

THE POLICY AND DEVELOPMENT ON SUSTAINABLE AND ORGANIC RICE FARMING: A CASE STUDY OF RICE FARMER GROUPS

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Abstract

This paper presents the policy and development of sustainable and organic rice farming in Yasothon province in the Northeast of Thailand. The rice farming has been improved and organized by farmer groups and developed and supported by non-governmental organizations. The government has long been trying to implement the policy to promote farmer groups which is called “Yasothon Model”, featured as the platform for sustainable and organic rice plantation. In 1992, the Alternative Agriculture Network (AAN) had been established by farmers and non-governmental organizations (NGOs) as a national network focusing to mobilize resource sharing, network cooperation and lessons learned of their own experiences. Opportunity and development for sustainable organic rice farming in the areas of Yasothon province are also discussed and suggested.

Keywords: policy and development, sustainable and organic rice farming, rice farmer groups

1. Introduction

In Thailand, there are all around 5.7 millions of farmer families of which by 3.7 millions or 65% are rice farmers (Rice Research and Development Division, Department of Rice, Ministry of Agriculture and Cooperatives, 2017). Otherwise, it can be said more than half of Thai farmers are rice growers. Especially in the Northeast region, around 9.611 million people or 43.85% earn their living on agricultural activities, such as rice farming, rubber plantation, cassava, maize, and sugar cane planting. But however, those farmers remain confronting a variety of problems, for examples: production cost, water shortage, price falls, being exploited by middle traders, health problems due to chemicals and pesticides, lacking managing skills to increase quality and safe productivity, as well as liabilities arising from agricultural proceedings. No less of them remain having some remaining cumulative debt, they need to borrow from Bank for Agriculture and Cooperatives or from local lenders. Previously and currently, most farmers are still poor and earning less when compared with others with different careers. From a survey, it was found that the size of land-holding by rice farmers tends to shrinking, whereas the production cost for every type of rice growing keeps rising. The Office of Agricultural Economics made a report that the cost for rice production in 2014 was around 4,323 - 5,968 baht/rai, which shows rice production cost keeps rising every year while the net

returns tends to falling, along with farmers get larger debt burden (Office of Agricultural Economics, 2014). Turn to workforce sector, it was found less new generation workers entered to agricultural sector, causing the average age higher in farming workforce due to rice farming has high risk from natural disasters, followed by several other problems from which farmers cannot raise their better living. The problems arising to Thai farmers are namely: 1) there exists limited irrigation system in farming areas, 2) outbreak of pests, 3) lacking quality seeds, 4) high production cost, 5) fickle rice pricing, 6) debt burdens, 7) lacking farmland, 8) less budget for research on rice production and development.

For such problems, many governments of various periods had made their policies for development and problem solution, but discontinuous. Some governments did even create problems rather than solving them, being unsustainable means, just for political gains, leading and causing disadvantage to the country and harming the rice price, and all eventually ended as political conflicts. While some other administration put their effort to enhance organic rice production but confronting with problems on investment capital and market place; whereas, consumers then assumed organic rice more expensive than that normally harvested with chemical use. Moreover, organic rice production needed dedication, attentiveness and knowledge on bio-fertilizer, self-made or bought. Most rice farmers used chemicals, attributing that it was rapid, easy, convenient and job prompt finished with their peers in the same area. No less of them acknowledged that utilizing chemicals and pesticides could harm their health and environment, but remaining the practice. Among them, there was criticizing on using chemicals as a careless means, just for higher return but the cost was also high.

Some NGO leaders with an experience of organic rice farming and who working in this field criticized that farmers, when themselves not really suffered, would not realize to change to the safe farming for their own and consumers, and to decrease production cost and farming debt. Several farmers witnessed exemplars who conducted organic farming which yielded safe and quality productivity, decreasing cost, being no debt or else able to return in due time. Most of those remained unchanged to new developed farming practice, still keeping their old habits and facing the same chronic problems. This is deemed as a socio-psychology of farmers, anyways. Their belief and practice followed traditions associated with commercial propagandas, served by chemical fertilizer traders and millers. Thai farmer practice did associate with official policy, missions of some state agencies concerning farmer development which envisioning attitude and perception on organic rice farming, related to economy, society and environment of the farmers. Thereby, the national 20-year strategic guideline (2017-2036) was drafted focusing on competitiveness relating to agricultural contents, namely developing production and service sectors, establishing stable and sustainable production platform, and promoting small-scale farmers to sustainable and environment-friendly agriculture.

In 2016 - 2017, the project had extended the successful “Yasothon Model” to various networks through integration with provincial agencies and operation in accordance with provincial plans to push ahead raise up efficiency to organic rice production, starting from farming grounds to procession process and marketing management, adjusting paddy

purchase into milled-rice trading to uplift rice prices, including upgrading farming practice for rice farmers to sustain their self-reliance. The targeted areas for expansion are following: 1) Ban Nong Souk Doa, Non Sung sub-district, Muang Udon Thani district, Udon Thani province; 2) Ban Bak Bung-Ar-ngoei, Na Norphai sub-district, Chumphol Buri district, Surin province; 3) Ban Nong Bueng, Chumphol Buri sub-district, Chumphol Buri district, Surin province; 4) Ban Khao Luang 11 (Koklam), Dong Ling sub-district, Kamalasai district, Kalasin province; 5) Ban Khao-insi-ban-hueb, Na Kham sub-district, Renu Nakhorn district, Nakhon Phanom province; 6) Ban Bodaeng Farmer-group, Bordan sub-district, Satingphra district, Songkhla province; 7) Rice-seed production farmer-group, Ban Cherng Sae, Cherng Sae sub-district, Krasaesin district, Songkla province; 8) Ban Sufficiency-economy, Ban Nong Thauy, Takria sub-district, Ranod district, Songkla province; 9) Jana Organic network, Paching sub-district, Jana district, Songkla province; and, 10) Sufficiency-economy Development Learning Center, Ban Nong Sao Thong, Kuan Roo sub-district, Rattaphum ditstrict, Songkla province, (Office of National Science and Technology Development, 2015).

2. Objectives of the study

2.1 To study policies and development on Sustainable Organic Rice Farming of farmer groups producing organic rice in Yasothon province

2.2 To study opportunity and development on Sustainable Organic Rice Farming of farmer groups producing organic rice in Yasothon province

3. Research methodology

This study was conducted using qualitative research methodology, secondary data search, field data collection, in-depth interviews and participant observation, including data analysis and interpretation

4. Research findings

B4.1. Background of policies and organic agriculture in Thailand

Organic agriculture in Thailand is a merger of 3 main social tides. The first one is the wakening for alternative pathways for farming communities to exit circular chemical agriculture by having a main lead which is the networking for alternative agriculture, composing non-government organizations, academics and farmer leaders. An effort to present new agricultural guidance was set off, under which different names were called such as Natural Agriculture, Organic Farming, Agro-forestry, for example.

The network was established in 1989 by a gathering of NGOs and farmer leaders who were interested in pursuing for new alternative directions to develop agricultural practice in Thailand. At the initial stage of network establishment, main activities were focused on study visits and experience exchanges among NGOs and farmer leaders to find out a common ground for agricultural development in Thailand. By 1992, the network hold a convention in which learned lessons and experiences were analyzed and concluded, together with a guidance of organic agriculture was declared as a prime pathway for alternative organic agriculture in Thailand. The declaration was attributed as the official starting point of organic agriculture in Thailand.

The second tide was an awakening for health issue of consumers which leading to attitude change on public health concerning, and prioritizing daily living henceforth, such as exercising, meditation and eating awareness. The awakening on eating awareness itself did particularly encourage consumers to pay attention on selecting organic products by which the most safety was expected (from chemical agriculture and GMO food). From just the need of consumers, markets for organic products were established; and, the status of organic agriculture was raised from just an alternative production technique up higher onto an alternative means of agricultural and social development. The awakening of consumers had encouraged lots of agencies to seriously pay attention on developing market places for organic products. There had been several agencies set up for trading organic agricultural products, such as Im Boon Center in Chiangmai, Health Products Center in Songkla, for examples. During the same period, Green Net was established by the end of 1993 to act as a national office for distributing organic and natural products produced by small scale farmers to urban consumers, under the concept “Alternative Market”, which later being upgraded to “Fair Trade System” or Fair Trade.

The third tide was an awakening on environment, initiated from efforts to preserve natural resources and the environment, which later extended to the interest on chemical agriculture impacts, which affection to soil, biodiversity, as toxic chemicals, or even to green gas emission which causes global warming.

Convergence of the mentioned 3 tides helped initiate organic agriculture in Thai society since 1990.

Organic agriculture in Thailand has continuously grown up through 2 past decades and was transferred into the expansion phase, resulting from social, economical and political factors; whereas, the social factors could happen in both consumers and producers who began realizing the impacts to health by agricultural chemicals. Thereby, the consumers opted to more selecting food from organic farming, while the producers began to find ways for less chemical use. In the meanwhile, there had been new operators (especially young ones) finding opportunity and advantage in organic food business, which contributing organic agriculture businesses fast growing, whether in form of production, procession or marketing. The organic-based business tended to be stable and continued growing, even in the time of overall business fluctuating or regressing, co-incident with state policy and many international bodies turning to support organic agriculture with various reasons, regarding no matter economical resolution for rural farming, mitigation and prevention for environmental problems, or export opportunity.

Exactly in Thailand, social and political factors play no less important role to inspire organic agriculture to continually growing; especially, many agencies have heralded policies to support organic agriculture or proclaimed plans for organic agriculture projects. Public relations had been made widely onto rural levels; whereas in diverse groups or organizations, wakefulness in organic agriculture was spread rapidly. But anyways, it is a missing that the wakefulness could not much convince Thai society to perceive and understand organic agriculture correctly, due to the campaign was most done upon the

conception “Organic agriculture just replacing production factors”, which emphasizing specifically on production factors to replace chemical use (such as, using organic fertilizer to replace chemicals, using herbal products to eradicate pests, and using liquid fertilizer to replace hormone). There was less such campaigning to promote organic agriculture in accordance with the principle of organic agriculture (Vitoon Panyakul, 2012, pages 99-102).

Table compiling conclusion on important events of Thai organic agriculture since the past to present

A.D.	Brief History of Thailand’s Organic
1991	Chai Wiwat Agro-industry & Capital Rice Co started an organic rice project.
1992	- Alternative Agriculture Network’s first national conference, to promote sustainable & organic farming - Rice of First Rice Fair Trade in Surin was exported to Fair Trade groups in Europe.
1993	- Green Net established
1994	- Capital Rice began selling organic jasmine rice in Thailand and overseas
1995	- ACT was established, and first Thai organic crop standards were drafted.
1996	- Organic rice project was established in Yasothon. - IFOAM-Asia Workshop on Certification for Organic Agriculture and Alternative Market
1997	- ACT started organic inspection & certification
1999	- Thailand Institute of Technological and Scientific Research (TISTR) / Export Promotion Department and the Department of Agriculture co-drafted organic crop Standards.
2000	- ACT got IFOAM accreditation from IOAS - Cabinet approved US\$ 15.8 million (633 million baht) to support 3-year pilot project on Sustainable Agriculture for small-scale farming.
2001	- DOA gazetted organic crop farming standards - IFOAM Organic Shrimp Consultation was held in Thailand.
2002	- MoAC established ACFS (National Office of Agricultural and Food Commodity Standards) to enforce agri & food standards & accreditation - ACFS completed “Organic Agriculture: the Production, Processing, Labeling and Marketing of Organic Agriculture” covering crop, livestock, and aquaculture. - Swiss Govt. recognized ACT for organic inspection according to Swiss import regulations. - First produce bearing “Organic Thailand” label appeared in the Thai market.
2003	- International Organic Conference, co-hosted by FAO, Green Net-Earth Net Foundation
2004	- ACFS launched organic accreditation programme. ACT was first applied.

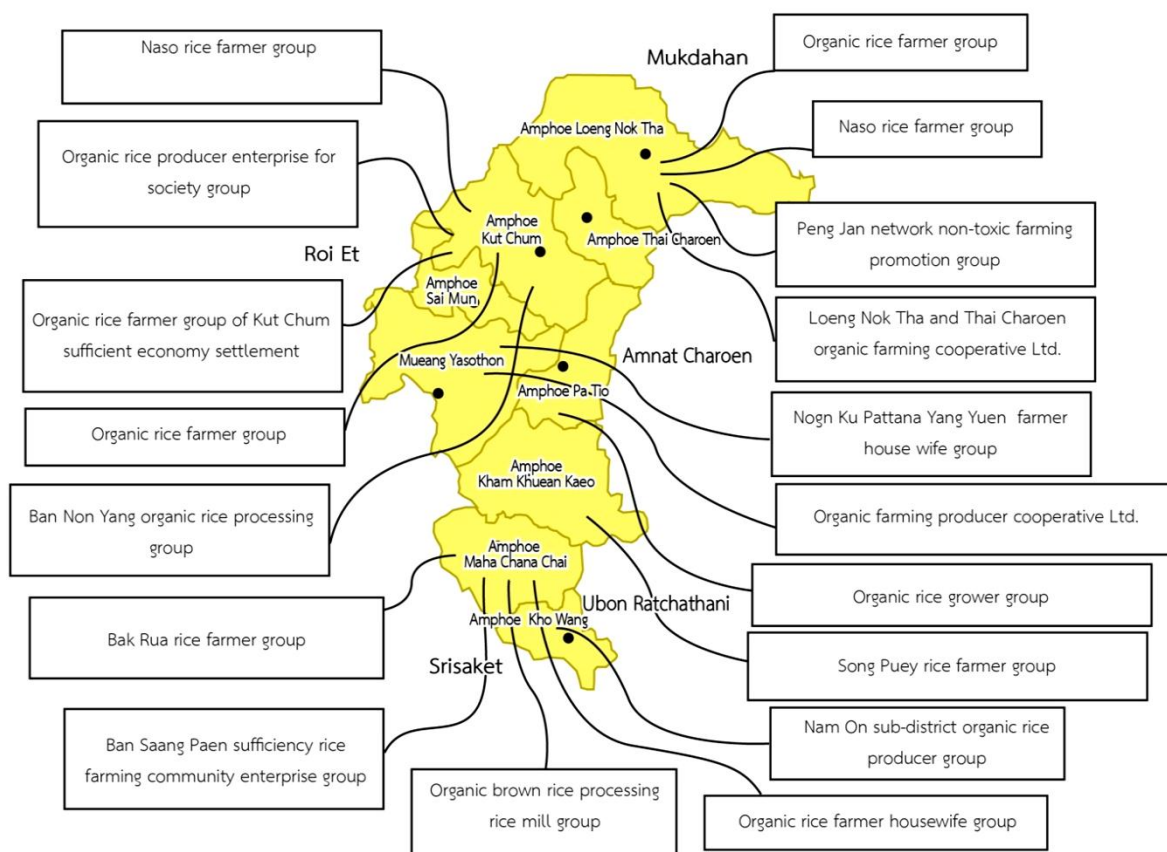
A.D.	Brief History of Thailand's Organic
	- Organic Agriculture Fair was organized by MOAC and the Cabinet approved organic agriculture as a part of the national agenda.
2005	National Agenda on Organic Agriculture was implemented, with little support given to OA sector.
2006	<ul style="list-style-type: none"> - 1.2 billion THB was allocated for National Agenda on OA, mainly focusing on organic fertilizers. - Thai Organic Trader Association (TOTA) was registered. - National organic action plan was drafted. - Siam Paragon introduced Gourmet Market with organic ranges.
2007	<ul style="list-style-type: none"> - Political instability started with military take over. - National Organic Development Strategic Plan was established. - Certification Alliance (CertAll) was established.
2008	<ul style="list-style-type: none"> - Political disarray continued. - National Organic Action Plan was approved with over 5 billion THB budget, planned for 5 Years. - ACT applied for Canadian recognition (approved in 2009) - Political disarray continued.
2009	<ul style="list-style-type: none"> - TOTA started organic incubation programme to increase organic enterprises. - ACT applied for EU recognition.
2010	<ul style="list-style-type: none"> - ACFS-CNCA started bilateral discussion for equivalent recognition under GOMA Framework. - ACFS supported 2 organic projects, one on local green markets and another on database (implemented by the OAD Center Thailand). - MoC supported 2 projects on organic cotton and tea (Prince Royal projects). - TOTA-MoC-GTZ collaboration on local market developments
2011	<ul style="list-style-type: none"> - 35,824 ha (0.17% of total arable land) - 7,499 farms (0.15% of total 5.1 m farming families) - MoC initiated Organic & Natural Expo and Organic Symposium, focusing on ASEAN region. - National Organic Development Strategy ended, no new plan was developed - In previous plan, 1.75 m farmers in Thailand (34%) were trained by various government agencies. - MoAC issued national organic standards for crops, livestock, and aquaculture and set up accreditation body. - No official recognition with any countries, but trying to talk to EU, US and China - Private sector did not support national regulations (organic as voluntary scheme).

Source: Vitoon Panyakul, 2011

4.2 Groups and networks of organic rice farmers in Yasothon province

Yasothon province has long been promoted and developed on organic farming; whereas in 2015, the Office of National Science and Technology Development, by Genetic Engineering and Technology, supported 7 groups of Organic Rice Community Enterprise Group in Yasothon province by nurturing knowledge and technology to raise production level for cost reduction, increasing productivity and revenue, creating mechanism to mobilize activities of the groups and their networks, linking operative system in form of cooperation partners among the state, private sectors and community bodies to mobilize organic rice production into world community, which would help obtain the complete prototype of organic rice production. The effort resulted as to transferring technology on increasing biomass onto rice fields, and learning-procedure managing on the complete organic rice production. In 2016 and 2017, the project had expanded the success of “Yasothon Model” to networks through integration with provincial agencies, in accordance with provincial plans to push forward and increase efficient production of all levels, namely production grounds, processing platform and the marketing management. In addition, an adjustment was made by changing paddy purchase to milled rice trading to uplift the price, including expanding development model to ensure rice growers able to sustain their self-reliance. The expansion has been made to various areas in Yasothon province, as shown hereunder.

Yasothon Province Map



4.3 The policy promoting Thai organic products of Ministry of Commerce

Ministry of Commerce has an aim to promote Thai organic products and businesses to be recognized and accepted in the country and abroad, and to convince that Thai government agencies have participated in campaigning to life-living relying to nature, restoring the environment conservatively, diminishing and quitting mono-agriculture and chemical use to quicken productivity; the effort was made to reduce worrisome and to raise consumer-confidence worldwide. The most importance is to campaign for health awareness among producers and consumers to better well being of all Thai people, as well, as long and sustainable as possible. Currently, health awareness and living in natural ways become acceptable worldwide, as to gain the quality of life physically; and also, everyone could gain better healthiness and disease-resistance immunized, followed by healthy mentality. Furthermore, ways of life living on organic agriculture could help nurture restoring ecology system go to its nature, balancing the environment, and reducing pollution. And otherwise, general people have now realized matter of fairness, and they then have thought of to more support organic agriculture farmers by themselves.

Therefore, most of now consumers have changed their behaviors to consume more organic or bio-agricultural products in forms of food and non-food products, and also choose services in preservative manner. Of all such products and services as mentioned, Thailand has its own readiness and high potentiality to develop and elevate to being production, distribution and service hub of the ASEAN and Asia. And surely of course, if all sectors, including the government, operators and production groups could join hands, exchange knowledge and experience among each other, make understanding in plenty of standards, and convert difficulty into a new alternative way for organic agriculture, Ministry of Commerce is confident that Thailand can ensure reliability to consumers in the country and those of the world. As a result, Thailand can be world kitchen exactly.

Thai government has imposed its policy in truly supporting organic agriculture to establish platform for agricultural and industrial sectors in the future. It has foreseen the importance in ways of life, production activities and consuming behaviors need being environmentally friendly, restoration and preservation for the nature and environment, adjusting mono-agriculture which just focusing productivity by chemical use, all that just to reduce worrisome and enhance consumer confidence; the most importance is to monitor and take care the health of farmers and consumers as well to better quality of life and well being for all. To implement the policy as to substantiate the outcome, the government has set a goal to promote and sustain organic agriculture for farmers to be able living their lives happily under the sufficiency economy philosophy, namely balanced, moderate, rational and immunized, in consistence with the social environment of each region and its native traditions. The practice just initiates from producing for household consuming, then furthers to exchanging and joining among groups to get strengthened and developed into commercial system, first just starting in community market then expanding to country level and finally going worldwide.

The concept on promoting rice farming for sale was based on using both chemicals and pesticides. Had it been aware of using knowledge, understanding and responsibility for

the society and environment, problems would not happen to such many; the fact was such that or not. For the organic farming, it is an alternative means of rice farming that beware health issue of farmers themselves and consumers, including the environmental impact, and revenue yielded from production. Many rice farmer families in Northeast region opted to grow rice and vegetables, manage the spaces and water to conduct farming in accordance with the royal new agricultural theory, Sufficiency Economy Philosophy. These groups of farmers had an idea to raise self-reliance and settle food security by developing their knowledge and capacity on aggregate farming, avoiding chemical and pesticide use, regarding ecology and nature restoring which could help cost reduction, debt lessened, ensure health safety and food security for family. Of all organic farmers who gathered as organic farming groups such as in Yasothon province, they have well been strengthened, well experienced, knowledgeable in managing organic rice for sale and to export abroad. Currently, citizens of some developed counties like to consume organic rice or non-toxic, or else chemical-free for health safety, to help enhance living a quality life and nurturing world environment as well.

Experienced in organic rice production from organic rice farmer groups in Yasothon province in 2015, Office of National Science and Technology Development, by Genetic Engineering and Technology Center, has supported 7 farmer groups of organic-rice community enterprise in Yasothon province by taking knowledge on science and technology to raise productivity scale for cost reduction and revenue increase, creating mechanism to mobilize the production at group-levels and their networks to push ahead the target to global stage, which would lead to obtain a complete organic rice production model. The mission on transferring technology to increase bio-mass into farming grounds, on management learning procedure for complete organic rice farming, and on utilizing portable information collecting technology to help approve organic product standards, these all were transferred to 4,565 farmers of the 7 groups, as following: 1) Rak Thammachat club, Na Sou sub-district, Kudchum district; 2) Khao Khunnatham group, Krajay sub-district, Pa Tiew district; 3) Bak Rua Rice Farmer group; 4) Nam Om Sustained Community Enterprise network; 5) Lerng No Ta and Thai Charoen Organic Agriculture Cooperative Ltd., Sam Yaek sub-district, Lerng Nok Ta district; 6) Withi Phuthai Organic Agriculture Community Enterprise group, Bung Kar sub-district, Lerng Nok Ta district; and, 7) Nong Yor Natural Agriculture group, Kam Mad sub-district, Kud Chum district, in the areas of 5 districts. They had generated the following amounts of products: 7,300 tons of international standard organic paddy harvested on the area of 10,528.5 rai; 10,960 tons of paddy yielded during adjusting into organic production, harvested on the area of 15,675 rai. Two categories of rice were processed into 3,650 tons of organic rice, worth 103.97 million baht; and, 5,480 tons of adjusting produce, worth 150.62 million bath, respectively (totally worth 254.59 million baht).

Due to the success of the project, the cooperation was conducted joining hands among the provincial authority, state agencies in the area, (Provincial Commerce Authority, Provincial Chamber of Commerce, Yasothon Provincial Agriculture Assembly, and Provincial Cooperative) to push forward for Yasothon Organic Agriculture Cluster to

be the network operating organic agriculture as a whole system. There provided 6 working strategies such as learning activity, capital management, marketing, network development, new management, and community welfare. In the same time, the project had cooperated working with researchers of Nation Metal Technology and Materials Center to assess rice mills of the 7 groups to provide status and information for improvement to reduce rice lost from milling process. The data obtained was presented to provincial governor, from which the groups received the budget to maintain milling machines, which helped reduce rice lost. In addition, the project offered supports to group member farmers growing organic plants after rice harvest, such as water melon, turmeric, sesame, and peanut to fill up income after annual harvesting (Office of National Science and Technology Development, 2015).

Due to problems associated with policy and development on sustainable organic rice farming of Thailand, by 1992 alternative agriculture network had held “Alternative Agriculture Convention” to call on the government to support alternative agriculture including organic farming. And later in 2011, there had been preparation of a national strategic plan for organic agriculture development issue 1, 2008 - 2011; and, another such plan was continually provided, to which governments did truly and not truly take action. But the organic agriculture of Thailand rose up as a blend of 3 social tides, namely a tide of awakening for new alternative agriculture to escape chemical-use cycle, being led by alternative agriculture network consisting of NGOs, academics, and farmer leaders; the second one was a tide of awakening for health awareness for consumers; and, the third tide was the one relating environment awareness, which being instigated by efforts to preserve natural resources and environment in Northeast local areas. The province in which there were movements conducted by farmer groups and NGOs, including continual supports from state agencies, is Yasothon or as called Yasothon Model. The province itself has put an importance on organic agriculture development, by manipulating the strategy on I-san pathway organic agriculture during 2016-2019, covering most provincial areas for its future sustainability.

5. Conclusion

Opportunity and development for sustainable organic rice farming of the farmer groups who produce organic rice in the areas of Yasothon province are the following: 1) continuity of policy and development for organic rice of Thailand; 2) understanding of farmers on the principle of good organic farming, to apply for standard approval in accordance with the policy of the province; 3) administration and management in the groups and networks of farmers to maintain sustainable organic farming; 4) having producers and consumers learning, promoting and supporting group gathering for producing and processing roles, and supporting some partial production factors to ensure future sustainability; 5) cooperation and supports among farmers who produce organic rice and NGOs, especially upon the matter of international quality and standard; and, 6) promotion and network forming for organic rice market places and fair price for farmers domestically and internationally to ensure the stability and sustainability for all.

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