Institutional Analysis of the Contemporary Land Consolidation in the Red River Delta : A Village-Level Study of Dong Long Commune in Tien Hai District, Thai Binh Province, Vietnam

TRAN Anh Tuan

I Introduction

Since Vietnam has adopted “*Doi Moi-Renovation*” policy¹⁾ in 1986, especially in 1988, the decentralization process has taken place in all economic sectors. In agriculture—one of the most important sectors, from which about 80 % of Vietnam population gets their main income, the production relations changed from collective system to contract system. Agricultural land has been allocated to farming households and the role of agricultural cooperatives has changed from management to service functions.²⁾ The changes are remarked by the Resolution 10 NQ-TW of the Vietnam Communist Party, which identifies that the land property still retained by the Government while agricultural land was allocated to households.³⁾ The Land Law in 1993 granted five rights to households : transfer, exchange, inheritance, rent and mortgage.⁴⁾ Therefore, farmers have the right to decide on what crops to plant and how much investment to put into production. Based on the Decree 64 / CP of the Government dated September 27, 1993 about “*Delivery of Agricultural Land to Households and Individuals for Stable and Long-term Use and Land Use Certificate Issuance*”, Provincial People’s Committee and lower administrative levels had plans to redistribute agricultural land to farmers. By the year 2003, 87 % of total agricultural land has been redistributed to farming households, of which 92 % of households have received Land Use Certificates.⁵⁾ The main principle of this program was to “*equally*” redistribute land among households.⁶⁾ Therefore, each household would hold the plots of fertile and less-fertile

1) The “*Doi Moi*”-Economic reform’s policy has marked the transformation from planned to market economy. The Sixth National Congress of the Vietnam Communist Party approved it in 1986. To know more information, see (1) Ha Huy Thanh, “Economic Growth and Social Equality in Sustainable Development”, *Vietnam’s Socio-Economic Development*, 37, 2004, pp. 12-17. (2) The World Bank in collaboration with the Asian Development Bank, *Vietnam-Delivering on Its Promise, Vietnam Development Report*, 2003.

2) Ministry of Agriculture and Rural Development, *Farmer needs Study*, Statistical Publishing House, pp. 91-99.

3) Vietnam Communist Party, *Nghi quyết Bộ Chính Trị về Doi Moi Quan Ly Kinh Te Nong Nghiep No. 10-NQ/TW* (Resolution No. 10 NQ / TW on the Reform of Agricultural Economic Management), Su That Publisher, 1988. (Vietnamese).

4) The National Assembly of Vietnam, *Land Law of Vietnam*, 1993.

URL : <http://www.luatvietnam.com.vn/noidung2k.asp?id=2638>. (May, 2005).

5) Land Use Certificate (or “*So Do*” in Vietnamese) identifies the name of land user, and the total area of agricultural land of household and number of plots.

6) Ministry of Agriculture and Rural Development, *Bao cao thuc trang ruong dat hien nay va cac giai phap khac phuc tinh trang manh mun dat dai trong nong nghiep* (Report on Situation and Solutions for Solving the Land Fragmentation in Agriculture), 2003. (Vietnamese).

7) Quy-Toan Do, Lakshmi Iyer, *Land Rights and Economic Development, Evidence from Vietnam*, Policy Research Working Paper, The World Bank Development Research Group, Poverty Team, 2003.

land, low and high land, close and far from settlements, and so on. Thus, households would keep several plots in all of the fields in their village. According to the statistic data in 2003, there were 75 million parcels in the whole country; each household had 6.8 plots on the average with a total area of 0.3–0.5 hectares. Particularly in the Red River Delta,⁸⁾ a household holds only 0.25 hectares of land divided into 7–10 parcels.

Recently, land fragmentation as well as land consolidation (henceforth LC) in Vietnam has not been sufficiently studied. Most of the studies are concentrated on land fragmentation, land use rights evaluation at district, provincial or higher levels. There are some initial studies conducted in 2003 and 2004 by governmental research institutes such as the National Institute of Agricultural Planning,⁹⁾ Vietnam Agricultural Sciences Institute.¹⁰⁾ The studies are focused on the increase of agricultural productivity, diversification and farming household's level investment, and improvement in land administration. On the other hand, there are several studies on land fragmentation¹¹⁾; impacts of fragmentation on agricultural production¹²⁾; and results of LC process as well as experiences which are gained from such programs in particular provinces of Hai Duong province¹³⁾; Thanh Hoa province¹⁴⁾; and Tuyen Quang province.¹⁵⁾ These studies also pointed out the negative impacts of land fragmentation on agricultural production such as high labor cost, reduction of agricultural mechanism, and the loss of land caused by plot boundaries. Furthermore, the studies on LC process show that the number of farmers, who are willing to participate in these programs, are quite different from one province to the other (e. g., 86 % of the interviewed farmers in Hai Duong province, compared to only 30 % in the whole of Red River Delta); and there are 50 % of the interviewed farmers, who want to carry out the LC program in the future; this implies that the results of contemporary LC has not satisfied all local farmers' needs. LC is a very sensitive and complicated process; it requires the participation of local institutions such as Communal People's Committee¹⁶⁾ (*Uy ban nhan dan xa*), Agricultural Cooperative (*Hop tac xa*), Farmers' Association (*Hoi nong dan*) and other authorities at village and communal level as well as individual farmers. This important point seems to be ignored in such previous studies.

8) Pham Van Hung, T. Gordon MacAulay, and Sally P. Marsh, *The Economics of Land Fragmentation in The North of Vietnam*, Contributed paper presented at the 48th Annual Conference of the Australian Agricultural and Resource Economics Society, Melbourne, Victoria, 11th-13th February 2004, p. 1.

9) National Institute of Agricultural Planning, *A study on Land Consolidation in the Red River Delta*, 2003.

10) Dao The Anh, *Studying Land Consolidation Practice in Some Provinces and Proposing Policies to Promote Land Consolidation for Improvement of Effectiveness of Land Use in the Red River Delta*, 2004.

11) Lam Thi Mai Lan, "Su manh mun ruong dat-Mot can tro lon cua nong nghiep Vietnam trong giai doan moi" (Land Fragmentation-A Constrains for Vietnamese Agriculture in the New Period), *Land Administration Magazine*, 2, 2001, pp. 16-17. (Vietnamese).

12) *op. cit.*, footnote 8). pp. 1-12.

13) Vu Thi Binh, "Thuc trang cong tac chuyen doi ruong dat va van de quan ly, su dung dat sau chuyen doi o tinh Hai Duong" (Real Situation of Consolidation and Conversion of Agricultural Land in Hai Duong Province and Land Management, Land Use after the Change", *Land Administration Magazine*, 6, 2004, pp. 30-34. (Vietnamese).

14) Nguyen Van Tieu, "Doi ruong-don thua, hoan chinh ho so dia chinh la mot nhien vu trong tam truoc mat cua nganh dia chinh Thanh Hoa" (Land Consolidation and Completing Cadastral Documents are Central Missions of Thanh Hoa Land Administration), *Land Administration Magazine*, 6, 1999, pp. 16-17. (Vietnamese).

15) Nguyen Duong Giu, "Tuyen Quang day manh cong tac don dien doi thua" (Tuyen Quang's Promoting the Land Consolidation), *Land Administration Magazine*, 10, 2002, pp. 27-28. (Vietnamese).

16) Commune (*Xa*) is the lowest unit in the administrative system of Vietnam. But in fact, a commune is usually divided into hamlets (*Thon or Xom*), villages (*Lang*). Each village or hamlet has the head (*Truong thon*) and Communist Party Cell (*Chi bo*). They usually are prestigious people and they play important roles for rural communities.

Since 1945, there have been two main reform processes. The first one was carried out in 1953–1956 and the other is still being implemented in many provinces. The main objectives of the former program were to abolish the feudal regime and to reduce the influences of landlords in agricultural production, while the present LC process concentrates on reducing the number of parcels in particular areas. Both programs have carried out in different periods and socio-economic situations. Nevertheless, they have common objects targeting at land, especially agricultural land and production relationships. To distinguish the differences between two programs and to understand the experiences from the former land reform program to apply in the contemporary LC process, especially at village level, are important points of this study.

We aim to conduct an institutional analysis of the LC process in Vietnam as follows :

- To analyze the legal framework for LC from state to villages level.
- To evaluate the advantages and weaknesses of Top–Down and Bottom–Up approaches in the contemporary LC process.
- To illustrate the procedure of establishing objectives, principles and implementation guidelines for LC at provincial and district levels.
- To identify the roles of local institutions as above–mentioned. Furthermore, to analyze the process of creating “*Plan of Land Consolidation*” of Dong Long Commune and its villages with the voluntary participation of local people.

The main objectives of the paper are the following : firstly, to compare and contrast the situation of the former land reform program with the contemporary LC process, which focuses on the North of Vietnam. Secondly, to evaluate the impacts of the LC process on rural development at the village level in Dong Long Commune, Tien Hai District–located in the coastal zone of the Red River Delta. In order to trace these objectives, we address some specific problems in the followings : what the main characteristics of the two land reform processes are, how the central and local institutions have gained experiences from the former land reform, how the modern LC process has been carried out at the village level, what the role of village level institutions is, and what impacts on land and productivity in the studied commune are.

II Overview of Land Reform Processes in Vietnam

(1) Land Reform Program in 1945–1956

The objectives and results of land reform program

Immediately after 1945, the Democratic Republic of Vietnam¹⁷⁾ (henceforth DRV) had launched various policies to gradually abolish colonialism and feudalistic relations among the French, landlords and peasants, and to improve economic condition. In this context, the main purpose of the land reform program was not only to redistribute land to landless farmers and agricultural laborers but also to re-utilize the waste and uninhabited land. The slogan “*Nguoi cay co ruong*”

17) The Democratic Republic of Vietnam was the former name of Socialist Republic of Vietnam. It was used in the period of 1945–1975.

(Land to Peasants) was considered as one of the most important norms of the land reform process in this period.

Land reform campaign was carried out in three stages¹⁸⁾ and it was focused on the northern part of Vietnam (Figure 1¹⁹⁾). The primary missions of the first stage (1945–1949) were to confiscate land from the French, feudalists and landlords and to reallocate to peasants and to re-administer public land. The secondary missions were to reduce the land rent (25 % lower than the rate before the August Revolution) regulated in the Decree No. 78 dated on July 14, 1949. In this stage, there were only 30 % of landlords, who had reduced 25 % land rent, while 40 % landlords cut down less than 25 % ; and there were 30 % remaining ones did not agree to reduce land rent²⁰⁾. Nevertheless, the land rent reduction program was not complete in this phase ; because the revolution to abolish the influences of colonists, feudalists and landlords had not been completed yet.

The major goals of the second stage (1949–1953) were to continue to reduce land rent, delay debt payments, and levy a heavy agricultural tax on landlords. In accordance with the taxation policy, peasants had to pay 6–10 % ; middle-class peasants, 15–20 % ; and landlords, 30–50 % ; of their total agricultural income. Another task was to requisite uninhabited lands. In May 1950, the DRV proclaimed the Decree on Using Uninhabited Land ; the policy encouraged landless peasants and laborers to change wasteland, uninhabited land into cultivated land for improving of living condition and for production promotion. Up to 1956, the DRV had executed eight waves of land rent reduction. In this stage, land rent reduction had been implemented in 1,875 communes, affecting 4,200,570 persons with 1,106,955 hectares of land.

In the third stage (1953–1956), the DRV applied a comprehensive land reform program in the North Vietnam. The land reform program was carried out in six waves (including the experimental wave which was held within six communes in Thai Nguyen province from December 25, 1953 to March 30, 1954) in 3,314 communes (then divided into 3,653 communes) belonging to 22 provinces and cities. As a result, over 810,000 hectares of land which belonged to the French, feudalists and landlords

Figure 1. Location of areas under land reform program in the period of 1953-1956

18) Tran Phuong, Hoang Uoc and Le Duc Binh, *Cach mang ruong dat o Viet Nam* (Land revolution in Vietnam), Social Science Publishing House, 1968, pp. 355-357. (Vietnamese).

19) Modified from Edwin E. Moise, *Land Reform in China and North Vietnam, consolidating the revolution at the village level*, The University of North Carolina Press, 1983, p. 183.

20) Van Tao, "Cai cach ruong dat-Thanh qua va sai lam" (Land reform-Results and Errors), *Journal of Historical Study*, 1993, p. 1. (Vietnamese).

Table 1. Land occupied by different social classes

Social class	Before land reform (m ² / household)	After land reform (m ² / household)
Landlords	6,499	1,010
Rich peasants	2,141	2,135
Middle peasants	1,151	1,665
Poor peasants	455	1,431
Laborers	199	1,528

Source : Van Tao, *op. cit.* footnote 20). p 3.

were confiscated, requisitioned, and purchased by the government.²¹⁾ Then, they were redistributed to 2,104,138 landless households, including 8,323,636 peasants and laborers (Table 1).

Fundamental errors and correction process

In the land reform program, besides the above-mentioned successes, there were several shortcomings in the following : (1) Most of policies, which applied in land reform program, were based on Top-Down approach. Therefore, they were not flexible and desired effects in the real situation in particular areas.²²⁾ (2) Land reform program was carried out in large area (22 provinces as well as Hanoi and Hai Phong cities in North Vietnam) ; and the requirement was that each wave had to be completed within a few months. Thus, it required a lot of officers (total number of officers in 6 waves were 48,818 persons), and some of them did not understand thoroughly the objectives and the principles of land reform program in spite of their important roles were in all stages of land reform program.²³⁾ (3) The rate of landlord was fixed in all communes (5 % of total population). Therefore, in some communes where the criteria of landlords did not reach the defined norm, some rich peasants were accused as being landlords. (4) The most serious error was wrong definition of landlords in different localities. On the other hand, the DRV was late in promulgating legal documents defining the social classes (until March 1955, the Regulation on Defining Social Classes in Rural was promulgated, while the land reform program had been practiced for the third wave²⁴⁾).

Due to such errors and shortcomings, some problems appeared in the land reform program, in which, mis-specifying the background of landlords leading to a large number of rich peasants who were defined as landlords. Their land, cattle, houses and agricultural implements were confiscated, and some of them were detained or re-educated. Up to September 1957, there were 63,113 households were defined as landlords in 2,033 communes.

Being conscious of such errors, right from the end of 1956, the DRV attempted to correct the errors and restore honor for people who were mis-classified. As a result, the number of landlords decreased by half substantially as compared to the previous number (31,844

21) In the land reform program, there are three methods to get lands from the French and landlords : confiscation of all land, castles, and houses of the French and despots landlords. Requisition of land, cattle and agricultural tools of ordinary and resistance landlords. And government purchased a part of land of ordinary and resistance landlords. To get more information, see the National Assembly of Vietnam, *Law of Land Reform*, 1953. pp. 1-2. (Vietnamese).

22) Van Tao, *op. cit.* footnote 20). pp. 4-6.

23) *op. cit.* footnote 18). p. 197.

24) Van Tao, *op. cit.* footnote 20). p. 9.

Table 2. Land fragmentation in the Red River Delta

Province	Number of plots per household			Average area per plot (m ²)		
	Minimum	Maximum	Average	Minimum	Maximum	Average
Ha Tay	*	*	9.5	20.0	700	216.8
Hai Phong	5.0	18.0	6.8	20.0	*	*
Hai Duong	9.0	17.0	11.0	10.0	*	*
Vinh Phuc	7.0	47.0	9.0	10.0	5,868	228
Nam Dinh	3.1	19.0	5.7	10.0	1,000	288
Ha Nam	7.0	37.0	8.2	14.0	1,265	*
Ninh Binh	3.3	24.0	8.0	5.0	4,224	*

Source: Ministry of Agriculture and Rural Development, op. cit. footnote 6), p 27.

Note: *- No data

households). Meanwhile, the exact number was only 31,269 households equal to 2 % of total rural households in 2,033 communes of the North of Vietnam.

Generally, the land reform program in 1945–1956 had succeeded in reducing the influences of the French, feudalists and landlords. A large amount of lands, agricultural implements, cattle and houses redistributed to the landless peasants and laborers, contributed to stabilize their living and to create social justice. Recently, such experiences have been considered carefully in the contemporary LC process.

(2) The Contemporary Land Consolidation Process

The situation of land fragmentation

The degree of land fragmentation is not similar in all regions of Vietnam. According to the statistical data of Ministry of Agriculture and Rural Development in 2003, land fragmentation of seven regions in Vietnam is as follows : Northern Mountains : 10–20 plots per household (maximum–150); Red River Delta : 7–10 plots per household (maximum–25); Northern Central Coast : 7–10 plots per household (maximum–30); South Central Coast : 5–10 plots per household (maximum–25); Central Highlands : 5 plots per household (maximum–15); Eastern : 4–5 plots per household (maximum–15); and Mekong Delta : 3 plots per household (maximum–10).

It can be realized that the land fragmentation in the Red River Delta is at rather high level, ranked only after the Northern Mountains region. The investigation results showed that in seven out of eleven provinces in the Red River Delta²⁵⁾, there was a great difference of land fragmentation (Table 2). In these provinces, Nam Dinh had the smallest number of plots per household (6.8) while Hai Duong province had the maximum value (11.0).

The reasons for land fragmentation

The first reason was due to the former system of allocating land to farmers by plot. As analyzed above, before allocating land to households permanently and stably in 1993, Vietnam

25) There are eleven provinces and cities locate in the Red River Delta, namely : Ha Noi, Hai Phong (cities); Nam Dinh, Thai Binh, Ha Tay, Hai Duong, Vinh Phuc, Ha Nam, Bac Ninh, Hung Yen, Ninh Binh.

had applied the contract system since 1988. In order to implement the equity policy, each household could receive more or less fertile, near or far from settlement and so on. Consequently, each household owns some plots located in different fields of the commune. When allocating land to households, the People's Committee often maintains the previous situation to avoid potential conflicts among households.

Secondly, Vietnamese subsistence agriculture is effectively concluded within a household level. Therefore, most of households are likely to cultivate on different parcels for eliminating potential risks such as poor crop or insect damage.

The third reason depends on the natural features, especially local topography. Areas with great differences of altitude may lead to high degree of land fragmentation.

Fourthly, population pressure is the important reason, especially in the Red River Delta, where the local farmers have not enough part-time jobs other than cultivation because of a high population. In 2002, the population density of the Red River Delta was 1,180 persons / km² as compared to 242 in the whole Vietnam. But the man-land ratio was 2,037 persons / km² while 850 in the whole country²⁶⁾. Furthermore, farm families tend to divide their land property equally to their children (mainly male). Therefore, parcels were divided into smaller ones.

The approaches of land consolidation process

LC was a highly sensitive process because it directly referred to social contradictions. Having experienced from the former land reform process, local authorities have always appreciated the principles practiced in the process of LC, namely: voluntary participation, equity and proactive role of local authorities.

Before mid-1990s, the program of LC had appeared in some provinces. The process was a Bottom-Up approach, which was usually implemented on household-scale. First, households discussed about the plots exchange; then, they submitted their application forms to the Communal People's Committees. After its approval, the People's Committee allowed the two related households to exchange their plots under the endorsement of the commune. This process has the advantage in meeting the direct needs of a small group of households in each locality. Nevertheless, it was good for nothing in minimizing local land fragmentation.

Recently, the process of LC has been implemented in most of the provinces with the Top-Down approach. The process includes several steps as follows: firstly, the Provincial People's Committees draft the guideline for LC including the purposes, principles, and procedures. Secondly, the guideline and other legal documents are adopted at lower administrative levels (districts, communes). This method has to be practiced in compliance with commune or village level. Consequently, from 1998 until now, most provinces, especially in the Red River Delta, the LC process have been carried out.

26) General Statistic Office of Vietnam, *Statistical Year Book in 2002*, Statistical Publishing House, 2002.

III The Contemporary Land Consolidation at Village Level

(1) Study Area

Dong Long Commune, one of the 35 communes of Tien Hai District located in the northwest 11 km away from Tien Hai town (Figure 2), has a total area of 678 hectares while agricultural land is 364.1 hectares. It includes 5 villages, they usually have their specific names. However, it is because Dong Long Commune is the newly reclaimed land, so its villages do not have their own names; they are marked by numbers from 1 to 5. In this paper, we use the Vietnamese term “*Xom*” with the number indicating the name of village. In 2004, Dong Long’s population is 5,286 persons, and 2,067 of which are laborers.

In terms of natural conditions, the most outstanding feature of the study area is the low elevation averaged at 0.1–0.5 m and its settlements are located along the dikes (including old and new dikes). One of the most typical characteristic of Dong Long Commune is that the agricultural

Figure 2. The location of the study area

production is the main economic sector, which accounted for about 74 % of Dong Long's GDP in 2004. The population density is 780 persons / km² and the man-land ratio is 1,452 persons / km², both are lower than the average density of the Red River Delta. This seems to be the advantages for agricultural production. But in fact the monthly income of local people is only about 200,000 VND / person²⁷⁾, it is much lower than the average standard in the Red River Delta at 353,000 VND / person²⁸⁾. The reason for its low income is lower prices of agricultural products as compared with rural industry, aquaculture and so on. Moreover, coastal reclaimed soil in the whole commune involves salinity, so rice productivity is lower than the average.

The important task of our study is to measure the land fragmentation. It requires a lot of data, especially at farming household scale. In the year of 2003 and 2004, we conducted several surveys at all five villages in Dong Long Commune where we interviewed local farmers by using questionnaires. The content of questionnaire focused on information agricultural production such as total cultivated areas, number of plots, distance to plots, productivity, and others. More than 300 questionnaires were delivered. In addition, we used some other data such as statistical data, cadastral and topographic maps in order to get a quantitative appraisal.

(2) Land Fragmentation Measurement

How to identify that the agricultural land of a village is more fragmented than others. It is the most important question for this study. There are several methods, which are being applied in many developing countries, but there is no standard measurement for land fragmentation appraisal. In some previous studies, land fragmentation is measured by three parameters: number of non-contiguous plots, the area of each plot, and their locations.²⁹⁾ The Simpson Diversity Index³⁰⁾ (henceforth SDI) is one of the very popular indexes used for land fragmentation

evaluation. The SDI is measured as follows $D = 1 - \frac{\sum_{i=1}^n a_i^2}{A^2}$ in which, a_i is the area of i^{th} plot, and A is total farm size. The index ranges between 0 and 1, value 0 means that the household's farm area is completely consolidated and when the value approaches 1 for very fragmented household. In this study, we took the SDI as the main method for evaluation of land fragmentation in Dong Long Commune; furthermore, the number of plots per household is also considered.

By applying the SDI to measure land fragmentation in the study area, values of the SDI varies from 0.55 to 0.63. It means that the most fragmented is *Xom 1*, while *Xom 5* is less fragmented. Furthermore, the data suggests that in all villages there are more than 50 % of households, which possess between 4 and 8 plots, in contrast, the farm size is small with the value varies

27) 1 Yen=148 VND (May, 2005).

28) General Statistical Office of Vietnam, *Vietnam Living Standard Survey in 2002*, p. 8.

URL: http://www.undp.org.vn/projects/vie01022/an_pham_1/8.htm. (May, 2005).

29) Bentley, J. W., "Economic and ecological approaches to land fragmentation: in defense of a much-maligned phenomenon", *Annual Review of Anthropology*, 16, 1987. pp. 31-67.

30) (1) *op. cit.* footnote 8) p 9. (2) T. S. Walker, J. G. Ryan, *Village and Household Economies in India's Semi-arid Tropics*, The Johns Hopkins University Press, p. 181. (3) Legendre L., Legendre P., *Numerical Ecology*, Elsevier Scientific Publishing Company, 1983, pp. 79-107.

Table 3. The SDI and other indexes of five villages in Dong Long Commune (Percentage of household)

Index	Xom 1		Xom 2		Xom 3		Xom 4		Xom 5	
	1	2	1	2	1	2	1	2	1	2
SDI										
0.0-0.2	8.5	43.1	10.7	21.9	11.1	59.2	8.0	33.1	14.6	29.0
0.2-0.4	4.5	3.9	7.4	7.4	5.6	1.4	8.7	9.7	5.0	3.3
0.4-0.6	17.6	21.5	16.9	45.7	19.0	33.2	20.7	37.8	22.3	43.1
0.6-0.8	53.3	30.2	54.3	25.0	57.5	6.2	52.7	19.2	48.0	23.7
0.8-1	16.1	1.3	10.7	0	6.9	0	10.0	0.3	10.2	1.0
Mean	0.63	0.34	0.58	0.44	0.58	0.21	0.6	0.31	0.55	0.39
No. of Plots										
1	6.1	42.3	8.6	16.3	7.8	58.9	5.2	31.2	12.8	28.3
2-3	30.3	38.5	28.8	59.7	25.5	38.6	32.3	58.3	29.3	61.2
4-5	28.8	17.0	41.2	24.0	45.1	2.5	41.3	9.7	37.6	8.9
6-7	28.3	2.2	19.3	0	18.6	0	18.7	0.8	16.2	1.6
-8	6.6	0	2.1	0	2.9	0	2.6	0	4.2	0
Max	10	6	9	5	10	5	9	6	10	6
Mean	4.53	2.24	4.07	2.76	4.18	1.53	4.16	2.25	3.93	2.29
Farm size (m²)										
Max	4,830	4,433	5,688	4,401	5,274	5,881	4,504	6,931	3,684	6,053
Min	359	360	567	385	428	251	576	360	877	362
Mean	1,807	1,421	2,046	2,005	2,023	1,749	2,185	1,778	889	2,010

Note: 1. Data before LC

2. Data after LC

from 4,830 m² to only 359 m² while the theoretical land limitation of a household is two hectares³¹⁾. In short, land fragmentation of all five villages are not only manifested in the SDI values but also indicated by farm and plot sizes (Table 3).

(3) Land Consolidation Procedure in Dong Long Commune

As we analyzed in the previous chapter, the contemporary LC program followed the Top-Down approach, in which, the roles of provincial and district level are to create legal framework while the program is carried out at communal level. In the study area, the procedure of LC consists of the following steps :

First of all, at Thai Binh Provincial level, the legal policies on LC had been implemented in the following : the Resolution 07 / NQ-TU dated March 20, 2002 (issued by Thai Binh Provincial Communist Party) ; the Decision 18 QD-UB on March 27th, 2002 and the Guideline for LC and Land Use Certificates issuance (both approved by Thai Binh People's Committee). And then, the Tien Hai People's Committee issued the "*Plan for Land Consolidation of Tien Hai District*" on May 7th, 2002. These documents became a legal framework for Dong Long Commune in carrying out the LC to its villages.

Secondly, the LC Steering Committee (*Ban chi dao* in Vietnamese) was established (Figure 3), it included six members, which were representative of the Communist Party, People's Committee, Agricultural Cooperative, Farmer's Association, Veteran's Organization and local police.

The next step is to identify the total number of people who live in the villages and the exact area of all land use types. The result of this step is zoning areas that need LC and those that do not.

31) *op. cit.* footnote 4), p. 6.

Figure 3. Procedure of LC process in Dong Long Commune

The fourth step is to propose the “Plan of Land Consolidation”. This includes some important information of objectives, principles, procedure and data in detail. Then, the plan will be informed to all local people to get their opinions and feedbacks. After updating information and correcting errors, the plan will be submitted to Tien Hai District People’s Committee for approval into the legal framework of Dong Long Commune.

The fifth step is mainly carried out at village level. Each village prepares a plan of LC for its

Table 4. Detail data in the “Plan of Land Consolidation of Dong Long Commune”

Village	Total area of agricultural land (m ²)	Areas which do not need consolidation	Areas which need consolidation	No. of Groups	Area of land lots (m ²)*		
					No. 1	No. 2	No. 3
<i>Xom 1</i>	409,998	21,763	388,235	5	160,480	157,429	70,326
<i>Xom 2</i>	549,906	120,551	429,203	3	257,522	0	171,680
<i>Xom 3</i>	639,174	27,312	611,862	3	367,101	0	244,745
<i>Xom 4</i>	664,056	24,161	639,895	2	63,720	345,705	230,470
<i>Xom 5</i>	701,808	30,397	671,411	5	104,074	340,402	226,935

Note: *-Area of land lots range from No. 1 to No. 3, which related to 3 levels of agricultural land quality such as good, medium and not good.

own, which includes criteria such as: (i) grouping farm households (depends on the exact number of households in each village) ; (ii) listing priority households, these households include families of martyrs, wounded soldiers, and lack of man-power (only one or two persons) ; (iii) identifying exactly the locations and size of areas which do and do not need LC ; (iv) classifying agricultural land according to three types of quality : good, medium or bad ; and specifying area of one person’s share (usually three types as the land types above-mentioned) (Table 4).

The next step is to hold a meeting within groups and farmers and let them identify how large of each plot in three types of land for particular households. And the last step is to deliver plots to households ; to issue their Land Use Certificates and also to create new cadastral maps.

(4) The Impacts of Land Consolidation

Impacts on agricultural production of households

The significant impact of LC on households is an improvement of the economic benefit by shortening the distance from households to their plots. According to the data from questionnaires, there are 48 % of households, which decreased in the maximum distance to plot, while 24 % of households, which increased in this distance. In terms of diminishing the minimum distance, the percentage of households, in turn as increasing and decreasing, are the same value of 21 % households. However, there are 58 % of households, which did not change the minimum distance, because almost of nearest plots are located inside the residential area, and these plots did not involve the LC process (Figure 4).

In order to clarify this point, we selected two peasant households in the village No. 2 as examples : Mr. Can’s and Mr. Nhuong’s families. As result of interview survey, we created two modal routes for each household to and back from farm parcels in both cases of before and after LC. After analyzing these routes by Arcview GIS software, we found that before LC, the distances to plots in the two modal routes have small difference (only 50 m changed from first modal route to the second one). On an average, in one rice crop (3–4 months), a farmer travels 17–20 times for sewing, cultivation and harvesting, thus a cumulative travel amounts about 59–70 km and 60–71 km (Figure 5 and Table 5). After LC, both households have only 2 plots on 2 fields (Figure 6). Finally, one farmer of each household was able to save the distance to all plots, which decreased to 15–18 km per one rice crop in the first modal route while in turn as 16–19 km in the other.

Figure 4. Percentage of household changed the distance to plots after LC

Table 5. Changes of distance to plots before and after LC of two peasant households

Household	Land consolidation	Modal route	Distance to plots in one crop (km)
Mr. Can	Before	1-2-3-4-5-6-7-8-9-7-6-10-3-2-1	59-70
		1-2-3-10-6-7-8-9-8-7-6-5-4-3-2-1	60-71
	After	1-2-3-4-3-5-3-2-1	44-52
		1-2-3-5-3-4-3-2-1	44-51
Mr. Nhuong	Before	A-B-C-D-E-F-E-G-H-I-K-B-A	38-45
		A-B-K-I-H-G-E-F-E-D-C-B-A	37.5-44
	After	A-B-C-D-B-A	34-40
		A-B-C-B-D-B-A	42-49

The other impact of LC related to increase in agricultural income at household level. The data in Table 6 shows that there are distinctive household income in terms of gross output of rice, other crops and animal husbandry. In 2001—the year before LC, the average gross output of rice was 434 kg / person. After LC, this value is increasing year by year, and it was 679 kg / person. This important result of LC process has a part in improving the living standard for local people as well as rural development process of Dong Long Commune.

On the other hand, the number of plots per household is reduced ; this allows farmers invest in long-term in agricultural production. Based on the data from questionnaires, there are 10 % of households bought agricultural machines while 18 households rent some more parcels from others, who did not have enough labors or have other jobs (the average price for renting in one rice crop is 60–70 kg of rice per “sao” (360 m²)). Furthermore, there are 14 % of households still want to carry out land exchange, because they think their land are still fragmented.

Impacts on management of Dong Long Commune

Firstly, through the LC process, the Dong Long People’s Committee has the chance to

Figure 5. Cadastral map of village No. 2 (before LC)

inventory exact total areas and to classify different land types setting up the background for building up the Land Use Planning Program for long term and Land Use Plan for every five years.

Secondly, the result of land assessment allowed the local committee to transfer the areas of less fertile land in other purposes in order to increase agricultural productivity as well as economic

Figure 6. Cadastral map of village No. 2 (after LC)

benefit. Before LC, Dong Long Commune tried to carry out transferring land use purposes but the transferred area was not very large and only at household level due to land fragmentation. Thanks to the result of LC process, the commune has the background for identifying exactly the total less fertile areas needed transferring in all villages. The transferring land makes up the diversity of the mechanism of agricultural production in Dong Long Commune.

Table 6. Agricultural benefit increases after LC

Items \ Year	2001	2002	2003	2004
	Before	After LC		
Gross output of paddy (kg / person / year)	434	637	646	679
Animal husbandry (thousand VND / person / year)	184,355	372,853	318,980	370,677
Other crops (thousand VND / person / year)	494,760	655,997	765,399	781,688

Table 7. Total area of public land in five villages after LC

Village	Planned land (m ²)	Construction land (m ²)	5% land (m ²)	Total (m ²)
<i>Xom 1</i>	1,000	541	64,385	65,926
<i>Xom 2</i>	4,744	0	39,191	43,935
<i>Xom 3</i>	0	0	16,733	16,733
<i>Xom 4</i>	3,820	10,432	25,486	39,738
<i>Xom 5</i>	1,540	400	12,534	14,494

Thirdly, the public land (or land for special use³²⁾) is allocated into certain areas instead of being scattered as before. From this, the uses of this land fund become more profitable (Table 7). According to the Land Law in 1993, the People's Committee manages the public land for some purposes such as constructing local roads, irrigation system, public houses for communities ; the other part of public land for renting in order to get benefit for public activities.

Fourthly, after allocating land to households, the Dong Long People's Committee took another step in the process of LC by issuing the Land Use Certificates to households, which made more advantages in land use management. Moreover, the cadastral maps were made in terms of the important legal basis for management activities of the Dong Long People's Committee. Before LC, the local authorities had to use the cadastral maps drawn 20-25 years ago ; however, these maps did not give the details of each plot, only providing the area of each field as well as their location and they were not regularly updated. Therefore, it caused many difficulties in the land management, especially when conflicts of land possession among households happened.

Finally, 50 % of plots were reduced after LC and 3 % of the total area of agricultural land increased on an average, consequently 9 hectares of agricultural land were gained. At higher administrative level, saving agricultural land will be more meaningful for not only agricultural production but also for rural development.

32) According to the Land Law in 1993, the main land use types are as follows : (i) agricultural land (for planting one-year trees, perennial trees, for raising cattle, water surface for breeding fish); (ii) forestry land ; (iii) special-use land (for infrastructure, irrigation system, historical sites, national defence. etc.); (iv) rural residential land ; (v) urban land ; and (vi) uncultivated land including streams, rivers, deserted plain, hills, limestone mountains, etc.

IV Conclusion

The modern history of land management in Vietnam is marked with two outstanding points: the process of land reform in the period of 1945–1956, and the ongoing process of LC. The first one was carried out in the complicated political situation—Vietnam had just gained independence from French colony, the social condition was not favourable and most of people lived in poverty condition. The main objective of land reform was to transfer land from the French and landlords to the laborers and landless peasants. However, during the process, identifying social classes, especially the landlord, was not really clear. As a result, many errors were occurred in classifying landlords, and in confiscating land and property. On perceiving these errors in the last reform wave (1956), the DRV corrected the errors in all localities by returning the fair share to people, who were wrongly recognised as landlords.

The contemporary LC program is undergoing market-oriented economic condition. Thus, commodity agriculture is necessary to be established. The lessons from the former land reform process are really helpful for authorities and policy makers to avoid such errors and to achieve the good results.

LC is a sound policy of the Government of Vietnam. The central government, provincial and district authorities issued the guidelines and other legal documents while communes carried out the process, and built the detailed plans based correctly on individuals and specific features which have been well investigated in all localities. The steering committee should be established in every locality to supervise the progress of the LC process in detail.

Dong Long Commune, a coastal locality with fragmented agricultural land with high ratio of plot number per household, has a lot of disadvantages in agricultural production. Under the LC program, the role of the local authorities is very important. Because LC is sensitive and complex, without close supervision and control, it may lead to conflicts that will cause more difficulties for the program. The result of the program in five villages in Dong Long Commune shows the number of plots reduced by 50 % as compared to previous time. The result also indicates the rise in agricultural productivity at the household level and an advance in the land management of the local committee.

In general, the achievements of LC are summarized in the following six points: (i) analyzing and clarifying the legal framework for LC from national to village level and the role of local institutions; (ii) shortening the distances to plots of farming household; (iii) improving the agricultural productivity; (iv) saving agricultural land by reducing the plot boundaries; (v) combining the public land into larger parcels; (vi) creating new cadastral maps for land management purposes. On the other hand, the limitations of LC are such as: (i) concentrating the agricultural land (plots conversion), other land use types such as irrigation, drainage, constructing rural roads,...were not included in the program. It caused difficulties for land management process as well as rural development at village level; (ii) process of LC just implemented within particular field, it shows that land fragmentation can still occur; (iii) this process belongs much to the local institutions, it means that the success of program depend on

the role and capacity of these institutions. Therefore, the LC should be carried out furthermore in the future in terms of reducing land fragmentation as well as attaining rural sustainable development.

Acknowledgement

I sincerely thank Prof. NOMA Haruo for his helpful advices on this paper and other Professors in the Department of Geography, Kansai University. Without their help and support, I could not finish this study on land consolidation in Vietnam because it is very sensitive and complicated topic.

I would like to thank Dr. TSUTSUI Kazunobu–Tottori University for financial support through the project “*The Study on Environmental Usage and Endogenous Powers of Social Organization in Rural Vietnam*” sponsored by Showa Shell Sekiyu Foundation for Promotion of Environmental Research and Tottori University. In addition, I would like to thank Prof. Dr. NGUYEN Cao Huan –Dean of Faculty of Geography, Vietnam National University, Hanoi and Dr. TSUTSUI Yukino–Otemon Gakuin University for sharing their knowledge and comments throughout this paper. (Graduate Student, Graduate School of Letters, Kansai University)

Institutional Analysis of the Contemporary Land Consolidation in the Red River Delta: A Village-Level Study of Dong Long Commune in Tien Hai District, Thai Binh Province, Vietnam

TRAN Anh Tuan

Graduate Student, Graduate School of Letters, Kansai University

Since Vietnam applied the “*Doi Moi-Renovation*” policy in 1986, and especially in 1988, the contract system between agricultural cooperatives and farmers was applied in agricultural production. Furthermore, the Land Law in 1993 indicates that farmers could use their land for the long-term (from 20 to 50 years). Therefore, land fragmentation in Vietnam has become a common phenomenon in all localities. This paper aims to provide an analysis of land reform and LC processes in Vietnam. In this regard, the study concentrates on the following issues : (1) to trace back former land reform in the period 1945-1953, in order to identify its results and errors ; (2) to analyze contemporary LC in terms of an institutional analysis from the national to the commune level ; (3) to study the procedure of LC in Dong Long Commune, Tien Hai District, Thai Binh Province.

The main results of this research can be summarized as follows :

Firstly, the land reform program carried out in the period 1953-1956 included 3 principal stages. The main objective of the program was to reduce the influence of colonists, feudalists and

landlords by redistributing land to the landless peasants and laborers. As a result, over 810,000 hectares of land which belonged to them were confiscated, requisitioned, and purchased by the government. The land was then redistributed to 2,104,138 landless households, including 8,323,636 peasants and laborers.

Secondly, a significant result of the LC process was to reduce by 50 % the total number of land parcels in Dong Long Commune. There were two general impacts of this process : (1) farmers were able to shorten the distance from their houses to the land parcels. Therefore, labor costs as well as long-term investment were reduced, resulting in increased benefits from agricultural production. (2) Land management activities at the commune level became much more effective because of the reduction in the number of parcels as a result of combining public land into a bigger area and building up the Land Use Planning Program for long-term development.

Key words : Vietnam, *Doi Moi*, the Red River Delta, land reform, land consolidation, Simpson diversity index

ベトナム紅河デルタにおける農地整備の制度分析 —タイビン省ティエンハイ県の事例からの検証—

チャン・アイン・トゥアン
関西大学・文学研究科・院生

ベトナムでは1986年以降、社会主義下での市場経済導入をめざしてドイモイ（刷新）政策が急速に推進され、活力をとりもどしつつある。とりわけ農業部門では、1988年の共産党決議によって農業合作社と耕作農民の間に農地契約システムが導入された。1993年の土地法ではその方式がいっそう拡大され、農民が20～50年の長期的かつ永続的に土地を利用できる道が開かれた。そのため、農業生産の合理化にとって、零細な耕作地が分散していることは深刻な問題を投げかけている。このような農地分散は、程度の差こそあれ、ベトナム全土で共通してみられる。

本稿は、現代ベトナムにおける農地制度の大きな変革である農地改革と農地分散を軽減するための農地整備過程を一連の流れとして扱い、地理学の立場から両者の制度分析を目的とする。具体的な研究の重点は以下の3点である。(1)1945～1953年の農地改革の過程とその功罪の評価、(2)国・行政村レベルにおける農地整備の制度的分析、(3)行政村レベルにおける農地交換分合・整備の実施手順の分析とその経済効果の計測。事例としては、とくに農地分散の著しいベトナム北部紅河デルタの沿岸農村地帯であるタイビン省ティエンハイ県をとりあげた。

その主要な結果は、以下の2点に要約される。

第1に、1953～56年の期間にベトナム北部農村で実施された農地改革は3つの段階を経て実施された。この改革の主要な目的はフランス人植民者、郷紳、地主などの旧勢力の影響を排除することであった。政府は彼らの土地を接収して、81万 ha 以上の農地を210万4138人の土地無し層や832万3636人の農民・農業労働者に再配分した。

第2段階としての農地整備過程の重要な結果として、ドンロン行政村（＝社）の例では、細分化

した耕地の筆数が約50%減少し、加えて、農村に以下のような影響をおよぼしている。(1)農民は自宅と農地間の移動距離を短縮することができた。ゆえに、労働コストを削減することができ、純利益が増加した。(2)行政村レベルでの農業生産における人民委員会や農業合作社の管理法が、共有地の合筆と長期発展計画の策定が可能になったことで合理化された。

キーワード：ベトナム，ドイモイ，紅河デルタ，農地改革，農地整備，シンブソン多様性指数