

The Government Policy on the Organic Rice Farming Groups Embracing Sustainable Agricultural Production: Evidence in Thailand

Somnuek Panyasing

Department of Public Administration, Faculty of Humanities and Social Sciences, Khon Kaen University, Thailand

Sekson Yongvanit

Department of Public Administration, Faculty of Humanities and Social Sciences, Khon Kaen University, Thailand
Email: sekvon@kku.ac.th (Corresponding Author)

Eko Priyo Purnomo

Department of Government Affairs and Administration, Jusuf Kalla School of Government, Universitas Muhammadiyah Yogyakarta, Indonesia

Sukanya Aim Im Tham

Department of Public Administration, Faculty of Humanities and Social Sciences, Khon Kaen University, Thailand

Implementing an organic farming policy at the national level significantly drives and fosters sustainable agricultural production. However, it also creates crucial problems in promoting and sustaining organic rice farming groups at the provincial level. The mentioned case studies of certified organic rice groups indicate great potential, which can be enriched from organic rice farming by embracing environmentally friendly production. They produce high-quality organic rice, which can be certified to international standards. This article aims to illustrate the government policy and how it can be compatible with provincial policy and strategies relating to organic rice farming groups. The government policies related to a large-scale farming model are one million rai (160,000 hectares) of organic rice production. However, there is a discontinuity in the policy, which affects the strengthening and potential of the rice groups as the organic rice farming model of the country.

Key words: Government Policy, Organic Rice Farming Groups, Sustainable Agricultural Production

1. INTRODUCTION

Many countries in the Asia region continue to rely on agricultural products as a primary source of income for the farmers who comprise the majority of the population in their countries (Kerdsriseam & Suwanmaneepong, 2015; Saengchaia, Mitprasartb, & Jermstittiparsertc, 2019; Somjai, Chankoson, & Jermstittiparsert, 2020). Regarding rice production, India, Vietnam, and Thailand are the top three exporting nations in the world (Worldwide; US Department of Agriculture; 2021/2022). In addition, the authorities and civil society organizations in ASEAN nations have enacted more concrete policies, over the last decade, toward promoting sustainable agricultural production to encourage and support sustainable agricultural practices. These countries include Indonesia, the Philippines, Vietnam, and Thailand. These policies are advantageous to the health of farmers, consumers, and the environment and promote an understanding of climate change and sustainable development goals. For a comparison of the agricultural practices of Thailand and Vietnam, Thailand has a total agricultural area of 160,802 hectares. The organic farming area, as a percentage of the total agricultural area, is 0.7 percent, while the number of organic producers is 96,673, and they export to the EU and USA a total of 39,673 metric tons [MT].

Vietnam has a total agricultural area of 63,536 hectares. The organic farming area, as a percentage of the total agricultural area, is 0.5 percent. The number of organic producers is 17,174, who export to the EU and USA a total of 14,109 metric tons [MT]. (Research Institute of Organic Agriculture FiBL and IFOAM, 2022). In addition, the statistics on organic agriculture and world food for the year 2021 indicate that Thailand's share of land under organic agriculture, as a percentage of total agricultural land, increased during the period 2005 to 2019, as follows: 0.1

(2005), 0.2 (2010), 0.2 (2014), 0.2 (2015), 0.3 (2016), 0.4 (2017), 0.4 (2018), and 0.9 (2019) Hérique and Faysse (2021) In Thailand, rice is an agricultural product which government organizations, NGOs and organic farming groups cooperate in the development of the production process to achieve good agriculture practices (GAP). The high quality of organic rice production is certified by foreign certification bodies or the Organic Agriculture Certification Thailand (ACT), a non-profit foundation. The Rice Department and Department of Agricultural Extension under the Ministry of Agriculture and Cooperatives are also developing and promoting new varieties of healthy rice incorporating certified organic rice for international export. Consumer groups are increasingly becoming health aware (Kerdsriseam & Suwanmaneepong, 2015; Raynolds, 2004; Scialabba, 2000).

From 2004 to 2016, Thailand observed a change in the amount of land used for certified organic rice growing compared to the total area used to cultivate all other certified organic crops. The data is displayed in the graph below (Hérique & Faysse, 2021). The overview of Thai government policies related to sustainable agriculture is as follows: Before 2006, the Thai government did not have any specific policies and programs regarding organic agriculture. There were several 'piece-meal' projects and programs that would typically last just that would last for a year or two. The first large-scale project was the Pilot Project on Sustainable Agriculture for Small-Scale Producers. The government approved a budget of US\$ 15.8 million (633 million baht) to support the Sustainable Agriculture ' Foundation's 3-year program to strengthen and improve the sustainable agriculture development of 3,500 families. Another notable project was the National ' Agenda's Organic Agriculture scheme, which was

approved in October 2005. This 5-year program aimed to support 4.25 million farmers using organic inputs to replace agro-chemicals. It covered an area of 13.6 million ha, reduced total agro-chemical imports by 50%, and

boosted organic exports by 100% annually (Raynolds, 2004; Shiferaw, Okello, & Reddy, 2009; Yanakittkul & Aungvaravong, 2020).

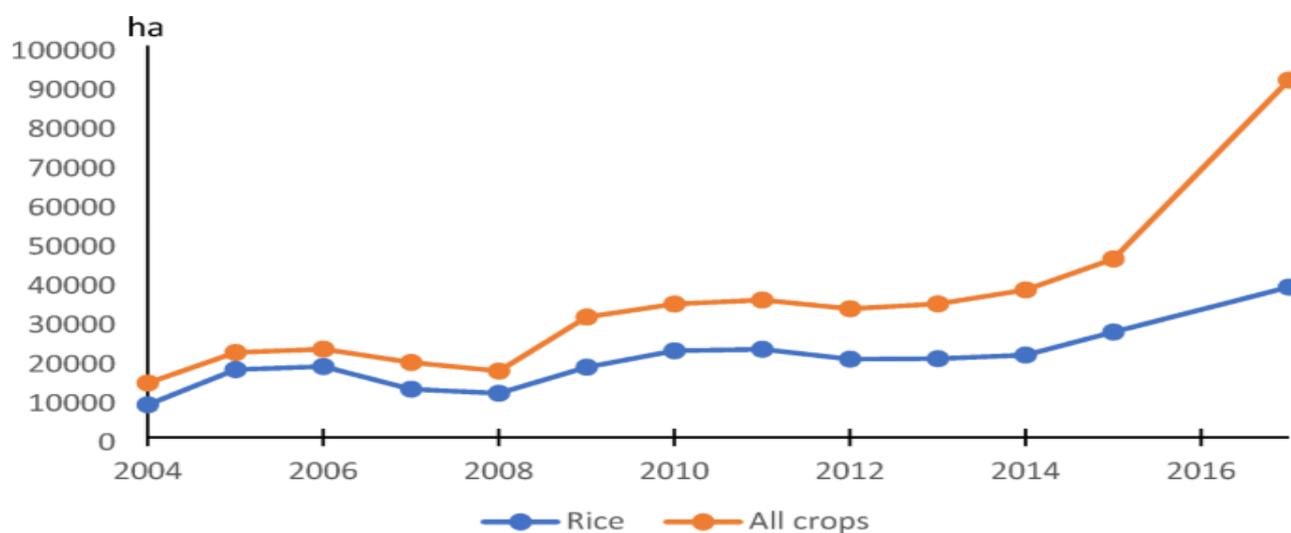


Figure 1: Changes in the amount of land used to grow certified organic rice (blue curve) compared with land used to grow all certified organic crops (orange curve) in (Kerdsriseam & Suwanmaneepong, 2015)

A more comprehensive program to promote organic agriculture and businesses began

in 2007 with the appointment of the National Organic Development Strategic Committee. This comprised representatives from relevant government agencies, some from the private sector, and farmers. The Committee, with support from the National Economic and Social Development Board, was tasked to draft the National Organic Development Strategic Plan. Approved by the cabinet in early 2008, the First Strategic Plan (2008 – 2011) consisted of 4 main development strategies, i.e., strengthening knowledge and innovation, traditional organic farming, developing commercial organic agriculture, and management and coordination in moving forward with organic agriculture development. Once the First Strategic Plan was approved, a corresponding National Organic Development Action Plan was developed by several agencies within the Ministry of Agriculture and Cooperatives, Ministry of Industry, Ministry of Commerce, and the NESDB. The plan was to spend 4,826.80 million baht (USD 145.56 million) on 104 projects during the next four years. This Action Plan was also quickly approved by the cabinet (Kerdnoi, Prabudhanitisarn, Sangawongse, Prapamontol, & Santasup, 2014; Little, Skladany, & Rode, 1987; Meenan, Coronado, Petrik, & Green, 2019).

Before the closing of the First Strategic and the Action Plan in 2011, the cabinet decided to change the secretary of the National Organic Development Strategic Committee to the Office of Agricultural Economics, Ministry of Agriculture and Cooperatives. Since then, they have been responsible for drafting the Second Strategic Plan. There

were also concerns about the effectiveness of the projects implemented by the government agencies under the First National Organic Development Action Plan. For instance, the study by Green Net (Panyakul, 2013) reviewing a total of 1.75 million farmers trained by government agencies under the plan (or approximate 34% of farming families in Thailand) and the report by the Land Development Department shows that 2.55 million farmers had been trained in the use of organic fertilizers to replace chemical fertilizers. However, the statistics show that the import of chemical fertilizers continued to increase from 5.172 million tons in 2010 to 5.579 and 5.583 million tons in 2011 and 2012. (Meenan et al., 2019)

Further to the government policy on organic rice production, there was a continuation of the 2008-2011 National Organic Agriculture Development Strategic Plan No.1. This plan aimed to enhance both the farmers' and consumers' quality of life through food security, revenue generation, and farmer poverty reduction (Board & D, 2008; Suwanmaneepong, Kerdsriserm, Lepcha, Cavite, & Llonas, 2020). Consequently, agricultural production practices have shifted toward more environmentally friendly, resulting in sustainable development and increasing the competitiveness of organic agricultural products. Furthermore, strengthening the network and connecting the entire system assists in developing Thailand into a regional production center for organic agricultural products (Jones & Pimdee, 2017). In 2017, the cabinet approved the National Organic Agriculture Development Strategy No.2 for 2017-2021. The goal was to expand the area and production of organic products to increase the level of organic trade and consumption within the country (Raynolds, 2004). It aims to provide certified

organic products that adhere to domestic and international consumer standards. Moreover, it was hoped to establish Thailand as a global center for organic agricultural products and services and foster knowledge and innovation relating to organic agriculture, which would achieve global acceptance. In 2019, a workshop was held to discuss a review of the National Organic Agriculture Strategy No.2 and the requirements for planning an Organic Agriculture Action Plan consistent with the 20-year national strategy (2017-2036) (Laohaudomchok et al., 2020).

Previous government policies were aimed at moving towards safe agriculture (Good Agriculture Practice: GAP) and organic farming Zf, Yunsheng, and Shedeed (2018), which included a policy for large-scale farming promotion in 2016 (Chen, Jaenicke, Yan, Tian, & Nayga, 2021). Later, during 2017-2021, the government implemented a policy promoting organic agriculture Sudrajat, Rahayu, and Supriyadi (2018) to achieve a total area of one million rai of organic rice production. The Ministry of Agriculture and Cooperatives implemented numerous measures and projects, in collaboration with the Ministry of Commerce, to promote products and improve the quality of organic rice and its marketing to meet the standard of 'Organic Thailand.' This required quality promotion, preparation, and production by the Thai farmers that would adhere to international organic standards (Kaeomuangmoon et al., 2019).

2. Literature review

This scoping review synthesizes the literature on *government policy in sustainable agriculture* and production, organic rice farming production, and the promotion of organic rice farming as follows:

Kerdnoi et al. (2014) found that the agrochemical-based commercial rice regime had become a dominant socio-technical regime comprising; interwoven power of commercialized agro-businesses, markets, industry, technology, and Thai cultural dimensions. Furthermore, as government policy responded to the increasing landscape changes, it simultaneously created barriers to organic rice production. The development of organic rice as a niche experiment was partly due to landscape changes and NGOs, farmers, and academic leaders often reacting to the negative impacts of agrochemical-based commercial rice. This in-depth study has found that if intensive promotion is applied, organic rice could become quite successful in production and marketing. Its expansion has been minimal due to government regulations and policies and low business support. Therefore, there have been limitations in the up-scaling of such experiments. Thus more serious attempts are needed to overcome resistance from the dominant regimes rather than focusing on the farm level.

Additionally Shiferaw et al. (2009) stated government assistance in support and enabling policies is required to encourage smallholder producers to adopt organic agriculture. Allowing smallholder farmers to practice organic agriculture alone may jeopardize their livelihoods, reducing their motivation to pursue this path. As a result,

the local government's role is to mitigate the risks faced by smallholder producers. Local governments are interested in promoting organic agriculture to meet the required development goals of health, nutrition, poverty alleviation, and sustainability (Dhiman, 2020; Phoochinda, 2018). Furthermore, the local governments may exercise their authority to ensure that incentives for organic agriculture adoption exist.

Elmore (1979) described how numerous governments had implemented development and problem-solving policies over time but were frequently inconsistent. Specific government actions have created more problems than they solve, as they are unsustainable and politically motivated. This has harmed the country's economy, lowered the price of rice, and eventually escalated into political conflict. Administrations attempted to increase organic rice production but encountered difficulties with investment capital and the market. Consequently, consumers assumed organic rice was more expensive than rice grown with chemicals.

Additionally, organic rice production requires commitment, vigilance, and knowledge of homemade or purchased bio-fertilizers. Most rice farmers used chemicals, indicating they were quick, easy, and convenient. This increased their work efficiency and enabled them to compete with their peers in the same market. There were greater returns, but there were also higher costs. According to Sudrajat et al. (2018), institutional influence is critical for developing organic rice farming, particularly for developing science by researchers. Research on the efficiency of organic rice farming, in conjunction with agribusiness and rural economic development, is of particular interest (Adenle, Manning, & Azadi, 2017). The government must provide facilities and infrastructure to support the growth of organic agriculture, particularly in terms of the costs incurred by farmers. The government may assist smallholders or peasants in achieving economic independence while improving their welfare and living standards through policies that benefit them. (Yanakittkul & Aungvaravong, 2020) also argued that government policy support is adequate when it addresses small-scale farmers lacking farming knowledge, equipment, technology, and financial resources. Organic farming is critical for smallholder farmers.

Therefore, the farmers need awareness of the issues as follows: Government policy should support 1) irrigation efforts for organic rice farming, e.g., digging ponds, wells, and pumping stations, 2) certification of prices for organic rice, 3) organic rice exports, 4) production equipment acquisition, e.g., seed, organic fertilizer, and organic rice mills, 5) low-interest loans for organic rice farmers; 6) assistance for farmers to certify organic rice standards, and 7) cultivation knowledge and techniques to increase the productivity of organic rice farming. Finally, if farmers evaluate government policy's support as favorable toward organic rice, they will endeavor to pursue it.

Akram-Lodhi (2005) found that at present, Vietnam's agriculture has great potential, and the country can be enriched by it. However, wastage and losses in agriculture are still too high in processing, harvesting, and preserving. Mechanization levels are still not high, lower than in Thailand, so agricultural labor productivity is depressed. Over the past years, Vietnam's agriculture has significantly contributed to the development of the nation's economy (Purnomo, Ramdani, Agustiyara, Tomaro, & Samidjo, 2019; Purnomo, Ramdani, Salsabila, & Choi, 2020). However, to achieve higher goals over the next decade, Vietnam's agriculture must leverage its strengths, including fully implementing land policies in agriculture; developing high-quality human resources; developing credible agriculture that is clean, safe, high-quality, and organic; and protecting the natural environment, including land, climate, weather, and hydrology. While studying organic rice farming promotion in Thailand, Hérique and Faysse (2021) analyzed a 4-year program promoting organic farming in Thailand in 2017. The program was aimed at converting 160,000 ha to the production of certified organic rice, representing a five-fold increase. The training was provided, along with subsidies to farmers and applications for certification that was free of charge. The process through which farmers collectively shifted to organic farming involved requirements that were generally accessible to them. In terms of the land area registered in the program, the objective was rapidly reached. However, the program used a national standard that is not widely accepted abroad. There were weaknesses in the inspections made as part of the certification process, and the price premium received by farmers was lower than initially expected. Farmers who considered profitability important received no support in

obtaining certificates from other organic standards agencies, which could help them obtain higher premium prices. Whether these farmers will continue to practice organic farming once the program ends are thus questionable.

3. Research Methodology

This study used qualitative research methods to understand better Thai government policies in driving and fostering sustainable agricultural production. The four case studies were selected as study areas of certified organic rice farming groups in Yasothon province, Thailand. In-depth interviews were used with the head of government officers of the Provincial Agriculture and Cooperatives Administration, Provincial Commercial Administration, and other resource persons, including the rice mill business sector and non-government organizations. The primary data were collected from four organic rice farming group members using semi-structured interviews and participant observation. A Focus group was used to explore the opinions and concerns of certified organic rice farming group committee members regarding the government policies on organic rice farming. In addition, it was necessary to conduct a secondary data review and other online data to bolster the research findings.

Therefore, this study examined the government policies related to a large-scale farming model and one million rai (160,000 hectares) of organic rice production. The four certified organic rice farming groups consisted of Na So, Kut Chum District, the Farmers Group of Bak Ruea, Maha Chana Chai District, Nam Om Community Enterprise Network, Kho Wang District, and Ban Non-Sai Ngam Community Enterprise Group, Mueang District.

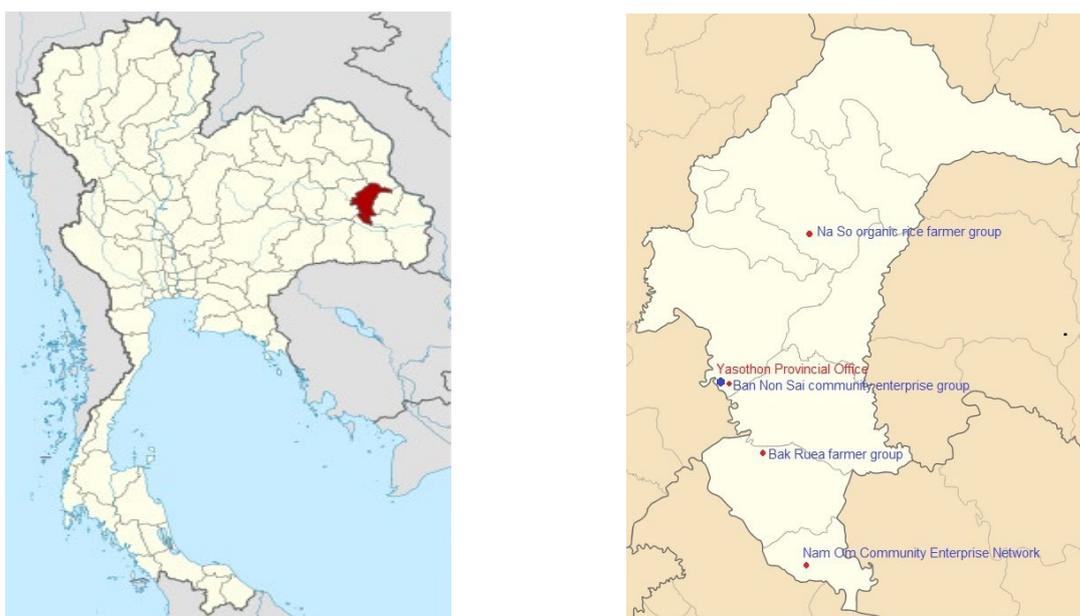


Figure 2: The Study Areas of Four Certified Organic Rice Farming Groups, Yasothon, Thailand

4. Research Results

4.1 Implementation of Critical Government Policies Affecting Organic Rice Farming

4.1.1 Large-scale Farming Promotion Policy

Since 2015, the Rice Department, under the Ministry of Agriculture and Cooperatives, has been the primary agency responsible for promoting large-scale farming. The primary objective of this policy is to encourage farmers to collaborate in agriculture and manage themselves cooperatively by combining their production and distribution. This strategy enables member farmers to lower production costs and increase their per-rai productivity. Included in this is the incorporation of agricultural technology into the farming process. Consequently, agricultural machinery has been critical in assisting farmers in resolving the issue of the sector's shortage of labor. Due to the majority of the agriculture sector labor force being elderly, production management costs are high. However, another significant issue is that agricultural machines are frequently costly, so the farmers merged to manage their large-scale agricultural production. This was regularly and continuously encouraged by the government, for example, through the assistance of the Rice Research Center, the Provincial Agriculture and Cooperatives Administration, Provincial Commercial Administration, and other agencies.

There is also support from the government's large-scale farming promotion policy for providing technically advanced agricultural machinery and equipment. This research discovered that one of the organic farming groups targeted was encouraged to acquire agricultural machinery in the form of combine harvesters. This was possible as the group has a large membership, having previously been merged with another group, so they can manage by collecting service fees from members. Consequently, they can handle the expenses associated with consumables, such as fuel, machine maintenance, and wages for harvesting truck drivers. However, a small group of members still have production equipment. They do not wish to bear the burden of managing large machines, both now and in the future, due to fears concerning hidden costs associated with maintaining those machines. The farmers in this group continue to harvest their crops with the assistance of their family members or by employing contract harvesters. Only manual labor is required for the farmers wishing to use a field as a seed collection plot.

In summary, the government policy on large-scale farming promotion benefits those farmers wishing to collaborate in large-scale organic farming groups. Group members would agree to accept assistance for agricultural machinery to resolve production management issues, most notably labor shortages, in exchange for bearing a portion of the combined harvester's operating costs. The government made no financial contribution to the policy regarding large plots. Additionally, on-farm data gathering by the responsible governmental units is used solely to determine academic support for farm management and to procure agricultural machinery. The farm management

advice aims to improve farming 'groups' production efficiency and competitiveness by reducing production costs, increasing yields, and aligning environmentally friendly production with market demand.

4.2 The Government Policy to Achieve One Million Rai (160,000 Hectares) of Organic Rice Production

Additionally, known as the "policy to promote organic rice production of 1 million rai within three years (2017-2021)," the policy's objective was to encourage farmer groups to produce organic rice following the Ministry of Agriculture and Cooperatives' standards. By 2021, the goal is to promote organic rice production by farmers on a 1 million rai scale. The following schedule was established by dividing the target area for promoting new organic rice production into annual segments. In the first year, 2017, 300,000 rai were allocated, followed by 300,000 rai in the second year, 2018, and 400,000 rai in the third year, 2019. Compensation for participating farmers' income was used to implement the policy. There was a subsidy to compensate farmers for lower yields during the initial stages of their organic rice production, which would run continuously for three years, with compensation capped at 15 rai per person. Farmers who passed the preparation assessment (T1) received 2,000 baht per rai, farmers who passed the adjustment period assessment (T2) received 3,000 baht per rai, and farmers who met the organic rice production standard (T3) received 4,000 baht per rai (Little et al., 1987).

The government above policy affected the study of four certified organic farmer groups. Each organic farmer group's membership decreased as members resigned to join the government's organic rice production policy. The primary motivating factor was the annual subsidies paid to farmers who participated in state-sponsored projects. Initially, this group of farmers farmed organically and several divided their land to participate in the policy. However, farmers perceived that the policy may still be lacking regarding organic farming expansion. As a result of government policy, certain former organic farmer group members divided their organic farming areas into smaller plots and registered for the government project using their spouses' names.

Although the government hoped to attract new farmers to the project to increase organic jasmine rice yields through an increase in the planted area, some farmers joined 'en masse.' However, because their land had previously been used for organic farming, the total area of organically farmed land increased only slightly due to the addition of the 'genuine new farmers.' Farmers who had previously resigned from organic farming groups would be ineligible to participate in government-funded projects.

The study discovered that most organic farmers remained in their group for many years because they were members of the organic farming program. Organic jasmine rice was always priced competitively. Each organic farming group's

practices concerning this government policy are unique, so organic farmer groups' members are not required to resign their membership. They can, however, choose between two approaches: organic farming that adheres to group standards or organic farming that adheres to government policy. In this case, the organic farmers group must continue accepting such members. This may conflict with the government's policy of expanding organic rice cultivation, as it includes land that was previously organically farmed before joining the government's policy, resulting in a conflation of old and new organic rice cultivation areas.

A focus group discussion with research target groups comprised of the Organic Farmers Group Chairperson and group members. Additionally, it was determined that the policy to promote organic rice fields covering one million rai is a good policy that can contribute to the reduction of chemical use in the fields as it leaves no harmful residues for consumers and is beneficial to rice farmers' health and is suitable for the environment. However, the government policy of encouraging farmer groups to grow organic rice under the organic rice standard established by the Ministry of Agriculture and Cooperatives may fall short of its objectives due to insufficiently thorough and effective inspection by government officials. As a result, it does not affect the price of organic or conventional rice production because general rice mills purchase rice products and may mix the organic and conventional rice produced by farmers, thereby lowering the price of domestic rice. This is because total rice production exceeds consumer demand in the domestic market. This hurts the quality of organic rice mixed with conventional rice, as it will be unable to be exported to foreign countries due to its lack of international certification.

In the case of organic rice farming groups cooperating for more than a decade, it was discovered that members who maintain ties to the organic farmer group maintain a level of stability and determination in organic rice farming without being directly affected by the organic rice price problem. This is because organic farmers can export their organic products to international markets. They sell their certified organic rice through Green Net (a social enterprise that promotes organic living and fair trade) and some export rice trading companies, relying on their international standard certificates.

However, additional issues exist today, such as the issue that organic farmer groups face due to the Coronavirus-2019 epidemic, which has resulted in widespread problems with the logistics management system used to transport goods. Public health measures have reduced transport services, which have social and economic consequences. Numerous international purchasers of organic jasmine rice have postponed their purchases. However, due to their superior product quality, these organic rice farming groups are still certified by international standards. As a result, foreign buyers and niche markets continue to prefer it. Consequently, these organic farming groups are self-

sufficient. Additionally, the four distinct groups of organic farmers face similar challenges in developing and maintaining organic jasmine rice production under international standards.

The government policy of expanding rice fields by one million rai impacts group members, particularly those who joined more recently, such as second or younger generation members who inherited organic rice cultivation from their parents. Those unable to meet the group's standards resigned to comply with government policy and were expected to receive compensation for income earned from organic production by state standards for members of organic farming organizations. To rejoin the group, they must monitor and evaluate certification standards as new organic farming members do. This process could take up to two years before the group can certify organic rice production to international standards. This has a natural effect on the price of domestic organic rice. The government policy of expanding organic rice fields to one million rai may result in an oversupply of organic rice on the domestic market, lowering the price of all rice. The organic rice farming groups maintain high confidence in the foreign and niche markets. If the situation surrounding the coronavirus disease 2019 epidemic improves, the market will recover as orders resume.

The government policy of increasing organic rice cultivation to one million rai has had no direct effect on the market or rice prices. Organic farmer groups hold certificates certifying that their rice is produced organically and to international standards. However, some may have reservations about government-mandated manufacturing standards. There may also be an indirect effect on organic jasmine rice production by organic farming groups, but the export standards for organic rice will remain unchanged. Without a doubt, there will be intense scrutiny. The group upholds certification and consumer confidence in authentic organic jasmine rice by believing in the production process and the integrity of the group. This will include assistance, promotion, and encouragement from local government agencies, individuals, and organizations dedicated to nature and environmental conservation.

4.3 Organic Rice Farming Gr0ups in Yasothon Province, Thailand: Lessons Learned

4.3.1 The History of Four Groups of Certified Organic Rice Farmers:

The Farmers Group of Na So, Kut Chum District was formed in 1976 in response to the community's agricultural needs. There was a need to enhance and alter agricultural production patterns to foster the development of more sustainable agriculture that is both environmentally friendly and beneficial to farmers, producers, and consumers. This can be accomplished using various crop production techniques and avoiding chemicals. Farmers in the area can achieve self-sufficiency and mutual assistance through a group process of education and problem solving within the community while adhering to basic working

principles based on local customs and traditions. Another critical component of the farmer group process is member dialogue and discussion to mobilize opinions and foster collaboration on activities to resolve environmental health concerns associated with agricultural crop production.

The Bak Ruea Farmers Group was founded in 1976 in Maha Chana Chai District for agricultural promotion and the sale of chemical fertilizers to member farmers. However, the business ceased operations shortly after that due to its inability to collect money due to destructive debt issues. Later that year, in 1981, funds raised by members for fertilizer were used to rehabilitate the business and continue to sell chemical fertilizers to its members as before. In 1987, a farmer cooperative began purchasing paddy from its members to sell to general rice mills. In 1998, the village's farmers established a small rice mill. Later that year, the group members received funding for the construction of the rice mill from government agencies. Non-governmental organizations began encouraging farmers to use fewer agro-chemicals in rice cultivation in 2006 and partnered with Green Net to produce organic rice. Green Net is a social enterprise dedicated to organic agriculture and fair trade. It is divided into two divisions: Green Net cooperative and Earth Net Foundation (Scialabba, 2000; Sudrajat et al., 2018).

Nam Om Community Enterprise Network, Kho Wang District, was established officially in 1999 and joined fair trade in 2004. In 2009, the group was registered as a community enterprise and renamed Nam Om Community Enterprise Network from Sustainable Agriculture Group at Nam Om Sub-district. The early stages of organic farming were defined by farmer membership. They share a common objective of reducing production costs and improving the soil quality in rice fields while preserving the area's natural resources. These actions have resulted in a slight increase in productivity. However, early on, the community enterprise groups placed little emphasis on productivity or diversification of operations. Nonetheless, it benefited the market by enabling an increase in both the quality and price of produce. This project strengthened the farmers' groups' capacity to develop sustainable agriculture through collaboration with three partners: the Department of Agricultural Extension, the Ministry of Agriculture and Village Foundation, and the United Nations Development Program (UNDP), all of whom work with the organic farmer groups to produce and sell jasmine rice that meets EU export standards.

In 2012, the group received a loan of 4 million baht from the Bank for Agriculture and Agricultural Cooperatives, Kho Wang Branch, to expand the standard of production of organic jasmine rice for export and lead to the group having working capital of at least 50 million baht in the same year. Nam Om Community Enterprise Network is a thriving organic jasmine rice production operation. They have a factory to package organic rice and have registered the trademark "Kwannam-Om" with the Department of Intellectual Property. They have expanded their standard

production source into organic rice production for the overseas market.

In 2015 the group collaborated with the organic rice farming groups in Surin, Buriram, Sisaket, Yasothon, and Amnat Charoen to form a cooperative partnership among the five provinces. They now work together and are registered as organic rice exporting farmer's cooperative under the name "Isan Thai Organic Company Limited."

The Ban Non-Sai Ngam Community Enterprise Group, Mueang District, is now aware of the value of rice and the virtue of undertaking organic rice farming. This group was initially affiliated with the organic rice farming group at Pa Tiu District, but due to their proximity and the fact that many members were of advanced years, traveling to meet and participate in group activities became troublesome. As a result, they parted and formed a new group. However, they remain allies and share their experiences. By 2013, it had become clear that this group was dedicated to producing organic, safe, and non-toxic jasmine rice. The group has achieved certification to national and international standards, specifically Organic Agriculture Certification in Thailand, as well as the EU Program and the COR Program internationally.

The group's work is guided by moral principles and finds strength through the coexistence of its brothers and sisters within a pleasant working environment. They maintain unity and cooperation among themselves while being truthful with their consumers. To cultivate high-quality organic fragrant rice, they work following natural principles and within the community environment. This includes developing and exchanging organic farming knowledge and experience between members and network partners. The group also operates as a location for those interested in studying and visiting their organic farming practices.

4.4 The Provincial Policies and Strategies for Organic Farming Development Related to Certified Organic Rice Farming Groups in Yasothon Province.

Yasothon Province has a policy and objectives for continuously developing the province into an organic agricultural area. Former and current governors and local government agencies have supported and promoted organic rice farming. Yasothon's development goals were established in the Yasothon Provincial Development Plan 2018-2022 as an "organic agriculture province and a province of northeastern ways of life" (Yasothon Provincial Development Plan 2018-2022). The aim is to promote and develop the potential for agricultural resource management to become organic and safe agriculture with a higher added value and minimal impact on the environment. The Provincial Agriculture and Cooperatives Office and the Office of Provincial Commercial Affairs play a critical role in driving policy and achieving development goals with the groups of farmers engaged in organic rice farming. In Yasothon province, there is a working group for the development of organic agriculture. It incorporates work on guidelines for promoting organic agriculture development in

the province to ensure its sustainability. It collaborates with organic rice farming groups in connection with the organic rice market and certificates of Yasothon Province's

international organic farming standards to export organic rice to other countries.

Table 1: Demonstrating Production Potential of Certified Organic Rice Farming Groups

Farmer groups	Cultivated area (rai)	Group members	Certified organic standards	Marketing information	Sales (1,000 THB/year)		
					2018	2019	2020
Farmers Group of Na So, Kut Chum District	7,252	585	Organic Agriculture Certification Thailand (ACT), EU, COR	Domestic market 20%, International market 80 % by exporting to EU : Germany, Sweden, Italy Online market 1 ton per year Modern trade market Local shop	6,838	13,000	3,434
Bak Ruea Farmers Group, Maha Chana Chai District	3,235	211	IFOAM, EU, Canada	Domestic market 30%, International market 70 % Online market 1 ton per year	10,000	4,000	400
Nam Om Community Enterprise Network, Kho Wang District	18,351	863	CERES, USDA, NOP, G1 Organic FairTrade, GL, EU	Domestic market 20%, International market 80 % Online market 3 tons per year Modern trade market Local shop	54,510 5	4,000	400
Ban Non-Sai Ngam Community Enterprise Group, Mueang District	1,568	61	Organic Agriculture Certification Thailand (ACT), EU, COR	Domestic market 80%, International market 20 % by exporting to Africa Online market 1 ton per year Modern trade market Local shop	1,000	1,100	1,120

Source: Marketing information of organic rice farming groups (Yasothon Provincial Commercial Office)

It also promotes the processing of and value addition to organic raw materials while enhancing and producing research work that contributes to and validates the improvement and achievement of organic rice farming. It promotes and assists farmers or groups of farmers in producing organic fertilizers for household use and provides guidelines for promoting and assisting farmers or groups of farmers participating in the 1 million rai organic rice policy and project. It assists in maintaining agricultural product standards of production in the organic farming system after projects conclude, including offering guidelines for determining the average price for organic paddy at a minimum based on the type of rice (Kerdnoi et al., 2014). It aims to entice farmers to sell their goods at a premium. This is because consumers believe that high-quality produce is also more beneficial to health.

Long-term implementation of organic agriculture policy is under Yasothon Province's vision of "Yasothon organic agriculture city and Isan (northeastern region) ways of life," which led to an agriculture development project memorandum of cooperation between Yasothon Province and the Ministry of Agriculture and Cooperatives on January 29, 2016 (Broad & Cavanagh, 2012). Yasothon Province was designated as the country's model for organic agriculture. The province's organic agriculture policies and strategies are being implemented proactively by allowing groups of organic farmers to participate in meetings and decision-making. If a new governor is transferred, farmers' groups and farmer networks will organize themselves and travel to greet the new governor, using the occasion to discuss policies, issues, and guidelines for sustainable development of organic jasmine rice and crop cultivation

after the rice harvesting season. Additionally, the Yasothon Way of Organic Agriculture Day is held annually at the provincial level. The day is aimed at public relations, recruitment of new organic farmers, and activities organized at the Yasothon Organic Market for invited private sector partners who purchase and export organic jasmine rice, among other things.

Policy implementation at the provincial level is undertaken by the relevant agencies, for which the Provincial Agriculture and Cooperatives office is the primary agency working with organic farming groups. The Provincial Commercial Affairs office, Provincial Industrial office, and the Provincial office of Community Development organize and implement projects to assist and develop the 'farmers' potential in organic agriculture and the academic field of group management (Pattanapant & Shivakoti, 2009). They assist in coordinating with the central and provincial governments to support the agricultural equipment budget, for example, in purchasing a rice milling machine, rice drying fields, paddy storage sheds, rice color sorter, and rice packaging design for organic jasmine rice. They also participate in developing a strategy for organic agriculture in the Yasothon tradition to expand the market and distribution channels, both within the country and abroad. The Ministry of Agriculture and Cooperatives covers the conversion cost to international standards and has established a negotiating team to conduct business with international consumers and exporters.

Regarding the distribution of organic jasmine rice products by the four groups studied, it was discovered that each group of farmers already had domestic and international

trading partners. Specifically, the Na So organic rice farmer groups already export to foreign markets, with 80 percent of the produce going through the Green Net Cooperative and 20% to the domestic market. The Bak Ruea farmer group exports 70% through the Green Net Cooperative, with 30% for the domestic market. Nam Om

Community Enterprise Network exports 80% to international markets through the Isan Thai Organic Company Limited, with 20% to the domestic market. Ban Non-Sai community enterprise group exports 20% through the Raithong Organic Farm Company Limited with 80% for the domestic market.

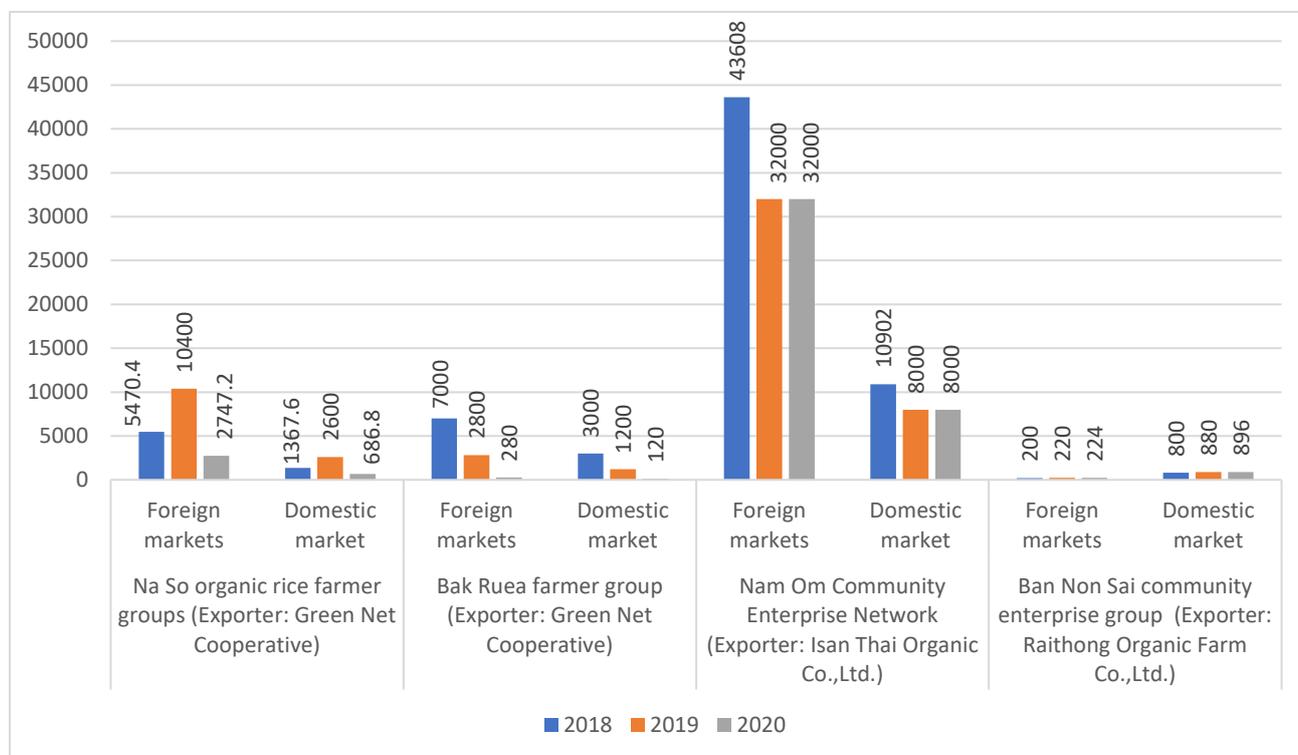


Figure 3: Certified Organic Rice Farmer Groups, Yasothon, Thailand

Source: The Sales of the Certified Organic Rice Farmer Groups between 2018 -2020 (Unit: 1,000 THB)

The Yasothon Provincial Commercial Office conducted a training program to increase farmer knowledge and skills related to online selling to offer organic jasmine rice online and through the online market. The participants included representatives from four farmer groups that grow organic jasmine rice and other farmer organizations. Additionally, exporting organic rice to foreign countries has become more difficult for farmers in the Yasothon Province area due to the coronavirus disease 2019 epidemic (Sereenonchai & Arunrat, 2021). Numerous foreign purchasers, food processing plants throughout the country, Bangkok restaurants, and tourist-oriented provinces have temporarily suspended their purchases of organic jasmine rice because many employees in factories and other establishments have become infected and are subject to disease control measures or are on lockdown. As a result, exports to foreign countries and deliveries to the domestic market were suspended.

By allowing groups of farmers to produce organic jasmine rice following organic agricultural production standards, Yasothon Province's Organic Agriculture Development Strategy has emphasized policy impacts and the impact of the 1 million rai organic rice project. Throughout and following the project's conclusion, it was discovered that

the four groups of organic farmers studied possessed both potential and strength. They were ecstatic about the prospect of producing organic jasmine rice that meets international standards and could be exported indefinitely to foreign markets. The Naso Farmers Group has been certified organic under the ACT, EU, and COR organic standards. The Bak Ruea farmer group was certified organic by The International Federation of Organic Agriculture Movements (IFOAM) Adenle et al. (2017), the European Union, and Canada. Nam Om Community Enterprise Network is certified organic by CERES, USDA, NOP, GI, Fairtrade, GL, and the European Union. At the same time, the farmer group at Ban Non-Sai Ngam follows ACT, EU, and COR organic standards (Dhiman, 2020).

The four organic rice farmer groups have comparable policies and practices in that they all strive to produce certified organic jasmine rice under international organic agriculture standards (Willer, Lernoud, & Kemper, 2018). Simultaneously, the group's commitment to environmental protection is reinforced and reaffirmed for group management, as each group is self-contained and self-managed. By becoming provincial partners, they can collectively share and discuss their experiences and concerns at Yasothon city hall's organic jasmine rice

conference room. Group members communicate informally via online platforms such as Group Line and Facebook. Moreover, the provincial industrial council, the local chamber of commerce, and civil society in Yasothon province have all lent their support. For instance, implementing the project "Join together for rice harvesting and an invitation to farm investment volunteers for a sharing economy" and encouraging a new generation of youth to be interested in and participate in organic farming, culture, and Yasothon Province's way of life. Teenagers collaborated to create a website that promotes various activities and narratives related to organic agriculture in the province, such as telling the story of organic jasmine rice cultivation using online communication via their YouTube channel. This is consistent with Yasothon's strategy for the development of organic agriculture.

5. Discussion and Conclusion

The government policy on organic rice production has affected the original farmer groups that have grown certified organic rice for many years in Yasothon province. A study of the large-scale farming promotion policy and the government policy to achieve one million rai (160,000 Hectares) of organic rice production demonstrates that both policies have led to a decrease in the original certified rice group membership due to their resignation from participating in the government mentioned above policies. The implementation of the national and provincial level organic farming policies has generally advanced the organic agricultural products in the Yasothon province. There is not only organic rice but also organic crops produced after rice harvesting. Additionally, the provincial policies and strategies for certified organic rice farming groups in Yasothon Province are still assisting and promoting organic rice farmers and the members of organic rice growing groups. Farmers who participate in the policy and project for large-scale rice cultivation and the 1 million rai of rice must continue to adhere to organic rice production and quality standards after the project concludes.

Due to the resignation of several group members, the group's production of high-quality organic rice was immediately weakened. As a result of the indirect effect, several farmers became perplexed and concerned about the policy to promote organic rice on one million rai, which resulted in an oversupply of organic rice in the domestic market, according to the standards of the Ministry of Agriculture and Cooperatives. As a result, this would affect the price of rice. Government policies should prioritize assisting farming groups producing organic rice that meets international standards in identifying new international markets and resolving transportation issues created by the COVID-19 crisis. Additionally, the organic rice policy should encourage the development of rice varieties that increase yield per rai while lowering production costs. Moreover, soil and water management, as well as flood and drought issues, must be addressed.

Thus, this research suggests that government policies should be targeted at specific areas and groups to promote organic rice cultivation of 1 million rai without adversely affecting farmers who have been successful in managing certified organic rice production, for an extended period, over the last decade. The state should develop clear policies and strategies for organic agriculture at the area level, distinguishing between farmers growing organic rice under the 1 million rai promotion policy and established farmer groups displaying significant potential and who have already achieved export-quality production certification standards. Yasothon Province has been recognized as a national model for organic agriculture development due to the consistency of its organic agriculture development policies and strategies. It is a province known for its high-quality organic jasmine rice and has seen sustained and vigorous development. Thus, the government should prioritize a trading strategy that focuses on market expansion and establishing additional distribution channels within the international market. Cost-cutting measures should be identified to maintain the affordability and competitiveness of organic rice products in global markets. Additionally, it was determined that the policy to promote organic rice fields covering one million rai is a good policy that can contribute to reducing chemical use in the fields. It leaves no harmful residues for consumers and benefits the rice farmers' health and the environment while meeting the required organic rice standards and providing sustainable agricultural production.

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