
Problem Conditions, Agricultural Needs and Impacts of ASEAN Economic Community on Agricultural Entrepreneurs in the Responsibility Areas of Rajanagarindra Rajabhat University

Tossapone Ruamchimplee^{1*}, Pakkapong Pongsuk², Nopakoon Siriwan² and Sataporn Deeying³

- ¹⁾ Department of Industrial Education, Faculty of Industrial Education, King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand.
- ²⁾ Department of Agricultural Education, Faculty of Industry Education, King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand..
- ³⁾ Department of Agricultural Technology, Faculty of Science and Technology, Rajabhat Rajanagarindra University, Chachoengsao, Thailand

Ruamchimplee, T., Pongsuk, P., Siriwan, N., and Deeying, S. (2016). Problem Conditions, Agricultural Needs and Impacts of ASEAN Economic Community on Agricultural Entrepreneurs in the Responsibility Areas of Rajanagarindra Rajabhat University. *International Journal of Agricultural Technology*. 12(7.2):1983-1990.

This qualitative study aimed to explore problem conditions, needs for farming, and impacts of ASEAN economic community on agricultural entrepreneurs in the responsibility areas of Rajanagarindra Rajabhat University. The sample group in this study consisted of 60 agricultural entrepreneurs (crops, livestock, fisheries, business, and industry) in Chachoengsao, NakhonNayok, Sakheo, and Prachinburi. Questionnaire and in-depth interview were used for data collection. Content analysis, frequency, and percentage were employed in this study. Results of the study were as follows: 1) Problem conditions included a low price of yields, high production costs, epidemic, ineffective water management, and workforce shortage. 2) Agricultural needs included: agricultural markets offering a reasonable price of yields; in-depth knowledge on business operation; reduction of production costs; production and yield processing technology; pest prevention and control; effective water management; strong group forming of farmers; and good plant varieties suitable for growing in the areas, respectively. and 3) Impacts of ASEAN economic community on the agricultural entrepreneurs included: illegal import of crops from neighboring countries having an effect on a low price of crops in the country; entrepreneurs could not expand the market for an increase in sales volume; land purchase for industrial investment had an effect on decreased farm land; illegal import of poor quality of agricultural yield for neighboring countries to mix with agricultural yields in the country caused a low price of yields; and increased workforce from neighboring countries cause low wages.

*Corresponding Author: Ruamchimplee, T.; E-mail address: tossapone2514@hotmail.com

Keywords: agricultural entrepreneurs, agricultural problems, agricultural needs, impacts of ASEAN community, ASEAN economic community

Introduction

The ASEAN community occurred in 2015 which would make ASEAN be one market and production basis providing trading and services with freedom in production factor moving, investment, and skillful workforce within ASEAN. Thailand is a country joining other 10 Southeast Asian countries (Thanachaiwiwat, 2004). In this respect, it has an effect on Thai farmers to adapt them to be consistent and appropriate with the unifying of ASEAN aiming at increased negotiation power and competitive potential of ASEAN in the international venue. The unifying of ASEAN has both positive and negative impacts on the country in terms of agriculture and economy. Rajanagarindra Rajabhat University, Chachoengsao province, responsibility areas cover 4 provinces: Chachoengsao, Nakhon Nayok, Prachinburi, and Sa Kheo (Division of Policy and Planning, Rajanagarindra Rajabhat University, 2010). The university attempts to develop agriculture of the said provinces to be strong when Thailand is a member of ASEAN community (Faculty of Science and Technology, Rajanagarindra Rajabhat University, 2011).

According to this, the researchers as instructors teaching agricultural technology realize the importance of the said change and are interested in conducting a study on problem conditions and agricultural needs of agricultural entrepreneurs in the responsibility areas of Rajanagarindra Rajabhat University. This can be a guideline for developing Thai agriculture in the competitive age of ASEAN community. This aims to construct progress which is appropriate with the conditions of the university, locality, society, and ASEAN community region (Institute of Research and Development, Rajanagarindra Rajabhat University, 2011).

Objectives of the Study

Specifically, this study aimed to investigate:

1. Socio-economic attributes of agricultural entrepreneurs in the responsibility area of Rajanagarindra Rajabhat University;
2. Problems encountered in occupation, agricultural needs, and impacts of ASEAN community on the agricultural entrepreneurs; and
3. Suggestions assisting the agricultural entrepreneurs.

Conceptual Framework

The conceptual framework in this study clings mission of Rajanagarindra Rajabhat University responsible for educational facilitation and academic

services to the public. This included entrepreneurs on crops, livestock, fisheries, agro-business, and agro-industry in the responsibility areas of the university (Division of Policy and Planning, Rajanagarindra Rajabhat University, 2010).

Scope and Delimitation of the Study

1. This study focused on the investigation of problem conditions in agricultural careers, agricultural needs, and impacts of the ASEAN community on the agricultural entrepreneurs in the responsibility areas of Rajanagarindra Rajabhat University (the 4 provinces).

2. Agricultural problems of the agricultural entrepreneurs based on 5 aspects: crops, livestock, fisheries, agro business, and agro industry.

3. Informants group comprised entrepreneurs on crops, livestock, fisheries, agro business, and agro industry in the responsibility areas of Rajanagarindra Rajabhat University.

Methodology

1. The informants group consisted of 60 agricultural entrepreneurs obtained by purposive sampling, 15 persons (each of the 4 provinces).

2. Research instruments were questionnaire and interview schedule

3. Three specialists inspect the research instruments based on correctness and consistency with objectives of the study. It was tried out with 10 agricultural entrepreneurs and after that it was improved based on suggestions of the specialists.

4. Data collection were collected with agricultural entrepreneurs in the four provinces and they were asked for permission through a letter of request issued by the Faculty of Industrial Education, KMITL.

5. Data analysis

5.1 An analysis of data obtained from the questionnaire based on socio-economic attributes of the respondents. Obtained data were analyzed by using frequency, percentage, mean, and standard deviation.

5.2 Data on problem conditions, needs for assistance, and impacts of the ASEAN community on agricultural entrepreneurs were analyzed and sorted and then content analysis was conducted.

Results

Results of the study could be concluded as follows:

1. Based on socio-economic attributes, it was found that most of the informants were male (71.67%), 50-59 years old (50%), and followed by 40-49 years (25%). Almost one-half of the informants (46.67%) were upper secondary

school graduates or equivalent (vocational certificate), followed by bachelor's degree holders (38.33%), master's degree holders (11.66%), and higher vocational certificate holders (1.67%), and elementary school graduates (1.67%), respectively.

2. Regarding results of an analysis on problem conditions of the agricultural entrepreneurs, the following were found:

2.1 High production costs and lack of effective water management (28.33% each), followed by a low yield price (25%).

2.2 Epidemic and town plan problems which did not contribute to small and medium entrepreneurs (23.33% each).

Based on its details, the following were revealed:

The informants on crops faced the problems in lack of knowledge and technique on increased yields most (66.67%). The informants on agro industry faced the problem in non-quality raw materials and the counterpart company was not honest (25%) as shown in Table 1.

Table 1. Results of an analysis of problems of the agricultural entrepreneurs on crops, livestock, fisheries, agro business, and agro industry

Item	Problem percentage of occupation					Total (n=60)
	Crops (n=12)	Livestock (n=12)	Fisheries (n=12)	Agro business (n=12)	Agro industry (n=12)	
1. High production costs	50.00	25.00	33.33	33.33	-	28.33
2. Ineffective water management	41.67	16.67	50.00	16.78	16.67	28.33
3. A low price of yields	58.30	33.33	33.33	-	-	25.00
4. Epidemic	41.67	25.00	50.00	-	-	23.33
5. Scarce workforce/high wage	33.33	-	8.30	33.33	-	15.00
6. Lack of good plant/animal breeds	50.00	25.00	25.00	-	-	20.00
7. Lack of cash flow	25.00	25.00	33.33	25.00	-	21.67
8. Do not have own land	33.33	41.67	25.00	-	-	20.00
9. Lack of storm group forming	8.33	8.30	16.67	-	-	6.67
10. Limitation of farm land/infertile soil	25.00	33.33	-	25.00	8.33	18.33
11. Town plan law did not contribute to small/medium entrepreneurs/	25.00	8.33	-	66.67	16.67	23.33
12. Raw materials do not have good quality and the counterpart company is not honest	-	16.67	-	-	25.00	5.00
13. Lack of Knowledge and techniques on increased yields	66.67	16.67	-	-	-	16.67
14. Climate variance and forage shortage	8.33	16.67	-	-	-	5.00
15. Lack of promotion by public agencies	8.33	-	-	-	-	1.67
16. Inconvenient infrastructure and waste of livestock	-	16.67	-	-	-	3.33

Results of an analysis of needs for assistance (Top three)

The informants needed for assistance about a price of yields; knowledge and technology on yield processing; and appropriate plant/animal species (28.33% each), followed by effective water management and town plan law contributing to the entrepreneurs (18.33% each), and promotion of growing crops suited to the area (16.67%), respectively, based on its details, the informants on crops needed for the promotion on growing crops suited to the area most (75%) while the informants on livestock and fisheries needed for livestock with good quality suited the area and assistance on a yield price in the market, respectively (\bar{x} = 41.67 and 33.33%). Besides, the informants on agro business and agro industry needed for the assistance on a yield price in the market/knowledge and processing technology/knowledge about town plan law (41.67%) and needed for assistance on knowledge and processing technology for value added (50%) as shown in Table 2.

Table 2. Results of an analysis of needs for assistance of the informants

Item	Percentage of needs for assistance of the informants					Total (n=60)
	Crops (n=12)	Livestock (n=12)	Fisheries (n=12)	Agro business (n=12)	Agro industry (n=12)	
	100%	100%	100%	100%	100%	100%
1. A yield price in the market which the informants can produce yields	33.30	33.33	33.33	41.67	-	28.33
2. Effective water management	16.67	33.33	25.00	16.67	-	18.33
3. Knowledge and technique about the reduction of production costs	25.00	25.00	-	8.33	8.33	13.33
4. Knowledge and technology on in increase in quality and quantity of yields	25.00	-	25.00	16.67	-	11.67
5. Knowledge and processing technology for value added	16.67	8.33	25.00	41.67	50.00	28.33
6. Good crop/livestock species suited to the area	66.67	41.67	33.33	-	-	28.33
7. Knowledge and technology on pest prevention	8.33	-	-	-	-	3.33
8. Promotion of growing crops suited to the area	75.00	8.33	-	-	-	16.67
9. Strong group forming	8.33	-	8.33	-	-	3.33
10. Town plan law contributing to agricultural entrepreneurs	8.33	8.33	-	41.67	38.33	18.33
11. The public sector passes a law controlling quality of agricultural raw materials	8.33	8.33	-	-	-	3.33

Results of an analysis of impacts of the ASEAN community on the informants

Findings showed the following: 1) impacts of increased epidemic due to imported agricultural yields from neighboring countries (38.33%); 2) widen

yield selling market and a better yield price (31.66%); and 3) less good quality of imported yields from neighboring countries having an effect on a low price of domestic yields (15%), respectively. Based on its details, it was found that the informants on crops and livestock had an impact on epidemic form imported agricultural yields most (50% and 66.67%, respectively). The informants on fisheries had an impact on less quality of imported agricultural yields from neighboring countries which would have an effect on a low price of domestic yields (50%). In addition, the informants on agro business had an impact on a widened yield selling market, a better yield price, and epidemic from imported agricultural yields from neighboring countries (41.67%). The informants on agro industry had an impact on a widened yield selling market, a better yield price, increased number of alien workforce in the agricultural sector, and a low level of wage (16.67%) as shown in Table 3.

Table 3. Results of an analysis of the ASEAN community on the informants

Item	Percentage of impacts of the ASEAN community on the informants					Total (n=60)
	Crops (n=12)	Livestock (n=12)	Fisheries (n=12)	Agro business (n=12)	Agro industry (n=12)	
	100%	100%	100%	100%	100%	100%
1. A widened yield selling market and a better yield price	33.33	41.67	25.00	41.67	16.67	31.66
2. Less quality of imported agricultural yields from neighboring countries having an effect on a low price of domestic yields	8.33	8.33	50.00	8.33	-	15.00
3. Increased amount of imported agricultural yields from neighboring countries	33.33	8.33	-	-	8.33	10.00
4. Increased number of alien workforce and a low level of wages	8.33	8.33	8.33	-	16.67	8.33
5. Agricultural yield market is mainly set by standards of quality of the products	-	8.33	25.00	-	8.33	8.33
6. Foreigners purchase the land for industrial investment which will have an effect on the reduction of farm land areas	25.00	-	-	-	-	5.00
7. Increased epidemic due to imported agricultural yields from neighboring countries	50.00	66.67	33.33	41.67	-	38.33

Discussions

According to the study on problem conditions and agricultural needs of agricultural entrepreneurs in the responsibility area of Rajanagarindra Rajabhat University due to the establishment of the ASEAN community, the discussions are as follows:

1. Problem conditions on high production costs, a low yield price, market and an agricultural yield price are uncertain. All of these were not truly taken into consideration by concerned parties. Besides, concerned public personnel disappointed agricultural entrepreneurs which had an effect on career shifting and decreased farming since farm land areas were replaced by industrial and residential zones. Nowadays, there is an increase in agricultural epidemic due to changes in climate and geographical conditions. This causes draught or water shortage condition and results in infertile soil. This conforms to Siriwan (2012) who claimed that the market for agricultural yield selling of the farmer still has no solution on the measures of improvement and many areas of Thailand loss fertility due to incorrect methods of farming, deforestation, natural calamity, and wasted water released from industrial factories.

Importantly, most Thai people overlook agricultural careers and do not prefer hard work. Besides, most old farmers have difficulties in new technology learning so they prefer to cling to traditional farming inherited from their ancestors. Thus, the public sector should promote young farmers on new production technology to increase quality and quantity of agricultural yields. This also conforms to Siriwan (2014) who cited that most Thai workforce have already elevated work skills so they do not prefer workforce jobs such as fisheries and agriculture. Thus, it is one factor focusing agricultural careers to employ farm machinery and technology.

2. Agricultural needs

Farmers needed for an agricultural yield selling market which they could sustain their career. Besides, they needed for knowledge about the reduction of production costs, processing technology and methods of pest prevention in order to increase yields and its price. Due to natural calamity or adverse climate, the agricultural sector needed effective water management to increase agricultural yields. The public sector should support on good quality of crop and livestock species suited to the farm areas. This conforms to Pongsuk (2013) who revealed that farming needs adequate water throughout the year thus it should have a water storage area for agricultural purposes.

3. The ASEAN community had an impact on the expansion of agricultural yields project market and increased imported yields from neighboring countries. This had an effect on the price of domestic agricultural yields was low. This might be because domestic consumers consumed agricultural yields regardless of its quality. Foreign investors purchased farm land for establishing an industrial factory and there was increased alien workforce. This conforms to Siriwan (2012) who claimed that the ASEAN community has serious impacts on Thai agriculture and fisheries. There were negative adverse changes in terms

of economic, social, and cultural aspects. Besides, there was stiff competition in trading, high investment, and free workforce moving.

Suggestions and Recommendations

Based on results of the study, the following were suggestions and recommendations:

1. Due to problems in high production costs, ineffective water management, and a low price of yields, concerned public agencies such as Provincial Commerce Office and Provincial Agriculture Office should analyze the problems and find a guideline for solving the problems.

2. Agricultural entrepreneurs need to technical assistance in the animal species plantings appropriate to the area, including the knowledge to add value to agricultural products, which Rajanagarindra Rajabhat University should have the knowledge and the government agencies should be support apportion budgets.

3. Schools in the area should offer or improve an agricultural course to be consistent with local farming for effective agricultural yield production.

4. The agricultural entrepreneurs should be encouraged to form a group or construct networks for knowledge and experience exchange in which Rajanagarindra Rajabhat University can be the center for support, promotion, and sustainable development.

References

- Division of Policy and Planning, Rajanagarindra Rajabhat University. (2010). Internal Quality Assurance, Rajanagarindra Rajabhat University. Instructor action seminar document at Chok Anan conference room, Rajanagarindra Rajabhat University, Chachoengsao province.
- Faculty of Science and Technology, Rajanagarindra Rajabhat University. (2011). Quality Education Assurance of Higher Education. Instructor action seminar document at Karaket room, Rajanagarindra Rajabhat University, Chachoengsao province.
- Poungsuk, P. (2013). Philosophy of Sufficiency Economy and Agriculture Education. 3rd ed. Bangkok: Mean Service Supply Limited Partnership.
- Research and Development Institute, Rajanagarindra Rajabhat University. (2011). The Community Developing value of Research. Seminar document in the 5th seminar on national academic and research at Rajanagarindra Rajabhat University, Chachoengsao province.
- Siriwan, N. (2012). Basic Concept of Thai Education in Agriculture, Lecture material in Philosophy of Education in Agriculture, Faculty of Industrial Education, KMITL.
- Siriwan, N. (2014). Miscellaneous of Thai Education in Agriculture: Important Essentials Needed to be Reviewed. Bangkok: Mean Service Supply Limited Partnership.
- Thanachaiwiwat, W. (2004). Rajabhat University Act, 2004. Bangkok: Sootpaisarn Press.