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Analysis of Agro-Industry Development in Thailand

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Abstract. This study aims to analyze the implementation of strategy and system in agro-industry development in Thailand. This study uses a qualitative descriptive method that is based on primary data and secondary data. The agro-industry in Thailand is developed with using the export market penetration strategy. This strategy is supported by an agro-industry development system that involves stakeholders (king, government, researchers, entrepreneurs, farmers, public, and others). The involvement takes the form of: all research and development efforts for agricultural commodities that are always oriented towards the quality of the export market; a policy of government that is very supportive to the development of commodities to increase their competitiveness in the export market through providing research support, training and production facilities, as well as the distribution of working capital for farmers; the very large role of entrepreneurs through the contract farming system with farmers; the very large role of representatives (i.e., embassy and consulate) and Thai citizen abroad to carry out promotional activities and marketing of agricultural commodities.

INTRODUCTION

Background

Thailand's economy relies on export, with export value around 60% of GDP. About 60% of Thailand's entire workforce is employed in agriculture. Rice is the most important crop. Thailand is a major exporter in the world rice market. Other agricultural commodities produced in large quantities are fish and other fishery products, tapioca, rubber, seeds, and sugar. Exports of processed foods such as canned tuna, pineapple and frozen shrimp are also on the rise. The Thai government's attention in increasing the income for farmers there is relatively very high, and the pattern and cohesiveness of the relationship between the government and farmers in Thailand is very good. In other words, agricultural development is not only handled by the Ministry of Agriculture, but is supported by all sectors and resources, ranging from credit to transportation directed there.

Rice yields from Thailand reach 20 million tons every year, part of which is used for domestic food needs, and some is sold as export material abroad. Thailand is the third largest rubber producer in the world after Malaysia and Indonesia. In Thailand, 900,000 tons of rubber are produced every year. Besides rice and rubber, Thailand has other export commodities, namely corn, canned fish, sugar, tin, and shellfish.

Thailand and Indonesia are the strongest countries that have the carrying capacity of agricultural land in providing food in a broad sense for the population as a whole. The position of the carrying capacity of Thai and Indonesian agricultural land in feeding the villagers and the population as a whole has not changed much. This condition shows that in these two countries the majority of the population is in rural areas. Thailand is one of the Asian countries that still relies on its foreign exchange earnings from the agricultural sector. In general, there are two rice policies consistently applied by the Thai government, namely general and specific policies [1].

The general policies made by the Thai government are: the establishment of a Research Center, the establishment of a Public Warehouse Organization (PWO) and a Marketing Organization for Farmers (MOF). The purpose of establishing the Research Center is to develop new high yielding varieties that can be adapted to various ecosystems. PWO activities specifically related to rice, namely:

1. Accepting deposits or buying rice from farmers, agricultural cooperatives, rice traders, and rice millers at prices according to the basic price set by the Rice Committee.
2. Storing excess rice supplies during the harvest season to avoid low rice prices.
3. Intervening in the market through the purchase and storage of rice for distribution, especially to low-income communities at a reasonable price.

Since 1976, Thailand has had a Marketing Organization for Farmers (MOF). MOF has a number of markets for fresh agricultural products spread across various locations in the country. MOF was established to help farmers, control the price of agricultural products so that they do not fall during the peak harvest, provide agricultural production facilities at low prices and improve the quality of agricultural production. If the price is too low, MOF will buy farmers' products. MOF also has a market for ornamental plants and flowers.

On a large scale, since 1996 Thailand has built an agribusiness terminal, the largest and most comprehensive market for agricultural products in Asia, namely Talaad Thai. This terminal is an ideal place for transactions between sellers and buyers (domestic and export) of agricultural products. Documents and export certificates are completed here within 1-2 hours. Agricultural products sold in this place have gone through strict quality selection and at relatively low prices. Farmers who take advantage of the terminal which operates 24 hours continuously come from all over Thailand.

Currently, Thai rice, cassava and fishery products are known for their superior quality that is able to compete with the superiority of Japanese freshness standards which have exceeded the standards of western countries. Because the main advantages of Thailand's agro-industry are these three products, the targeted processed food industry includes food products based on these three products and practically without any significant direct competition. Based on the explanation of the background, the theme of this research is Analysis of Agro-industry Development in Thailand.

Problem Formulation

Based on the identification of these problems, a problem formulation can be made, namely: "What are the Strategies and Systems for Developing Agro-industry in Thailand?"

LITERATURE REVIEW

Agro-industry

Agro-industry comes from the word "agro" which means agriculture and "industry" means business or processing activities that generate profits. So, agro-industry is all activities related to the exploitation of plants and animals (agricultural, agricultural, fishery, and forestry commodities) which are market-oriented (not only to fulfill the needs of the entrepreneurs themselves) and gain added value.

Agro-industry is a concept of an integrative system consisting of several sub-systems, namely: (1) sub-system of procurement of production facilities (upstream agro-industry), (2) sub-system of farming production, (3) sub-system of processing and industrial products. agriculture (downstream agro-industry), (4) marketing and trade sub-systems, and (5) supporting institutional sub-systems [2][3]. The second and part of the first and third sub-systems are on-farm agro-industry, while the other sub-systems are off-farm agro-industry. Some of these systems have been implemented by the government in the form of national policies and some have been successfully implemented by community groups or research groups, but are still on a case-by-case basis, for example: the Partnership System or Contract Farming.

Contract Farming

In the agricultural sector, there are various problems faced, such as low capital ownership, equipment that is still simple and limited, lack of processing industry and difficulty in marketing aspects, which make farmers unable to produce valuable and highly competitive products. Therefore, farmers need help and protection from many parties, both government and private in solving these problems. To empower farmers in a bargaining position, it can be done, among others, by establishing institutions which are cooperative and partnership organizations. One of the strategic steps to assist farmers, especially in the production and marketing process, is the contract farming system.

According to Patrick [4], contract farming is a production and marketing intermediation system, which shares production and marketing risks between agribusiness and farmers. This can be seen as a way to reduce the high transaction costs caused by market and/or government failure to provide the required inputs (e.g., credit, insurance, information, infrastructure and factors of production) and market institutions. Contract farming refers to a system in which a processing center, or exporting unit, purchases produce from independent farmers based on a pre-determined purchase agreement through a contract [5].

Types of Contract Farming

According to Eaton and Shepherd [6], there are five general models of contract farming:

1. Centralized model, which is a vertically coordinated model, sponsors buy products from farmers, then process them, package them and market them. Production quotas are determined at the beginning of the growing season, accompanied by strict quality control.
2. The nucleus-plasma model, which is a variation of the centralized model in which the sponsor owns and manages a plantation area, which is generally located near a processing mill, and introduces cultivation techniques and technologies to farmers.
3. Multipartite model, namely contract farming which generally involves government agencies and private companies in collaboration with farmers.
4. Informal model, namely contract farming which is usually applied to individual entrepreneurs or small companies who usually make easy informal production contracts with farmers based on seasons. especially for tropical fruit and vegetable products. Supermarkets often buy fresh produce from individual farmers.
5. The intermediary model, namely the formal subcontracting of crop production to intermediaries, is common in Asia. In Thailand, processed food companies purchase raw materials from individual collectors or farmer groups who make informal arrangements with farmers.

Benefits and Risks of Contracts for Farmers

The direct benefits of contracts include: increased access to markets, credit and inputs, better use of technology, transfer of technology, fixed and guaranteed price structures, better risk management, and increased employment in family farms. Meanwhile, the indirect impact of this system is an increase in women's empowerment and the development of a commercial culture [6].

However, these benefits to farmers depend on a number of factors. The first issue to consider is whether farmers can afford to participate in contract farming systems when the opportunity exists. There is also evidence that contract farming can have a negative impact on farmers' welfare. A number of authors express their concern that contractors generally prefer established farmers and ignore smallholders in the development process [7].

Other negative impacts of contract farming are the potential to trap smallholders into contracts, negative social impacts of the commercial economy, narrowing of local markets as contract-based farming systems reduce local food production, breach of contractual agreements, and general concerns about the behavior of multinational corporations in Indonesia. developing countries [8].

Benefits and Risks of Contract for Agribusiness Companies

There are many reasons why agribusiness companies use contract farming systems in their dealings with farmers. The main reason is that companies gain access to low-cost labor and land in cultivating a variety of high value commodities that are not normally cultivated by local farmers. Another reason is that companies can participate in markets that they normally would not have access to. They can minimize costs by not having to buy land or hire labor directly. They can encourage farmers to cultivate new commodities through the provision of credit and other inputs (in some cases technical assistance).

Agribusiness companies also have the advantage of providing loans on a contract basis. A contract allows for control over the process of using inputs, a level of control over crop cultivation decisions to ensure the ability to pay receivables and the company can also determine how receivables are paid. In addition, the contract also ensures the supply of products to the company, because the farmers' debt will be deducted directly from the payment for the purchase of the harvest [6]. The success of a contract depends on uncontrollable factors related to the legal, social,

economic and physical environment, such as strong markets, macro-institutional policies, complex technology and land tenure [9].

Management of Contract Farming

A special policy is needed to manage the contract farming. Policies that can be taken include:

1. It is necessary to establish an established and integrated partnership pattern and all parties concerned must be able to coexist in a harmonious way that requires and is interdependent. In building partnerships, it is necessary to have the integration of various elements, both farmers/farmer groups, government, private sector/businessmen, and financial institutions (banks).
2. Farmer groups have the potential to move and empower the farmers' economy.
3. The government needs to support contract farming by issuing policies including: (a) the application of laws and regulations that do not hinder the development of agricultural businesses and contract farming; (b) contract farming must be supported and protected by a legal and efficient legal system; (c) infrastructure development and improvement; (d) farmers must be protected from exploitation in cooperative activities with the industry by checking the financial feasibility and managerial capacity of the industry (company) to be able to produce a business that benefits all parties; (e) increase the negotiating power of farmers.

RESEARCH METHODS

Type of Research

This study uses descriptive qualitative methods, so that the data used are qualitative data based on the content or quality of a fact.

Location and Time of Research

This research was conducted in Thailand. This research was conducted on 7-14 June 2015. This research was sponsored by Universitas Islam Negeri of Raden Said Surakarta.

Data and Data Sources

The data and data sources used in this study are as follows:

1. Primary data, namely data obtained directly from parties involved in the development of agro-industry in Thailand.
2. Secondary data, namely data obtained from documentation as well as from scientific books, literature, articles, internet and relevant research journals that can support the research topic.

Data Collection Techniques

1. Observation, namely making direct observations on the object of research.
2. Interview is a conversation conducted by the interviewer to the respondent in order to obtain the desired information or data for research needs, especially survey and exploratory research.
3. Documentation is the collection of data obtained from archives.
4. Literature study, namely by studying the literature relevant to the research.

Data Analysis Techniques

To analyze the data that has been collected, the authors use the following methods:

1. Content Analysis, in this case the author examines and analyzes the contents both in terms of language style, writing techniques, sources obtained as well as the aims and objectives of each chapter.
2. Descriptive Analysis, the data obtained were analyzed through data descriptions, reduced, mapped and sorted according to the research focus.

RESULTS AND DISCUSSION

Agro-industry in Thailand

Since 5 September 2000 there has been a national movement campaign promoting vigorously that Thailand has decided to return to its goal as an agro-industrial country. The original direction of trying to become a manufacturing industrial country was considered a failure because it did not move from the status of dependence on imports of industrial raw materials and even fell into a prolonged crisis.

Agricultural products such as rice, rubber, cassava, fruit, vegetables, fishery products and processed foodstuffs, were again designated as national superior products. Industrial products such as automotive, electronics, textile products, computers, chemicals, and the like, are no longer prioritized and are left according to market mechanisms.

Factors Causing the Success of Agro-industry in Thailand

In general, there are four factors that contributed to Thailand's success in agriculture, including:

1. Research and development of export market-oriented agricultural products.
2. Promotion and marketing activities are very active in commodity development, in which the role of Thai representatives abroad is very large.
3. The role of the king is very big as a role model for the people.
4. Government policies (bureaucratic) towards commodities are very conducive to the development of production and exports to increase competitiveness.

Implementation of Contract Farming in Thailand

Contract farming projects have had mixed results. The following are some cases of farmer responses to contract farming and farmer attitudes in Northern Thailand. Several studies in the 1990s reported that most contract farming schemes had failed, for example: forest products, cashew nuts, and oil palm [5][10][11].

Monopoly conditions have been favorable for contract farming, while the competitive environment has not been conducive to contract farming [11]. However, one exception is vegetable contract farming in Northern Thailand, which has developed in a relatively competitive environment. Since Thailand became an agricultural commodity exporting country, agribusiness has dominated policy making. This has resulted in better overall agricultural growth and development through a shift to higher value crops [12][13].

Attitude of Thai Farmers towards Contract Farming

The survey revealed the main reason that farmers participate in contract farming because of market certainty and price stability as the main factors. Other reasons include the lack of alternatives, and the expectation of higher prices. In addition, the tenant farmers feel that contract farming provides them with a good opportunity to increase their income as labour.

Agro-industry Development System in Thailand

Thailand is a country that has the best agricultural system in the world. Thailand also uses a hydroponic farming model to minimize land use, because there the quality and quantity of soil is inadequate.

In this country the extension system is improved, production facilities and capital are provided, infrastructure is built with prime quality. In fact, to reach international markets, the standards used in importing countries are applied to farmers. Every farmer who will export their products must comply with two standards, namely GAP (good agricultural practices) and GMP (good manufacturing practices). If the farmer has implemented it, then the government will pay for the product certification. At a time when agriculture has become a global concern, Thailand has formulated programs for the development of the agricultural sector. These programs are:

1. Rice exports
2. Arrangement of agricultural areas
3. Competition for planting rice and rubber/palm crops

4. Intensive vegetable and fruit cultivation
5. Implementation of a mutualistic contract farming system
6. Utilization of the homogeneity of the socio-cultural life of the Thai nation
7. Maintaining the advantage of agricultural inputs
8. Land tenure system management
9. Efficient water management
10. Cultivation of superior seeds
11. Management of a mutually beneficial agricultural services business
12. Local NPK fertilizer production with imported materials
13. Strong work spirit
14. Advantages of upstream-downstream agro-industry linkages
15. Quality assurance of agricultural commodities to be marketed
16. Intensive and organic rice cultivation system

Problems Faced by Farmers in Thailand

The problems that Thai farmers face are the same for years. The main problems facing Thailand are land (quality and quantity), land reform (agrarian), and water problems. The first problem that affects farmers is land: both in quality and quantity. Soil quality has been damaged due to river pollution. The Chao Phraya River was once a very clean river but now it has become a dumping ground for everything. Another concern is the amount of salt in the soil. Salt enters the rivers, then into the fields destroying the soil's ability to grow crops.

Land reform has always been a serious focus between the people and the government in power at the time. In the early 1990s Thailand was led by Prime Minister Chuan Leekpai. While in charge, he had a plan/program to carry out land reform. Unfortunately, the implementation of the program was very slow, and instead the land was then distributed to the rich, helping the poor. It is planned that approximately half a million hectares of land will be given to landless farmers. However, in the end the program failed, and so far, it has not been realized.

The third issue besides soil and soil reform is the issue of water, because water is essential for plant growth. The main concern about the air is the construction of dams, and farmers need it to irrigate their crops. Many engineers in Thailand want to build dams to store water from rivers for cities. River dams draw water from a supply that has reduced its debit. Irrigation for plants taken from consumers is also very heavy on-air quality. In addition to these classic problems, new problems have emerged in Thailand, namely the increasing scarcity of agriculture, the reduction of labor in the agricultural sector due to shifting to the non-agricultural sector, and the inefficient use of pesticides.

CONCLUSION

Thailand's successful export of agro-industrial products is the result of years of hard work involving many parties (king, government, researchers, entrepreneurs, farmers, and others). All continuous efforts are always market oriented. Government policies are realistically linked to the capabilities and needs of the industry

Thailand is a country that has the best agricultural system in the world. In this country the extension system is improved, production facilities and capital are provided, infrastructure is built with prime quality. The role of the state in supporting farmers is very large. The state provides research support, training and production facilities, even the Bank for Agriculture and Agriculture Cooperative, which provides working capital to farmers. The state also guarantees the quality of products produced with certification. State spending for infrastructure development is directed to support agricultural development.

The problems that Thai farmers face are the same for years. The main problems facing Thailand are land (quality and quantity), agrarian reform, water scarcity, labor shortages, and efficient use of pesticides which pose a serious threat to the maintenance of comparative advantage and agricultural productivity of Thailand.

To overcome this problem, land reform needs to be continued and it is necessary to enact legislation that regulates water management including its conservation and utilization. Meanwhile, responding to the increasing scarcity of water, the property rights to freely available surface water still have to be determined, thus facilitating the availability of water. In order to overcome the movement of labor flows from the agricultural sector to the non-agricultural sector, agricultural production, especially rice production, must implement a mechanization system. The current inefficient use of pesticides requires the imposition of excise taxes on pesticides.

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