

## The Inter-Organizational Cooperation in the Implementation of Organic Rice Production Policy in the Southern Region of Thailand

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**Abstract:** The implementation of an organic rice production policy requires the cooperation of all organizations involved, namely governmental, private sector and farmer's organizations. This study, employing qualitative methods was conducted in Khuan Khanun District, Phatthalung Province, Southern Region of Thailand. The results show that the policy was basically initiated by the central administration of the government, the Ministry of Agriculture and Cooperatives (MOAC) and then sent to the provincial administration where the policy was transformed into several projects under the annual provincial development plan. These projects would be carried out by the agencies concerned at the district level, mainly the ones under the command of MOAC. To put the planned projects into action, moving towards the determined goals in the targeted areas, organizational cooperation was really needed. A private company was subcontracted to perform a specific function: farming plots inspection. Farmer's organizations were founded to play a significant role in achieving the organic rice production policy goal. The research results also, reveal that at least three forms of social capital were used by farmer's organizations and also by the farmers themselves in the process of organic rice production: collaborative action among group members, application of local wisdom and networking formation.

**Key words:** Farmer's organizations, inter-organizational cooperation, organic rice production, social capital, Thailand, plots inspection

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### INTRODUCTION

Organic farming has become the focus of the Thai government's agricultural policy during the last two decades (MAC., 2016). This is because modern agricultural production which has been employed, since, the first National Economic and Social Development Plan (1960-1965) has created a lot of negative impacts on natural resources and the environment as well as on the health conditions of the general population throughout the country (Ratthamontri, 1996). For the Southern Region, it is observed that a number of rice-growing farmers have shifted their attention from modern agriculture to organic farming, since, 2000. The organic farming groups have been formed with the supports, basically from NGOs. The groups played a significant role as the platform for the exchange of ideas and experiences or "learning from each other" sessions, among the group's members as far as organic farming and integrated farming were concerned. During the initial

period, farmers practiced organic farming with the overall purpose of producing for household consumption, most of them have adopted the idea of a self-sufficient economy at the household level (Anonymous, 2014). Of course, there were some farmers who could obtain good yields, so, they had surplus to be sold in the local market. It is interesting to note that a limited amount of organic farming product was available in the market and it had not been widely recognized by the consumers. The product was perceived by consumers at that time as a non-chemical product. In addition to that there was no standard requirement for organic farming products introduced by the government to the farmers. Therefore, it can be said that the farmers employed a self-regulating standard which they learned from the organic farming networks and local NGO extension program.

The commercialization of organic farming products, especially, rice has begun for almost a decade. The government had nominated Phatthalung Province as one of the organic farming centres of the South. The

commercialization of organic rice farming has become the national policy, since, 2005 which is the strategy to provide farmers with an alternative to gain more income and to strengthen the capacity of organic rice producing groups to compete in the world market (MoC., 2011). MOAC's Rice Department is assigned to be the key actor in promoting and monitoring the production of organic rice, according to the standard of organic agricultural products of Thailand. The Rice Department, Phatthalung Province's office works cooperatively with agricultural extension offices, both provincial and district-level and organic rice farming groups in Phatthalung Province (PPAO., 2017). The success of the policy implementation requires the cooperation of all organizations concerned, governmental, private and farmer's organizations. This study was written with two objectives: firstly, to investigate the inter-organizational cooperation in the process of organic rice production according to the standard of organic agricultural products of Thailand and secondly, to describe the application of social capital in the process.

**Literature review:** Two major concepts were employed as the basis for the data analysis in this study: inter-organizational cooperation and social capital. These two concepts were briefly reviewed as follows: theoretically, inter-organizational cooperation can be considered as a form of inter-organizational relations which is based on the structural-functional perspective. A network of organizations can be developed and work together, so as to obtain the joint accomplishment of individual operating goals (Schermerhorn, 1975). This means that organizations in the network can pursue their goals and retain their autonomy while orienting their actions toward a common outcome (Warren *et al.*, 1974; Mulford, 1980).

In the inter-organizational network, organizations may exchange resources (e.g., knowledge and information, money, power) with one another to use in their operations. In this study, the three entities of an inter-organizational network of governmental, private and farmer's organizations are working cooperatively in the process of organic rice production. Each type of organizations may have their own goals, at the same time they are taking actions oriented toward the common outcome: the production of organic rice, according to the standard requirement set by the government. As far as the farmer's organizations are concerned, social capital being considered as a resource has been used in the process of organic rice production. According to Putnam (1993), social capital was found in the form of the community's

networks with trust among network members and norms that mobilize cooperation among members to take action oriented toward the common goals.

In the study area, organic rice-producing farmers are mostly members of the farmer's organizations which link to the network of organizations involved in the organic rice-production process. However, cultural capital (e.g., knowledge, arts, beliefs) may be used by the farmers in the process of organic rice production. Cultural capital was mentioned by Bourdieu (1983) as a type of capital on a par with two other forms of capital-economic and social-being processed by an individual. Therefore, in this study both social and cultural capital will be employed in the analysis of inter-organizational cooperation in the implementation of organic rice-producing policy at the community level.

## **MATERIALS AND METHODS**

Qualitative research methods have been employed in this study. The study was conducted in Khuan Khanun District, Phatthalung Province, located in the Southern Region of Thailand. Three farmer's groups in the district were selected for this study. Key informants include 10 farmers who were members of organic rice farming groups and another 5 key informants were governmental officers and NGO community workers. Data were collected via. in-depth interviews and participant and non-participant observations. The analysis of data was made through content analysis procedure.

## **RESULTS AND DISCUSSION**

**Inter-organizational cooperation in organic rice farming:** The agricultural extension office at the district level and the local office of MOAC's Rice Department have been playing a significant role in the promotion and control of organic rice farming in the study area. The main duty of the governmental officers is to provide advice related to organic rice farming to farmers and to make sure that farmers participating in the program follow regulations and procedures required by GAP (Good Agriculture Practice) and GMP (Good Manufacturing Practice Organic Thailand).

At the provincial administration level, there is an integrative development committee chaired by the Provincial Governor. Organic farmers were not allowed to begin their farming activities before their farms were inspected by the concerned organizations against organic farming standard requirements. If their farms met all of the requirements, a 1 year certificate of approval would be issued to the individual farmer. Therefore, they could start

their regular farming activities, e.g., land preparation, transplanting, weeding, harvesting. However, all of their farming activities would be closely monitored to make sure that their farming practices complied with the organic farming standard requirements.

There were three types of organizations involved in the inspection procedures: governmental organizations, private organizations and farmer’s organizations. These organizations have been working cooperatively in organic rice production in the study area. Governmental organizations, especially, the agricultural extension office at the district level and the Rice Department office stationed in Phatthalung Province have been playing a key role in the inspection of organic rice farming activities. They also worked with Thaksin University, Phatthalung Campus when technical laboratory tests were needed (e.g., analysis of soil quality, bio-chemical laboratory tests). The main concern of the governmental organizations was to assure that all farming plots and processes used for organic rice production met the requirements of the pertinent standards. Therefore, the inspection of farming plots and the monitoring of the production process was done with a quite strict procedure.

According to an officer working at the Phatthalung Rice Research Center, the farming plots located close to palm oil or rubber tree plantations may be contaminated by chemical substances usually deposited in the plantations through flow of rain water or wind currents. Hence, we advise farmers to plant more trees on the paddy bunds or build the water-flow barriers in the water ways, so as to protect the organic farming plots from the chemical contamination. Farmers were expected to comply with all advice provided, otherwise, the certificate of approval would not be given to them. To make sure that the process of organic rice production was met with the standard requirements, two monitoring teams were organized: an external monitoring team composed of governmental officers and an internal monitoring team composed of the representatives of the farmer’s organization. The internal monitoring team worked under one condition: that the farming plots of any farmers must

not be monitored by their relatives who served as members of the internal team. The monitoring procedure was done in a check-and-recheck manner.

Private organizations were sub-contracted to serve as the inspection units working for the Rice Department office stationed in Phatthalung Province. The main functions of these organizations were to collect samples of soil from farmer’s land plots for laboratory testing of soil quality and to inspect the land plots to be used by the farmers to produce organic rice against the organic farming standard requirements. Personnel of these companies have been trained to understand the organic farming standard requirements (e.g., principles, inspection procedure), so that, they could perform the inspection function effectively. The cooperation of governmental and private organizations through sub-contracting arrangement reflects the applications of the New Public Management (NPM) in public administration works.

“We are a private company being subcontracted to inspect each farming plot of the farmers and then report the inspection result to the Rice Department for giving a certificate of approval to produce organic rice to the farmers. There are two steps of farming plot’s inspection. We will start checking the farming plot, according to the seven GAP requirements and then proceed to check whether the farming plot meet the nine requirements of the National Bureau of Agricultural Commodity and Food Standards. In addition to that there are also the officers of the Rice Department, stationed in Phatthalung Province working as the extension officers to promote the production of organic rice in the area”

Farmer’s organizations have also been playing an important role in farm management for organic farming practices. Three major farmer’s groups, Kun-Yee Ka-Yue and Lor-Kor groups were selected for this study (Table 1 and 2). Organic rice producing farmers who got the certificate could apply to be members of these farmer’s organizations. They would keep records of farm inspections of all members.

**Table 1: Overview of participants included in the interviews (organic producer groups)**

Name	Age	MS	ED	Income (US\$)	Experience (years)	Producers featured	Land (ha)
Chit	60	MR	PR	600-900	10	Family business	0.80
Manat	48	MR	SE	1500-2000	10	Group business	1.76
Tida	46	MR	HS	600-900	10	Group business	0.96
Tan	55	MR	HS	1200-1500	10	Group business	1.12
Anun	56	MR	PR	300-500	10	Family business	0.32
Nathee	51	MR	PR	300-500	10	Family business	0.32
Nunthana	50	MR	PR	300-500	5	Family business	0.48
Chongnee	50	MR	PR	300-500	10	Group business	0.48
Buawon	48	MR	PR	300-500	5	Family business	0.32
Keaw	50	MR	PR	300-500	10	Family business	0.32

US\$1 = 33 (2018); MS = Marital Status; MR = Married; ED = Education; PR = Primary; SE = Secondary; HS = High School; MA = Master of Arts

Table 2: Overview of participants included in the interviews (officials)

Name	Age	MS	ED	EX (years)	Responsibility	Supporting
Suwat	48	MS	BA	15	Organic rice production quality and development	Developing production quality, marketing information, branding and packaging and production budget
Porntip	45	MR	BA	10	Procurement of products in the community for distribution in modern trade	Supporting production budget such as housing vacuum sealers, branding and packaging
Somchai	50	MR	BA	20	Cooperative between producer and capitalist	Information and middle-man cooperative
Nikhom	51	MR	MA	25	Research knowledge and local development	Processing organic rice and social activities
Nongnuch	50	MR	BA	18	Driving agriculture policy and choice in Southern Thailand	Cooperating and covering local development for quality of production and sustainable agriculture in Southern Thailand

MS = Marital Status; MR = Married; ED = Education; BA = Bachelor; MA = Master of Arts; EX = Experience

However, the farmer’s organizations themselves were required to get inspection certificates as organic rice producing groups. So, they had to screen all farmers applying to be a group’s members to make sure that their land plots were inspected and certificates of approval were issued to them. Each group member generally followed three major steps of the organic rice producing process: land preparation and seed broadcasting, crop maintenance and harvesting. According to Tan, a member of Kun-Yee group, compliance with the requirements of organic rice production standards could upgrade the production process as well as the price of the organic rice product.

“I have been growing Sangyod rice variety for more than 10 years by using traditional ways of farming and no chemical fertilizer has not been applied. I usually sold my product to the local rice mills. I just joined the group 4 years ago, I realized that with the certification of approval from the government’s agency, I could sell my organic rice product at higher price, comparing to the one I got from the rice mills”

For land preparation and rice-seed broadcasting, farmers were advised to keep rice straw left in the field after rice harvesting (December to January) because it was a good source of organic fertilizer for soil improvement. After land preparation was completed, rice seed would be broadcasted. Date of rice-seed broadcasting must be recorded and reported to the farmer’s group. Farmers could keep rice seed for their own use. However, high-quality rice seed could be bought or borrowed from the farmer’s group. In case of borrowing, farmers had to return the same amount of seed borrowed right after the rice harvesting of the following year.

For crop maintenance, only organic fertilizer and organic herbicide or insecticide were allowed to be used. Farmers were advised to monitor water levels in the field and keep it at 10 cm high most of the time until the

beginning of harvesting season. During this stage, the organic rice field would be regularly inspected by the organizations concerned. In addition, the farmer’s group would perform an internal inspection function, so as to check, if all group members strictly followed the guidelines of the organic farming standard requirements.

During harvesting season, 10 days before rice harvesting, water was released from the field. This activity must be done with care to avoid the problem of rice-seed contamination (i.e., organic rice seed being mixed with that produced by non-organic farming methods). It is very important to keep the rice seed dry, moisture of rice seed must be kept as low as 14%. Farmers were advised to keep organic rice seed in containers separated from other kinds of rice seed produced by non-organic procedure.

The selected organic farming groups have used different marketing channels to distribute their products to the targeted consumers. However, it seems that all groups have been using connections they had with other organizations as means of product distribution. In general, organic rice was packed by vacuum-sealing machine and the brand imprinted on the rice sacks. To distribute the products, the three groups used different marketing channels. Kun-Yee group relied on the following connections to promote and sell their products: a local NGO, The Network of Alternative Agriculture of the Southern Region and a network of student’s parents who paid a visit to the local wisdom learning center of Thaksin University. Occasionally, the group could sell the products at a fair or a trade show organized by governmental or non-governmental organizations.

Ka-Yue group received order from Modern Trade, a big wholesaler, to supply organic rice product on a regular basis. It could also promote and sell the products through a local network of community enterprises, especially, the community tourism and homestay groups. The group also joined a program for the national and international exhibition of products of Thailand, organized by

governmental agencies. In addition, every week the group could promote and sell the products in the “Market Green” of Trang Province.

In the case of Lor-Kor group, many marketing channels have been used to promote and sell the product, for example, the local market a fair organized by governmental organizations both inside and outside the country (e.g., China). It is interesting to note that the group has been working with Thaksin University to develop an online marketing system, so that, their products could be widely accessed by consumers.

#### **The applications of social capital in organic rice farming:**

Social capital has been used throughout the organic rice production process. The formation of organic rice production groups is the concrete example of how social capital is being used in the process. Instead of working as individual farmers a group was formed to perform collective action whereby farmers could help each other to achieve their common goal. A group could be considered as a mechanism to achieve the goal of an individual farmer who is a member of the group. At the same time, to achieve the goal of the group, it needs the contribution of a group member. So, in this case, a farmer’s group can be considered as an individual farmer’s social capital and the group could be used in the process of organic rice production. Therefore, farmers willing to produce organic rice for commercial purposes usually apply to be group members. As group members, the farmers would get access to the group’s facilities and assistance when needed (e.g., farm plot inspection, learning from each other, marketing channels) which they would not get if working alone.

In the organic rice production process in the study area three major forms of social capital have been employed by the organic farming groups. Firstly, farm-plot inspection would be done by a collaborative committee composed of an external inspector, a governmental officer and three representatives of a group administrative committee working as internal inspectors. The composition of the farm-plot inspection committee reflects the balance of viewpoints in evaluating the farm plots against the organic farming standard requirements: the perspective of the governmental officer who reinforces the law and regulations as an outsider on the one hand and the insider’s point of view as the organic farming practitioner on the other. In this case, the representatives of the group administrative committee can be considered as social capital that the farmers can use in the process of farm-plot inspection.

Secondly, applications of local wisdom are another way of using social capital in the production process.

Knowledge of farming is a basic knowledge that has been passed from one generation to the next through the socialization process of families. So, knowledge can be considered as a form of social capital that all farmers already have. This means that training sessions could be organized as necessary to equip the farmers with knowledge and skills that are really needed in the production process.

Finally, networking is yet another form of social capital being used by all organic rice farming groups under study. As mentioned above, all three farmer groups have been using networks of organizations, governmental or non-governmental as marketing channels to promote and sell their products. Having social connections with other organizations, farmers could widely distribute their products to various groups of customers at local, national and even international markets. Ka-Yu and Lor-Kor groups have successfully demonstrated applications of this kind of social capital to present and sell their products internationally.

The implementation of the policy requires the cooperation of organizations working at central, provincial and local administration levels. These organizations may be governmental, private or farmer’s organizations. The directions of inter-organizational cooperation can be both vertical and horizontal. In addition, inter-organizational cooperation has also played a key role in the achievement of policy’s goal.

The organic rice production policy, once it has been formulated by the government will be implemented by the administration system of the country. The central administration, especially, MOAC has played an important role in the implementation of the policy. Two departments of the MOAC, namely the Rice Department and the Department of Agricultural Extension are the main acting agencies in promoting and monitoring the production of organic rice for commercial purposes according to the organic rice production standard of Thailand. Therefore, it can be said that the control of organic rice quality to meet the organic rice production standard requirements is mainly in the hands of governmental agencies. According to the administrative system, MOAC as part of the central administration, employs a top-down approach to assign its subordinate organizations in the provincial and local administration to work as implementing agencies to realize the goal of organic rice production policy (DoA, 2010).

According to the inter-organizational dependency model, any organizations being dependent on others with regard to resources or power are compelled to comply with the demands of the other organizations. In this case, the governmental agencies working at the provincial and

local administration levels have to comply with the order of the central administration on which they are dependent for resources, especially budget, human resources and simply power they need for making decisions. Therefore, the provincial and district agricultural extension offices have to work, according to the organic rice production policy, so that, the goal of the policy can be achieved. This reflects the inter-organizational relations in the vertical direction. However, more horizontal relations of organizations can be observed when they work together as committee members on an Integrative Development Planning Committee, chaired by the governor of Phatthalung Province. The committee can be seen as the coordinating unit of all organizations concerned including the Provincial Agricultural Extension Office, to formulate the development plan of the province. Therefore, in this planning activity, the organic rice production policy has been transformed into several projects related to organic rice farming and put into the provincial development plan. Then, these projects will be carried out by the implementing agency, the agricultural extension office, at the district level. The agricultural extension office will work cooperatively with farmer's organizations and the other implementing agencies concerned, e.g., the Rice Department, Phatthalung office in the target area.

In general, before working with farmer's organizations, government officers contact the village headman and inform him about their planned activities to be implemented in the village. Working with farmer's organizations at the edge of a bureaucratic system has put the District Agricultural Extension Office in a position where they cannot issue an order to the farmer's organizations to totally comply with all guidelines and standards of producing organic rice they are promoting. This is because farmer's organizations and their members are not part of the governmental administrative hierarchy. In addition, the physical layout of the farm plots and the socio-economic conditions of the farmer's ways of life may become constraints preventing farmers from performing all farming activities that meet all of the requirements set by the organic rice production standards.

It is interesting to note that policy implementation at the village level is very important for the achievement of a policy's goal. This is because all planned activities related to organic rice production will be put into practice and more importantly, the organic rice will actually be produced in the farming areas of the village. The governmental organizations in this case the District Agricultural Extension Office and the Rice Department office stationed in Phatthalung Province have played an important role in the provision of advice to the targeted

farmers needed for organic rice production. They also keep the farmers informed about guidelines and standards for producing organic rice. The main functions of the governmental organizations are farm-plot inspection, monitoring the production process and marketing of the organic rice products. Since, the farmer's organizations and their members are the actual producers of the organic rice, one can see that governmental organizations and farmer's organizations are interdependent. While the governmental organizations need full cooperation of the farmer's organizations and their members in producing high-quality organic rice, according to the guidelines and standards of organic rice production as promoted by government organic rice policy, the farmer's organizations and their members are dependent on the governmental organizations for technical and marketing support, so that, their organic rice products will be accepted and accessed by larger groups of customers which means that they can earn more income. Therefore, cooperation of both governmental and farmer's organizations are really needed, so that, the policy's goal can be successful.

## **CONCLUSION**

The organic rice production policy was formulated by the Central Governmental Administration and then sent to the provincial administration of Phatthalung Province where the policy would be transformed into several projects related to organic rice farming in the provincial development plan. These projects would be implemented in the target villages by the cooperation of all organizations concerned, especially the governmental, private and farmer's organizations. The production process for organic rice must comply with the requirements of the guidelines and organic rice standard of Thailand, so that, organic rice products of high quality can be assured. This will be beneficial for the achievement of the policy's goal on the one hand and the increase of farmer's incomes on the other. It is observable that several types of social capital have been used by the farmers who practice organic rice farming, e.g., farmer's group formation and networking development and local wisdom utilization which led to the strength of organic rice farmer's organizations.

## **RECOMMENDATIONS**

Based on the research results, it is recommended that for the success of the policy, governmental organizations working with farmers and farmer's organizations should take into account the ideas and suggestions of local organizations and of the farmers themselves. Local

wisdom and networking formation seem to play the important roles in the process of organic rice production. Therefore, these social capitals should be promoted and strengthened, so that, they can be used in the process of organic rice production in the long run.

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