

Self-Reliance of Community Enterprise: A Case Study of a Thap Lan Woman's Weaving Group in Prachin Buri Province

Parinyarat Poosiri

ABSTRACT

The objective of this study was to study factors involving a self-reliance of agriculturist group. The selected group of the study was the Thap Lan woman's weaving group in Prachin Buri province. The study was carried out by collecting a primary data from interviewing group committees and group members. The secondary data were also collected from various documents.

The study found that there are four internal factors: local wisdom, knowledge management, group management, marketing, and three external factors: community contexts, network, and government policies that has influence on self-reliance of the group. Besides, the group could be self-reliant by having five components: appropriate technology, circulated capital, sufficient raw materials in the locality, enthusiastic group leaders, and helpful group members.

The recommendations from the study were five aspects to manage group. They were: 1) to conserve Lan palm trees for long run weaving usage; 2) to circulate functions within groups to attain new generation leadership; 3) to encourage members to participate in the group activities; 4) to perform continuous training for members to uplift their spirits and upgrade their work in order to set up their thoughts and speed up decision making by themselves; and 5) to develop a marketing management for the market enlargement. The suggestions for network were supporting productive information, managing, and accounting. The suggestions for further research were: 1) to study the factors which influence on the Thap Lan woman's weaving group; 2) to study and develop a Lan palm leaves drying machine for using in the rainy season.

Key words: woman group, self-reliance, local wisdom, Lan palm tree

PROBLEM STATEMENTS

Agricultural Extension Concepts and Ultimate Goals

The 10th National Economic and Social Development Plan (2007 - 2011) aims to promote both balance and sustainable development on a basis of self-reliance in order to improve people's living

standard (Office of the Royal Development Projects Board (ORDPB), 2004). This plan also tries to balance development in all parts: economy, society, mind, natural resources, and environment. The Department of Agricultural Extension (DOAE)(2005) is the essence of agricultural extension in the Ministry of Agriculture and Cooperatives. The two important concepts of agricultural extension are

technology transfer and communication. Technology transfer is an informal system of education. This extension focuses on learning so that agriculturists can learn, practice, and improve their task. The important technology is always transferred to farmers such as method to increase production efficiency. The extension emphasizes on improving knowledge, skills, and capability of farmers and farmers' organizations. Rural people gain opportunities to participate in community development. Communication is an important instrument for agriculturist agencies. They transform complicated knowledge to suit farmer's background. The goal of this extension is a high standard of living for farmers by improving efficiency of agricultural production, and adding value to the raw materials in local area. This generates income and strengthens security in their occupation. The ultimate goal of agricultural extension is to help farmers to be self-reliant by encouraging them to analyze their production problems or other problematic situations in their family, social group, or community. Then, they try to find a way to solve problems before requesting help from others (Jitananta, 1997).

Why self-reliance is important

Self-reliance is an important concept for community development. The purposes of this concept are to increase the sense of belonging to the community, to gradually develop living conditions of rural people and to strengthen the community. The sense of belonging occurs when rural people love and feel proud of their locality. They have self-confidence and believe in their potentiality. They will gradually need less help from outside until they can stand on their own feet. For example, they put on clothes or use apparatus produced from raw material available in their local community (Chiangthong, 2006). Moreover, the self-reliance develops step-by-step from family, group, and community. It starts from the response to both individual and community needs. 'Strengthen community' means the capacity of the rural people

to discover their potential not only in themselves but also in their community. They can cooperatively collect and manage their own capitals. Therefore, they are ready to develop themselves and their community to survive globalization.

Why select this group as an example of self-reliance

The Thap Lan woman's weaving group was established in 1982 by the government agencies. There are 60 members in this group. The group is located in Thap Lan village, Bu Pram sub-district, Na Di district, Prachin Buri province. The selection of this group as an example of self-reliance is based on capitals and management. There are many capitals such as local wisdom, natural resource, and socio-culture in this group, leading the group to be self-reliant. The knowledge of making products from Lan palm leaf such as men's and women's hats, is passed from old generations to new generations including youths in the community. They can extend this weaving technique to other people inside and outside their community. Meanwhile, they can adapt local wisdom to new technology to improve their products. Natural resource is an important capital for this group. As a result, this group is located near the source of raw materials: Thap Lan National Park, which has the last Lan palm forest in Thailand. Finally, the socio-cultural capital in this group is the group's cohesiveness, assistance and reciprocal good relations within group and network (School of Agricultural Extension and Cooperatives, 2006).

The woman's group or other occupation groups were established by government agencies. Most of them failed to operate in the long run but this group has continuously been working up until now. This is an important point for studying group management which is composed of production, marketing, and knowledge management. Firstly, production management is a running procedure to make high quality products. Moreover, work assignment should be suited the members' abilities. Next, marketing, at both local and national level, are

adequate. This is a vital factor for sustainable group. Lastly, knowledge management is an important factor for improving their products to respond customers' needs. Members have enthusiasm for both formal and informal learning to develop their tasks. Therefore, these components are interesting factors for helping this group to operate continually. This paper focuses on factors relating to self-reliance in a Thai community. The case study is the Thap Lan woman's weaving group in Prachin Buri province.

OBJECTIVES OF THE STUDY

1. To determine possible factors related to self-reliance of the Thap Lan woman's weaving group.
2. To recommend a possible self-reliant strategy for the Thap Lan woman's weaving group.

METHODOLOGY

Data collection

1. Primary data were collected from key informants in the Thap Lan woman's weaving group by interviewing the committees or members of this group. The purposive sampling technique was used to select key informants.

2. Secondary data were collected from various documents to determine factors related to group self-reliance.

Documentary analysis

To synthesize a conceptual framework and factors related to self-reliance of the Thap Lan woman's weaving group.

RESULTS AND DISCUSSION

What is self-reliance?

Self-reliance is one of the important concepts in community development. This concept focuses on equality, participation, and decentralization (Magnus and Hettne, 1984). Rural people rely on themselves

in terms of freedom to set their own goal and improve their standard of living. For example, they can utilize their local wisdom, natural resources, and other capitals in the local area before purchasing from outside communities or foreign countries. This concept can occur when the community has three key characteristics: a strong mind, step-by-step development, and good management. Strong mind is based on faithfulness in value, self-esteem, and wisdom. This concept believes in human readiness to learn new knowledge. In addition, they can create new methods to improve their tasks and to solve their own problems. For example, they can create the identifiable product matching raw material, skills, and their culture (Hague *et al.*, 1977 cited in Rerkrai, 1984; Galtung *et al.*, 1980; Jamarik, 1980).

Another, step-by-step development refers to sufficient income both at individual and community level. Firstly, at individual and family level all activities are performed to reach their life-fulfillment. Secondly, at group or community level, rural people who are in the same situation work together in groups such as, a woman's group, youth group, or other occupational group. They try to open market with other communities and exchange surplus production. This is step-by-step development from the root of community (ORDPB, 2004).

Good management is the capability of rural people to manage their capitals by themselves; especially, natural resources, local wisdom, and financial capital: infrastructures, projects from the government and investment. They can manage their capitals responding to either individual or community needs. The community enterprise [CE] is a business of rural people who are in the same situation. They help each other to manage their capitals in community in order to be self-reliant (Phongphit, 2003; DOAE, 2005). This process occurs by participation of rural people. Participation means the administration of other people's opinion and opportunities to take part in all processes of an activity that has direct impact on them. They can analyze their own potential and try to solve their problems by designing activities

appropriate to their ability and resources. They should monitor and evaluate the activities for future improvement. This process creates the feelings of ownership among its members (Midgley, 1986; Pretty, 1995).

Therefore, self-reliance in rural people is a capability to be self-confident so that they can think and learn to manage their lives successfully. They can participate in development project to raise their standard of living within their potential. They can also work in groups to achieve their goals.

Factors related to self-reliance

Self-reliance of rural people in Thai community depends on integration of the whole community, which consists of technology, local wisdom, economy, natural resources, mind, socio-culture, management, and network (The Research Institute of Science and Technology, 1995).

1. **‘Technology’** includes invention and appropriation. The invention is the capability of the community to take new knowledge for the improvement of apparatus for utilization in the community. This technology helps improve the group’s techniques and the quality of products to be able to compete in higher markets. The ideal properties of appropriate technology include harmony with power of production, culture of rural people, and ease of use. Moreover, it should be suitable for communities to use effectively and can be maintained by themselves. It must not cause any damage to environment (Kast and Rosenzweig, 1979; Rerkrai, 1984).

2. **‘Local Wisdom’** refers to transmission and value. It is a set of knowledge, thoughts, beliefs, and capabilities accumulated harmoniously with way of life. It has been passed from generation to generation for management of life, community, and natural resources. It links past with present and future. Value of local wisdom makes rural people feel confident, proud in their identity, respect their ancestors, and trust in the community traditions. The community realizes the importance of their local wisdom. They are not only building up but also

adding value to their local wisdom by using it in their occupation. These factors help rural people think more carefully and learn to be more responsible both for themselves and for their society. These characteristics are seen in the high level of community self-reliance (Warren, 1991; Phongphit, 2003).

3. **‘Economy’** This is a balance between income and expense of individual rural people and groups in the community. ‘Individual level’ means sufficient income for a comfortable life. For example, they have enough food, clothing, shelter, and medicine. Moreover, they have enough money to save or invest for future plans. The ‘group level’ means adequate financial capital to rotate in the group. It is collected from both internal and external community. Opening grocery stores to purchase local products from rural people helps reduce expenditure, increase income, and also boost their feeling of ownership. The group has more bargaining power to purchase the input for production in low price. It also can compete with other groups in terms of production efficiency, quality, and marketing (Chaiumporn, 1987; The Research Institute of Science and Technology, 1995).

4. **‘Natural resource’** refers to utilization and conservation. Utilization means the local resources that they can increase in value and raw materials that they can create new products. They are aware that natural resource must be productively used. Utilization is equally associated with conservation as well as full recovery. Rural people should participate in management of their natural resources such as planning and determining rules of use. They should decide the scale for utilization their natural resources by themselves. They can work with networks to conserve their natural resources. In addition, they can transfer ideas for value-added raw materials to youths and embed their understanding of conservation of their natural resources (Harmsupothi, 2003; Komthong, 2003).

5. **‘Mind’** relates to the minds of rural people. It involves the morality, sufficiency, and patience to solve problem by themselves. The

components of self-reliant spirit are: 1) self-confidence to feel that they can decide or determine their own goal and believe in their capability to do things successfully; 2) responsibility including awareness of duty and results of their actions; 3) initiative cooperation defined by rural people pay attention to help each other; 4) satisfaction and pride in themselves defined by happiness in their status and freedom in their own way (Chaiumporn, 1987). This concept happens when leaders and members decide to link their activities directly with their problems and the needs of members. They can also transfer this idea to younger generations.

6. **'Socio-culture'** refers to the community's cohesion, cooperation, and reciprocal relations. The tradition in the community involves honesty, generosity, and morality. These characteristics bind people together. There are four factors involved in this culture: 1) Labor: population in this community is suitable for production in terms of both quantity and quality. The ratio of labor population is higher than the dependent population. 2) Learning: rural people in the community gain opportunities to learn both informal and formal knowledge. Moreover, there are effective leaders who can encourage the community to reach the goal. 3) Cooperation: the rural people work together to reach their goal. This task is based on the concept of capability and potentiality of rural people. 4) Adaptation: the group can work to reach their goal by themselves and by integrating with outside organizations (Limpwongyou, 1988; The Research Institute of Science and Technology, 1995).

7. **'Management'** covers knowledge, production, and marketing managements. This process makes rural people discover their own potential and community by good learning and management. First of all, knowledge management is a key tool for the groups to analyze their problems and to find beneficial knowledge to solve them. There is much information that rural people can select to benefit their knowledge and to improve their group tasks. In addition, they have the methods to collect and to

share this knowledge in group effectively (Panich, 2004). Next, production management is the way to operate their group effectively and efficiently. The group can assign tasks suitable to members' ability. Meanwhile, they can take the knowledge to improve their product. Finally, marketing management is a vital factor for the group's sustainability. Adequate and certain market makes the group work continuously. Moreover, there are many distribution channels to increase product selling.

8. **'Network'** is the main factor for group autonomy both inside and outside the community. The networks inside the community such as other groups or local organizations are united, and assist in leading the community to achieve self-reliance. The networks outside the community such as people organization, government agencies, or business sectors should support the community in many ways. For example, they can support formal and informal learnings that the group needs. Networks also help increase potential of group management such as economic activities, bargaining with suppliers, marketing, and conducting research (Yodmanee, 2003).

In conclusion, factors related to self-reliance can be grouped as internal and external factors. The internal factors are the awareness in importance of their capitals and capability to manage. Strong communities occur from good management. The external factors are networks that relate community in many ways for support need of rural people.

Factors related to self-reliance of the Thap Lan woman's weaving group

A case study of a group in the central region was chosen because there were many important factors including origin and location, weaving occupation, and management for the group's self-reliance.

The group was established by government agencies in 1982. This group is located near the Thap Lan National Park: this is the last Lan palm forest in Thailand and a source of raw materials for

weaving products. Lan palm tree is a kind of palm in 'Palmae' Family, *Corypha* Genus. The *Corypha lecomtei* Becc. species is discovered in Thap Lan National Park and is used for weaving. Most parts of Lan palm trees can be used; especially, young leaves are used for weaving products and writing down the alphabet. The good features of Lan palm leaf include durability in sunlight and rain. In addition, white dry young leaves have many good properties. They are sticky, can be cut for little straight line, dyed, and kept for a long time. However, there are some disadvantages of Lan palm leaves: they are easily torn by using whole leaf and have limited size. Cultivation of Lan palm trees for the next generation is necessary because of the 20 years age limit of Lan palm trees that are suitable for weaving. Moreover, it flowers only once in its life after that it dies. This group realizes that the conservation of Lan palm trees as sustainable raw materials is needed. They participate with government agencies of Thap Lan National Park to plant them in the community in the National Park (Chanurairat, *et al.*, 2002).

The weaving occupation in this group is based on local wisdom, natural resources, and modern technology. This group can add value to the raw material, Lan palm leaves, in their locality to earn income. The important set of local knowledge includes the process for preparation of Lan palm leaves to weave. They gain this technique from their ancestors and government agencies. Members adjust it to suit their occupation. This wisdom is accumulated and passed from their parents to family members. The children in the family can weave to earn income. This process includes eight steps: 1) 'selecting' suitable age of Lan palm leaves. The usable young leaf germinates approximately 1 meter from the top of the Lan palm tree. Its age is approximately 30 days; 2) 'cutting' the young leaves by climbing on the top of Lan palm tree to cut the selected shoot; 3) 'drying' Lan palm leaves in the sun until they dry completely. This can be observed when the stem's color changes from green to pale yellow. This period

takes about five to seven days. In the rainy season, there is an important problem that the location for drying is an open area; 4) 'stripping' refers to split drying Lan palm leaves in a small straight line. The apparatus for stripping Lan palm leaf was invented by local people. Nowadays, members in this village can make this apparatus for selling to group members. In addition, it is improved for convenient use. It is cut from one line to various lines each time; 5) 'bleaching' makes Lan palm leaves white by using chemicals; 6) 'dyeing' is to change the color of Lan palm leaves by using a dye color; 7) 'weaving' makes a product by crossing pieces of Lan palm leaves; 8) 'forming and decorating' is sewing and making the product to look more beautiful.

'Economy' of this group includes income and saving. This group can make income from weaving Lan palm leaf products such as shopping bags, hats, and various styles of boxes. The members in this group earn about 300 baht per day from weaving products. This is a good income for rural people. They can provide for the basic needs of their families. In addition, they live with the families while they have weaving occupation. This group support members to save money for their financial security or invest for their occupation. (School of Agricultural Extension and Cooperatives, 2006)

'Natural resource' refers to utilization and conservation of Lan palm trees. The utilization of Lan palm tree can be seen as the awareness of the significance of its recovering and the realization of its ultimate worth. The healthy Lan palm tree has four to five apexes per trees. However, in one year, they cut only three shoots per tree. The period of time for cutting each apex is three to four months. This allows the Lan palm tree to recover. In addition, the group plans to use Lan leaf economically by designing more delicate product. This would cut down the number of Lan palm leaves for weaving. This group has the awareness to conserve Lan palm trees by joining networks: rural people, the Royal Forestry Department, and sub-district administration organizations. They have a plan to zone the Lan palm

forest into three zones: utilization, plantation, and conservation. Moreover, this group tries to embed awareness of conservation Lan palm trees to members and rural people. They pass this idea about conservation Lan palm forests to the younger generation.

‘Socio-culture’ in this community involves the culture and leaders. Rural people in this community migrated from many provinces in Northeastern Region. However, they are united to work together in the community for generating income and strong community. In addition, members of the Thap Lan woman’s weaving group take part in activities in the community such as opening learning center of traditional medicine in the village. There are many leaders in this community and they devote their time to working in this group. They are diligent and have abilities in group tasks both in vision and solution of problems. They are also new generations. These are important factors for this group to succeed.

‘Management’ of the Thap Lan woman’s weaving group refers to production, knowledge, and marketing management. Production management in this group sets assignment into two parts; one is the production sector. This part is responsible for cutting Lan palm leaves, bleaching, drying in the sun, and weaving. The other part is the marketing sector, responsible for collecting the products from members, checking the quality of products before receiving. After that, they sew, form, decorate and sell. Dyeing is done by the marketing sector in order to make them the same color for a large amount of products. This part also distributes the products to the market and pays money to members every week depending on their contribution. Members in this group play an important role. They punctually produce good quality products. Knowledge management is also important for group working. They can share knowledge to other people not only in the community but also outside the community. Most members have skills for weaving all kinds of products: hats, shopping bags, and various styles of boxes. Some

members can weave a new design that the customer particularly orders. They can create a new design after they have been trained. Leaders in this group are also important. They are enthusiastic to learn new knowledge. Therefore, they try to find the new designs and knowledge to improve the high standard of products. In addition, this group can manage knowledge in order to effectively increase production quality and design. They have the opportunity to research, go on a study tour, or be trained in many topics; namely, production, marketing, or accounting. For example, they can improve pots for dyeing Lan palm leaves to save energy and time. They have trial and error in the research with academic institution to improve this pot. Marketing is also a very important factor for the group’s self-reliance because they can expand their market by themselves. This factor relates to four points: 1) the identity of Lan products is handmade; 2) price is set according to the cost of production and design. If the product is more delicate, then it is more expensive; 3) there are many distribution channels-both retail and wholesale. The retailers sell in the villages to tourists and in exhibitions. Nowadays, there is an important wholesaler at Jatujak market. The Thap Lan woman’s weaving group has orders regularly from the wholesalers at Jatujak market. It makes the group operation continually. Others, including Chon Buri, Phuket, and Phangnga province are the old markets; 4) the products from this group are sold locally, regionally, nationwide, and international. In addition, they set up exhibitions both at provincial and national level which are generally handled by government.

‘Networks’ in this group are both inside and outside community. They can extend the weaving technique to the network. Therefore, there are networks to weave the products when there are plenty of orders. The networks and the Thap Lan woman’s weaving group help each other to weave. This makes the group keep the old market and also find the new markets. Moreover, there are many organizations that support the group to work effectively. For example, they join the rural people

and government agencies of Thap Lan National Park to plant Lan palm trees. In addition, the sub-district administration organization supports the group by providing a location for selling their products in the village. Members of this group are responsible to sell and demonstrate the process of making the products to the tourists.

Strength and weakness of this group

Strengths of this group: 1) there is raw material in the local area. 2) There are experts in the area that can teach the weaving technique to other generations. 3) There are leaders who are in the new generation, carrying on the business from their parents. 4) Leaders also can integrate with network to develop the group. 5) They are aware of the importance of Lan palm trees conservation in the

local area. 6) They can enlarge the market by themselves. 7) They can manage group tasks by themselves. 8) They receive income from the weaving occupation while they live with their family.

Weaknesses of this group: 1) sometime this group is unable to satisfy the needs of customer both in quantity and design. 2) Someone in the village cut Lan palm leaves to sell outside the community. 3) Committees play rather high roles of management in the group while members are still not participated in decision-making for the group activities or investment. 4) The product is still not diversified for national market. New products should be designed. 5) The group cannot have a big order each time because of the handmade production. 6) The group has little information about marketing and accounting.

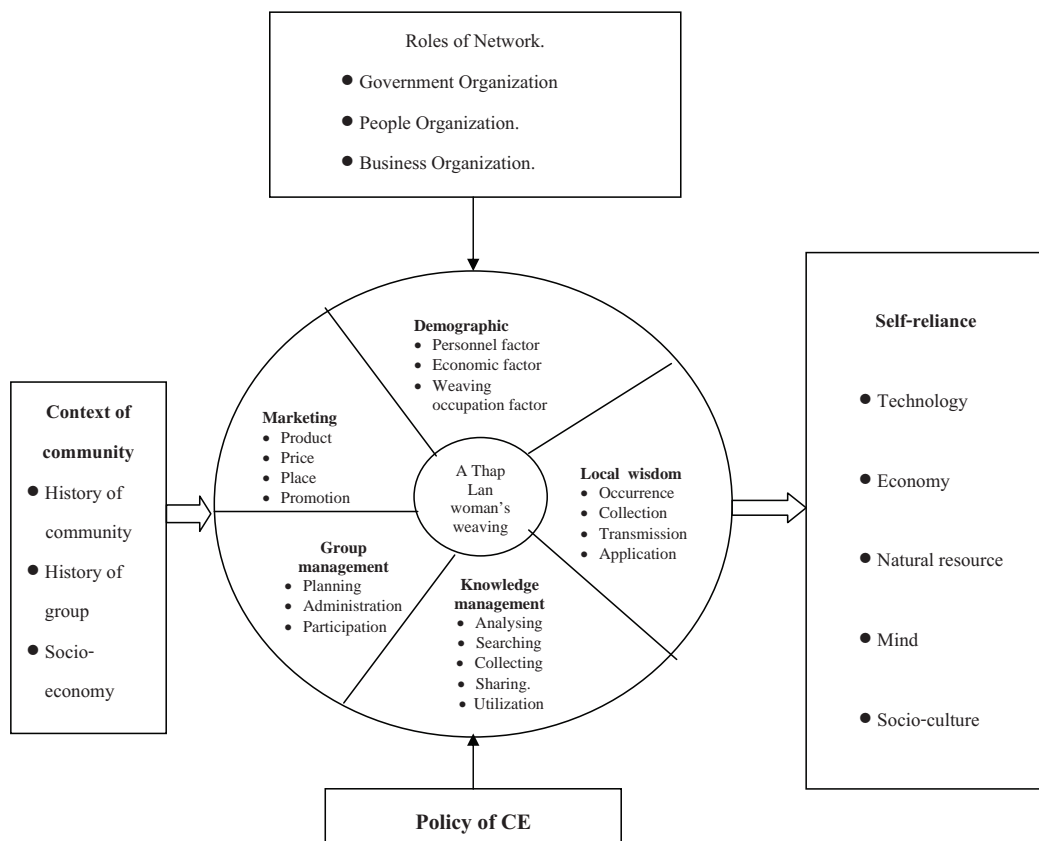


Figure 1 The conceptual framework of a Thap Lan woman's weaving group self-reliance.

CONCLUSION AND RECOMMENDATIONS

Self-reliance of rural people in Thai communities depends on the participation of all part in the community: rural people in families, groups, communities, government agencies, people's organizations, and business sectors. They can develop self-reliance by integrating of all parts to attain the goal.

The factors related to rural people's self-reliance include both internal and external factors. These factors have influenced the Thap Lan woman's weaving group development. The internal factors are composed of five items; 1) local wisdom and harmony with technology: rural people can apply the weaving knowledge to modern technology to improve their occupation. 2) Economy: members in this group receive income from the weaving occupation. They are proud of their group task and they try to develop the sustainability. 3) Natural resource: Lan palm trees are important raw materials for their occupation so that networks and group help conserve them. 4) Culture and leaders in this group are important factors for group's success because the members always work together. Leader is honest, enthusiastic, and devoted to working. 5) Management in this group: production, knowledge, and marketing managements make the group work efficiently and effectively. Meanwhile, external factors are composed of inside and outside network. These factors support the group needs and empower the potentiality of the group to be creative and work independently. The Thap Lan woman's weaving group has many important factors for self-help.

Suggestion for this group

1. This group should plan the conservation of the Lan palm tree for utilization in the long run. This concept should be taught to younger generations and rural people in the community. The group should also cooperate with networks to achieve this goal.

2. Management in this group should rotate committees in order to develop new leaders. Moreover, member should participate in decision making about the group activities from the beginning. They should also take part in assigned tasks that suitable to their abilities.

3. The group should plan for training the members both to improve their task and to develop their mind. The members should always gain knowledge to improve their weaving skills. Therefore, members should be encouraged to rely on themselves.

4. Marketing should survey the needs of customers during group exhibitions in the province or at country level. This data could be used for planning the improvement of the products. In addition, this group should try to train the members to participate in marketing management. The group should also attempt to open new markets.

Suggestion for networks

Networks should support what the group wants, such as opportunities for training to improve production, management, and accounting. These sets of knowledge help them improve their capability to manage their own capitals. They should be integrated with other networks such as academic or scientific institutions to improve efficiency of the drying machine. The machine is necessary for drying Lan palm leaves in the rainy season.

Suggestion for further research

The further research should study the factors influencing the Thap Lan woman's weaving group self-reliance. The results will be benefit for developing the similar group for self-reliance and determination the strategy for community enterprise extension.

LITERATURE CITED

- Chaiumporn, S. 1987. *Development of a Self-Reliance Measuring Instrument for Farmers of Northern Thailand*. Research center. National Institute of Development Administration.

- Chanurairat, E. et al. 2002. *Design and Develop Packaging from Lan Leaves*. Complete Reported Research. Bangkok: Silpakorn University.
- Chiangthong, J. 2006. *Sociology of Development*. 1st Ed. Bangkok: Odian Store.
- Department of Agricultural Extension (DOAE). 2005. *Small and Micro Community Enterprise* (online). Available at website www.smce.doae.go.th. (verified March 2006)
- Galtung, J., P. O'Brien, and R. Preiswerk. 1980. *Self-Reliance A strategy for Development*. London: Bogle-L'Ouverture Publications Ltd.
- Harmsupothi S. 2003. *A Study of Potential in Self-Reliance Development at the Village Level*. Khon Kaen: Ph.D. Thesis, Khon Kaen University.
- Jamarik, S. 1980. *Thinking Base Towards New Alternative Approach of Thai Society*. Bangkok: Wisdom Foundation.
- Jitananta, B. 1997. *Agricultural Extension*. 2nd Ed. Bangkok: Kasetsart University.
- Kast, E. F. and J. E. Rosenzweig. 1979. *Organization and Management.: A Systems and Contingency Approach*. 3rd Ed. Philippines: McGraw-Hill Book Company.
- Komthong, C. 2003. *Natural Resources Management for Sustainable Production of Community*. Chiang Mai: M.S. Thesis, Chiang Mai University.
- Limpwongyou, P. 1988. *People's Self-reliance in the Royal Recommended Project: A Case Study of the Food Processing Section, Lahan Sai, Buriram Province*. Bangkok: M.S. Thesis, Chulalongkorn University.
- Magnus, B. and B. Hettne. 1984. *Development Theory in Transition: the dependency debate and beyond: Third World Responses*. 1st Ed. London: Zed Books Ltd.
- Midgley, J. 1986. *Community Participation, Social Development and the State*. 1st ed. The USA.: Methuen&Co.
- Office of the Royal Development Projects Board (ORDPB). 2004. *The Royal Development Study Centers and the Philosophy of Sufficiency Economy*. (Online). Available at Web Site <http://www.sufficiencyeconomy.org/en/files/14.pdf> (Verified March 2006)
- Panich, V. 2004. "KM in Thai Community Knowledge Management in Thai Local Wisdom". In *Thailand International Conference on Knowledge Management 2004: KM for Innovation and Change*. Bangkok: Ministry of Information and Communication Technology Press 2004: 61-100.
- Phongphit, S. 2003. *Acting and Thought of Life Planning and Business Community*. Bangkok: Poompanyatai publishing.
- Pretty, N. J. 1995. *Regenerating Agriculture: Policies and Practice for Sustainability and Self-Reliance*. London: Earthscan Publications Ltd.
- Rerkrai, D. 1984. *Community Development*. 1st Ed. Bangkok: Project of Community Development Textbook, Institute of Extension and Training, Kasetsart University.
- School of Agricultural Extension and Cooperatives. 2006. *Complete Research Report of Embedded Innovation in Community Agricultural Project (Central Region)*. Nonthaburi: Sukhothai Thammathirat Open University.
- The Research Institute of Science and Technology. 1995. *Complete Research Report on Economic Self-Reliance in Village*. Bangkok: The Research Institute of Science and Technology. (Mimeographed)
- Warren, D. M. 1991. *World Bank Discussion Papers.: Using Indigenous Knowledge in Agricultural Development*. Washington, D.C.: The World Bank.
- Yodmanee, A. 2003. *Self-Reliance of Mairiang Community, Chawang District Nakhon-Srithammarat Province*. Bangkok: M.S. Thesis, Kasetsart University.