

CHAPTER 3

Rural Village in Red River Delta, Vietnam

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Introduction: Exploiting Opportunities as Rural Villagers' Response to Socio-economic Changes

The response of rural villagers to natural environmental and socio-economic changes has been the subject of research in various fields. What is the difference between these perspectives and the one of “exploiting opportunities”? This study examines how the perspective of exploiting opportunities differs from previous research by focusing more on the historic and specific responses of people living in rural areas to the changes. This would, for example, allow us to broadly understand their long-term responses to external agents of transformation and the actions they take to prepare for such responses and to rationally understand the variety of responses that reflect different and individual conditions that have been discarded as exceptions in previous studies.

In this chapter, the author clarifies how people living in rural areas (hereafter referred to as villagers) have built their livelihood in the natural environment and socio-economic changes from the perspective of exploiting opportunities, focusing on a cooperative in one village in the Red River Delta, Vietnam (hereafter referred to as the “A Cooperative”).

A cooperative (*hợp tác xã* in Vietnamese) is a unit of collective farming formed as part of a socialization policy in northern Vietnam in the 1950s. In the surveyed village, the cooperative played an important role in improving village life not only during the period of increased food production in the 1980s, but also with the introduction of cash crops in the 1990s and the increase in non-agricultural job opportunities in the 2000s and beyond. The cooperative in the study village is still maintained and continues with activities closely related to villagers' livelihoods. The author examines the changes in the villagers' livelihood along with the activities of the cooperative, because the changes in the villagers' livelihood have been affected by the cooperative to a large extent.

The targeted period of this study is approximately 50 years since the late 1970s. After the end of the Vietnam War in 1975, there was a rapid shift to collective farming throughout Vietnam, but it almost collapsed after only about five years. This was followed by a turbulent period of socio-economic changes in rural areas, such as the reform of the contracting system in 1981, the introduction of market economic mechanisms (*Đổi Mới*) in 1986, the dismantling of cooperatives (collective farming) in 1988, and issuing of the Land Law in 1993. This study examines how villagers, together with the cooperative, responded to these changes from the perspective of exploiting opportunities.

General Information on Study Village

The A Cooperative is located in a rural village in the Red River Delta of Vietnam, which is in the T administrative village (commune, *xã* in Vietnamese), Nam Dinh province. According to 2009 statistics, there were 1,105 households belonging to the cooperative, with a population of 3,607 and

an area of 349 hectares. The Red River Delta is a delta formed at the mouth of the Red River, which originates in China, and forms a low-lying delta with Viet Tri at its apex. The study village is located approximately 100 kilometers south of Hanoi, the capital city of Vietnam.

There are four major deltas in mainland Southeast Asia. From east to west, they are the Red River Delta in northern Vietnam, the Mekong Delta in the south, the Chao Phraya Delta in Thailand, and the Ayeyarwady Delta in Myanmar. Because of their extreme hydrological environment, where the water level rises during the rainy season and decreases during the dry season, the deltas had hardly been explored by humans until the 18th century. However, from the 19th century onward, the global demand for rice brought colonial governments, royal families, and merchants together to utilize the delta, transforming it into a major rice granary for their respective countries. The deltas of Southeast Asia, which form some of the world's largest granaries, are a relatively new landscape, having been formed over the past 150 years.

The Red River Delta, however, is an exception. Embankments began to be constructed in the 13th century, which enabled migrants to settle down in the deltaic area. In the 19th century, as with other deltas in Southeast Asia, the colonial government improved the water management system by rebuilding the embankments along the river and constructing sluice gates. Furthermore, in the 1960s and 1970s, during the Vietnam War, with the assistance of the former Soviet Union, embankments and pumping stations were constructed along major rivers, thus completing the current water management system. In the case of the rural areas of Nam Dinh province, an area of approximately 80,000 hectares, surrounded by the Red River in the northeast, the Day River in the west, and the Nam Dinh River in the southeast, was developed as the Bac Nam Ha Irrigation and Drainage System (*Hệ thống thủy nông Bắc Nam Hà*). Irrigation and drainage operations were conducted at large pumping stations along major rivers. The area that benefited from this was 53,000 hectares for irrigation and 85,326 hectares for drainage (MARD 2003).

With the completion of this water management system, agricultural production changed dramatically. In the past, most of the low-level paddy fields were flooded during the rainy season and only one crop of paddy rice could be planted in a year. Since the 1970s, however, double cropping of rice has been implemented, leading to the stability of rice productivity.

Life History of Study Village

From 1975 to the 2020s, Vietnam has implemented various institutional reforms directly related to agriculture and people's livelihood in rural areas. This section reviews the socio-economic policy changes over the past 50 years and examines how the villagers of the A Cooperative have responded to the changes and built their livelihood following the socio-economic changes.

'A Cooperative' and Villagers' Livelihood in 1980s

In 1975, after the Vietnam War ended, new nation-building efforts were re-started throughout Vietnam. Particular emphasis was placed on the policy of collective farming, which had already been in place since the 1950s. However, during the war, the boundary of the cooperatives repeatedly

expanded and contracted, and the system was unstable. The end of the war in 1975 and the subsequent return of military personnel to their villages added to the confusion. People suffered from severe food shortages in the 1970s. This was the case in many rural villages in Vietnam.

In 1981, therefore, the government implemented a major reform of the collective farming system. Under a new contracting system known as Khoan 100, collective farming could be undertaken on a smaller unit. Whereas collective farming had been undertaken by the entire cooperative, collective farming could be done by subordinate units such as production brigades (*đội sản xuất*).

When the contract system was reformed at the national level in 1981, the A Cooperative implemented a modified system in which farming was actually undertaken on a household basis, although the production units were nominally responsible for collective farming. Therefore, it was necessary for the cooperative to allocate agricultural land to each household for their farming, while the land legally remained under the collective use of the cooperative. Before 1981, there were no restrictions on which land within the cooperative would be worked. The location of the field where each villager had to work varied depending on the work assigned on a daily basis. Under the new contracting system, however, the location and area of agricultural land to be cultivated was allocated to each household. The area was almost automatically determined according to the number of workers in a household, which was not a major problem. Determining the location, however, was a more important issue. The land that was advantageous for farming varied, depending on the topography and soil, as well as the distance from waterways and residential areas. In addition, the villagers wanted to have both paddy and upland fields so that they could grow rice as a staple food and vegetables for sale.

The A Cooperative took the initiative in allocating land to each household. The cooperative prepared a five-level land classification map in the village according to the productivity of rice¹⁾ (FIG. 3.1). The main criteria were soil and water conditions. The highest level of paddy fields was land with a moderate mixture of clay and sand, good water holding and drainage capacity, and easy access to major irrigation and drainage channels. Conversely, heavy clay paddy fields located near low land were classified as the lowest level. These classifications also reflected the villagers' empirical perception of rice productivity.

Land was allocated to each household based on the land classification map prepared by the A Cooperative. The allocation of land to each household was ultimately done by lottery. In other words, to equalize the productivity of the land allocated to households, it was necessary to allocate the land equitably in terms of land classification and location. However, full implementation of the equality principle could have resulted in the land being dispersed with small pieces of land. In fact, in the village next to the A Cooperative, a household was allocated 40 plots of land.

To stick to the principle of equality, the A Cooperative conducted a lottery. To optimize agricultural practice, however, the cooperative also suggested mutually exchanging the fragmented small pieces of land with other households through discussions. In the end, each household was allocated an average of six to seven pieces of land.

Since 1981, the villagers of the A Cooperative have been engaged in agricultural production on their allocated land, and throughout the 1980s, rice production in the A Cooperative increased steadily.

1) Some villages in the Red River Delta made seven-level land classification map.



FIG. 3.1 Classification of farmland shown at the A Cooperative's office

Source: Photo taken by the author

There was no dramatic improvement in production, although many reports pointed out that the 1981 institutional reforms stimulated individual farmers' incentive to increase their productivity. Villagers' incentives alone did not lead to a dramatic increase in actual production. Agricultural inputs such as chemical fertilizers and pesticides were scarce. Although the institutional reforms of 1981 certainly increased agricultural productivity, it was more significant for the villagers' rural life that the reforms made possible stable food production, albeit at a lower level.

In addition to the implementation of the contracting system, the government issued some major policies at the national level, including the introduction of market economy mechanisms in 1986 (*Đổi Mới*) and the dismantling of cooperatives (collective farming) in 1988. In the A Cooperative, however, there were no notable changes due to these policies.

Prior to the declaration of the introduction of market economy mechanisms at the national level in 1986, the A Cooperative started growing commercial crops such as potato and rice for seed. Especially potato production in the A Cooperative was unique. Through a national agricultural research institute, the A Cooperative imported Dutch potato seed and also invited Dutch experts to provide technical guidance. Moreover, the A Cooperative began to build a cold storage facility to store the seed potatoes. All these activities by the cooperative allowed villagers to initiate cash crop cultivation even before *Đổi Mới* (Yanagisawa 2000).

There were also no major changes in the A Cooperative when new cooperative law to dismantle cooperatives was issued in 1988. Most villagers remained members of the new cooperative, now defined as an agricultural service organization. As mentioned earlier, the A Cooperative had already functioned as an agricultural service organization. The cooperative announced suitable crops, varieties, fertilizers, agricultural chemicals, cropping calendars, and informed villagers as soon as crops were damaged by diseases and insects. Most villagers followed the cooperative's instructions. The only change resulting

from the 1988 reform was that the cooperative was no longer required to submit documents to the higher level of government as a unit of collective farming.

Cooperative and Villagers' Livelihood in the 1990s

Villagers practiced agriculture on the allocated land and the cooperative provided agricultural services throughout the 1990s. Unlike the 1980s, the amount of chemical fertilizers and pesticides increased and high-yield varieties were introduced, so that agricultural production increased. In terms of labor and capital inputs per unit area, the 1990s were the most intensive period in at least the past 50 years. Various cash crops were also grown. Livestock raising, such as pigs and poultry, also became an important source of cash income.

Not only labor and capital intensification, but also land intensification progressed. FIG. 3.2 and 3.3 show the cropping systems in the 1980s and 1990s in the A Cooperative (Yanagisawa et. al. 1999). In paddy fields, double cropping of rice was combined with field crops such as corn and potatoes in winter, resulting in three or more multiple cropping. In the 1990s, crops were cultivated so intensively that there was almost no unoccupied land throughout the year.

Cropping pattern	Cropping calendar												Planted area (ha)	Percent (%)
	J	F	M	A	M	J	J	A	S	O	N	D		
VEG													2.7	1.3
GN-RR													25.6	12.5
NB													17.8	8.7
WSR-RR													158.2	77.5

FIG. 3.2 Cropping system in 1985

Source: Yanagisawa et.al. 1999

Note: VEG: vegetables, GN: groundnuts, RR: rainy season rice, WSR: winter spring season rice, NB: nursery beds

Cropping pattern		Cropping calendar												Planted area (ha)	Percent (%)
in 1985	in 1996	J	F	M	A	M	J	J	A	S	O	N	D		
VEG, GN-RR	VEG													11.9	6.0
GN-RR	VEG-RR													14.7	7.5
SR-RR	VEG-RR													0.7	0.4
GN-RR, SR-RR	COOP													8.3	4.2
SR-RR	SR-RR-VEG													9.6	4.9
NB	NB-SR-NB-RR													10.9	5.5
SR-RR	SR-RR													141.0	71.5

FIG. 3.3 Cropping system in 1996

Source: Yanagisawa et.al. 1999

Notes: VEG: vegetables, GN: groundnuts, RR: rainy season rice, COOP: fields managed by the cooperative, in which Irish potato is planted from December until February, rice in late spring, rice in the rainy season, and vegetables in the winter season, WSR: winter-spring season rice, NB: nursery beds.

With regard to the agricultural intensification of paddy fields, the cooperative offered various opportunities to villagers. However, the upland crops especially vegetable cultivation and the livestock raising, which were also rapidly intensified in the 1990s, were developed by the villagers themselves, because each household had different conditions.

The available land for vegetable cultivation was small, so vegetables, mainly leafy vegetables, such as Welsh onions (*Allium fistulosum*) and water spinach (*Ipomoea aquatica*) in summer, and lettuce (*Lactuca sativa*), and Chinese cabbage (*Brassica campestris*) in winter, and other vegetables were continuously cultivated (Yanagisawa et. al. 2001). Vegetables were always planted without gaps, and someone was always working on the farm, which was the landscape of the A Cooperative's vegetable fields in the 1990s (FIG. 3.4).



FIG. 3.4 Vegetable fields in the A Cooperative (January 1996)

Source: Photo taken by the author

Vegetable cultivation varied between households. For example, how to grow, how to sell the products, and who manages the cultivation depended on the household. Some households cultivated vegetables as the main source of cash income, while others cultivated vegetables only with elderly parents. There were also cases in which vegetables were cultivated by those who had time to spare.

Agricultural production was intensified both on paddy and upland fields in the 1990s. The effects of the cooperative to provide opportunities was different. Opportunities for intensification of rice cultivation were mainly brought by the cooperative, whereas vegetable cultivation was developed by villagers themselves.

Cooperatives and Villagers' Livelihood since the 2000s

Since the 2000s, the livelihood structure of the village has changed significantly, shifting from a land-based system to a non-agricultural-based one.

The direct impetus was the construction of an industrial zone in 2003, located 7 kilometers from the A Cooperative. Many of the A Cooperative's young people began working in the industrial zone after graduating from high school, rather than engaging in agriculture in the village. The construction of the industrial zone, which is within commuting distance from the village, has enabled a village-based commuting work pattern (*sáng đi tối về*, literally, it means “go in the morning and return in the evening”). For the young people living in the A Cooperative, it became possible to earn a

salary while maintaining the same livelihood as their parents' households, without having to make new arrangements for housing, food, and other necessities. For young couples, especially those who had just married, the advantage of village-based commuting was significant, as they could leave their children in the care of their parents. It was also an advantage for the parents to secure workers to maintain and manage their fields on weekends and holidays, even though they could not expect to work during the week.

The structural changes in livelihood in the village were basically driven by the overall changes in the economic structure of Vietnam. Since 1986 when the market economy mechanism was introduced (*Đổi Mới*), rather than working in agriculture, career paths in industrial and service sectors for wage labor have become more important, especially for young people. During the same period, the level of education has also improved, and the number of young people with high school and college degrees has increased. Many of the villagers born in the 1980s went on to graduate from high school. In other words, when the demand for labor increased due to the construction of the industrial zone in 2003, many of the young people in the A Cooperative had just graduated from high school.

As the livelihood structure changed, the emphasis of agricultural production shifted from intensification to just maintaining production. Paddy yields, for example, have not increased since the 2000s (TABLE 3.1). Abandoned lands were not unusual in both paddy and upland.

TABLE 3.1 Rice Productivity in the A Cooperative (t/ha)

	2000	2005	2010
Rainy season	5.2	4.7	4.3
Spring season	5.6	5.4	4.8
Average	5.3	5.0	4.5

Source: Field survey by the author

The share of agricultural income to households decreased. According to the authors' 2016 survey, wage labor accounted for the majority share of cash income to households (53%), followed by self-employment and services (34%), and agricultural production (5%). Rice in paddy fields was grown for the villagers' consumption. To cope with the labor shortage, agricultural mechanization progressed. Harvesters were introduced in the 2000s, and in the 2010s, rice transplanting machines started to be used. In vegetable crops, electric lines were run to the fields and electric pumps and lights for night work were installed to save labor in agricultural work.

As the share of agricultural production in the household economy declined, the role of the A Cooperative as an agricultural service provider also changed.

Since the 2000s, the A Cooperative has been organized to build the water supply system, to construct the inter-village roads, to renovate the levees in the agricultural areas to promote mechanization, and to improve common cemeteries and parking lots. In other words, the cooperative came to exert a significant influence on the improvement of the living standard in the village. In summary, the cooperative has transformed from an agricultural service organization for increasing food production and growing cash crops in the 1980s and 1990s to a livelihood service one in the 2000s.

Findings and Discussion: Exploiting Opportunities in Socio-economic Change

This chapter examined villagers' responses to socio-economic changes, particularly since the late 1970s, in the A Cooperative in a Red River Delta village of Vietnam. In keeping with the purpose of this chapter, which is to look at it from the perspective of exploiting opportunities, how does this understanding differ from the previous view?

The conventional view of the Vietnamese village studies was that Vietnamese villages were at the mercy of various institutional changes, and that the livelihoods and villagers' lives were forced to change. Alternatively, Vietnamese villagers showed various forms of daily resistance, especially in the analysis of the period of collective farming (for example, see Kerkvliet 2005). In contrast to such views, how can the perspective of exploiting opportunities interpret socio-economic changes in the village?

The policy of the contracting system implemented in 1981 was not intended to be a complete dismantling of collective farming at the national level. It merely made possible a smaller unit to be cultivated, instead of the entire cooperative, which had previously been based on the collective as a unit. However, in the A Cooperative, agricultural land was substantially allocated to each household equally. Agricultural production was initiated on a household-by-household basis, which was a system that would have had to wait until the dismantling of the cooperatives in 1988 and the issuing of the Land Law in 1993.

Regarding market economy mechanisms, *Đổi Mới* was implemented at the national level in 1986. In the A Cooperative, however, the cultivation of cash crops had already begun before 1986. In the 1990s, villagers also began to grow vegetables as cash crops on their own. The 1990s was the period in which agricultural intensification progressed the most in the village in the past 50 years. The cooperative played a major role in this process of intensification. In particular, in the cultivation of rice and cash crops, the cooperative provided villagers with various opportunities for intensification. Directly, packages of the types of chemical fertilizers and pesticides suitable for cultivation were bought by the village. High-yielding varieties and other highly tolerant varieties against disease and flooding were also introduced. Indirectly, it was important that the land had already been allocated to households in 1981 to stimulate intensification at the household level.

The role of the cooperative in the process of intensification, however, differed between rice and vegetable cultivation. While the cooperative provided many opportunities for intensification in rice cultivation, vegetable cultivation was intensified according to the different conditions for each household. Vegetable cultivation was, as mentioned above, carried out according to the differences between households in technical ability and socio-economic conditions. The cooperative did not provide villagers with as many opportunities to promote vegetable cultivation as it did for rice.

The difference in the role of the cooperative in the process of intensification related to the equalization in crop cultivation. In the case of rice cultivation, the cooperative's involvement raised the technical level of villagers and minimized the socio-economic difference between households. By exploiting opportunities provided by the cooperative, even households with low cultivation skills or insufficient labor, and households that could not spend enough time collecting agricultural materials

and information for sales were able to receive agricultural guidance from the cooperative to secure their staple food.

On the other hand, vegetable cultivation was carried out in accordance with the differences in technical skills and socio-economic conditions between households. Forcing a standardized method of vegetable cultivation would have benefited only specific people who met the conditions.

The role of the cooperative in land allocation was also crucial. Land use rights were formally distributed to each household according to the Land Law in 1993. And then, it was amended every 10 years, in 2003 and 2013. The purpose of the institutional amendments was to modify the terms of land use rights, the purpose of use, and the provisions regarding inheritance, sale and so on. The objective behind the law was to promote the exchange and consolidation of subdivided agricultural land.

In response to the changes in land policy over more than 30 years since 1981, the practical land use in the A Cooperative was always ahead of the national policy. In the 1980s and 1990s, when land-based agriculture was essential for food production, land was substantially allocated to each household to secure food stability for the villagers. Rather than responding to each policy as it was implemented, the cooperative exploited opportunities for the villagers within permissive limits, and the villagers actively exploited the opportunity.

From the 2000s onwards, the proportion of agricultural production in household income decreased, because the younger generation shifted to wage labor such as factory work. There was a shortage of labor in the village, and agricultural production became increasingly mechanized. The implication for agricultural land for villagers since the 2000s was completely different from that of the 1980s and 1990s. The agroecological conditions of farmland, such as soil, elevation, and water holding capacity, were no longer recognized by the villagers as an important factor. To optimize non-agricultural employment, the villagers preferred agricultural land close to or easily accessible from their houses.

In 1981, the A Cooperative had already begun not only allocating land to each household, but also exchanging land as much as possible. By 2003, the agricultural land had already been consolidated, and the number of agricultural plots per household, including both paddy and upland fields, was around two. From the perspective of the villagers for exploiting opportunities, it could be seen that both the cooperative and the villagers have been responding from a longer-term perspective rather than responding to each policy. This has been one of the backgrounds to supporting non-agricultural employment since 2003. By considering exploiting opportunities, it became clear that the villagers maintained their livelihood within a longer-term strategy.

One more understanding gained from the perspective of exploiting opportunities would be the diversity of villagers' responses. Not all households responded to socio-economic changes in the same way. For example, the main income source in the A Cooperative has shifted to the non-agricultural sector since the 2000s. In parallel, the number of abandoned rice paddies and upland fields increased, which reached approximately 10% of total agricultural land in 2023. Unlike paddies, however, upland fields were almost completely covered by vegetables throughout the year. This was because land was leased and rented between households within the A Cooperative. Although a lot of young villagers were engaging in non-agricultural sectors, some were still not. For example, there were cases of young

couples who had just married and did not have the financial means or labor forces to engage in the non-agricultural sector. They rented abandoned land for vegetable cultivation in the village and earned a small source of cash income. Not all people in the village were responding to the socio-economic changes in the same way. Choices were made that were consistent with individual lifestyles and the conditions of the moment in their respective life plans.

In this chapter, the 50-year change in one cooperative in the Red River Delta was examined from the perspective of exploiting opportunities, which would be useful to comprehensively understand household strategies from a broader and longer-term perspective.

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