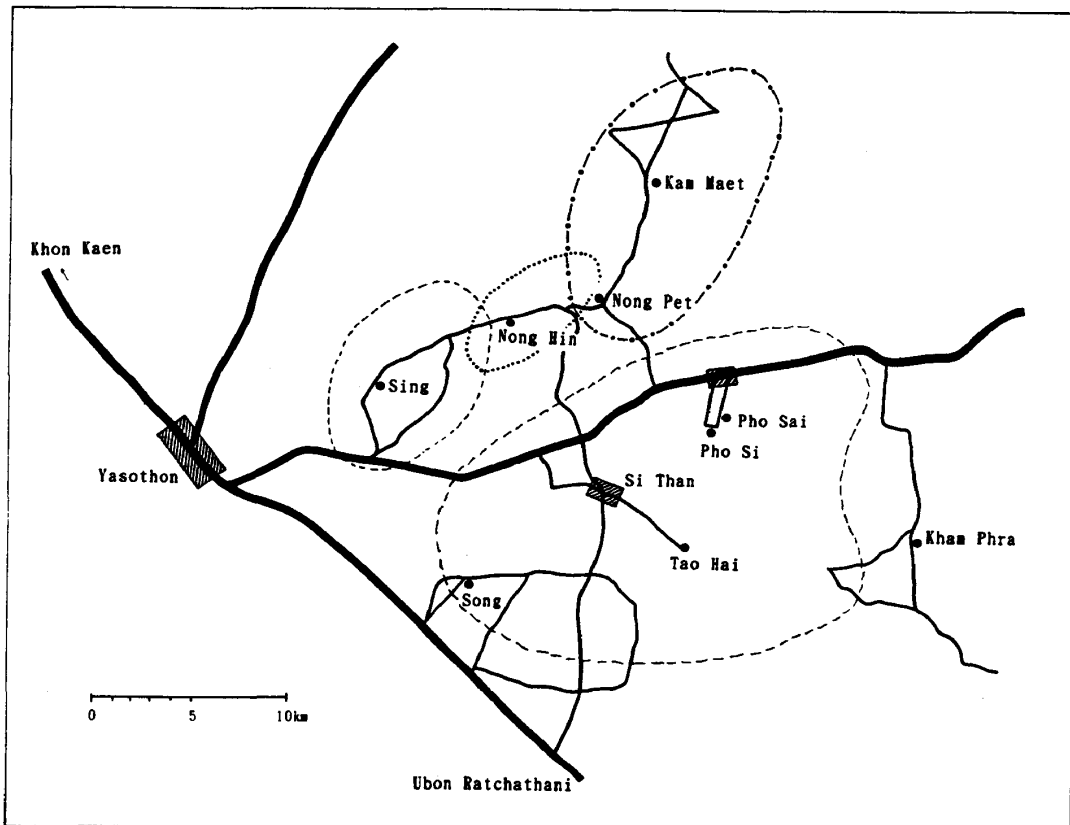


Fig. 1 Subcontracting Area

are in a better position than the subcontracting villages. Thus, the economic gap between these two types of villages tends to remain. There are also many villages which do not take part in the production of pillows. This may be because the villagers have other sources of income or because they are less eager to increase income. Thus it is not immediately apparent whether these villages are in a better or worse economic situation than those participating in the production of pillows. What should be noted here is that even within the territory of a merchant there are various types of villages and therefore various levels of income.

It has often been pointed out that the economic gap between villages is bigger than that within a village. In other words, income inequality between villages is higher than income inequality among villagers in a village. It seems difficult to prove this observation quantitatively, but it is certain that differences in economic conditions do give such an impression. An example is Tao Hai village, which is located only a few kilometers from Si Than and is the closest to Si Than after Nikhom. Notwithstanding the proximity, none of the villagers work under subcontract from Si Than. Some villagers make square pillows, carrying out the whole process by themselves, from buying thread in town to weaving, sewing and finishing, and taking their products to towns to sell. In producing square pillows they have little relationship with Si Than. There is no subcontracting from Si Than and no selling of their products to Si Than. The difference between this village and Si Than is that production and sale are conducted by the individual. As a result there is no division of labor and no subcontracting, and the scale of their operation is very small. Thus, geographical distance is not the only factor that determines the putting-out relationship.

VI The Role of Government and NGOs in Promoting Cottage Industry

This section discusses the possibility of entry into the production of triangular pillows, which is now virtually monopolized by Si Than. As has been mentioned, the production of triangular pillows involves technical difficulty in the sewing, whereas the sewing of square pillows is much easier and their production, therefore, is much more widespread.¹²⁾ In the case of triangular pillows, however, technology is not easily transferred. As mentioned in the case of Tao Hai, geographical proximity is not a sufficient condition for the transfer of technology. Therefore, anyone wishing to start

12) Another reason why production of square pillows is much more widespread is the large demand. People use square pillows in their daily life, while the triangular pillow is bought for such special occasions as donation to temples, marriage, and traveling. In some villages, square pillows are produced in factories. At Thong Lang village in Mahasarakham Province there are several factories equipped with five to ten sewing machines, where village women gather to sew square pillows. Here they do only the sewing. They buy cloth from nearby towns and villages and sell the machine-sewn pillow cases at markets in nearby towns. These have to be finished by stuffing with kapok and closing by hand-sewing.

producing triangular pillows needs not only their own effort but also support from outside. In this section we will discuss the role of the government and NGOs in providing outside support.

As mentioned, the role of government in promoting the production of triangular pillows in Si Than was important only in a limited sense. The government, especially the local government, lacked the budget to promote cottage industry in the 1970s; all it could do was to spread the information about the production of triangular pillows in Yasothon through exhibitions in Bangkok and other cities. This had certain effects. One is that the promotion of cottage industry did not become a burden on the government budget. And it meant that cottage industry was organized at the initiative of the private sector. In the private sector, market information is more important than government subsidy for the success of an industry. However much government subsidy may be given to an industry, it does not guarantee its success. If the industry is not suitable for the market, it will become bankrupt. Thus the promotion of cottage industry by the government in the 1970s was suitable for the economic situation at that time.

In the latter half of the 1980s, government revenue increased enough for it to allocate a part of its budget to promotion of rural industry. This allocation is not only for cottage industry but also agro-industry, services, and other sectors. Technical assistance has been extended through various government organizations. Once the budget and technology are available, what is needed more are entrepreneurs who will organize people and look for markets. Unfortunately, such entrepreneurship is often lacking. There are many cases in which people have the technique to produce marketable products but cannot find a market. As mentioned, there are two types of silk or cotton-weaving village. One is passive: villagers weave cloth and keep it until merchants come to buy it in the same way as the subcontractors of *pha khit*.¹³⁾ The other type is active: people bring their products to towns and cities to sell at the roadside, in the market or elsewhere.¹⁴⁾ Even if a village is passive, it does not necessarily mean that entrepreneurship is lacking in the village. There may be potential entrepreneurs who need to acquire the skill to organize people and find markets. In this respect, the government and some NGOs are trying to improve the situation. We shall discuss the case of Kham Phra village.

13) Another example of this type is the silk-weaving villages in Chaiyapumi Province. No active merchants live in the small villages of the silk-weaving area. Women weave silk cloth individually and keep it until a merchant comes from Bangkok or another city to buy it. If the price offered by the merchant is not attractive, they will wait for another merchant to come. Thus the merchants face potential competitive pressure from other merchants.

14) An example of this type is in Chonnabot District in Khon Kaen Province, about 50 kilometers south of Khon Kaen City. Chonnabot has been famous for its silk weaving for a long time. In Chonnabot labor is divided between weaver and seller. Some women stay in Chonnabot and only weave while others take the silk cloth to Khon Kaen or other cities in the Northeast and sell it at the roadside or in front of hotels. In addition to the division of labor, there are some factories where the owner employs about 10 to 20 female weavers. A few of them use electric weaving machines while the others weave by hand.

Kham Phra is in Amnatcharoen Province, not far from Si Than. In this village women began to make triangular pillows at the initiative of the local government under the government policy of promoting local industry. At first they had the technology for production but no market channels and no subsidy from the government. At the beginning, their only market was the local government offices. The local government had to buy it for presentation at exhibitions. This situation did not change until an NGO started cooperating with villagers in the latter half of the 1980s.¹⁵⁾ Even with this cooperation, the situation did not improve much. The big change occurred when they introduced natural dyeing in the late 1980s, instead of chemical dyeing. The technique of natural dyeing in Northeast Thailand uses the bark of trees such as mango. Both traditional and modern techniques exist. The traditional technique is widespread while the modern technique is taught at the Center for Promotion of Rural Industry, Ministry of Industry, in Khon Kaen. Villagers attended a training course at the Center to learn the modern technique. Once they had learned how to dye naturally, the NGO recommended villagers to use naturally dyed cotton thread because it knew that naturally dyed fabric was becoming popular in Bangkok, Europe, Japan and many other places. While recommending the use of naturally dyed cloth, the NGO looked for market channels. They took the products to Ubon Ratchathani, Khon Kaen, Bangkok and other cities to ask the souvenir shops to sell them. Once they found market channels, the demand for their products grew.

VII Conclusion

This paper shows that the production of triangular pillows in Yasothon province centered around Si Than village involves a kind of "putting-out system," whereby merchants play important roles in investment and organization of the production. In the theory of economic history it is often assumed that this mode of production will be replaced by a "manufacturing system." Argument remains, however, about how a "putting-out system" is transformed to a "manufacturing system" [see Saito 1985]. The case of the merchants of Si Than does not follow the pattern that theory of economic history indicates. The merchants of Si Than want to be pure merchants in the sense of not engaging in production. In contrast, those engaged in putting-out can be called merchant-producers. As a merchant-producer expands her scale of production, a new merchant-producer emerges under her. The old merchant gradually transfers the role of producer to the new one, and eventually she becomes a pure merchant. The merchants do not want to own modern factories because they lack the incentive to introduce weaving machines. In Bangkok there are factories that weave *pha khit* by machine, but rural people prefer hand-weaving because they think the product is more beautiful. Another reason is that

15) This NGO is CARE International in Thailand. The branch responsible for Kham Phra is in Ubon Ratchathani.

there is little incentive to reduce labor costs by introducing machinery, because labor is still abundant in rural areas.

Here I would like to discuss the theoretical implications of this case study. One point concerns the emergence of geographical division of labor and the role of technology. What should be stressed is that not all villages in the subcontracting area participate in the production. This mozaic pattern can be explained by an evolutionary model such as that of Nelson and Winter [1982]. In order to participate in the production of triangular pillows, villagers need the skill to weave *pha khit* or at least the opportunity to learn how to weave. This technological capability is the background to the division of labor. If a village is technologically too remote, it will be difficult for the village to participate in the production. Thus the division of labor evolves according to the initial technological capability. In addition to this model, we have to take into consideration the geographical pattern, which is modeled by Krugman. Krugman's model explains why an industry evolves and becomes concentrated geographically in a certain place. This model can be applied to explain why the production of triangular pillows is concentrated in Si Than.

Another theoretical point is the "regionality" or characteristics of the region's economic development. As Hara [1995] stressed, the role of merchants is very important in forming the "regionality" of economic development. In the case of triangular pillows, the role of merchants as organizers of production is very important, as this paper shows. And their activity is based on the historical and sociological background of Northeast Thailand. In the region, people often move long distances, and this creates an information network which can be turned into a market channel. Thus we can see the market mechanism of the region. Of course, it must be noted that the information network and the market mechanism were rather limited and therefore they needed the support of the government and NGOs to establish a new industry in the region.

Lastly I would like to discuss the future of cottage industry. I have described the production of triangular pillows in Si Than as a success, but this does not mean that it will keep developing. On the demand side, the market for triangular pillows is limited, in contrast to that for square pillows. On the supply side, the shortage of labor may become more serious. The villagers may prefer a modern job to making triangular pillows. When this happens, the hand-woven *pha khit* may be replaced by machine-woven cloth, and the geographical division of labor may disappear. In order to avoid such stagnation, the entrepreneurship will become more important to create new products and find new markets.

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