
Cooperative Contract Farming for Income Stability of Small Scale Farmers in Thailand

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Abstract

The aims of this research were to 1) study the general current situations and problems of small scale farmers in contract farming business; 2) propose the appropriate cooperative contract farming framework. This will allow farmers to access inputs and technology standards, through group membership, and external sources together with participatory management and audit in order to enhance the income stability of small scale farmers. This research employed both primary and secondary data to analyse the general current situations and problems of small scale farmers in contract farming business and detailed information from a field survey. The research carried on focus group meeting and in-depth interview to the involved persons including chicken raising small farmers, representatives from private agribusiness, the successful cooperative agencies and the government officials. The three different sites from two provinces including Lopburi, and Chainat in the central region were selected. The purposive sampling technique was employed by selecting the sample of small scale farmers who were unsuccessful in contract farming business.

The results of this study have shown that 1) small scale farmers who undertook the contract farming business in the selected sites decreased about 10-30 % by switching to other careers. The farmers had remained in the contract farming although they had some problems such as lack of negotiation power, less capital and the accessibility to technology, and losses. A very high fixed capital investment was a key factor in explaining why they still carried on this career. 2) Most of the small scale farmers more than 80% selected pattern 1 “joint production and distribution” with being minimal complexity. However, the group established as cooperative to do contract farming with private companies and the strengthening of the occupation were still facing many barriers such as lack of cooperative understanding, leadership ability, management skills as well as debt burden and

government regulation. Thus, at the initial stage, it was necessary, therefore to provide government agencies to support them by selecting private companies to enter into contract farming to enhance greater fairness in forms of cooperation both government and business sectors. Hopefully, this will be able to cope with some problems of farmers in contract farming system by enhancing unity, strong community, and improved standard of living.

Keywords: Contract Farming, Cooperative, Small Scale Farmers, LopBuri and Chinat Provinces

บทคัดย่อ

วัตถุประสงค์ของการวิจัยครั้งนี้เพื่อ 1) ศึกษาสภาพทั่วไปและปัญหาของเกษตรกรผู้เลี้ยงไก่รายย่อย ในการเข้าร่วมเกษตรพันธะสัญญาในปัจจุบัน และ 2) นำเสนอการจัดตั้งเกษตรพันธะสัญญาในรูปแบบสหกรณ์ของผู้เลี้ยงไก่รายย่อยที่เหมาะสมของไทย ซึ่งจะช่วยให้เกษตรกรรายย่อยสามารถเข้าถึงปัจจัยการผลิตและเทคโนโลยีที่มีมาตรฐาน การระดมทุนผ่านกลุ่มสมาชิกและแหล่งภายนอก การบริหารจัดการร่วมกัน สามารถตรวจสอบได้ และเป็นปัจจัยสำคัญต่อความมั่นคงทางรายได้ของเกษตรกรรายย่อย สำหรับวิธีการศึกษาแบ่งเป็น 2 ส่วน คือ 1) วิเคราะห์ข้อมูลเชิงพรรณนาเกี่ยวกับสภาพทั่วไปและปัญหาของเกษตรกรรายย่อยในการเข้าร่วมเกษตรพันธะสัญญา และทบทวนวรรณกรรมที่เกี่ยวข้อง 2) การวิเคราะห์จากการเก็บข้อมูลภาคสนามด้วยการประชุมกลุ่มย่อยและการสัมภาษณ์เชิงลึก จากผู้ที่มีส่วนเกี่ยวข้อง ได้แก่ เกษตรกรผู้เลี้ยงไก่ บริษัทเอกชนผู้ว่าจ้าง สหกรณ์ที่ประสบความสำเร็จ และเจ้าหน้าที่ของรัฐ ในพื้นที่ภาคกลาง 2 จังหวัดประกอบด้วย ลพบุรี และชัยนาท ทั้งนี้การเลือกเกษตรกรในพื้นที่ดังกล่าวจะเลือกแบบเฉพาะเจาะจง โดยเป็นเกษตรกรรายย่อยที่ประสบปัญหาในการทำเกษตรพันธะสัญญาเป็นหลัก

ผลการศึกษาพบว่า 1) การทำเกษตรพันธะสัญญาของเกษตรกรรายย่อยในพื้นที่ที่ศึกษามีแนวโน้มลดลงประมาณร้อยละ 10-30 โดยเฉพาะบ้านท้ายตลาดเกษตรกรเลี้ยงไก่ลดลงมากที่สุด เนื่องจากเกษตรกรส่วนหนึ่งหันไปประกอบอาชีพอื่น ส่วนเกษตรกรที่ยังคงอยู่ในระบบเกษตรพันธะสัญญานั้น แม้ว่าจะประสบปัญหาในการประกอบอาชีพ เช่น การมีอำนาจในการต่อรองต่ำ การเข้าถึงแหล่งเงินทุนและเทคโนโลยีสมัยใหม่ทำได้ยาก ถูกเอาเปรียบในเรื่องเงื่อนไขสัญญา รวมทั้งประสบผลขาดทุนในบางช่วง เป็นต้น แต่เนื่องจากเกษตรกรมีทางเลือกในการประกอบอาชีพจำกัด และมีต้นทุนคงที่ในการสร้างโรงเรือนสูง ดังนั้นจึงยังคงยึดอาชีพเดิม 2) เกษตรกรรายย่อยส่วนใหญ่สนใจรวมกลุ่มในรูปแบบสหกรณ์เพื่อทำเกษตรพันธะสัญญากับบริษัทเอกชน ประมาณกว่าร้อยละ 80 เลือก รูปแบบที่ 1 การผลิตและจำหน่ายร่วมกัน ซึ่งเป็นรูปแบบที่มีความซับซ้อนน้อยที่สุด เป็นการรวมกลุ่มเพื่อผลิต

สินค้าแล้วนำผลผลิตไปรวมกันเพื่อจำหน่ายผ่านสหกรณ์และทำหน้าที่ควบคุมคุณภาพด้วย จากการใช้เงินทุนและเทคโนโลยีต่ำที่สุดจึงเหมาะกับเกษตรกรรายย่อยนั่นเอง อย่างไรก็ตามในทางปฏิบัติการรวมกลุ่มจัดตั้งในรูปแบบสหกรณ์ เพื่อทำเกษตรพันธะสัญญากับบริษัทเอกชนและสร้างความเข้มแข็งในการประกอบอาชีพนั้น พบว่ายังคงมีปัญหาและอุปสรรค เช่น การขาดความรู้ความเข้าใจในระบบสหกรณ์ ขาดผู้นำที่มีความสามารถ ขาดทักษะในการบริหารจัดการ ภาระหนี้สินเดิมของเกษตรกร และกฎระเบียบของทางราชการในการจัดตั้งสหกรณ์ ดังนั้นในช่วงแรกจึงจำเป็นต้องให้หน่วยงานภาครัฐเข้ามาสนับสนุนจัดระบบการบริหารจัดการ และคัดเลือกบริษัทเอกชนที่จะเข้ามาทำเกษตรพันธะสัญญาเพื่อให้เกิดความเป็นธรรมมากขึ้น โดยหวังว่าการรวมกลุ่มในรูปแบบสหกรณ์จะช่วยบรรเทาปัญหาของเกษตรกรแล้ว ยังทำให้เกิดความสามัคคี ชุมชนเข้มแข็ง และเกษตรกรรายย่อยมีชีวิตความเป็นอยู่ที่ดีขึ้น

คำสำคัญ: เกษตรพันธะสัญญา สหกรณ์ เกษตรกรรายย่อย จังหวัดลพบุรี และจังหวัดชัยนาท

Introduction

Contract farming is a system with a vertical chain of production and marketing between manufacturers and farmers in specific commodities, which ensures that the flow of raw materials, such as baby corn, pigs, fish asparagus, chickens and ducks to processing plants, is kept constant. Agribusiness which is largely related to contract farming also growing significantly, with increasing vertical integration of upstream inputs and downstream processing industries. Contract farming is, thus, a concept to improve productivity and enhance competitiveness in food and agroindustry based on integrated business development. It carries out on the basis of an agreement between buyers (especially private company) and farm producers. The main objectives are to increase quality improvement, as well as economies of scale by adopting modern technology and management skills. The production in contract farming is planned to meet the needs of the global market in a fiercely competitive environment. At the same time, farmers can gain from both an assured market and production support access such as input and instructions on how to raise chickens. Thus, the farmers are able to achieve the more income stability.

Although in principle, the contract farming will benefit all involved parties including private businesses, and farmers. It will reduce risk from the fluctuation of price and income of the farmers. In addition, it also increases in management skills, technology know-hows and productivity. For private

businesses, they benefit from schedule to the delivery of output and standard quality of products together with good potential predictability in planning, manufacturing, marketing and exporting. Ouyyanont et al. (2014) indicated that the farmers in contract farming have various performances. Some of them had succeeded in their career by obtaining a certain income and market, standard technology for farm. The study found that most of them could be accessible to capital and land. At the same time, some small scale farmers could not and lead to their losses and liabilities. The main causes came from the shortage of funds, inputs and the accessibility to standard technology as well. That was, in the last 2-3 decades onwards, the contract farming changed dramatically especially the chicken farm switching from open system to evaporative cooling system after the outbreak of bird flu in 2004. The new system protects the house from the outside environment and temperature was controlled to a level suitable for animals to thrive. At present this system is introduced as a part of the standard specification of the farm in big private business in order to raise the standard of chicken farms. It enhances safety food and good quality for export as well as consumer confident at home and abroad.

Although, it provided various benefit when major private business adopted evaporative cooling system in the raising chicken farm, but costs to invest in this system and a huge burden on the party were higher. Given such level of technology, small scale farmers were unable to afford. In other word, the house that cannot be built on standards stipulated by the private company would not have been selected to participate in the contract farming agreement. This was the major barriers for small farmers to access standard technology. In addition, farmers must agree to the terms of the contract which are determined by private companies, they have no choice and the little bargaining power. In fact, farmers earn more income from their business than other agricultural production activities, but they have to bear, high risks, perhaps, high investment cost especially in fixed capital investment about 2 million baht per house. It is seen that most small scale farmers get the negative impact of contract farming from the limitations on funding and inaccessibility to the standard production technology. Another example, the case of Saha Farm Co., Ltd., it has operated fully integrated poultry business with the recognized expertise over 40 years. Many farmers were engaged in agribusiness with this company especially in the northern part of Thailand. The company went bankrupt from poor management then 497 farmers in 18 provinces were affected. It was not able to pay debt 358 million baht since the end of 2012 causing farmers to suffer and lack of working capital for chicken farming. (https://www.prachachat.net/news_detail.php?newsid=1404715301)

The advantages and disadvantages of contract farming can be summarized as follows.

Table 1 Advantages and disadvantages of contract farming

Advantages	Disadvantages
<p>Farmers</p> <ul style="list-style-type: none"> • Access to appropriate technology, credit and reliable markets • Provision of inputs and production services • Management skill transfer • Guaranteed and fixed pricing structure <p>Private companies (Sponsors)</p> <ul style="list-style-type: none"> • Production is more reliable than open-market purchases and consistent quality. • Overcoming land constraints and resources limitation • Promotion of farm inputs 	<p>Farmers</p> <ul style="list-style-type: none"> • Domination by monopolies • If quotas are manipulated so that not all contracted production is purchased • Farmers may become indebted because of production problems. • Unfair contracts <p>Private companies (Sponsors)</p> <ul style="list-style-type: none"> • Poor management of farmers • Corruption • Farmer discontent such as late payments, unreliable transportation

Source: <http://www.fao.org/docrep/004/y0937e/y0937e03.htm>

Therefore, the main focus here was small scale farmers. Attempts were made to study various barriers and restrictions occurring in contract farming systems that made them unable to increase revenues and returns as expected. Some of them faced with the losses or problems and limitations to increase revenues stability. This study would like to investigate the best practice from various alternatives for small scale farmers. However, FAO has divided the contract farming into five types including the centralized model, the nucleus estate model, the multipartite model, the informal model, and the intermediary model. The centralized model is a vertically coordinated model where the sponsor purchases the crop from farmers and processes or packages and markets the products. It is widely employed to poultry, pork and dairy production in Thailand. The nucleus estate model is a variation of the centralized model. In this model, the sponsors of the project own and manage an estate plantation as well in order to trial and demonstrate. The multipartite mode usually involves many parties and private companies jointly participating with farmers such as a joint-venture contract farming project in China. The informal model involves the small company doing informal production contracts with farmers for some crops such as fresh vegetables on a seasonal basis. Finally, the intermediary model operates

as subcontract of crops to intermediaries (<http://www.fao.org/docrep/004/y0937e/y0937e05.htm>). The focus of this research, we would like to study the cooperative in contract farming model that expand the existing centralized model in Thailand. It took advantage of the integration in the form of cooperatives to help solve problems in contract farming to small scale farmers. The results of this study would suggest the guideline of appropriate cooperative contract farming in Thailand. This will lead to increased revenue and sustainability of small scale farmers in their profession.

Literature Review

This paper reviews literatures related to contract farming together with cooperative in both Thailand and abroad. However, this study will focus on cooperative model to do with contract farming in order to solve the small scale farmer problem.

Concept of Cooperative

Cooperative is a corporation and another form of business ownership. The cooperative organization is based on the principle of self-help and mutual help in the same career, especially on the problems that each member cannot solve it alone or they can achieve mutually beneficial in their occupations. Cooperative works with democratic principle which one member obtain only one voting right as “one man one vote”. The cooperative members are joint ownership their businesses and activities such as production, processing and distribution. This encourages participatory management causing unity and reconciliation in the community. It also allows members to earn more income with contribution to a better living in the community. Finally, cooperative helps strengthen the community both economic and social activities as a part of national development.

The integration as cooperative will be beneficial for members in various aspects including higher bargaining power, lower cost of input and economies of scale. At the same time, they gain the higher negotiation power and exact market. In addition, the group as organization has more credibility from organization management framework, legal support and audit by government agency. As a result, they reach more convenient to access sources of funding than individual. This provides the modern production technology standards to members leading to good quality output and income stability. Moreover, cooperative gains benefit from the tax-exempt status as well. According to many advantages from cooperative, it would be proposed as the tool to cope with the problems of small scale farmers in this study.

Concept of Contract Farming

As previously mentioned, contract farming is a system of agricultural production which works together between private companies and manufacturers or farmers under forward agreements such as predetermined prices and qualities. The arrangement also involves production support of private companies through the input support, vaccine and technical advice. By the effective management, contract farming is also a means to develop market as well as transfer of technical skills that is profitable for both the sponsors and farmers.

In principle, the agricultural agreement is beneficial to both corporate buyers and farmers. The private company will purchase the product in their required quantity, standard quality and time requirements. As for farmers, they can achieve the certain market, acceptable price and exact income. In practice, however, there are still several factors that make it impossible to achieve the above mention. One reason comes from an agreement between farmers and private buyers that affect farmers and communities in both positive and negative impacts. For positive impacts, they tend to create jobs for the community and open marketing channels. Unfair term of contract is one of the negative impacts which are widely mentioned. It leads to the difficulty of their profession and higher debt as well. Therefore, contract condition determining is the important key component of achieving success in economic, social and environmental aspects. Except for contract condition, most of small scale farmers also suffer several limitations. Moreover, farmers who suffer most are small farmers from several limitations of unfair contract terms together with low ability to access to capital and technology. It is impossible for them to abide by strict operation conditions of large private companies. So, they have to turn to do contract with small and medium private companies that are mostly local representatives.

Cooperative Contract Farming

Cooperative contract farming is the concept to integrate various advantages both from cooperative and contract farming in the pattern of combined production and joint distribution. It will promote strength and minimize the weaknesses of the existing contract farming. As cooperative contract farming is able to reduce the private company's risk leading to damage their business such as quality control, contract party selection and corruption and so on. To do business with cooperative instead of individual makes private company comfort and reduce their cost from lower fragmentation

of retail farmer. In addition, there are advantages from legal support, information access and audit from government agency as well. For small scale farmers, they gain benefit from obtaining the opportunity to create products that meet the standard. At the same time, they can reduce uncertain market conditions because private companies will purchase in accordance with the terms of the contract. These enhance the strength from participation of community and long term well-being.

One of the most successful cooperative contract farming takes place in the People's Republic of China (<https://thaipublica.org/2014/04/model-cp-pinghu/>). It was established from a partnership of 4 parties including small farmers, the government of China, financial institution, and Charoen Pokphand Group or CP from Thailand. The China government has hosted this business by take the land of the farmers in the village to settle the cooperative and invited CP to join it as the input and technology sponsor. CP also purchased products and distribute to consumer in China. It has started operations since April 2013 in Ping Ku city, suburban Beijing. This project has invested 3,500 million baht to produce 2.2 million eggs a day ranking the second largest producer after the United States. Project life's span covers 20 years, after 20 year and paying back the loan and interest, it would be transfer a farm cooperative to members comprising more than one thousand farmers. This project generated the higher income of poor farmers, better standard of living and more stabilized income. In addition, the distribution of protein production to the market helps people to have enough quality food to consumers with lower prices. The country also had food security from local production. It gathered the contract farming advantage with modern agricultural technology to create a new career for farmers who have traditional farming. All parties were able to benefit from this project. Some people changed from other careers to chicken farmers, and created a sustainable income. The CP gained benefit from many supports of the China government especially obtaining big consumer market, a large source of labor pool and land to operate business. Thus, their operations were likely smooth and widely accepted in China. For the China government, the project could create thousands of jobs and increased income for the population. Another advantage was food security that is significant for a large country like China as well. Furthermore, it also improved quality of life of the people from having better quality food.

Prowse (2007) indicated that contract farming enhanced the expansion of agriculture sector and poverty reduction in developing countries. However, he found that large scale production would benefit from contract farming such as economies of scale, labor savings and higher productivity etc.

But the small scale production often faced the lack of funding to go into modern technology requiring high investments. At the same time, the private company has been contracted to many small farmers leading to higher cost. He suggested that a group of farmers to form cooperative. This will help to cope with these problems. And all parties will have mutually benefits.

Consistent with the study of Coulter et al. (1999) that cooperative contract farming increased the opportunity to access to more sophisticate technology and new markets for small farmers. The integration of a highly successful group was always a small number of members with mutual work, higher bargaining power and good training. For the government’s role, it should help to provide enough infrastructures, and encourage private investment to support and knowledge disseminating to the involved group of the farmers. In addition, Sokchea and Culas (2015) showed the similar results that contract farming with farmer organizations in Cambodia has a significant impact on farmers’ income by 84 % greater than noncontract farmers from higher farm productivity, cost efficiency, quality control and better price. He also indicated that the pooling of productive assets of all farmers in a farmer organization was advantageous for contract farming.

Methodology

The research employed both primary and secondary data, to analyse the general current situations and problems of small scale farmers in contract farming business by using literature surveys, and detailed information from the field survey. Through the field survey, the research carried on focus group meeting and in-depth interview including chicken raising small farmers, representatives from private agribusiness, the successful cooperative agencies and the government officials.

Table 2 Sample Size : people

Focus group	In-depth interview			
	Farmers	Private companies	Government officials	Cooperatives
90	15	10	10	12

The three different sites from Chainat province and Lopburi province: Taytalat and Thavung were selected. The purposive sampling technique was employed by selecting the sample of small scale farmers who were mostly unsuccessful in contract farming business. The three selected areas were the areas that small farmers face severe problems. We proposed the establishment of agricultural cooperatives to contract with private companies instead of individual in three models: 1) production and distribution 2) production, processing and distribution and 3) outsourcing production and distribution. The focus group sample would choose one of them if they wanted to settle the group in order to conduct contract farming. This will help farmers to access inputs and standard technology together with external sources of funding through group membership. These are the key factors to determine income stability of small farmers.

Empirical Results

The results of this study indicated that the current contract farming situation of contract farming farmers in the study area continued to decline about 10-30 %. Because some of them switched to another careers. It is suggested that although the farmers remained in the contract farming system, they still face problems to engage in this occupation were such as lack of bargaining power, sometime losses, less access to capital and standard technology. These small scale farmers had a limited choice of occupation since the constraint of high fixed cost to build the house (about 2 million baht per house), low technology and shortage of funds. Thus, they continued to hold the same job. For the group settlement in the form of cooperatives contract farming with private companies in order to strengthen of the occupation, we found that some farmers especially in Taytalat do not want to join as a group member because of their failure experiences of the union in the past from poor management and monitoring causing damage to members. Therefore, this group rejected the union entirely. For other two groups: Thavung and Chainat, more than 80 %, they agreed to the integration and attempt to solve the problems together. This group would like to choose model 1 i.e. joint production and distribution which is the least complicated. If it was successful, then the members gradually developed into model 2 by adding the processing stage.

Table 3 The results from survey

	Taytalat	Thavung	Chainat
Investment size	low	low	medium
Expertise	low	low	medium
Technological advances	low	low	medium
Economies of scale	no	no	yes
Bargaining power	low	low	low
Aggregation needs	no	yes	yes
Group type	-	Production and distribution	Production and distribution
Leadership strength	low	medium	low

As can be seen in table 2, the results from survey, we found that Taytalat and Thavung were similar from low investment size, low expertise and technological advances with no economies of scale while Chainat have better than Taytalat and Thavung with economies of scale as well. However, all of them faced the low bargaining power to contact to the private companies. At the same time, the group of small scale farmers, especially the low and poor income group had several limitations including the lack of knowledge, understanding of the cooperative system, leadership ability and management skills.

In this research, we would like to propose the model for appropriate cooperative contract farming by the establishment of the cooperative for joint production and distribution. Cooperative acts as the representative of individual to do contract with the private company. It checks for input quality such as animal feed, vaccines, etc. and distributes to the members for production. In production process, each member will operate his own product. Therefore, earning depends on their quality of product. However, the overall production quality is controlled by the standard care group and be sold through the cooperative system which is a contract party of private company.

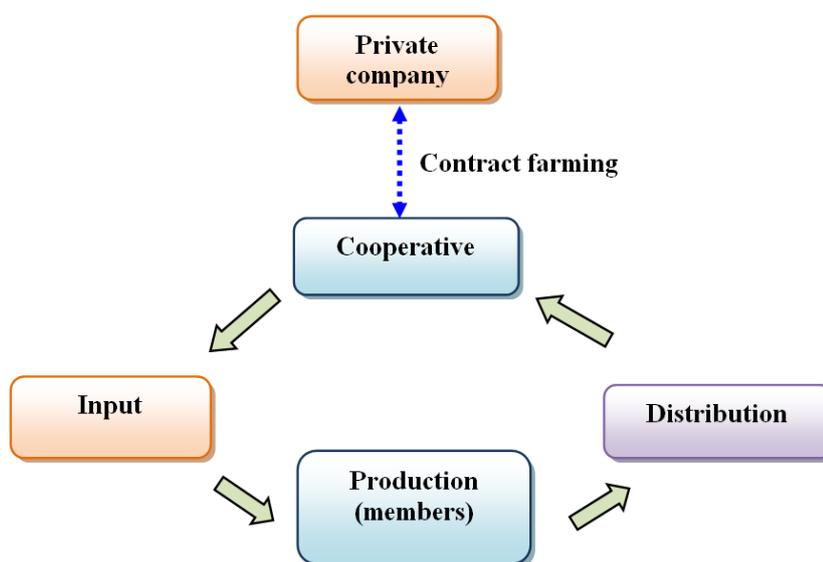


Figure 1 The appropriate cooperative contract farming of small farmers

As can be seen from figure 1, cooperative contract farming enhances the higher power of negotiation from bigger scale of production and distribution. It also comforts to access funding and technology from the credibility of the cooperative with legal support. With more funding, cooperative can develop better technology and solve the original problem of small farmers. Furthermore, the cooperative is also a center for members to meet, discuss and share their production and management skilled experience. As a result, community will strengthen.

In addition to the lack of understanding the cooperative system, leadership ability and management skills, It also found that there is a lack of ethics in the profession, debt burden and government regulation. Thus, the initial establishment of cooperative contract farming need for government agencies to oversee and support the management system together with private company selection to enter into contract farming to ensure the greater fairness. It may take in the form of cooperation between the public and private sectors. The solution must be integrated as well. This requires the assertive role of government, the more adaptability of farmers, the ethics of the profession, and the fair laws and effective enforcement.

Conclusions

The study of cooperative contract farming for income stability of small scale farmers in Thailand aimed to study the current contract farming situation of small scale farmers and their problems in doing business. In addition, this study presented the appropriate cooperative contract farming guideline for small scale farmers in Thailand. The data came from both primary and secondary data including documents, books, articles, internets and field survey. The collection of field data employed both the focus groups and in-depth interviews techniques from those who have been involved in contract farming and cooperatives. And the three different sites from one in Chainat province and two in Lopburi province were selected in this study. For field survey, we offered the establishment of agricultural cooperatives to contracts with private companies instead of individual in three models: 1) production and distribution 2) production, processing and distribution and 3) outsourcing production and distribution.

The results of this study indicated that small scale farmers who undertook contract farming business in the selected sites were decreasing about 10-30% by switching to other careers. The farmers remained in the contract farming although they had some problems such as low negotiation power, less capital and technology accession, unfair contract, and losses. For the appropriate cooperative contract farming for small scale farmers was joint production and distribution. This was the least complicated pattern. It could reduce the existing problems of small farmer from higher bargaining power, lower production costs through economies of scale. Furthermore, they were also more convenient to capital and technology access with an exempt from income tax

However, there were many barriers to establish the cooperative contract farming in Thailand including the understanding the cooperative system, leadership ability, management skills, ethics and debt burden. Therefore, the government agencies should support the management system together with private company selection to enter into contract farming in the initial stage. The cooperation between the government and the private sector has served as a consultant in the first phase.

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