

# Key Success Factors in the Organic Agriculture Policy Implementation

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## ***Abstract***

*The objectives of the study were to identify problems, obstacles and restrictions the national organic agriculture policy implementation, and to evaluate the success factors of the policy implementation in order to propose an organic agricultural policy model for sustainable policy implementation. This qualitative research included both documentary and field research. The unit of analysis was organic agriculture projects implemented in all parts of Thailand. The triangular method was used to verify the data, and content analysis was made to find out the results. It was found that the national organic agriculture policy implementation progressed satisfactorily. The main obstacles were a negative attitude of government official concerned toward the policy, budget allocation, an coordination among related agencies, conflict of the government's development policies, low interest of agriculturists due to inaccessibility to related information, and no opportunity to participation in the policy setting, difference in the organic product standards between the public and the private sectors and between countries. In addition, the entrepreneur's leadership, business structure, capital, commitment and lifestyle affected the success of the national organic agriculture policy implementation. The policy*

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*structure and planning were recommended that is, human resources should be trained to have a good knowledge of organic agriculture throughout the supply chain. The budget allocation should be project - based and practical research should be financially supported. Organic products needed to be made to differ from conventional products. There should be PR for organic branding. A course on organic agriculture should be designed to educate the people. Future research should study international success cases of resource funding, organic supply chain management in order to adapt to the Thai context.*

**Keywords:** Organic Agriculture, Policy Implementation, Sustainable Development

## การศึกษาปัจจัยที่ส่งผลต่อความสำเร็จในการนำนโยบาย เกษตรอินทรีย์ไปปฏิบัติ

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### บทคัดย่อ

การศึกษาปัจจัยที่ส่งผลต่อความสำเร็จในการนำนโยบายเกษตรอินทรีย์ไปปฏิบัติ มีวัตถุประสงค์ในการศึกษา เพื่อศึกษาถึงความก้าวหน้า ปัญหาอุปสรรค และข้อจำกัดในการนำแผนยุทธศาสตร์การพัฒนาเกษตรอินทรีย์แห่งชาติที่นำไปปฏิบัติ เพื่อศึกษาวิเคราะห์เงินปัจจัยที่ส่งผลต่อความสำเร็จในการนำนโยบายเกษตรอินทรีย์ไปปฏิบัติ และเพื่อเสนอแนะรูปแบบการนำนโยบายเกษตรอินทรีย์ไปปฏิบัติอย่างยั่งยืน โดยเป็นการศึกษาวิจัยเชิงคุณภาพทั้งการศึกษาด้วยวิธีเอกสาร (Documentary Research) และการศึกษาภาคสนาม (Field Research) หน่วยในการวิเคราะห์ คือ โครงการเกษตรอินทรีย์ที่ดำเนินการในประเทศไทย ซึ่งมีวิธีการตรวจสอบข้อมูล (Triangular Method) และใช้วิธีวิเคราะห์เนื้อหา (Content Analysis) เพื่อทราบผลของการศึกษา โดยพบว่า ประเทศไทยมีความก้าวหน้าในการนำแผนฯไปปฏิบัติซึ่งบัญชาที่สำคัญ ได้แก่ ทัศนคติของข้าราชการที่มีต่อนโยบาย การจัดสรรงบประมาณ การประสานระหว่างหน่วยงาน ความขัดแย้งของช่องนโยบาย การเข้าไม่ถึงข้อมูลของเกษตรกร การไม่มีโอกาสในการเข้าร่วมเพื่อจัดทำนโยบาย มาตรฐานที่แตกต่างของภาครัฐและภาคเอกชนทั้งในประเทศและต่างประเทศ นอกจากนี้ ปัจจัยในความมีภาวะผู้นำ โครงการสร้างทางธุรกิจ ทุนประกันการ พันธสัญญา (Commitment) และวิถีการดำรงชีวิตของผู้ประกันการ มีผลต่อความสำเร็จในการนำนโยบายเกษตรอินทรีย์ไปปฏิบัติ ดังนั้น จึงเสนอข้อเสนอแนะเชิงนโยบายทางด้านโครงสร้างและด้านการวางแผนซึ่งควรมีการอบรมผู้ปฏิบัติตามนโยบายให้มีความรู้เกี่ยวกับนโยบายเกษตรอินทรีย์ตลอดทั้งห่วงโซ่อุปทาน ควรมีการจัดสรรงบประมาณ แบบ Project-based ควรมีการจัดทำวิจัยที่สามารถใช้ประโยชน์ได้ ควรสนับสนุนทางด้าน

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งบประมาณ ควรสร้างความแตกต่างของสินค้าให้เด่นชัดและมีการประชาสัมพันธ์ให้ทราบถึงสินค้าเกษตรอินทรีย์ ควรริบบิฟการออกแบบหลักสูตรที่เกี่ยวข้องเพื่อสร้างองค์ความรู้ ข้อเสนอแนะ สำหรับการวิจัยในอนาคตควรศึกษาความสำเร็จเกษตรอินทรีย์ในประเทศต่าง ๆ เกี่ยวกับการเข้าถึงแหล่งทุน ควรศึกษาวิจัยเกี่ยวกับเกษตรอินทรีย์ทุกด้านอย่างเป็นระบบ โดยพิจารณาถึงบริบทของผู้ประกอบการและประเทศไทยเป็นสำคัญ เพื่อสามารถใช้ประโยชน์ในการพัฒนาการเกษตรอินทรีย์ในประเทศไทยได้อย่างแท้จริง

**คำสำคัญ:** เกษตรอินทรีย์ การนำนิยามไปปฏิบัติ การพัฒนาอย่างยั่งยืน

## Introduction

Organic agriculture had long been a conventional farming method across the globe. The method was environmentally friendly, although it did not give good yields. Many scholars who supported organic agriculture during 1920-1945 were, for example, Sir Albert Howard who presented an Agriculture Testament in 1940, which focused on the importance of soil and preservation and Lady Eve Balfour, who wrote in 1943 a book entitled "The Living Soil" in which she scientifically compared soil from organic agriculture and that from conventional agriculture, and who later became the founder of the Soil Association in 1946.

Later, chemicals had been put to use in agriculture to increase agricultural yields. The trend was prevailing throughout all continents. After a while, agriculturalists, scientists and nutritionists began to study the effects of chemicals on the health of plants, animals, humans and the environment and found the harmful effects of chemical agriculture. Scholars around the world turned their attention to organic agriculture and the research results were communicated to consumers to create an awareness about the health and to call for relevant legislation.

As a result, more and more people have turned to consume clean, healthy and environmentally friendly foods. This attitude has led to an increasing demand for organic agricultural products. The organic agriculture market has been growing exponentially. This led many countries --in particular, the United States and countries within the European Union-- to turn to the production and the distribution of organic products. In 1972, the International Federation of Organic Agriculture Movement (IFOAM) was set up to control the organic agriculture standard.

The areas used for organic agriculture have steadily been increasing as well as the increase in distribution of organic products. In the 2000 only 27,899,231.25 rais of land were used for organic agriculture but the area increase to 69,699,943.75 rais in 2012 (Vitoon Panyakul, 2012). Willer and Yussefi (2007) conduct a study on land use and found that in 2007 the proportion of land use for organic agriculture was 7 percent of all arable land.

The review of literature showed that research on organic agriculture had been conducted in many Western countries, especially, the USA and European

countries. The Organic Trade Association (OTA) of the United States (Organic Trade Association, 2013), for instance, interviewed entrepreneurs in order to set an organic agriculture development strategy for the United States of America, based on a SWOT analysis of the organic business industry. The analysis found that the strength factors were new organic agriculture laws, consumer demand, confidence in the seal of approval, scientific research and supporting departments. On the other hand, the weaknesses included consumer confusion, lack of regulations on new products, price barriers, and the lack of complete research on organic agriculture. The opportunities which arose were the passage of the new US Farm Bill, which allocated a budget of approximately 112 million US dollars to support market development and research for the next 5 years (approximately 4,000 million Baht); being the environmental leader; the similarity in price to other products; and increasing consumer awareness. Threats came from having different standards, which confused the consumers; lack of production within the country; trade barriers in global markets because each country set its own standards and criteria. There was no universal system which was acknowledged as an equal standard. The expansion of biotechnology posed a risk to organic products as they might become contaminated because of GMO increase. Lastly, there was lack of unity in the organic agriculture industry.

The Organic Trade Association (OTA), in collaboration with the Kiwi (2013) deeply studied the views, attitudes, behaviors and motivations of organic food consumers. About 1,239 American consumer households were surveyed and it was found that the consumption of organic products increased steadily, as consumers wanted to choose what was best for the health of their families. Not only did consumption increase but there was also an increase in the variety of products by 41 percent. Families consumed organic products because they were good for their health. The finding was consistent with previous studies, which found that 48 percent of consumers chose to buy organic products to have better health of the whole family, 30 percent wanted to avoid consuming herbicides, chemical fertilizers and toxics, 29 percent to avoid antibiotics and growth hormones, and 22 percent to avoid products that contained genetically modified organisms (GMO).

In Thailand, organic agriculture has still been in its early stages, so there have not much been researches in this area. The Thai government set an organic agriculture policy based on the findings of research conducted in Western countries, such as SWOT analysis. The organic agriculture policy was first set by the Chuan Leekpai government in 1992, which encouraged diverse farming. Organic agriculture has thus been in the national development plans since then. Even in 2015 when General Prayut Chan-o-cha headed the government, the organic agricultural policy has still been dominant. Until present, the top-down approach has been used for policy setting.

There have been several studies on the results of organic agriculture policy implementation. The Center for Applied Economics Research at the Faculty of Economics, Kasetsart University (2010) found that some important problems in implementing the Strategic Plan for the Development of Organic Agriculture (2006-2009) were lack of funds, poor coordination between agencies, lack of continuity caused by change of the chief officer or priority of organic agriculture, by policy change made by politicians, by world economic recession, and by no cooperation from related agency and personnel who did not accept the concept of organic agriculture because of the familiarity with chemical agriculture, limited research in some fields, such as fishery in which they were unable to find a suitable method for breeding. It was also found that agriculturalists needed assistance from the public sector in the finding more distribution channels, lowering the cost of certification, providing the production factors. PR was minimal, which made it difficult to distinguish products of organic agriculture. Moreover, consumers lacked knowledge about distribution locations of organic products.

The Center for Applied Economics Research of the Economics Faculty at Kasetsart University also revealed the restrictions of exporting Thai organic products. One major problem concerned production, especially low yields and high production costs. There was a lack of crop variety, and thus processed products were limited. Besides, the markets were mainly within the country. Marketing problems concerned a limited number of consumers, lack of export markets, lack of standard, lack of international recognition and lack of capability to produce in a large volume. The market within the country was limited to those who are capable

of purchasing. The problems stemmed from lack of development and knowledge on the part of agriculturalists and consumers. Thailand did not have an acknowledged and trustworthy certifying body at the global level. Consumers and agriculturalists were confused about the standards of organic products. Most consumers could not distinguish between chemical - free products and organic products.

With regard to success factors, the only research on this topic in Thailand was done by Chedsada Mingchai and Pradtana Yossuck (2012), who studied the factors most affecting the successful implementation of organic agriculture in Thailand and found that markets, prices, production costs, training and instruction, standard and technology all played a role in changing production methods of organic agriculture and networking, and that the model played an important role in success for policy implementation.

Now Thailand has been implementing the First National Organic Agriculture Development Strategic Plan (2008-2011). Organic agriculture seems to be a rosy prospect in Thailand, which is regarded as the kitchen of the world, if the plan could be successfully implemented. To be successful, the implementation problems should be identified and solved successfully. Also, success factors should be identified to measure the degree of success of the policy implementation.

Thus, the study on key success factors in the organic agriculture policy implementation in Thailand was beneficial in that it could reveal the problems, obstacles and restrictions of the First National Organic Agriculture Development Strategic Plan (2008-2011). Besides, it was interesting to know what key success factors were and how much they influenced the organic agriculture policy implementation through the eyes of the stakeholders. The stakeholders in most previous studies included policy makers, policy implementers in public organizations concerned. In this study, however, producers or production entrepreneurs who were involved in the production of organic rice, organic vegetables, organic plants and organic aquaculture; organic rice business operators; certifying bodies in the public and the private organizations; public organizations concerned in the central and other regions under the Ministry of Agriculture and Cooperatives and Ministry of Commerce that implemented the organic agriculture

policy; finally, the civil society (e.g., educational institutions and consumers) in various parts of the country. Their opinions were thoroughly studied to find out the degree of their support for the organic agriculture policy so as to make recommendations on how to set and implement the policy as well as how to solve problems stemming from policy implementations. In short, the scope of the study encompassed the stakeholders' views on the problems and success factors of Thailand's First National Organic Agriculture Development Strategic Plan (2008-2011). The studied organic products included organic rice, organic vegetables, organic plants and organic aquaculture.

The research results would be useful for formulating the most successful organic agriculture policy. This research could be beneficial for implementing the organic agriculture policy itself and for setting other development policies, such as the SME trade policy.

## **Research Methodology**

This qualitative research included both documentary and field research. The unit of analysis was organic agriculture projects carried out in all parts of Thailand. The triangular method was employed to verify the data.

In the documentary research, previous strategies under the Second National Organic Agricultural Development Strategic Plan (2013-2016), related reports, and analytical results of the national organic agricultural development plans (2006-2009 and 2008-2011) were studied. Also, the research relating to organic agriculture and the current situation of the organic agriculture industry around the globe, particularly, the industrial standard at the global and the ASEAN level, in ASEAN and in Thailand were described.

The field research was conducted during October-December, 2013. The researcher sent a formal letter to each key informant seeking for consent to conduct an interview.

In the field research, in-depth interviews of 64 key informants were conducted, using the semi structured interview questionnaire and the data from observation during the interview were also recorded. The key informants were

purposively selected from those specifically involved in organic agriculture policy implementation and in the organic agriculture industry across the country. They were classified into the five categories: 1) 32 organic producers or production entrepreneurs (organic rice, organic vegetable, organic plant, and organic aquaculture) or 50%. (Both success and failure cases were investigated); 2) 5 organic rice buyers (organic rice manufacturers and distributors) or 7.8%; 3) 6 organic agriculture certifying bodies (in the public and the private sectors) or 9.3%; 4) 10 public organizations under the Ministry of Agriculture and Cooperatives and the Ministry of Commerce or 15.6%; 5) 11 representatives of the civil society, (educational institutions, experts from the private sector, and consumers in general) or 17.2%. Since this study focused on the production process which was the upstream of the supply chain, most of the interviewees were in the first category.

All the 5 categories of key informant were asked to give opinions on whether these factors contributed to the success or failure of the First National Organic Agriculture Policy Implementation.

## Results

The documentary research reveals that suitable areas for agriculture are limited worldwide. While the world population is increasing, food safety and sufficiency has become an important issue. That is why organic products are popular in international markets these days as seen from the increase in organic agriculture production areas, the number of entrepreneurs, domestic consumption and export (FiBL - IFOAM, 2014).

Thailand's agriculture development started in 1920, when chemical fertilizers were imported and were spread by the Department of Agriculture in 1962. This was the beginning of the western agriculture development in Thailand, with no interest in organic agriculture. Based on the documentary research and the field survey which sought opinions of the organic agriculture stakeholders in Thailand, organic agriculture was a traditional method of Thai agriculturists. However, they adopted western technical and knowledge and changed to the chemical agriculture.

Even now Thailand has a low ratio of organic agriculture compared to other countries. In 2009, for example, its domestic consumption and export values were more or less the same (at around 68 millions USD), which was a very small amount when compared to many countries such as Vietnam. Its organic agriculture area is also small when compared to other ASEAN countries. In spite of this, Thailand has the largest number of organic farming entrepreneurs. Thai entrepreneurs are skilled in carrying out the organic agriculture project when compared to other ASEAN countries.

The Thai government has been interested in organic agriculture since 2001 and this type of agriculture was put on the policy statement and the national agenda in 2005. After that the First National Organic Agriculture Development Strategic Plan (2008-2011) was set, with the Office of the National Economic and Social Development Board (NESDB) as the coordinator and the Office of Agricultural Economics as the implementers of the second strategic plan.

Organic farming in Thailand started in 2001 when the government announced a policy that supported agriculturalists to produce organic food and to push Thailand to be at the forefront of producing organic products. At that time chemical fertilisers and oil prices were increasing, so the government thought of decreasing the production costs. The National Economic and Social Development Board was involved in organic farming from the beginning, and after a while it handed over the responsibility to the Ministry of Agriculture and Cooperatives.

Although organic agriculture has been placed in the national policy, it will be hard to implement such a policy if the government officials have a negative attitude toward it. In the initial stages, the Thai government officials concerned, especially those officials within the Department of Agriculture, did not believe that organic agriculture was practical. In contrast, they believed in the use of chemicals to increase production. At present, many officials who have launched the organic agriculture project have gradually gained better knowledge about it. Some have begun to change their attitude and turn to support organic agriculture. As for the private sector, many private organizations who have attempted to develop rural areas have not had a good background in agriculture. After they have worked

together with agriculturalists who are knowledgeable about organic agricultural practice through their real life experiences, they find organic agriculture good for health and the environment. Also, the agriculturalists themselves find that organic agriculture allows them to save costs, to be safe and to be able to continuously increase produce without the use of pesticides. Therefore, many parties have now been involved in the development of organic agriculture. The development plans in Thailand can be said to be carried out by officials from various departments, the private sector (private enterprises and private investors) and agriculturalists who act as operators or entrepreneurs.

Apart from private enterprises and public project implementers. NGOs have also played a significant role in the development of organic agriculture in Thailand since 1986. The alternative agriculture network was one of the pioneers in this area, At the beginning organic agriculture was opposed by many government officers but was supported by NGOs and local scholars, who played a major role in the development of traditional agriculture that led to organic agriculture.

The IFOAM, and the Alternative Agriculture Network and its partners are NGOs that collaborated in drafting standards for alternative agriculture in 1993, using standards from Europe, Canada, Australia and Japan as models. In 1993, the Green Net Cooperative and the inspection and accreditation agency for organic agriculture were founded and they established an organic standard agency (ACT) as an independent organization to certify organic farms in Thailand to enable organic products to be internationally recognized.

Currently, there are many certification agencies in the public and the private sectors in Thailand. Some are local agencies and others are from abroad. The latter have been accepted by consumers in their countries. They certify products in Thailand with a different verification process and procedures.

The results of the field survey on the progress, problems and restrictions in implementing the strategic plan for organic farming revealed that all the groups found that the overall progress was not quite satisfactory, although they had a positive attitude towards the policy and the plans. They said that the policy was good and beneficial to all stakeholders.

The results of the study included the 3 groups of variables. The first group was related to the public organizations concerned. The second group was concerned with the government officials as implementers and the third group was related to the farmers as production entrepreneurs.

The results from the study are shown below.

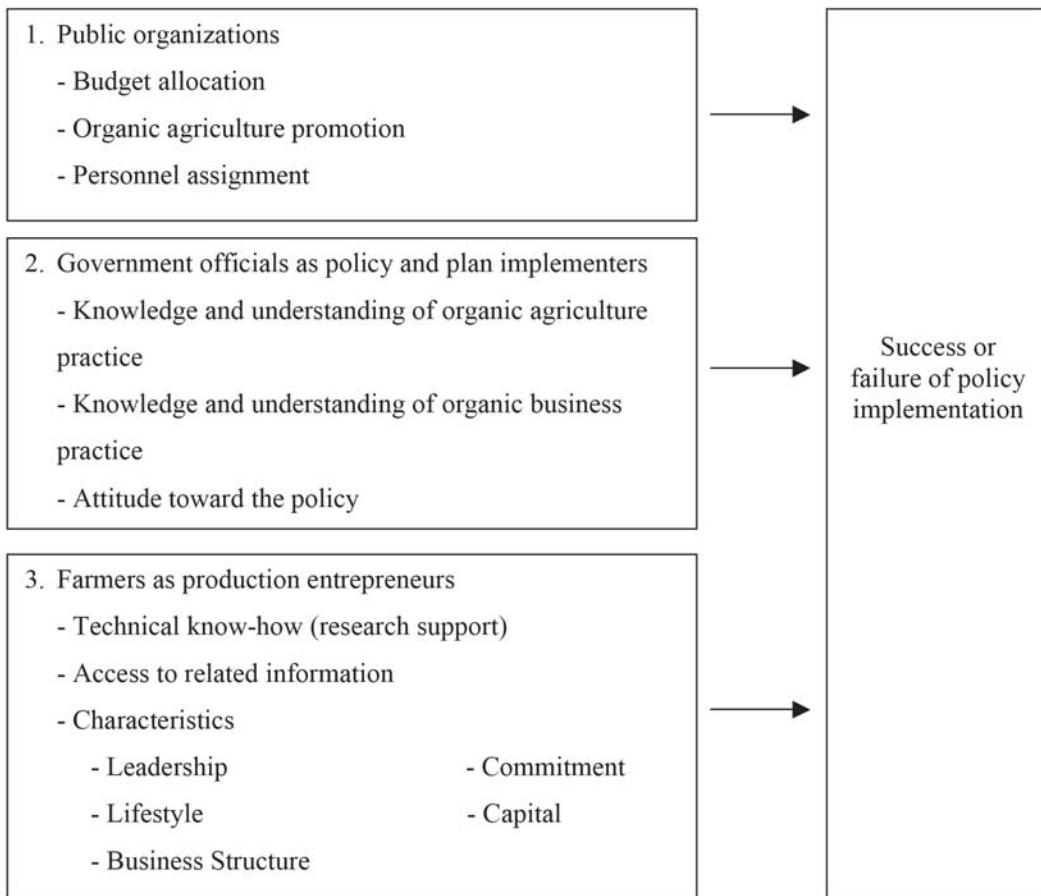


Figure 1: Results from the Study

Several problems on the part of the organic producers or production entrepreneurs were, for example, lack of research support, lack of knowledge and understanding of the practice, poor access to related information. They did not expect much from the strategic plan. They felt that the government lacked earnestness, interest, sincerity in promotion and sales or marketing support, and

that the government officials concerned did not have a good knowledge of organic farming, so they could not work efficiently.

The problems stated by the organic rice buyers were lack of research, lack of the government personnel who had a good knowledge and understanding of organic business structure, and poor operating budgets of the government agencies involved. Meanwhile, the organic agriculture certifying bodies were faced with the problem of organic product standards.

Most government officials agreed with the National Organic Agriculture Development Strategic Plan. They expected that the plan would be a way to promote organic farming and to enable various organizations to operate in the same direction. However, one major problem, according to the key informants from the government agencies, was no integrated work among the agencies involved. Since there was a problem of coordination among agencies about tasks that were not directly under their responsibility, the integration did not happen. Besides, there was a problem of continuity in the operation due to frequent transfer of the personnel, and inadequate operating budgets of the agencies involved, inadequate personnel, lack of modular operation, conflict with other government policies, and contributions of the policy, making the results of the policy implementation not as satisfactory as expected.

All the sub-groups in the civil society agreed that the benefits from the project did not reach all the stakeholders. They suggested that the government should adjust the way it thought and the way it worked and that strategic plans should be well defined so that benefits of the policy would go to all of those involved. The mechanisms that served the interest of foreign investors should be eliminated. Moreover, the government should assign the right government agencies to carry out different tasks. The budget should directly come from the government so that the success of organic agriculture could be measured in the same way.

Regarding the opinions on production entrepreneurs' leadership, commitment or obligation, pattern of life or lifestyle, business structure, and working capital all the five key informant groups agreed that the progress of policy implementation depended on all of the above five characteristics of production entrepreneurs.

The key informants thought that production entrepreneurs needed to have leadership skills, knowledge, courage, social responsibility for the environment and passion to do organic agriculture. Commitment, love and passion, for organic agriculture was very important. Without love and passion of the production entrepreneurs, engagement in organic agriculture would not last long. Production entrepreneurs needed to live a life style of self-sufficiency and adequacy, not regarding money as the priority. However, production entrepreneurs had to have enough working capital to use during the conversion period; otherwise, they could not practice organic farming for a long time. Finally, their business structure had to be in the form of networking in order to have enough supply of raw materials and distribution channels. All these characteristics were seen as crucial to the successful implementation of the organic farming policy.

The problems revealed by the key informants confirmed that public organizations' budget allocation, organic agriculture promotion, and personnel assignment, their knowledge and understanding of organic agriculture and organic business practice, government officials' attitude toward the policy, and production entrepreneurs' technical know-how and access to related information were important factors that influenced the success of organic agriculture policy implementation. Moreover, the characteristics of production entrepreneurs, i.e., leadership, commitment, lifestyle, capital, and business structure all affected the success of organic agriculture policy implementation.

## Discussion

No policy has no problems in implementation. With regard to problems and obstacles to the progress of implementing the first national organic agriculture policy and the strategic plan, one of the problems was that not enough support from public agencies concerned in terms of budget, research, technical know-how given to the farmers or production entrepreneurs. That is why production entrepreneurs stated that the government was not sincere in organic agriculture promotion. Public agencies did not put the right man on the right job. The officials already trained to have a good knowledge and understanding of organic agriculture transferred those already learning the work to other places, so there was lack of

continuity in operation. Most new officials assigned to carry out the project had a poor knowledge and understanding of organic agriculture and organic business practice. They used to be trained on chemical agriculture so they did not believe in organic agriculture, which gave lower yields. In other words, they had a negative attitude towards it. So they did not seriously implement the policy, making it unlikely to achieve the policy goal.

Many government officials concerned did not have a good attitude toward the organic farming policy partly because they had been trained on chemical agriculture. They were familiar to it. These official lacked a knowledge and understanding of organic farming. Previous governments also put chemical agriculture in the policy and promoted the use of chemicals. Therefore, they tend to disagree with the organic agriculture policy and did not gave good cooperation. However, they was a tendency for the attitude to be changed because some government official acquire knowledge on organic farming through reading and exchange knowledge with those involved in organic farming and found it was good for health and the environment.

Farmers as production entrepreneurs had poor technical know-how and there was lack of research support and poor access to related information. When they encountered production problems, they might feel discouraged and give up the practice. This could make the organic agriculture policy unsuccessful. Their leadership, commitment, lifestyle, capital and business structure were also attributed to the success of the policy implementation.

Farmers who do organic farming had to carry out work from the production to the distribution. Therefore, farming skills were not enough to be successful. One of the key characteristic of organic agricultural farmers was leadership. They had to play the role of pioneer. They had to have vision and did what others had not done before. This was in line with the concept of DuBrin (2004, pp. 33-45), that leadership consisted of “extroversion, assertiveness, emotional stability, enthusiasm, sense of humor, warmth, high tolerance for frustration, passion for the work and the people, emotional intelligence, flexibility and adaptability, and internal locus of control.”

Unlike farmers in the failure cases, farmers in the success cases in this study had self - confidence and courage to do what others would not do, which were the components of leadership. They experimented and committed themselves to the organic method. Some might be successful as they were close to some government officials, or they received assistance from the government agencies concerned that wanted them to serve as a model of how to do organic farming.

Organic farming required hard work so they had to commit themselves to the work. Successful farmers had to have love and passion in organic farming. They did not mind gaining less profit because they preferred good health. They were happy with leading a self-sufficient life.

Organic agriculture farmers had to play the role of both producer and entrepreneur. They needed to have working capital --financial and non-financial-- for survival during the conversion period and after that. That is why the business structure for organic agriculture was different from other businesses. Organic agriculture farmers needed to join the network in order to have an adequate supply of raw materials and to increase the distribution channels. They could not run business without dependence on others. They gained capital from being members of networks, enabling them to exchange knowledge, technology and resources and to acquire managerial skills. In short, to be successful, the production cycle had to be linked together, starting from production, processing, and transportation to sales in the market (selling together).

The concept of policy implementation is based on organizational theory, which focuses on the performance of the organization. For policy implementation to be successful, many factors must be considered. Only the nature of the public organizations concerned is not able to carry out the policy successfully in the modern world, which is highly dynamic. The attitude and ability of government officials concerned are also important. Like the findings of previous research on policy implementation (Pressman and Wildavsky, 1973; Van Meter and Van Horn, 1975; Larson, 1980; Mazmanian and Sabatier, 1989; Supachai Lorlowhakarn, 2007; Voradej Chandarasorn, 2009; Sombat Thamrongthanyawong, 2010), this study also found that the government officials concerned played an important role in the success of

policy implementation. There was poor coordination among government agencies because the government officials concerned disagreed with the policy. The finding was consistent with the result of the survey conducted by the Center for Applied Economics under the Faculty of Economics, Kasetsart University on monitoring and evaluation of the projects of the Strategic Plan for the Development of Organic Agriculture (2006-2009) and the First National Organic Agriculture Development Strategic Plan (2008-2011) of the Ministry of Agriculture and Cooperatives.

However, policy implementation by public organizations alone may not be able to achieve the goal without participation from other stakeholders. In implementing the organic agriculture policy successfully, the characteristics of organic agriculture farmers as production entrepreneurs were found to be the key success factors. The key informants in this study agreed that other success factors for the organic agriculture policy implementation than the attitude, ability, and cooperation of the government officials concerned were the production entrepreneur's leadership, commitment (including love and passion), the way of life, fund/capital, and business structure.

Thai agriculturists had experience in organic agriculture business for quite some time. Their experience came from engaging in their own businesses or hand-on experience. There were still number of agriculturalists who still lacked an understanding of the policy. This showed that the public sector lacked good communication with farmers or did not make use of the experience of the agriculturists.

## Conclusions

The method of production of organic products is different from the method of production of other products. It requires participation from all the sectors involved throughout the supply chain because the entrepreneurs must know everything from the upstream to the end of the downstream.

The problems, obstacles and restrictions of the implementation of the national organic agriculture policy and the strategic plan were the negative attitude of government officials concerned due to the lack of knowledge and understanding of organic agriculture and inadequate supports from the government. These problems need to be addressed before implementing the policy.

The factors related to the successful implementation of the organic agriculture policy were budget allocation, organic agriculture promotion, personnel assignment of public organizations concerned, government officials' knowledge and understanding of organic agriculture and business practice and attitude toward the policy, production entrepreneurs' technical know-how, access to related information, leadership, commitment, life style, capital and business structure. All these factors contributed to success in sustainable policy implementation.

## Recommendations

The data from those involved in the organic agriculture operation in Thailand contributed to a better understanding of organic agriculture policy implementation and better awareness of the problems in implementing the policy. Based on the results of the study, the researcher has made several suggestions so that the organic agriculture policy can be effectively and successfully implemented and the existing problems solved.

One problem they encountered was not having a particular agency directly responsible for organic agriculture, especially for communication and coordination among those in the same field. There was no common goal and there were not enough resources to use. Therefore, the researcher made the following recommendations:

There should be an agency directly responsible for organic agriculture. It can be either a new independent organization or at least a department directly reports to the Prime Minister so that problems can be solved. This organization should have full authority to solve problems and to coordinate with other agencies related to the process. In addition, an organic guideline should be set for the organic agriculture policy and implementation to move in the same direction. Organic agriculture should continuously put in the national policies, which must not be in conflict with each other. Moreover, funds for organic agriculture production should partly come from taxation of imported fertilizers and chemicals. On top of that, community organic agriculture markets should be established across the country so that the agriculturalists can distribute their products or can easily access consumers. The government should impose measures to motivate organic agriculture entrepreneurs to remain in business. Lastly, standards and criteria of

organic agriculture should be proper for the Thai context.

In the policy planning, an organic agriculture road map should be prepared by theorists and experts as a guideline for both short and long term practice taking available resources into consideration (both personnel and budget). Stakeholders should be allowed to participate in setting the administrative guidelines and in implementing the organic agriculture policy. All activities in the supply chain cycle, i.e., the production, processing, distribution, and transportation, should be improved. The marketing strategy should be prepared. A good image of organic products from Thailand should be built. Branding for organic agriculture of Thailand should be promoted.

### **Recommendations for Policy Implementation**

Base on the findings, the following were recommended.

1. To promote organic agriculture, the government should specify the organizations responsible for different tasks as follows.

1.1 Communities should act as both production and distribution sites. The communities should both produce and distribute organic products, without relying on the government mechanisms.

1.2 Educational institutions (e.g., schools and universities) and health - related institutions (e.g., hospitals) should act as distribution centers. Organic agriculture is seen to be simple, convenient and uncomplicated, so academic institutions, especially schools. Organic agriculture should put organic agriculture in the curriculums of all educational levels. They should teach students how to do organic agriculture so that they will familiarize themselves with cultivation methods or gain experience of organic agriculture. The general public should be given knowledge about organic agriculture as well as the production cycle.

For the policy implementation to be successful, the knowledge of organic agriculture should also be provided for consumers because they receive benefits from the support of organic products and for those that have implemented the policy in the community so that there will be more demand for organic products.

1.3 Government officials should be trained for a better knowledge and understanding of organic agriculture which may fine tune their attitude toward the policy.

2. Instead of having individual public organizations grant research funds, the government should promote and directly give more financial support for research on organic agriculture in the Thai context.

3. Projects related to organic agriculture developed by public and private organizations should be given an opportunity to request for government funds so that smaller agriculturists and SMEs can have access to the fund source.

4. Farmers should be train on technical know-how and easy to access to related information and research results.

### **Recommendations for Future Research**

Studies in the field of organic agriculture in Thailand have been limited in number; therefore, future research should focus on successful organic agriculture in various countries so as to adapt their experience to the Thai context. Moreover, research should be conducted on organic agriculture investment and capital, both monetary and non-monetary. Other aspects that need exploration are procedures or projects related to financing organic agriculture, knowledge of organic agriculture, the formation and transfer of organic agriculture knowledge, and integration of information. Also, research on the production, transportation, processing (manufacturing organic product) and packaging, public relations and marketing in organic agriculture should be studied, as well. Both quantitative and qualitative methods should be used with emphasis on agriculturalists in the Thai context so that the results of the research can be utilized in the development of organic farming in Thailand.

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