



The Differing Strategies of Agricultural Cooperatives in Thailand: from Managing Market Links to Self-Reliance

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Received: 2 May 2018; Accepted: 11 July 2018

Abstract

Because of their dual nature as business enterprises and social groups, agricultural cooperatives have to adapt to socio-economic changes taking place in members' farms and in their environment. The present study analyses the activities of 23 Thai agricultural cooperatives and examines how these activities delineate strategies to adapt to the socio-economic transformations in rural areas of Thailand. All cooperatives organized the supply of agricultural inputs and almost all of them were engaged in loans and savings. The choice of implementing other activities was related to two main strategies. One was to manage market links, thanks for instance to joint marketing of members' products, in order in particular to deal with decreasing market prices. The other one was to promote members' self-reliance, i.e., their capacity to obtain a living without fully depending on the marketing of their agricultural products. This strategy aimed in particular to adapt to farmers' ageing and was achieved for instance thanks to diversification of agricultural products so as to increase home consumption of these products, or through bartering between cooperatives. Some cooperatives actively implemented one or two of these strategies (as they are not antagonistic) while others did not engage in any of them. Overall, cooperatives managed to adapt to the decreasing role of agriculture in rural areas. However, many of studied cooperative have to develop new ways of supporting their members if they want to remain key players when it comes to the successful integration of farmers in the agricultural economy.

Keywords: Agricultural Cooperatives, Self-Reliance, Socio-Economic Changes, Thailand

Introduction

Agricultural cooperatives have a dual nature, as they are not only business enterprises but also social groups of farmers (Puusa, Hokkila & Varis, 2016). As business enterprises, they need to evolve in order to take into account changes at farm level, along the agricultural value chains, and generally in the legal and economic environment (Chaddad, 2014; Rosenthal & Eiges, 2014). As social groups, they also need to adapt to changes in members' households. For instance, Japanese agricultural cooperatives have to deal with trade liberalization and with the decreasing role of agriculture in members' families. These cooperatives have adapted by paying less importance to activities directly related to agriculture and by increasing loans and savings activities (Esham, Kobayashi, Matsumura & Alam, 2012; MacLachlan & Shimizu, 2016).

In 2015, there were 3,751 agricultural cooperatives in Thailand, most of which were well-established organizations that had already operated for several decades (Cooperative Auditing Department (CAD), 2016). The way these cooperatives adapt to socio-economic changes is a particularly important issue in rural areas of Thailand. First, these cooperatives have to face major economic changes, as the agricultural sector increasingly becomes polarized (Faysse, 2017). On the one hand, agricultural value chains such as the shrimp (Vandergeest, 2007) and fruit sectors (Kersting & Wollni, 2012) are expanding and become closely linked to national and



international markets. On the other hand, many farmers are getting trapped in a cycle of low profit and debt, especially in the rice sector (Formoso, 2016). Some farmers are even forced to sell their land as a result (Ozturk, 2009). In response, some small-scale farmers produce mainly for household consumption (Rattanasuteerakul & Thapa, 2012; Egery, 2014). Second, cooperatives face changes at farm level, as the farming population is ageing (Rigg, Salamanca & Parnwell, 2012; Hirokawa, 2014; Nilsen, 2014). Moreover, according to data from the 2013 agricultural census, farms remain predominantly small-scale, with an average of 3.1 ha of land (National Statistical Office of Thailand, 2013). Many rural households are less and less able to earn a living from farming alone and have diversified their income-generating activities beyond the agricultural sector (Rigg et al., 2012). These socio-economic transformations actually take place more generally in South East Asia, where farms are still small and farmers are getting older (Rigg, Salamanca & Thompson, 2016).

Thai agricultural cooperatives have been studied over the past 50 years (Hughes, Robinson, Larsen & Whitney, 1968). However, most studies focused on a quantitative assessment of the business activities (Pratuckchai & Patichol, 2016) or on the motivations of board members (Chareonwongsak, 2017). The Department of Cooperative Auditing, a subsidiary of the Ministry of Agriculture and Cooperatives, conducts an annual audit of the cooperatives' financial situation. However, the department focuses on quantitative indicators and does not provide a qualitative assessment of the cooperatives' evolution. In general, these studies and audits pay little attention to the diversity of cooperative strategies and how they adapt to the changes at farm level and along the agricultural value chains.

The present study analyses the activities of Thai agricultural cooperatives and examines how these activities delineate strategies to adapt to the socio-economic transformations taking place in rural areas of Thailand. The first section presents some general information on Thai agricultural cooperatives. Next sections describe the methods and results, in terms of the main characteristics of studied cooperatives, their activities, and their strategies. The discussion section highlights the shortcomings of several activities undertaken by studied cooperatives, which are usually considered to be part of the core activities of agricultural cooperatives, as well as the innovativeness of other emerging activities. It is also argued that the increasing differentiation among cooperatives calls for differentiated support.

Thai Agricultural Cooperatives

The first cooperative in Thailand was created in 1916 to provide credit to farmers, who were regularly in debt (Tanrattanaphong, 2015; Thuvachote, 2006). Initially, cooperatives generally focused on a single activity, such as credit or marketing (Hughes et al., 1968). In 1968, the Cooperative Act encouraged small cooperatives to merge to form larger ones, capable of undertaking diverse activities (Yamao, 1996). The government attempted to merge agricultural cooperatives to ensure that there was only one per district.

In Thailand, cooperatives are legally registered as belonging to one of the following groups: 1) agricultural cooperatives; 2) land settlement cooperatives; 3) fisheries cooperatives; 4) consumer cooperatives; 5) thrift and credit cooperatives; 6) service cooperatives (e.g. handicraft, taxi or electricity cooperatives); 7) credit union cooperatives (Thuvachote, 2006). Only the first three types are involved in agricultural activities.

Thai agricultural cooperatives are usually multi-purpose, and most of them are involved in activities related to credit, savings and the supply of agricultural inputs. In 2015, the global value of the agricultural



cooperatives' business activities was 324 billion baht (approximately 8.4 billion euros), i.e. approximately 23% of Thai gross agricultural product (Cooperative Auditing Department (CAD), 2016). In 2015, agricultural cooperatives were involved in six main business activities (hereafter, the percentage indicates the relative share of cooperatives' average gross profit): loans (29%), savings (23%), marketing cooperative product (21%), supplying of agricultural inputs and products for home-consumption to members and agricultural product processing (26%) and, lastly, providing other types of services to members, such as extension (0.2%) (Cooperative Auditing Department (CAD), 2016). The gross profit of cooperatives increased on average by 1.9% per year over the 2010–2015 period (Cooperative Auditing Department (CAD), 2016).

The Thai government has generally given high importance to these cooperatives, by supporting their creation and by providing subsidies (Thuvachote, 2006). Agricultural cooperatives are also officially members of a national federation called the Cooperative League of Thailand. This organization primarily provides training on cooperative management for its members.

Method

The managers of 23 agricultural cooperatives, as well as two cooperative presidents, were interviewed. These cooperatives were selected to get a diversity of agricultural products produced by cooperative members. Here, we refer to the cooperatives using the initials of the province in which they are located (e.g. Suphan Buri: SP) followed by a number. The cooperatives in our study were situated in the provinces of Suphan Buri (SP–two cooperatives), Nakhon Pathom (NP–three cooperatives), Nakhon Ratchasima (NR–five cooperatives), Prachinburi (PR–four cooperatives), Chachoengsao (CH–one cooperative), Surin (SU–one cooperative), Petchaburi (PE–four cooperatives), Chiang Mai (CM–two cooperatives) and Bangkok (BA–one organic cooperative working with farmer groups in different parts of the country). Each interviewee was asked about the cooperative's history, activities, and future projects.

Agricultural cooperatives are regulated and supported by the Cooperative Promotion Department, which is part of the Ministry of Agriculture and Cooperatives. The directors of the provincial offices of the Cooperative Promotion Department were interviewed in five of the above-mentioned provinces. They were asked about the agricultural cooperatives' activities in their province, their dynamics, the challenges that they faced and the type of support offered by public administrations. One staff member of the Cooperative League of Thailand was also interviewed. Interviews were conducted in 2016.

The analysis involved assessing each cooperative in terms of their activities to promote members' self-reliance and to collectively manage market links. Self-reliance is used here to indicate that what members obtain for a living does not fully depend on the marketing of their agricultural products. For instance, cooperatives can promote diversification of members' products in a way that enables higher home consumption of these products. Members are then less vulnerable to changes in market prices. The collective management of market links means that the cooperative is actively engaged in increasing the income that farmers obtain from marketing their products. For instance, a cooperative may organize joint marketing of members' products and, in that way, offer to their members a better price than the one farmers could get if they sell their products individually.



Results

1. General Characteristics

Almost all the cooperatives studied were registered as agricultural cooperatives. The exception was Cooperative PR4, which was registered as a land settlement cooperative. The cooperatives in the study had been operating for 43 years on average. Initially, most cooperatives were developed around loans and savings. Subsequently, they set up other activities relating to agricultural production, such as supplying agricultural inputs and processing equipment and marketing agricultural products. Later, 15 cooperatives developed non-agricultural activities, e.g. petrol station, plant for producing bottled water.

In 2016, the cooperatives studied had 3,150 members on average (the minimum was 130 and the maximum was 9,000). Many cooperatives organized their members into groups on a village basis. General assemblies were either conducted successively in each village or village representatives attended a single general assembly. The number of permanent staff members ranged from 4 to 101 (average of 29).

The cooperatives sometimes received support from the Cooperative Promotion Department, for instance funding for a specific project in the form of a gift or loan. In 2016, a drought occurred in Thailand and the cooperatives in the officially recognized drought-stricken provinces had access to a 6-month interest-free loan.

2. Activities

2.1 Typology

The cooperatives surveyed were divided into three broad categories depending on the agricultural products concerned (Table 1). The first category included 16 cooperatives involved in activities related to non-organic rice production, such as milling or marketing. Eight cooperatives in this group marketed rice only and eight also marketed other agricultural products, but these involved a minority of members. For instance, NR3 Cooperative had 4,500 members, out of which only 156 produced milk. The second group included five cooperatives, whose activities were not related to rice production and marketing. They involved other products, such as fruit or shrimp. The third group was made up of two cooperatives, which dealt exclusively with organic production and marketing of organic products. These cooperatives organized training on organic production, helped farmers with obtaining organic certification and organized joint marketing of organic products.

**Table 1** Main agricultural products by members of cooperatives surveyed

Group	Cooperative	Rice	Cassava, Maize, Soybean, Sugarcane	Duck, Pork, Poultry, Eggs	Fish and Shrimp	Fruit Trees, Vegetables	Dairy	Organic Products
Rice Cooperatives	SP2	X					X	
	NP1, NR1	X			X			
	PR2	X	X					
	NP3	X			X	X		
	NR3, NR5	X	X				X	
	PR1, CM2	X	X					
	PR3	X			X			
	SP1	X	X		X		X	
	CH1, PE1, PE2, SU1, NR4	X						
	NP2, PE4						X	
Non-Rice Cooperatives	NR2		X				X	
	PR4				X			
	PE3						X	
Organic Cooperatives	CM1 and BA1							X

Table 2 presents the main activities of the cooperatives surveyed. Eleven cooperatives from the first category bought rice from their members and sold it milled or unmilled to other actors in the rice value chains (e.g. mills, middlemen, supermarkets). Three cooperatives facilitated the contacts between middlemen and farmers, but did not actually buy rice from farmers. They had built a centre where farmers could present their products and negotiate with middlemen.

Table 2 Main activities of cooperatives surveyed

	Activities	Rice Cooperatives (16 Studied)	Non-Rice Cooperatives (5 Studied)	Organic Cooperatives (2 Studied)
General Activities	Supply of consumer goods and farm inputs	All	All	All
	Loans and savings	16	5	1
	Petrol station	13	1	0
Activities Related to Rice	Rice mill	7	0	0
	Joint marketing	11	0	2
Activities Related to Non-Rice Products	Facilitating contacts between farmers and buyers	3	0	0
	Dairy pasteurization and packaging unit	2	1	0
	Joint marketing	7	3	2
	Facilitating contacts between farmers and buyers	1	0	0

2.2 Loans and Savings

All cooperatives, except the organic cooperative BA1, were engaged in loans and savings. In 2016, the value of activities linked to loans and savings ranged from approximately 10 million baht (i.e. approximately 260,000 euros) for smaller cooperatives, to more than 300 million baht (i.e. approximately 7.8 million euros) for larger cooperatives. In the past, cooperatives obtained loans from the Bank of Agriculture and Agricultural



Cooperatives in order to provide loans to their members. In 2016, many cooperatives had sufficient funds on their own to provide loans to farmers without having themselves to obtain a loan from other organizations.

Managers reported that members often used to repay their loans in arrears. To solve the problem, cooperatives set up procedures to improve their control over how farmers used the loans. Some cooperatives provided loans in kind (e.g. agricultural inputs) rather than cash. Second, several cooperatives supported the diversification of farming activities. For instance, in the 1980s, farmers from Cooperative NR1 produced mainly rice and struggled to pay back cooperative loans. The manager at that time understood that farmers had to improve their farm profits. Consequently, she organized meetings in each group to identify opportunities for diversification (e.g. pig, vegetable, chicken production). The cooperative helped farmers set up these activities and produce at low cost. The cooperative started to produce piglets, which farmers could then breed, as well as rice germs for animal feed.

Thanks to these various initiatives, the managers interviewed considered that loan repayment had improved over the 2006–2016 period and no longer constituted a major issue except in cases of drought and flooding. For instance, after the major flood in 2011, which affected large areas of the Chao Phraya Basin (central and downstream), members of Cooperative NP2 did not repay their cooperative loans. The cooperative was forced to sell its office as a result.

2.3 Marketing and Bartering

Seven of the 16 non-organic rice cooperatives had a rice mill. However, five of these seven cooperatives had to decrease the amount of rice milled due to marketing problems and their mills were, thus, operating below capacity. For instance, Cooperative SP2 milled only 40 tons of rice per year, though its members produced on average 11,000 tons of rice per year. One exception was Cooperative CM2, which milled more than 2,000 tons of rice in 2015.

Most of the non-organic rice cooperatives marketed only a small share of members' rice production (as paddy or milled rice) or did not intervene at all in the marketing. Cooperative NP3 used to buy the rice produced by its members and sell it to a milling factory. However, in 2011, because of the flood, farmers delivered a small quantity of poor quality rice. The cooperative ended up selling rice at a lower price than the price it paid to members. Over the next few years, the cooperative stopped purchasing paddy rice, but still helped its members sell rice. For instance, staff from the cooperative analysed the humidity ratio in rice grains and made sure that middlemen did not cheat the farmers. Cooperative NR1 also used to sell rice under its own brand name. However, large private mills were built in the vicinity of the cooperative, which was unable to compete in terms of price. Cooperative NR1 had to stop selling milled rice under its own brand name.

The cooperatives studied were more actively involved in the marketing of non-rice products. Dairy cooperatives had their own pasteurization and packaging plants. Two of them had a contract to sell fresh milk to schools. Cooperatives PE2 and PE4 sold bananas on the domestic market and to Japan (see also Prasongsuk, 2013 and Thuvachote, 2006). However, Cooperative NP2 did not market its members' fruit production. The manager explained that the cooperative could not compete with middlemen for three reasons. First, middlemen paid cash when they purchased the products. The cooperative was unable to do the same because its funds had been depleted after the 2011 flood. Second, middlemen had specific networks with retailers in Bangkok, while it was difficult for the cooperative to develop contacts with these retailers. Third, the manager complained that, given the cooperative regulations, the decision-making process was too slow to respond to market opportunities.



To overcome the difficulty of marketing members' products, five cooperatives set up bartering activities with other agricultural cooperatives in Thailand. For instance, Cooperative NP3 produced high-yielding rice, which farmers considered to be of low gustative quality. Therefore, since 2006, NP3 received Jasmine rice delivered by truck from cooperatives in the North East region. On the return journey, the trucks transported bottled water produced by Cooperative NP3 to be delivered to the cooperatives in the North East region. Similarly, 70% of the rice processed by Cooperative NR1 was sent to other cooperatives as part of a bartering agreement, for example rice was bartered for coffee produced by cooperatives in the South of Thailand. The products obtained from these bartering activities were sold to cooperative members.

2.4 Other Activities

Many cooperatives diversified activities beyond their traditional activities (credit and saving, supply of agricultural inputs and marketing). Among the 23 cooperatives surveyed, the following activities were identified: provision of goods for home consumption, fertilizer production units, cattle feed production units, dairy farms, supermarkets, coffee shops, units to produce bottled water and a liquefied petroleum gas station. Cooperatives also undertook social action, for instance two cooperatives provided a scholarship to members' children and one provided funding in the event of a death in a member's family.

Apart from the two organic cooperatives, cooperatives did little in the way of members' capacity building. They generally interacted with staff from public administrations, who provided training. Cooperative SP2 organized annual meetings with farmers to explain market evolution and advise on what type of rice to grow. In 2016, with the support of the Cooperative Promotion Department, Cooperative NP2 set up a project to keep records of the production process at farm level in order to develop traceability. This type of traceability system would enable members to sell fruit at a higher price. Cooperative NR2 organized soil analyses in coordination with the Land Development Department to improve fertilizer use.

Cooperatives also supported the introduction of new crops that could potentially be more profitable and that could help farmers diversify their sources of income. Two cooperatives, whose members produced mainly non-organic rice, started producing organic rice. Three cooperatives tried Riceberry rice (a crossbred brown rice). However, in all cases the area of land used to grow organic and Riceberry rice was very limited. Managers did not consider these experiences to be very successful, particularly due to marketing problems.

The structure of organic Cooperative CM1 was similar to the one of cooperatives producing non-organic rice. This cooperative had 300 members in 2016 and provided help to its members for the production and certification of organic rice. It also organized sales on the domestic market. Contrary to other cooperatives analysed in this study, organic Cooperative BA1 was not linked to a specific region. This cooperative supported organic certification and marketing for approximately 900 members, belonging to different groups in the Northern, Southern and North East regions of Thailand. A small part of production was exported under an organic and fair trade label. The main products marketed were rice, coconut milk and coffee. None of these two cooperatives offered credit but members of CM1 could have savings in the account of the cooperative.

Some cooperatives provided support to help young farmers set up their own farms. Nine managers considered that cooperative members were ageing. For instance, 13% of the members of Cooperative SP2 were under 40 and 58% were over 50 (Kaojrun, 2015). The managers perceived this issue as being important for the future of their cooperatives. This was a problem for rice farmers, in particular (managers of cooperatives that were centred on non-rice products, such as dairy, banana, fish and shrimp, reported that their cooperatives had



many young members). The dairy Cooperative PE3 provided training and loans to help new farmers get started (especially members' children). Cooperative PE2 proposed a 3-year interest-free loan of 100,000 baht to young farmers, as well as management support during the first few years of their activity. Since 2009, cooperative NR4 had helped several young farmers set up on 1.6 ha, using a mixed integrated approach (pig, mushroom and rice). The cooperative's management committee assumed that this farming model would enable young people to earn more than in a factory.

3. Different Strategies

The cooperatives studied can be organized into groups according to two criteria. In Figure 1, the horizontal axis represents the extent to which cooperatives support members' market links. Cooperatives on the right of the axis sold members' products and some of them promoted new agricultural productions that members will be able to market. Cooperatives in the middle of the axis linked farmers with middlemen or helped with the transportation of paddy to rice mills. Some of them marketed members' products (e.g. Riceberry rice), but such activity involved less than 10% of members. Cooperatives on the left of the axis did not get involved in marketing of members' products.

The vertical axis corresponds to the criterion of promotion of self-reliance. Cooperatives situated in the lower part of Figure 1 promoted self-reliance as they undertook at least one of the following activities: bartering, the promotion of diversification of production at farm level for increased home consumption and training on self-sufficiency farming. The official self-sufficiency doctrine in Thailand calls for sustainable development based on moderation of economic activities. At farm level, this doctrine mainly advocates crop diversification and sustainable management of soil and water resources (Kasem & Thapa, 2012). Cooperatives situated in the upper part of Figure 1 did not undertake any of these activities.

The 23 cooperatives studied can be combined into four groups based on their position along the two axes (Figure 1). In the upper right part of Figure 1, Group A cooperatives focused on marketing their members' products. Most members of these cooperatives produced little for home consumption and the cooperatives were not involved in products grown for home consumption. This was in particular the case of the dairy and banana cooperatives. Some cooperatives had successful marketing activities: the manager of dairy cooperative PE3 mentioned an annual growth of approximately 10% sales in previous years. Group C cooperatives (upper left part of Figure 1) were less active and focused mainly on loans and savings. However, the managers of these cooperatives stated that they wanted to set up joint marketing projects or support farmers' marketing in the future (e.g. via a traceability system).

The cooperatives situated in the lower part of Figure 1 (Group D) promoted self-reliance. Four cooperatives of Group D sold members' products. For instance, the organic cooperative CM1 helped farmers sell organic products produced for home consumption on local markets. However, managers of these cooperatives did not want to increase marketing activities. The manager of the organic Cooperative CM1 explained that the objective of self-reliance was more important than increasing profits. Many cooperatives promoted this self-reliance as a consequence of marketing difficulties. For instance, Cooperative NR1 was forced to reduce its milled rice marketing activities on the main markets and as a consequence initiated bartering with other cooperatives. Another reason why cooperatives were promoting self-reliance was to reduce farmers' debts. The cooperatives striving to develop this self-reliance model were involved in rice production. For instance, they



collected paddy rice from farmers, sent it to mills and then sold milled rice back to their members for home consumption. All cooperatives of Groups D had started bartering with other cooperatives.

Managers considered that the diversification of farm activities could provide additional sources of income (thus enabling better market links), but was also an opportunity to increase production for home consumption, e.g. via vegetable or animal production (thus promoting self-reliance). Non-farming activities were also developed in all four groups: in particular, nine of the 11 Group A cooperatives and the four rice cooperatives of Group D had a petrol station.

Both strategies of “self-reliance” and “market links” are also a reflection of the orientation of members’ farms. The managers of the Group D cooperatives suggested that many of their members were elderly and had retired from jobs in the cities. Other members had non-agricultural income-generating activities and did not want to spend much time farming. By contrast, several cooperative managers from other groups pointed out that their members tried to generate their main income from farming and expected support from the cooperatives for the development of new agricultural products and marketing.

		Market Links		
		No Involvement in Marketing	Linking Farmers with Middle Men	Selling Members' Products
Self-Reliance	No Promotion of Self-Reliance	Group C <div style="border: 1px dashed black; padding: 2px;">NP2, PR4</div> CH1, PR3 PR2, NP1 PE1	Group B SP2, PE1	Group A SP1, NR3, NR4 NR5, PE2, PR1 <div style="border: 1px dashed black; padding: 2px;">NR2, PE3, PE4</div> BA1
	Promotion of Self-Reliance		Group D NP3	SU1, CM2, NR1 CM1

Key:

- NP3 : Rice cooperative
- NP2

 : Non-rice cooperative
- BA1

 : Organic cooperative

Figure 1 Typology of agricultural cooperatives according to their market links and promotion of self-reliance

Discussion

1. Innovative Types of Agricultural Cooperatives

The above-mentioned typology of agricultural cooperatives mixes classical and innovative types of cooperatives. Groups A and B represented “classical” forms of agricultural cooperatives: they were actively engaged towards enhancing their members’ incomes from farming, as it is generally the cases in agricultural cooperatives around the world. However, few of the studied cooperatives provided training on agricultural practices on a regular basis. This is an especially important issue in the rice sector because yields are low in Thailand compared to other rice-producing countries and profitability has become limited since the end of a rice price support program in 2015 (Titapiwatanakun, 2012; Permani & Vanzetti, 2016). Group C cooperatives are not new as such, as Thai cooperatives started with loans and credits. However, they did not evolve (or failed to do so) towards managing market links or the promotion of self-reliance.



Cooperatives of Group D promoted self-reliance (mainly through bartering, diversification of farm production and training on self-sufficiency farming) and do not easily fit in the standard typologies of agricultural cooperatives or farmer organizations at international level. For instance, in a study of farmer organizations in Africa, Bernard, Collion, De Janvry, Rondot & Sadoulet (2008) contrast market- and village-based organizations. Francesconi & Heerink (2011) identified a typology of: i) market-oriented cooperatives, that “aim at generating income through collective marketing” and ii) livelihood-oriented cooperatives, which are “motivated by defensive purposes and aim to provide social protection through increased visibility and reduced transaction costs vis-à-vis aid agencies and government subsidies”. In the present study, the cooperatives that were geared towards self-reliance differed both from village-based and livelihood-oriented organizations. They were spread over several villages and did not receive regular funding from public organizations. Cooperatives promoting self-reliance (Groups D) were no smaller than cooperatives in Group A, with an average of approximately 2,900 members in 2016 in both groups.

2. Factors of (non) Evolution

Several factors explain the choices made by the management committee of studied cooperatives to initiate (or not) activities towards managing market links or towards self-reliance. Some factors were related to the socio-economic context in which the cooperatives evolved. First, marketing activities were more easily initiated in value chains which enabled relatively higher profitability in terms of farm income and which did not involve intense competition with investor-owned large-scale companies. It was easier to succeed in the joint marketing of organic rice than doing so with non-organic rice. Second, in many cooperatives, the share of farmers among members is decreasing. The development of activities not directly related to farming (gas station, supermarkets, etc.) was an answer to such evolution of members. For instance, in Cooperative PE1, over 50% of members were non-farmers: they were predominantly children of former members who still benefited from some of the cooperative activities, such as loans and savings. In the long term, in the cases where non-farming members will constitute the majority, the cooperatives may limit their activities to non-agricultural activities, such as loans and savings, managing a petrol station or a supermarket.

Other factors were related to the views of the staff and management committees of the cooperatives. According to interviewed staff from the Cooperative Promotion Department, the staff and management committees of these cooperatives generally consider that marketing is more risky than other activities, such as credit, saving and supply of agricultural inputs and consumer goods.

The choice of a cooperative to undertake some activities towards market link or toward self-reliance does not entail that these initiatives were always successful. For instance, fifteen of the 23 studied cooperatives were collectively selling their members' products, but many of them experienced problems in doing so, especially in the rice sector. An in-depth investigation is required to understand why most cooperatives with a rice mill failed to compete with other milling factories. There are numerous potential factors, including economies of scale and technical and managerial efficiency.

3. Providing Differentiated Support

A Strategic Development Plan for Thai agricultural and non-agricultural cooperatives is designed every five years since 2003. In 2016, the Cooperative Academic Institute coordinated the design of the fourth national strategy for cooperatives for the period 2017–2021. The strategy gives priority to: 1) establishing business relationships between cooperatives; 2) increasing the added value of cooperative products; 3)



improving the cooperatives' financial system; 4) improving the institutions that support cooperatives (Patrawart & Sriurai, 2016). This strategy does not differentiate between types of cooperatives. Similarly, the Cooperative Auditing Department also evaluates cooperatives along a single model, based on the assessment of six business activities.

As pointed out by Faysse (2017), Thai public policies may better differentiate between farms that mainly focus on self-reliance farming and those that attempt to get sufficient income through market links. Similarly, the present analysis shows that it might be beneficial if the organizations that support Thai agricultural cooperatives recognized the differences between cooperatives in terms of the constraints and their strategies. Different strategies could be developed to support cooperatives in each of the four groups identified in Figure 1. Helping cooperatives that want to promote self-reliance is especially important in Thailand because of the expected increase in its ageing population in the coming decades (World Bank, 2016). Helping cooperatives getting better market links will need first a better understanding of current weaknesses, as discussed above. New forms of governance and incentives for staff members could also be investigated to ensure that cooperative staff genuinely attribute importance to marketing activities and have the scope to make them more competitive.

Moreover, as was the case in France in the 1960s (Coleman & Chiasson, 2002), providing support to develop more economically sustainable farms may require a rethink, not so much in terms of supporting agricultural prices but in terms of farm structure. The key underlying issue is to develop farms capable of generating sufficient income so that young people consider that farming is a worthwhile way to earn a living. Several of the cooperatives studied attempted to encourage young farmers to set up, but they only had limited resources to do so. Public policies could play a major role in providing support to help young farmers set up in farming in conditions enabling their sustained engagement.

Conclusion

The agricultural cooperatives of Thailand play a key role in farmers' daily lives and have proved their resilience over decades. The activities of the cooperatives studied have evolved constantly since their inception and now encompass a wide range of services to their members. The managers of studied cooperatives were aware of four major and interconnected changes, which were all threats to the functioning of the cooperatives: the decreasing role of agriculture in rural areas, farmers' ageing, limited profitability of farming and increased competition in agricultural value chains. Many cooperatives had initiated activities in order to adapt to these changes (e.g. activities not related to agriculture) or to influence them (e.g., support to young farmers). There were major differences between the cooperatives studied in terms of their choice of activities to face these changes. Some cooperatives tried to collectively manage market links while others attempted to reduce members' dependence to markets.

Non-organic rice cooperatives appeared the most fragile. They attempted to improve profitability of farming by supporting diversification of farm products, but they provided limited support for improved rice production techniques at farm level and they generally experienced difficulties in marketing paddy or rice. These cooperatives will have to develop new strategies if they want to avoid being forced to accept a situation where they only support elderly farmers or farmers with diverse activities, for whom farming has become merely a marginal activity.



This study shows more generally that there is a large diversity of the social and economic roles that cooperatives may play in order to adapt to the socio-economic transformations taking place in rural areas. Thai agricultural cooperatives have shown their awareness of the changes taking place at farm level and of the challenges facing the agricultural sector. Cooperatives could thus play a third role, the one of being fully-fledged partners for discussing development alternatives, developing visions for the sustainable development of rural territories and possibly playing their part towards achieving these visions.

Acknowledgements

The study was undertaken with support from the Asian Institute of Technology.

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