

National Tsinghua University - Economics Department

A Study on Land Rights in Transition Economies - The Case of Vietnam



Thesis advisor: 劉瑞華

Student: 高碧水

Student ID: 9572519

ACKNOWLEDGEMENT

I would like to express my deep and sincere gratitude to those who gave me possibility to complete the present thesis. Without them, my thesis has been impossible to smoothly finish.

First of all, I am deeply grateful to my advisor, Associate Professor 劉瑞華, PhD of Institutional Economics, Economics department, National Tsinghua university. His wide knowledge, his detailed comments and his supporting have encouraged me during the time writing this thesis.

Secondly, I am indebted in Dr Pham Lan Huong, deputy director of Department for Trade policy and International Integration Studies, Central Institute for Economic Management in Vietnam. Her understanding and valuable hints have given me a good guidance during the first steps. She is also the one who has provided me with such precious data.

I warmly thank Associate Prof.林金源, Associate Prof.黃春興 for their valuable advice on defense day. Their extensive discussions around my work have been very helpful for this study.

I wish to send my thanks to all Vietnamese friends, international friends, Taiwanese friends who let me feel the warmth and happiness in Taiwan.

Lastly, I would like to give my special thank to my parents, who bore me, support me and believe me; to my beloved husband Chu Dinh Trung, who is always a reason for me to live, to research and who gives me strength, as well as patience to complete this work.

摘要

本文從轉型經濟制度分析土地使用權的重要性。從實際而言,由於大部分的轉型經濟國家還是在發展中的過程,而且農業產值在全國產出佔了較大的份額,因此土地權政策對轉型經濟國家的發展有著很大的作用。越南也是一個發展中的轉型經濟國家,它的 70%人民靠農業生活。從 1988 年越南正式把農業人民公社制度取消,並且採家庭承包制,從 1993 年個體戶可以把自己有責任的土地出租,轉讓,交換,抵押,繼承。這些積極改變給越南農業和農村帶來新的面貌。本文探討良好的 1993 年土地使用權政策如何對農業投資動力,生產效果和貧窮產出決定性的作用。



ABSTRACT

The present thesis focuses on analyzing land right issue in transition economies in general and Vietnam in particular. Since most of transition countries are still developing ones where products of agriculture account for large share of national income, so the change in land right policies plays an important role. From the case of Vietnam, a country with 70% populations live on agricultural production, this thesis will examine how good policies on land rights will make a huge contribution to efficient improvement of investment incentives, as well as agricultural production and poverty reduction.

Key words: Vietnam, land rights, transition economy.



TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION	1
1. Background	1
2. Scope of the thesis	4
3. Expected result	4
4. Organization of the thesis	5
CHAPTER 2: OVERVIEW OF THE CHANGES IN LAND RIGHTS IN VIETNAM	6
1. Before the unification of Vietnam in 1975	6
2. From 1976 to 1980	6
3. From 1981 to 1987	8
4. From 1988 to 1993	8
5. From 1993 up to now	9
CHAPTER 3: THEORETICAL FRAMEWORK.....	11
1. Theoretical analyses: the cause of the changes in land rights in Vietnam ..	11
1.1 Property rights in Land-----	11
1.2 Incentive structure analyses -----	12
1.3 Transition issue -----	16
2. The effects of effective land rights in the development of agriculture.....	19
CHAPTER 4: DATA ANALYSIS, RESULTS AND DISCUSSION.	23
1. Data analyses.....	23
1.1 Data source -----	23

1.2	Measuring indicators -----	26
2.	Data analysis results	29
2.1	Household investment-----	29
2.2	Productivity-----	31
2.3	Poverty reduction -----	33
3.	Discussion	35
3.1	Market reform-----	36
3.2	Input subsidies -----	37
3.3	Tax policy-----	38
3.4	Loan concession -----	39
CHAPTER 5: CONCLUSIONS.....		40
APPENDIX		43
REFERENCES.....		64



LIST OF TABLES AND FIGURES

<i>Figure 1: Paddy production from 1981 to 2006</i>	<i>2</i>
<i>Figure 2: Rice export of Vietnam (thousand tons)</i>	<i>3</i>
<i>Table 1: Main characteristics across 4 household surveys</i>	<i>25</i>
<i>Table 2: Difference kinds of crops.....</i>	<i>27</i>
<i>Table 3: Agricultural income and expenditure</i>	<i>28</i>
<i>Table 4: Proportion of crop land devoted to annual and perennial crop land</i>	<i>29</i>
<i>Table 5: Expense of inputs for 1m2 cultivated land (VND/m2).....</i>	<i>30</i>
<i>Table 6: Yield of crop (tons/ha)</i>	<i>32</i>
<i>Figure 5: General poverty rate (%).....</i>	<i>35</i>
<i>Figure 6: Poverty rate by region</i>	<i>35</i>

LIST OF TABLES IN APPENDIX

<i>Part 1: Questionnaires about agriculture of VHLSS 2004</i>	<i>43</i>
<i>Table 1.1: Agriculture land</i>	<i>44</i>
<i>Table 1.2. Rice production activities</i>	<i>46</i>
<i>Table 1.3. Other starchy, vegetable and annual plant</i>	<i>48</i>
<i>Table 1.4: Annual and perennial industrial crops</i>	<i>48</i>
<i>Table 1.5: Fruit crops</i>	<i>51</i>
<i>Table 1.6: income from crop by-products</i>	<i>53</i>
<i>Table 1.7: Crop planting expenditure</i>	<i>54</i>
<i>Part 2: Some crop indicators in Vietnam from 1981 to 2006</i>	<i>56</i>
<i>Table 2.1: Planted areas, production and yield of Paddy</i>	<i>56</i>
<i>Table 2.2: Planted areas, production and yield of Maize</i>	<i>57</i>
<i>Table 2.3: Planted areas, production and yield of sweet potatoes</i>	<i>58</i>
<i>Table 2.4: Planted areas, production and yield of cassava</i>	<i>59</i>
<i>Table 2.5: Planted areas, production and yield of coffee</i>	<i>60</i>
<i>Table 2.6: Planted areas, production and yield of rubber</i>	<i>61</i>
<i>Table 2.7: Fertilizer consumption, 1981-2006</i>	<i>62</i>
<i>Table 2.8: Tractor usage, 1981-2003</i>	<i>63</i>

ABBREVIATIONS

ASEAN	Association of South East Asia Nations
CH	Central Highlands
CIEM	Central Institute of Economic Management
GDP	Gross Domestic Product
GSO	General Statistics Office
LUC	Land Use Certificate
MARD	Ministry of Agriculture and Rural Development
MRD	Mekong River Delta
NCC	North Central Coast
NE	North East
NW	North West
RRD	Red River Delta
SCC	South Central Coast
SE	South East
USD	United State Dollar
VHLSS	Vietnam Household Living Standard Survey
VND	Vietnamese Dong
VCP	Vietnam Communist Party
WTO	World Trade organization

CHAPTER 1: INTRODUCTION

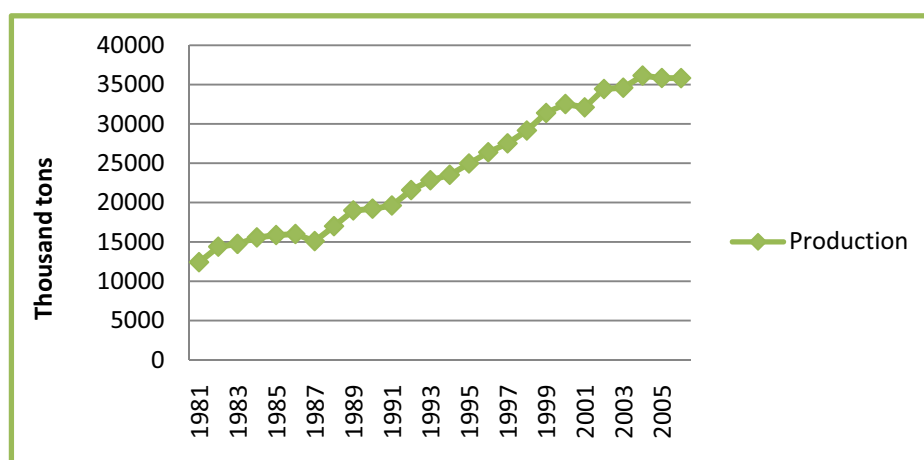
1. Background

Vietnam is a transition economy in which agriculture plays a leading role, not only in national income but also in employment as well. The share of Agriculture in GDP often accounts for the large one and the labor who work in rural sector are more than 70% total labors. In the process of setting out guidelines and strategies for Vietnam socio-economy development, the Party and Government still holds that improvement in Agriculture and Rural economy is the most important goal. The 5th Congress of Central Committee in 1993 clearly pointed out: *“the government spent reasonable budget and had policies to mobilize investment of other economic ownership in rural infrastructure construction”*. Continuing the spirit of the renovation policy, the Congress VIII of the Party issued the Revolution related to policy in which *“especially paying attention in industrialization and modernization of agriculture and rural area, comprehensively developing agriculture, forestry and fishery in combination with manufacturing of products of agriculture, forestry and fishery, developing traditional occupations and new occupations for production and living of farmers, constructing rural socio-economic infrastructure and making effort to have civilize and modern rural area”*. Entering the 21st century, the Congress IX of the Party, which was a historical event for a new development of Vietnam, clearly pointed out the special attention was always paid on agriculture and rural area: *“speeding up industrialization and modernization of agricultural and rural area by forming a big agriculture market suitable to demand of market and ecological conditions of each region, transferring occupation and labor structure, and creating jobs to attract rural employment, rapidly applying scientific and technological advances to production, having proper structure*

of agricultural production, obtaining agricultural annual average growth rate of 4.0 - 4.5%.”

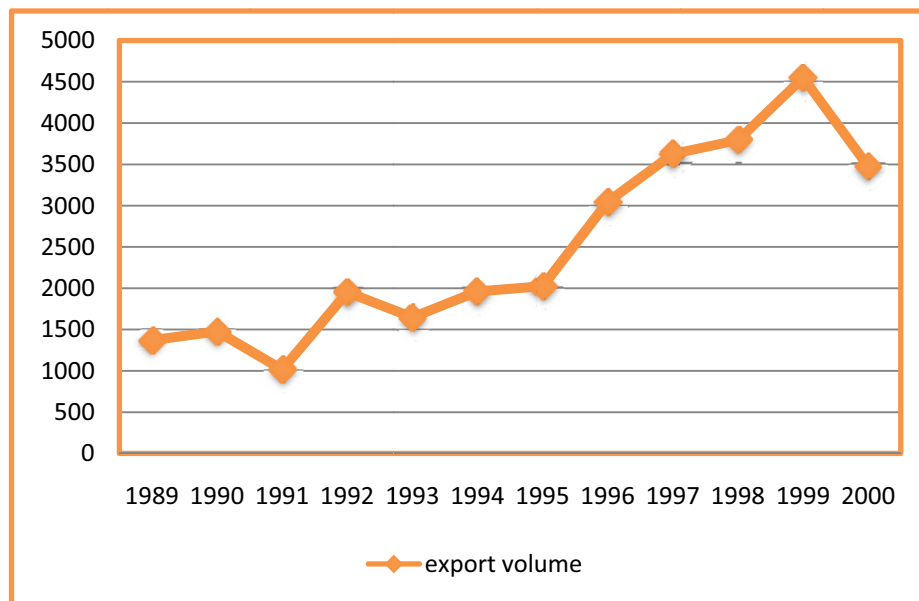
Despite acknowledgement of the leading role of agriculture to national economy system, before 1989, agricultural production didn't meet the domestic demand, thus Vietnam was a net importer of rice that time. After 1989, Vietnam made a lot of changes in agricultural area. The growth rate of agricultural production enhanced sharply, income of farmers increased reasonably; furthermore, Vietnam became a leading exporter of rice, a big exporter of tea, coffee and some other industrial crops in the world. From the figure 1, we can see that, in from 1981 to 1986, paddy production increased slightly, with 12415 thousand tons in 1981 to 15103 thousand tons in 1986. In 1987, Vietnam had a food crisis because of the bad weather. Thus, the production of paddy this year fell to 15103 thousand tons, declined about 5 % as compared to 1986. After this crisis year, from 1988, especially after 1993, paddy production not only recovered but also grew with high rate annually. Therefore, Vietnam was not only self-sufficient but also became a big exporter of rice worldwide (see figure 2). These surprising achievements were the main motivation for me to research the source of the growth.

Figure 1: Paddy production from 1981 to 2006



Source: Statistical yearbook for Asia and the Pacific, GSO

Figure 2: Rice export of Vietnam (thousand tons)



Source: <http://saigonnet.vn>

Everybody knows the fact that land is the determinant material in agricultural production. There is a consensus among economists that “*better land rights lead to better outcomes*” (Do and Iyer, 2003). Besley (1995) states that better land rights give farmers in Ghana more incentives to invest on agriculture. Alston, Gertler and Ghatak (1996) shows that, on Brazillian frontier, good land right policy makes a huge contribution to agricultural investment promotion. Justine Yifu Lin (1988) believes that the institutional change from production team to household system in agricultural production process improves the incentives to work of farmers, thus farmers put more effort on production, then increases productivity. Therefore, the present thesis tries to access the importance of the positive changes in land rights, then analyzes whether the change in land rights make the positive impact on the development of agricultural production in Vietnam.

2. Scope of the thesis

This thesis focuses on answering the following questions:

What are the causes and effects of the change from collective system to household system?

How could policy-makers in Vietnam do with land rights which must be consistent with the transition circumstance?

How did the change in land rights in Vietnam affect on rural development, as well as economic growth?

Among the policies on land rights, Land law in 1993 made a huge change in property rights reform, as well as in market reform. Thus, this present focus on analyzing the impact of land law 1993 in agricultural production in Vietnam. Unlike some previous papers, which also investigate the impact of land rights on Vietnam agriculture by econometric empirical method, this thesis analyzes this impact from the angle of institutional point of view, especially the theory of property rights in land under the condition of gradual approach in transition economies. Data are collected from many sources: papers, books, internet and the most important are data from the VHLSS (Vietnam household living standard survey) in 1993, 1998, 2002 and 2004.

3. Expected result

I hope the results I get will be consistent with the theory of property rights, that private property rights in land can give households more incentives to invest in agriculture. I wish I can clearly express the impact of land law 1993 on those issues that related above by making comparison some indicators before and after 1993, they are 1992 - 1993, 1997 – 1998, 2001 - 2002, 2003 – 2004. Specific results include:

Households invest more in their lands in both short term and long term. It means that they spend more on irrigation, fertilizers, pesticides, machinery, etc. in 1998, 2002, 2004 in comparison with 1993.

As a result of more investment in lands, productivity will raise. We can measure productivity by some indicators such as production output, net income of agricultural products (including rice, other food crops, annual and perennial industrial crops and fruit crops).

Poverty rate after 1993 is expected to decline as compared to the period before 1993.

4. Organization of the thesis

The thesis is structured as follows: section 2 describes the theoretical analysis with some related issues and literature review; section 3 gives the analysis on the case of Vietnam agriculture with the positive impact of land rights on input investment, productivity and poverty reduction; section 4 concludes.

CHAPTER 2: OVERVIEW OF THE CHANGES IN LAND RIGHTS IN VIETNAM

1. Before the unification of Vietnam in 1975

The year of 1945 and 1975 are very important point of time in Vietnam history. On September 2nd 1945, Uncle Ho (president of Socialist Republic of Vietnam that time) declared the independence and freedom of Vietnam. On April 30, 1975, Vietnam unified after a long time separating North-South. Thus, before 1975, in addition to historical events, the story about land reform also attracted the attention of many people.

Before 1945, agricultural land was divided into 2 kinds: private and communal, with 2 main classes: landlords and landless tenants. At that time, there was not so-called land rights, since most of lands were in landlord's hands. Farmers just had to work for land lords, and certainly, they are landless.

After 1954, Vietnam was divided into the North and the South with two different Governments, two different policies. In the North, Government carried out nationalization land of landlords and redistributed land to peasants. From 1960, cooperatives appeared. About 68% of all peasant households were in the agricultural cooperatives. Meanwhile, in the South, Government used rent control and a land ownership ceiling program in 1956 and a distribution of land and titling program in 1970

2. From 1976 to 1980

This time was marked as *collective regime*. All peasants were compulsory to take

part in collectives and all agricultural production took place in those cooperatives. More than 95% of land was used for collective production just 5% of land could be used for feeding pigs, chicken and producing vegetables. All the farming households were under control of the State, in which production and distribution decisions could only be made by the State. It means that the State would decide what to produce, how to produce and how to allocate the output. When the harvest finished, the State would took out a proportion of output as a lump-sum tax, the rest would be distributed to farmers based on “*work point*” principle. So called “work point” was really special. Working in cooperatives one day could be accounted for one point, regardless of working hard or not. At the end of the crop, the leader of each cooperative calculated the total number working points. The state would count the number working point of all cooperatives. The output that didn’t include in lump-sum tax would be divided by the total working point in order to get the average value of each working point. Then, according to the number of point each individual gained, output would be allocated by the following equation:

$$\text{Output proportion for each individual} = \text{number of points he got} * \text{average value of a working point}$$

The other characteristic of this period was that private trade in agriculture was totally banned. If the output one person got exceeded his consumption, this surplus was forcefully sold to the State at a low price.

The result of this regime was that Vietnam was lack of food, moreover in 1977-1978 period, stagnation was serious. This situation forced Vietnam to import a large amount of rice so as to meet the domestic demand.

3. From 1981 to 1987

Faced with the poor performance of the economy, Vietnam government made a decision in which “working point” policy would be replaced by “output – contracting” policy. Directive 100 was issued. Cooperatives still existed, but land was divided into many plots and distributed to farming households. Farmers had right to determine what to plant, how to organize sowing, seedling, harvesting... So-called “output-contracting” was that farming households and cooperatives signed contracts in which farming households were responsible to complete a quota on output set by State. This quota was considered as a kind of tax. After the harvest, if the output exceeded the quota, farming households could keep the surplus and could sell it either to State or in free market.

Even though Directive 100 gave farming household only a constrained right to production and distribution, it was still a first success on the movement to increase the working incentives of farmers. From 1981 to 1986, rice production rose, but in 1987, because of the bad weather, food crises happened. Government once again tried to overcome this hard time.

4. From 1988 to 1993

Resolution 10 issued in April 1988 is regarded as the first tentative move towards private property right. Collective system was cancelled, farmers could use land for a long time, for instance, 15 years for annual crop and more than 15 years for perennial crop. In this system, farming households could make both production and distribution decisions. Each household was assigned a plot of land¹, and was regarded as an

¹ There are three rounds to distribute the land: (1) 70% of cooperative land was equally distributed among peasants for meeting their basic consumption demand, (2) 30% of cooperative land was given to households that were able to till efficiently, (3) the land was rented subsequent to a bidding process.

independent economic unit. Farmers had responsibility in organizing harvest, using machines or agricultural instruments. At the end of the crop, after paying a fixed amount of tax, households could keep their entire surplus, and were allowed to sell it to free market.

Resolution 10 was a huge success in increasing food production. In 1989, starvation declined to the lowest level, lack of food was overcome basically. From 1990, food and food stuff not only met domestic demand but also were exported to the outside world. Income and living standard of farmers were enhanced considerably.

However, Resolution 10 still remained some limitations that discouraged the incentive of the households. The first limitation is the duration of land use rights. The duration of 15 years was not long enough to encourage households to invest and produce more. The second one is that household just could use the land, but they could not transfer, exchange or inherit. The last one is about the role of government. Though households had rights to decide what to plant, how to harvest, in fact, Government still played dominant role in deciding crop patterns for specific types of land.

5. From 1993 up to now

Realizing some limitations of Resolution 10, then in 1993, Vietnam government issued new Land law with three fundamental changes:

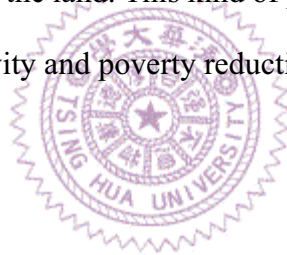
The duration of land use rights was longer than that was determined in resolution 10. For instance 20 years for annual crop and 50 years for perennial crop (in comparison with 15 years and more than 15 years, respectively). This duration was long enough to encourage farming households to focus efforts on agriculture production.

Farming households could not only use the land, but also could: *transfer, mortgage,*

rent, exchange and inherit. The appearance of these 5 rights was a new characteristic in land right policy of Vietnam government. This encouraged land consolidation, specialization and commodity production in agriculture.

Farmers were given Land Use Certificates (LUC). This kind of certificate ensured the rights to the land of households. Vietnam has a large population but limited land, so the value of land is high and land rights were extremely important, then the evidence of land right (i.e. LUC) has an positive impact on farming households, at least in psychology aspect.

The Government has given land rights to farming households to encourage the use of land as if it were their private property rights, while the fact shows that the State maintain ultimate ownership of the land. This kind of policy has really made a positive impact on agriculture productivity and poverty reduction in rural area as well.



CHAPTER 3: THEORETICAL FRAMEWORK

1. Theoretical analyses: the cause of the changes in land rights in Vietnam

Resolution 10 in 1988 was regarded as the time to cancel collective system and open household system in Vietnam agriculture. It was the first tentative move towards private land rights. Land law 1993 was the time marked by the issuance of LUC and the rights to transfer, inherit, mortgage, rent and exchange. This historical change brought about a new face for Vietnam agricultural production in particular and the whole economy in general. The cause of this change could be explained theoretically by some following issues

1.1 Property rights in land

Land rights or property rights in land consist of the set of rights to use and transfer land. Land rights are divided into three categories: open access in which rights are left unassigned, state property in which land is under control and management of the State, and private property where rights in land are assigned to individuals (Feder and Feeny). Land rights range from open access to a set of private rights. Muller and Lee 2002 states that a set of private rights include the following rights: (1) the right to use the land, but don't interfere with others' land rights (2) the right to exclude others from the use of the land, (3) the right to gain benefit from the land, (4) the right to sell or transfer the land, and (5) the right to bequeath the land to someone of your choice.

Land rights matter because of the incentive structure they provide to use the land. Incentive structure is the important issue which affects the outcome of production. If the land is infinite supply resource, private land rights have no sense. This condition just exists in Robinson Crusoe's world. However, in fact, land becomes more and more

scarce. Thus the more exclusive right in land is given to individuals or teams, the greater incentive they have to efficiently use and maintain the value of the land. And now we focus on incentive structure analyses.

1.2 Incentive structure analyses

In open access

In this kind of land right, all members of the community have rights to use the land based on first come-first serve principle (Alchian and Demsetz 1973). Everyone tends to exploit the land as much as they can without caring about the depletion of the resources. Thus this type of land right raises transaction cost by creating a free-rider problem.

In the First economic revolution described in Douglas North's work, different kinds of property right have played an important role in man's transition from hunting and gathering to settled agriculture, also in improving the technological progress. When *common property rights* over resources existed, there was a little, even no incentive to preserve natural resource and no incentive for the acquisition of learning and inventing technological knowledge. In contrary, *exclusive property rights* provided a direct incentive to improve efficiency and productivity, or furthermore, to acquire more knowledge and new technique through learning by doing. It was the change in incentive that explained the rapid development of man's economic activities during the transition time from hunting and gathering to settled agriculture

In open field

In “*Open field*” system which was widespread from the Middle Ages in many countries in North-Western Europe, each village has some Open fields which were

divided clearly. From the start of a new year, each villager would be assigned a set of land strips in a rotation form. It means that no single could get the best and the worst strip, they have to rotate all kinds of land there. This kind of property was very strange and special, because the land still belonged to the community. The villager would work hard in the strip he was assigned but he didn't have any incentive to preserve because next time he will use another strip according to rotation principle. After that, this system transferred into private own field system through enclosure. From that on, each had his own land and of course, he would put all of effort on improving productivity and preserving his land.

In production team

A.Alchian and H.Demsetz (1972) argued the metering problem comes into existence since it is difficult to determine the inputs of individuals in a team. We all know the economic organization could make better use of comparative advantages to the extent that it facilitated the payment of rewards in accord with productivity. If rewards were random, and without regard to effort productivity, workers would have no incentive to contribute to organization, and in contrary, if rewards negatively correlated with productivity, the organization would be subject to sabotage. So metering the contribution of each individual to the firm was excessively important, if the economic organization metered poorly then the productivity would be smaller, and if the organization metered well then the productivity would be greater.

We now apply the model of production team with a work point system of Lin (1988) to make clear the importance of supervision to the working incentive of workers, as well as the cause of changing from collective regime to household system. The objective of a cooperative is to maximize the average net income per worker:

$$\text{Max } \frac{1}{N} [F(E(d)) - C(d, N, a)] \quad (1)$$

$F(E)$ is the output produced by total effort of N workers

$$F_E = \frac{\partial F}{\partial E} > 0 \quad \text{and} \quad F_{EE} = \frac{\partial F_E}{\partial E} < 0$$

$E(d)$ is the total effort supply of N workers. E is a function of degree of supervision

$$E(d) = \sum_1^N e_i(d) \quad (2)$$

$$E_d = \frac{\partial E}{\partial d} > 0 \quad \text{and} \quad E_{dd} = \frac{\partial E_d}{\partial d} < 0$$

$C(d, N, a)$ is supervision cost function of degree of supervision (d), the size of the cooperative (N) and the degree of difficulty in supervising labor efforts (a).

$$C_i = \frac{\partial C}{\partial i} > 0 \quad \text{and} \quad C_{ii} = \frac{\partial C_i}{\partial i} < 0, \quad i = d, N, a$$

F.O.C:

$$F_E \cdot E_d - C_d = 0 \quad (3)$$

We differentiate equation (3) with respect to d and a , then solving for $\frac{\partial d}{\partial a}$.

$$\frac{\partial d}{\partial a} = \frac{C_{da}}{F_{EE} \cdot E_d^2 + F_E \cdot E_{dd} - C_{dd}} \quad (4)$$

With some assumptions of F, E, C given above, the sign of equation (4) is strictly negative. We observe that the effort supply of workers depends on the degree of supervision, whereas degree supervision depends on the degree of difficulty in supervision. Since $\frac{\partial d}{\partial a}$ is negative, thus, the better the ability of supervision is, the higher degree of supervision will be chosen. As a consequence, the effort supply of workers increases. This implies that the incentive to work is better. Thus productivity

increases for sure.

Hence, in order to ensure adequate work performance, it is necessary to provide close supervision at each stage of production. However, it is a common knowledge that agriculture has sequential nature and spatial dimensions. In agricultural production, the process spans several months over several acres of land. Thus, it is very difficult, even impossible to determine each individual's contribution by simply observing the outputs. Moreover, if it is possible to provide close supervision at each peasant's work during the working time, the cost for this is extremely high, even so high that agricultural income is impossible to compensate for.

In collective system, all peasants take part in collectives and all agricultural production activities take place in those cooperatives. During the harvest, it is impossible to measure exactly how much contribution to the cooperative each peasant makes because of the high difficulty degree of supervising in agricultural production and the high cost for supervision. Thus, the supervision in an agricultural production is almost zero and work point principle is applied. At the end of harvest time, every worker receives the same amount of work points for a given job no matter how hard he actually works. This implies that the marginal return of effort for a worker is only $1/N$ of the marginal return of effort to the team as a whole. And we know for sure that peasants have very low incentive to contribute to cooperative.

In contrary, in the household system, worker becomes a sole member in a production team. Hence, the difficulties of supervision are totally overcome because a worker knows exactly how much effort he puts in the work, and the cost of supervision is zero. In that case, supervision in a household system is perfect. Thus he has the highest incentive to work not only because he can get a full share of marginal rate of return to his effort but also because he can save the cost of supervision.

From the discussion above, in the same agricultural process, the incentive in a system with the household as a unit of production will be much higher than the incentive in a cooperative

1.3 Transition issue

As discussed above, it is important to change land right from open access and collective system to private one. Many countries have succeeded in this process. However, the land right the household received after the implementation of Resolution 10 in 1988 was just a tentative move towards private land rights, rather than private land right. The cause of this policy is that Vietnam is a transition economy with gradual approach which is constrained by many variables.

The so-called transition economies are understood to as countries which have moved or are moving from a primarily state-planned to a market-based economic system. The key feature of economic reform in Vietnam is gradual approach which is considered as the different pattern of transition as compared to “big-bang” approach followed by the former communist countries in Russia and Eastern Europe. More specifically, Vietnam follows the strategy of transition, with an initial emphasis on agricultural reform and a gradual opening of the previously closed economy. The landmark of socialism is identified with the public ownership of means of production and land. Thus, in Vietnam, land cannot be private property. Land Law of Vietnam clearly points out: *“The Government is the representative of the people’s ownership. Since land is “owned” by the people as a whole, it is not possible for individuals to own land, although they can own and transfer structures such as houses built on lands. Vietnam individuals, households and organizations can hold and transfer rights to use land”*.

The explanation why Vietnam adopted a gradual approach in economic transition was made clear by Su Jian Guo(2004) with three important key variables: (1) the power relationship between moderate reformers and radical reformers, (2) the relationship between reform and stability, (3) the relationship between socialist principles and market reform.

The relationship between moderate reformers and radical reformers: In Vietnam there was not a consensus between the two groups of leader (moderate and radical) about the content, scope, extent of reforms. Although Vietnam just had one party called VCP (Vietnam Communist Party), the differences in consideration within Party made contribution to the gradual approach of economic transition. The conservative members of VCP leadership strongly believed in socialist orthodoxy with preference for a “socialist-based market economy” in accordance with socialist ideas. They were worried about the impact of market economy and the development of private sectors on the socialist principles. Meanwhile, another group of Party was interested in comprehensive market reform and opening the economy to the world market. They hoped, by opening the market economy, by creating perfect competitive environment, Vietnam could more rapidly change and develop in order to catch up with the neighboring states, as well as to join the global market, since then enhance the long-term development of Vietnam. The radical group seemed to succeed when Vietnam started commercializing the state economy, allowing markets to play more important role in the allocation of resources and encouraging private sectors. However, this still faced the opposition of conservative group. Thus the state was still the dominant owner of the means of production within industry.

The relationship between reform and stability: The “Doi moi” (reform) policy in 1986 has resulted in a market-based and multi-sectoral economy that left some

economic areas beyond the reach of the party and creates many ideological inconsistencies between Marxist-Leninist doctrines and market reform practices. The question was raised that how communist party could maintain its power in the process of economic reform, or how Party can kept the balance between economics and politics, between reform and stability. The fall of the Soviet Union and Eastern Europe in the late of 1989s confirmed the importance of the political control and the necessity of economic reform at the same time. Hence, the Party, on the one hand, encouraged foreign investments and open market, but on the other hand was cautious the opening-up of the Vietnam's capital market. And the Party adopted "socialist oriented market economy" as the direction of the economic reform program.

The relationship between socialist principles and market reform: In 1986, at sixth Party congress, the Vietnamese leadership recognized the existing problems of central planning system and the necessity of the open market. However, the socialist principles made them consider the balance between the plan and the market. Market reforms could bring about many changes that contradict the Maxism-Leninism doctrines. Therefore, Vietnam did not follow a comprehensive reform plan from beginning to end, but moved forward in a step by step manner. This spirit of "socialist oriented market economy" didn't still change although the private sectors and investment developed more and more. The long-term policy of the Party that was affirmed at the Seventh and Eighth Central Committee was to develop a "*commodity-based multi-sectoral economy operating in accordance with the state-managed and socialist oriented market mechanism*". Even until August 2001, at the Third Plenum of the Ninth Central Committee, the VCP continued to declare that "*the state sector of the economy (in which state enterprises are the main pillars) shall occupy a leading role and this role is closely associated with the country's move towards socialism and stable economic and*

social development”.

The strategic choice of reform in Vietnam was as result of the compromise and balance between the radical reformers and conservatives in VCP. While reformers desired to develop the private sectors because of the inefficiencies of state sectors, the conservatives supported the maintenance of the state sector since as far as they concerned, the collapse of state sectors could lead to the contradiction to the socialist principles and political instability. And the Party leadership could not resolve the debate between these two groups. As a result of it, the middle road named gradual approach in economic transition has been chosen and affirmed as “socialist market based reform”.

2. The effects of effective land rights in the development of agriculture

Deininger defined key components of land rights with duration of rights, the need for enforcement institutions and the evolution of rights as relative scarcities change.

The duration of land rights that people received might be the most important in definition of land rights, since the length of land rights household enjoyed would have a huge impact on land investment and management. The longer land right was, the more secure land right farmers received. In fact, long-term and transferable land rights provided levels of security identical to private land rights. Moreover, *awarding permanent rights is the most appropriate if the intent is to maximize welfare over an infinite horizon* (Deininger, pp26). Hence, a lot of developed countries have given farming households permanent land rights because of the role of incentives.

As far as we concerned, individual land rights were now applied in most of developed countries in the world, but the evolution of property rights in land couldn't

separate from political factor, including *enforcement institutions*. Enforcement institutions related to informal possession of rights and formalized property rights. The manifestation of formalized property rights in land was titled land document, which not only protected individual's right when his/her right is violated, but also made land easily transferable.

Land is more and more valuable because of its scarcity. Thus, how to define an optimum land right in specific area is important. It *“depends on the nature of the resource, its relative scarcity, the externalities that arise in its use, the cost of specifying and enforcing property rights, the state's capacity to enforce property rights, the ability to minimize external effects through regulation and the means available within group to delineate and enforce rights and responsibilities internally.”*

Theoretical analysis above provides us some hypotheses involving the effect of the institutional change from collective system to household system. In agricultural production, the incentive to work in a system in which household is an independent unit of production is higher than the incentive in collective system. The reason is related to the degree of supervision. In household system, the supervision is perfect, and household knows exactly how much contribution he makes in production process, thus he will get a full share of marginal product of his effort. Meanwhile, in collective system, supervisor in agricultural production is almost zero because of the sequential nature and dimension of agricultural production process and the high cost for supervision, if can. Thus, in this case, a worker just receives a small share of marginal product of effort of a team as a whole.

Based on the theoretical analyses on incentive problem and the definition in key components of land right, we can consider an effective land right policy with providing households as independent units of production with long-term land use right under

institutional enforcement. In this case, the effective land rights should have some positive effects on the development of agriculture, specifically on agricultural investment, productivity and poverty reduction.

Effect 1: The effective land rights could mainly improve investment incentives in land and agricultural inputs.

The household system gives household full marginal product of effort of household, thus the effort supply increases in response. The effort supply is not only the quantity of work but also investment in land and agricultural production in both short term and long term, such as chemical fertilizer, pesticide, irrigation. The institutional change in land right from collective to household system, therefore, results in the increase in the investment incentives in land and agricultural inputs.

Effect 2: Due to the augmentation of investment in agricultural production, the productivity increases. Thus, the effective land rights should have a positive effect on the agricultural productivity.

A rational household allocates his effort to maximize income. In household system, since the household can get the full share of marginal product of effort, he is willing to put more efforts on agricultural production. It implies that the investment in production will increase. The more agricultural investments are made, the higher productivity will be gained.

Effect 3: The effective land rights should help more households in rural areas get through poverty.

Most of the poor are farmers in rural areas. Thus, only when their income from agricultural production enhances, they can escape the poverty. As argued above, the change from collective system to household system has positive impact on agricultural

productivity, thus income from agricultural production of farming households increase.

As a consequence, the rate of poverty is expected to decline.



CHAPTER 4: DATA ANALYSIS, RESULTS AND DISCUSSION.

The present thesis just focuses on Vietnam Land law 1993, based on the three key components of land rights definition and the gradual approach in economic transition of Vietnam, it would be possible to state that Land law 1993 was truly the more-effective-land rights in comparison with other land rights after the unification of Vietnam. Land law 1993 let households stably and long-term use land as independent production units. *The duration of land rights* last 20 years for annual crop and 50 years for perennial crop (in comparison with 15 years and more than 15 years in Resolution 1988, respectively) with the issuance of LUC. Moreover, farming households could not only use the land, but also could: *transfer, mortgage, rent, exchange and inherit*.

As discussed above, effective land rights should lead to the good outcome of agricultural improvement. We use the data of Vietnam in order to investigate whether the effective land rights policy, i.e Land law 1993 could lead to those three positive effects: (1) improve investment incentives in land and agricultural inputs; (2) increase the productivity; (3) reduce poverty especially poverty in rural area. In order to investigate the impacts of land law 1993 on investment incentives, agricultural productivity and poverty reduction, the comparison between before and after reform should be needed. Thus, in the present thesis, the year 1993 is regarded as pre-reform baseline, the year 1998, 2002 and 2004 are considered as the post-reform period.

1. Data analyses

1.1 Data source

Data I use in this thesis is VHLSS 1993, 1998, 2002, 2004. In the past more than ten years, GSO Vietnam carried out 4 national living standard surveys. These surveys were

designed to provide an up-to-date source data on household living standards to be used in such following objectives: (1) collecting information on samples of households and communes/wards for evaluating objectives and making policies, plans, national programs on living standard of residents all over the country and each region, which includes evaluation of poverty situation and inequality; (2) evaluating millennium targets and poverty alleviation strategy; (3) providing data for calculating consumption price index and setting up national accounts

Households were the main subjects of the survey and questionnaire² was the main instrument in survey. However, the surveys included household and commune questionnaire. The survey sample was selected randomly from provinces and cities throughout the country in order to be representative for the whole country (see table 1)

In the thesis, I take the VHLSS 1993 as pre-reform baseline data, and the later VHLSS as post-reform data. As a result of it, I can make comparison indicators before and after reform.

² See some questionnaires in appendix

Table 1: Main characteristics across 4 household surveys

Name	Period of data collection	Sample size	Length of household questionnaire	Lowest level representativeness	Type of data collected
VHLSS 1993	1992 – 1993	4,800	110 pages	7 regions:	Households member characteristics, education, health, employment, migration, housing, fertility, agriculture, non-farm self employment, expenditure, assets, other income, saving and credit
VHLSS 1998	1997 – 1998	6,000	110 pages	10 strata (7 rural regions and 3 types of urban areas)	Identical content and structure as VHLSS 93
VHLSS 2002	2002	30,000	43 pages	8 regions	All topics of VHLSS 93 and VHLSS 98
		45,000	36 pages	61 provinces	All topics of VHLSS 93 and 98 except for expenditure topics
VHLSS 2004	2004	9,000	77 pages	8 regions	All topics of VHLSS 93 and VHLSS 98, VHLSS 2002
		36,000	26 pages	61 provinces	All topics of VHLSS 93 and 98 except for expenditure topics

1.2 Measuring indicators

Household investment

The first indicator I consider is the decision of household on crop choice. I will see the *proportion of crop land* which has been devoted to annual and perennial crop. If the proportion of crop land devoted to perennial crop increases, it means that households take more long-term investments on crops, since perennial crops require large initial investment and has returns after some years. According to the land law 1993, the time using land for cultivating perennial crops (50 years) is rather longer than the one for annual crop cultivation (20 years).

The second one I use to measure the change on household investment is the *usage of agricultural inputs*, including fertilizers, pesticides and irrigation fee for one square meter of cultivated land. The investment in land in particular and agriculture in general can be expressed in both long-term investment (irrigation) and short term investment (fertilizers and pesticides usage)

Productivity

I will consider two measures of agricultural productivity of households: the first is simply the *yield of crop*, the second is *net income of agricultural production* per one meter agricultural cultivated area.

Yield of crop is simply the total production of output divided by the total cultivated area. In Vietnam agriculture, rice is the most important food crop; however, not only rice but also different kinds of crops, including annual crops and perennial ones, will be taken into account.

Table 2: Difference kinds of crops

Rice	Ordinary rice and glutinous rice
Other food crops	Maize, sweet potatoes, cassava, other starchy plants, potatoes, kohlrabi, water spinach, cabbage, mustard green of all kinds, sesame seeds, tomatoes, other vegetables.
Annual industrial crops	Soy beans, peanuts, sugarcane, tobacco, cotton, rush, other annual industrial crops
Perennial industrial crops	Tea, coffee, rubber, pepper, coconut, cashew, other perennial industrial crops.
Fruit crops	Pineapples, oranges, bananas, mangoes, apples, grapes, plums, papaya, litchi, rambutan, custard apples, jackfruits, other fruit trees.

Source: own classification

Net income refers to the additional value of gross output after deducting total expenditure put on production. Both gross output and net income are measured by money, but net income may be more efficient indicator since it involves expenses households pay for agriculture, avoid of repeating calculating the production value of crops. Therefore, net income per one square meter of agricultural³ cultivated area was chosen as a indicator to measure the productivity of farming production.

Net income in 1m² cultivated area

$$= \frac{\text{Total agricultural income} - \text{total agricultural expenditure}}{\text{total cultivated area}}$$

³ We cannot use net income only since the data samples through years are different. Thus, to make an accurate comparison, net income per one square meter is a good idea.

Table 3: Agricultural income and expenditure

Total agricultural income from	Total agricultural expenditure from
Rice production	Seeds, tree for breeding
Other food crops production	Fertilizers
Annual industrial crop production	Pesticides and herbicides
Perennial industrial crop production	Small, non-durable tools
Fruit crops production	Energy fuels
Crop by- products	Agricultural taxes
	Irrigational fees
	Expenses for outside hired labors
	Rental of cattle for ploughing
	Rental of assets, machinery, equipment and means of transport
	Payment for cultivation loan interest
	Other costs (plant protection, field improvement, food for working cattle)

Source: Own classification

Poverty reduction

There are two kinds of poverty lines: general poverty line and food poverty line. Food poverty line is the annual amount of money required to purchase a typical basket of food items in Vietnam, which provides 2100 calories per day. General poverty line is the annual amount of money to purchase basket of food items and minimal amount of nonfood items. General poverty line in 1993 is 105USD, in 1998 is 128USD, in 2002 is 127USD and in 2004 is 130USD. Households which are under these levels are called the poor.

2. Data analysis results

2.1 Household investment

As discussed earlier, new reform on land laws 1993 which gave farming household long term use of land and more rights to land such as the right to transfer, exchange, inherit, rent and mortgage made household more willing to invest in land in particular and in cultivation in general. Please look at the allocation of crop land between annual crops and perennial crops (including perennial industrial crops and fruit crops)⁴ in table 4. Land reform in 1993 led to the increase in crop land devoted to perennial crops which need larger initial and long-term investment. In 1993, land devoted to annual crop accounted for 91.6%, while perennial crop land accounted for only 8.4%, but during the period after land reform, these proportions changed significantly. In 1998, perennial crop land increased to 28.7% in comparison with 8.4% in 1993. Although the proportion of crop land for perennial crop in 2002 and 2004 slightly decreased as compared to 1998, it is more than 3 times larger than that in 1993. This change was consistent with the theory that better land rights would encourage investment incentives of farming households.

Table 4: Proportion of crop land devoted to annual and perennial crop

	1993	1998	2002	2004
Annual crop land	91.6 %	71.3 %	74.6 %	75.4 %
Perennial crop land	8.4 %	28.7%	25.4 %	24.6 %

Source: Own calculation based on VHLSS 1993, 1998, 2002, 2004

Not only making more long-term investment in perennial crops, farming households are also willing to pay more for agricultural inputs which are considered

⁴ I just focus on crop land (excluding forestry land, water surface, grassy land...)

short term investments in land, as well as agricultural production. As my calculation from 4 rounds of VHLSS, irrigated plots in 1998 accounted for 61.7% total land area, whereas this number in 1993 is only 41.4%⁵. We also observe table 5, we can easily realize that household used more fertilizers, pesticides and irrigation services after land reform in 1993, or in the other words, farming households pay more money for 1 m² cultivated land. All inputs increase sharply after 1993. For example, in 1993, households paid 46.5 VND to buy fertilizers (both chemical and organic fertilizers) to manure 1 m² cultivated land, in 1998, they were willing to pay twice more than the money they paid in 1993 for 1 m² cultivated land. Furthermore, the number kilograms of fertilizers to manure also increased from 0.21 kg/m² cultivated land in 1993 to 0.32 kg/m² cultivated land in 1998. These data showed that households invested more and more after the implement of land reform 1993. And we hope that these enhancements in investment would lead the increase in productivity and the reduction in poverty.

Table 5: Expense of inputs for 1m2 cultivated land (VND/m2).

	1993	1998	2002	2004
Fertilizer	46.5	104	113.3	162.6
Pesticide	9.7	25	29.8	40
Irrigation	1.2	7.2	11.1	14

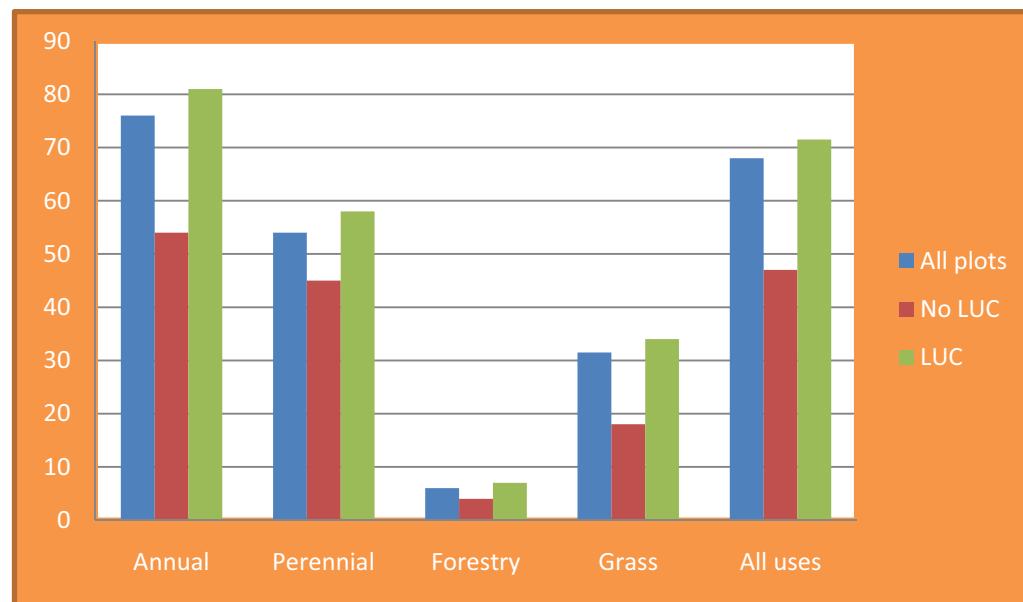
Source: Own calculation based on VHLSS 1993, 1998, 2002, 2004

The new characteristic of Land law 1993 was the issuance of LUCs. The issuance of LUCs played a very important role in encouraging the investment incentives of farming households, since LUCs gave farming households legal proofs of using lands rights. Therefore, households would feel safer when making decision in cultivation, especially

⁵ VHLSS 2002 and VHLSS 2004 don't have any question involving irrigated land.

in long-term investment. As far as the 2006 survey over 12 provinces in Vietnam, we can realize the fact that households who had LUCs in hand care more about land irrigation than those who didn't have LUCs (see figure 3 for more detail).

Figure 3: Percentage of plots irrigated, by use and by LUC ownership in 2006



Source: CIEM, ISAP, Characteristic of Vietnamese rural economy: Evidence from 2006 rural household survey in 12 provinces of Vietnam, 2008

2.2 Productivity

Since there were more investments in land and agriculture crop, so obviously, there has been considerable productivity growth between 1993 and the period after 1993. Table 6 shows this idea. In 1998, the yield of crop increased 42% as compared to that in 1993. This growth rate in 2002 and 2004 in comparison with 1993 was 50% and 55% respectively. We can observe that, all crops, not only food crops but also industrial crops and fruit crops, increased in productivity after reform baseline. However, among these kinds of crop, fruit crop has the most considerable productivity growth rate. From 1993 to 1998, the yield of this crop increased more than twice, whereas other food crop has the least productivity growth rate, just around 2%.

Table 6: Yield of crop (tons/ha)

	1993	1998	2002	2004
All crops	3.89	5.52	5.83	6.03
Paddy	3.00	3.64	4.44	4.60
Other food crop	5.6	5.70	6.30	8.25
Annual industrial crop	15	19.85	21.91	19.19
Perennial industrial crop	1.74	2.10	3.57	3.23
Fruit crop	4.42	10.73	10.01	10.71

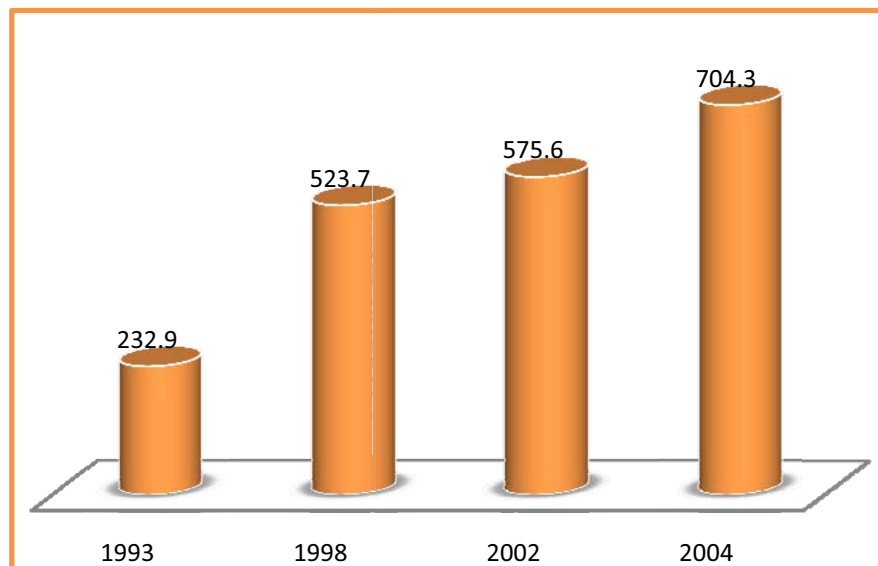
Source: own calculation based on VHLSS 1993, 1998, 2002, 2004.

As mentioned before, net income maybe the more efficient indicator than gross output when evaluating productivity of crops. After calculating all the expenditure devoted to production, the remaining value is really the additional value that farming households gain when a crop finishes. We observe from the figure 4, in 1998, the net income increased considerably as compared to 1993 (more than twice). In the years thereafter, net income also increased annually, however the growth rate is not as fast as the period 1993-1998. This seems that Land law 1993 has made a positive impact on agricultural productivity. And this is again consistent with the idea of positive changes in land rights policy lead to more efficiency in agricultural production.

Moreover, with this level of crop yield and net income, agricultural production not only meets the domestic demand in food but also is sufficient to export to other countries all around the world. In 2000, Vietnam was a fifth largest producer and the second largest exporter of rice worldwide (Thailand is the first largest exporter) (Nguyen and Grote, 2004). As we discussed earlier, Vietnam farming households tended to invest more in perennial crop, which gave them more economic returns. As a

result of it, some of perennial crop of Vietnam become more and more famous in the world. Again in 2000, yield of coffee is twice the world average. As far as the latest news, Vietnam, the world second biggest exporter of coffee (after Brazil) shipped abroad 445,000 tons of coffee worth 906 million U.S. dollars in the first four months of 2008⁶. Moreover, for the now being, Vietnam is considered as worldwide biggest pepper producer, the third biggest producer of cashew with higher productivity than other countries, the fifth biggest tea producer.

Figure 4: Net income for 1 square meter of cultivated area (VND/m²)



Source: Own elaboration based on VHLSS 1993, 1998, 2002, 2004

2.3 Poverty reduction

As far as we concerned, Vietnam is a very poor country, moreover, based on the annual surveys of GSO, we can see that the poorest people in Vietnam include:

- Members of the country's 53 minority groups, who depend mainly on forest resources for a livelihood

⁶http://www.itpc.hochiminhcity.gov.vn/en/business_news/Trade/news_item.2008-05-05.0332507733

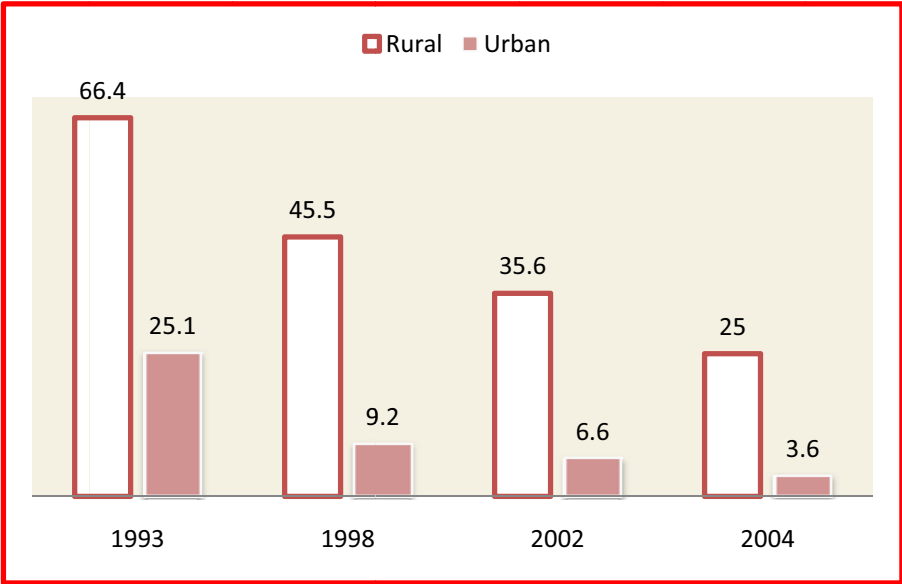
- People living in upland areas with a poor natural resource base
- People living in coastal areas that are more prone to adverse climatic events
- Households headed by women
- Households with disabled members
- Landless people

Most of poor people live in rural area or are farmers. Hence, in order to escape poverty, their income from agriculture must increase. As the matter of fact, the general poverty rate declined reasonably after the Government took more care about the right of farming household to cultivation land, specifically after Land law 1993. From figure 7, we can see that in 1993, the poverty rate was still high (around 58%), but after a long time applying the new change in land rights, poverty rate was just 19.5% in 2004. However, the number of poverty rate in rural area is higher than average number all over the country. Looking at the figure 5, we can see that in 1993, the number of people under poverty line accounted for 66.4 %. In 1998, there were about 45% in rural area could not escape poverty. And gradually, thanks to efficiently applying land rights policy, together with others positive policies for rural regions from Government, until 2004, poverty rate declined to 25%.

We also observe figure 6, in rural regions in Vietnam, there was a decline in general poverty rate in spite of different declining rates. This may be due to the different impact on difference area. While Red river delta, South East and Mekong river delta regions could decrease the number of poverty households in a high speed through the years 1993, 1998, 2002, 2004, there are some regions like North West, Central Highlands which still have too many poor households until 2004, as compared to other regions. Despite that fact, we cannot deny that in all regions in Vietnam, poor households were less and less. Land rights had impact on different regions with

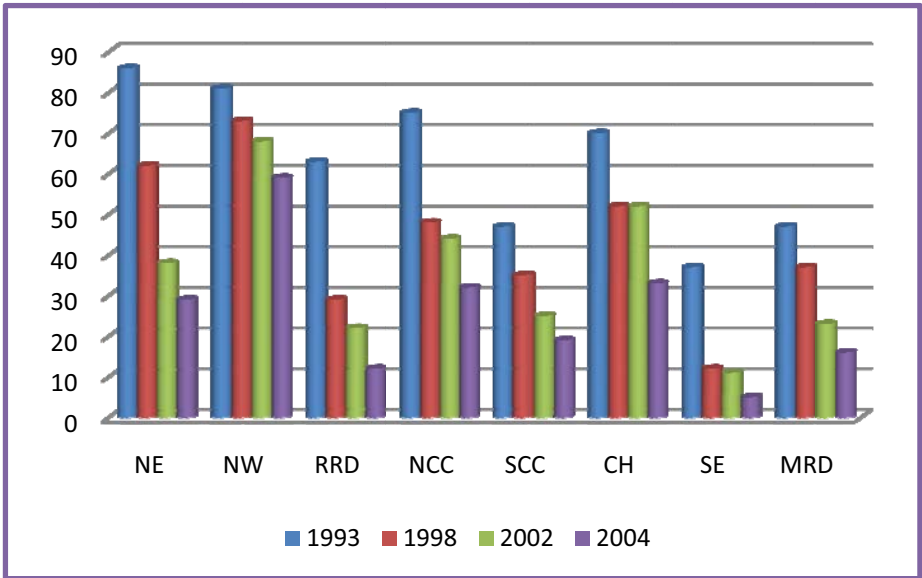
different levels

Figure 5: General poverty rate (%)



Source: GSO based on VHLSS 1993, 1998, 2002, 2004

Figure 6: Poverty rate by region



Source: GSO based on VHLSS 1993, 1998, 2002, 2004.

3. Discussion

From the analysis above, we can imagine the development steps in agriculture in Vietnam. We also know that thanks to the change in land right policies, we can get more and more achievements in Agricultural aspect. From a net importer of food, Vietnam had to import 170 thousand tons of rice and 1.1 million tons of food crops annually during 1976-1980 period, Vietnam becomes the second largest rice exporter, the third biggest producer of cashew nut and the biggest pepper producer in all over the world. Hence, a question was raised that, whether only the change in land rights made contribution to these achievements, or is there any other policies which also pushed Vietnam agriculture to move ahead?

In fact, in addition to the land right policy, there are other domestic policies that support the development of Vietnam agriculture so such.

3.1 Market reform

The first and also the very important reform which contributes to the growth of agriculture in Vietnam is the market liberalization. Since 1986, Vietnam government decided to move the economy from centrally-planning system into market-based system. This implies that the intervention of Government into market decreases. This reform is very important since farming households have right to cope with their products. In collective system, households don't have enough incentives to work. However, if they don't have to take part in collective systems, it is clear that they will have incentives to work harder, and productivity will increase. The problem related to market issue is that how are the products allocated? If all products must be sold to Government at a low price, then the incentives to work hard will make no sense. In contrary, if households have rights to their outputs, the situation may change clearly.

Farmers can keep their surplus, or sell it to free market. This reform ensures the incentives of households.

The other angle of market policy is the rights to trade the land use rights. Land law 1993 allowed households to transfer, exchange, lease, then creates a land market. With this reform, we can expect a better allocation of lands from less productive to more productive households, which implies higher yields of production.

3.2 Input subsidies

The second policy I would like to refer to is *input subsidies*. So called agricultural inputs are seeds, fertilizers, pesticides, water and electricity... Vietnamese government provided seeds to farmers with subsidized rates. Due to statistics, in 1993, 60% of seed price in mountainous areas and 40% of seed prices in plain areas were subsidized. Also in 1993, Government paid 30-50 billion VND to subsidy seeds for farmers.

Not only seeds, fertilizers and pesticides were also were provided to households with subsidized rates. Most of fertilizers and pesticides were import, the proportion of self production just accounted for a small share in total fertilizers and pesticides in use in Vietnam. In 1994, Vietnam produced 71.1 tons Nitrogen, but needed to import 806.8 tons; in 2002, the share of Nitrogen Vietnam produced decreased to 49.2 tons, and had to imported 1132.6 tons this kind. Vietnam government provided subsidy to both fertilizer producers and importers. Importers had access to subsidized credits, while producers could obtain concessional loans.

Water and electricity were also the important inputs in agriculture as well. Government subsidized farmers in agricultural sectors by providing water and electricity to them with lower price than those in other sectors. In Vietnam rural areas, there are irrigation management companies which help households in irrigation work.

The budget to run this kind of company, including salary for workers, tax, etc., comes from 2 sources: one is from the fee of farming households, other is from the support of Government.

3.3 Tax policy

Together with new land right policy, land use tax policy in agriculture clearly expressed the spirit “exploring strength of farmers”, in order to ensure the equality between individuals and organizations. Before 1993, organizations such as state-run farms were exempted from land use tax; however, after land law 1993, they had to submit tax as much as farming households did, even submit tax on the areas that they were not in use. Tax level which households and organizations needed to submit after 1993 was 7% of average production output, 3% less than old law required. Moreover, government exempted someone who had special conditions from land use tax. They are households which had old, disabled members, which had injured soldiers from Vietnamese wars, which are in poor mountainous and island areas, which had patriotic martyr in wars. Tax would not be collected if there were natural calamities and enemy-eftited devastation. If farmer wanted to move to new areas to explore it, they would be free of land use tax for 5-7 years, instead of 3-5 years in the period before 1993.

There were some regulations on export tax on agricultural products too. In order to enhance agricultural export, government gave agricultural exporters a decline on export tax rate. In 1987, export tax rate on rice, peanut, cashew nut, coffee and tea was 10%; in 1989, export tax on rice was 5%, on cashew nut, tea, coffee was 3%. And after 1993, most of products which are in purpose of export were free of tax.

It is possible to say that the issuance of new land use tax policy made a very positive impact on farming households. On the one hand, it highly motivated flexible usage of

lands and exploration new resources that are good for agricultural cultivation; on the other hand, it gave farming households more incentives and more willingness to invest on lands, as well as apply more methods to increase production output. Hence, it would make a huge contribution to reduce poverty in agricultural areas over Vietnam.

3.4 Loan concession

Loan concession was one of the contributions to agricultural development. Vietnam Bank of Rural and Agricultural development always gave loan concession with low interest rate to farming households, especially those in mountainous and island areas or minorities who needs capital to invest in agriculture production. Furthermore, Vietnam is an agricultural country which always faces with natural disasters. Thus, money to overcome those disasters is necessary. Thus the Bank also gives farmers concession loans in this kind.

In 1995 Bank for the Poor established, in which it provided loans to poor households with very preferential interest rates, normally half of formal rates. These supports from Government make farming households have more capital to invest in agriculture, then improve productivity, thus be able to escape poverty.

CHAPTER 5: CONCLUSIONS

As discussed above, the objective of the present thesis is investigating whether positive change in land rights will make a huge contribution to efficient improvement of investments incentives of farmers, as well as agricultural production and poverty reduction issue in Vietnam in case Vietnam is a transition economy. The method of the thesis is institutional approach, specifically the property right approach.

Property theory in lands states that it is necessary to make an effective land right, in which the role of individual are emphasized. The effective land rights can encourage the willingness of farmers to invest more in agricultural, and then can improve productivity, as well as reduce poverty rate in one country. From the model of production team borrowed from Lin 1988, the main reason of the failure of collective system is the difficulty in providing supervision in agricultural production process. Thus, in collective system, managers choose to exercise the low degree of supervision, because of the sequential nature and spatial dimension of agriculture, and because it is costly to implement a high degree of supervision. As a consequence, each household just receives a small fraction of marginal product of effort of a cooperative as a whole. It is necessary to make an institutional change from collective system to household system where household can get full share of marginal product of effort and the cost for supervision is zero. The theoretical analysis gives us some testable hypotheses.

To test hypotheses given in theoretical framework, I use data from four rounds of Vietnam household living standard surveys (1993, 1998, 2002, 2004) with different samples. Choosing land law 1993 as a baseline between before and after land reform, this thesis has showed that Land law 1993 is the highest step in land rights policies from 1975, in which farmers are not only given long-term land use rights, but also have rights to transfer, inherit, mortgage, rent and exchange lands. As a transition economy

country, there are some restrictions to the way to totally individual property rights in land, since land belongs to the State. Farmers just have land use rights, rather than property rights in land. The rights given to farmers are tentatively individual property rights. Despite that fact, Land law 1993 was still the more-effective land policy, as compared as some previous policies. The implement of Land Law 1993 has made a good impact on agricultural investments of farming households, productivity enhancement and poverty reduction. The results from household level data are farmers invest more in land and agricultural production as well, both in long term (crop choice, irrigation) and short term (pesticides and fertilizers usage). Thanks to more investments, productivity enhances considerably, not only in yield of crop, but also in net income. Moreover, high productivity leads to the increase in living standard of farmers, reduction of poverty in rural area. High productivity also pushes Vietnam to become the second largest exporter of rice, the second largest exporter of coffee and the largest producer of pepper all around the world. As a result of it, the thesis can answer most of the questions mentioned earlier. And those results seem to be consistent with the idea that “good land rights will lead to good outcome” and with the studies in other countries before.

The present thesis also gives some other reasons which made farmers invest more, make productivity enhance and make poverty decline. Thus, in addition to land rights policy, there are also other policies of government which are supporting the development of agriculture, including input subsidy policy, tax policy, loan concession policy and so on. However, the thesis hasn't clearly expressed how much each policy makes contribution to those achievements of Vietnam agriculture yet. Therefore, there is a little bit ambiguity that whether it is the good change in land rights policies which has made a determinant contribution to those agricultural accomplishments discussed

earlier.

My suggestion for the further research on this topic is using an econometric model in which we can identify how much each policy contributes to development of agriculture through years, the year 1993 is still the baseline between pre-reform and post reform. And further research should focus more on the importance of possession of LUC on agricultural investment decisions of farming households, as well make a comparison between investment decisions of households that possess LUC and households which don't have LUC. I hope in next research, I can analyze the trend of creating family farms that are stemmed from the new regulation in Land law 1993. That is transferability of land rights.



APPENDIX

Part 1: Questionnaires about agriculture of VHLSS 2004⁷

Agricultural land questionnaire

Rice production questionnaire

Other food, vegetables and annual plants production questionnaire

Annual and perennial crop questionnaire

Fruit crops questionnaire

Crop planting expenditure questionnaire



⁷ Questionnaire of VHLSS 1993, 1998 and 2002 are quite similar to questionnaire of VHLSS 2004, the difference between them is the structure of questionnaire. Thus I just put some questionnaires about agriculture of VHLSS 2004 so that readers can understand how the surveys were carried out.

Table 1.1: Agriculture land

1. In the last 12 months, did your household use or manage farming, forestry land or water surface for aquaculture, including rearing land or having your land rented

YES.....1

NO.....2

Now, I would like to ask you some questions about land plots used or managed by the household members, starting with the residential land

P	2	3	4	5	6	7
L	Please let us know the name of each of the existing household owned land plot	How large is the plot area in sqm?	Which type of land does this plot belong to?	How far is this plot from your home?	Which category does this plot belong to?\	How is this plot irrigated?
O			Annual trees land.....1 Perennial trees land.....2 Forestry land.....3 Water surface4 Grassy land5 Residential land.....6>>8 Next to residential land....7 Temporary farming land...8 Other (specify).....9		(Only reply if quest 4 is answered with 1,2,4,6 Otherwise >>7)	(Only reply if 1,2,3,7 us answered for quest 4 Otherwise>>8 Natural conditions....1 With pumps2 Manually tended.....3 Not Irrigated.....4
T						
C						
O	>15 Plots	a. No of plot	b. Total area sqm			
D	combine plots or					
E	the same land category			Meter	Land category code	
1						
2						
3						
4						
...						
19						

Table 1.2. Rice production activities

1. Have you harvested any products from planting activities for the last 12 months
 YES.....1
 NO.....2

2	3	4	5	6	7	8
What types of rice has your household harvested for the past 12 months? Ask questions 2 for all kinds of rice before starting question 3 Write the all year round if you can't identify it according to specific crop	What is the area your household has planted [...] for the past 12 months?	How much output of [...] has your household harvested for the past 12 months?	How much was lost due to pests or rotting or other reasons?	Did you sell or barter any of the total output harvested for the last 12 months?	How much did you sell or barter? Total amount of sales among harvested output for the last 12 months?	What is the total amount you obtained from sales/barter for the last 12 months?
	SQM	KG	KG	YES.....1 NO.....2>>10	KG	Thousand VND
1. Winter-spring ordinary rice?						
2. Summer-autumn ordinary rice?						
3. Tenth-month or autumn-winter rice?						
4. Ordinary rice planted in terraced field?						
5. Year-round ordinary rice						
6. Year-round glutinous rice?						
7. Year-round specialty rice?						

9	10	11	12	13	14	15
To whom did you sell or barter mostly for the last 12 months?	How many kgs [...] harvest for the past 12 months were retained as breeds?	How many kgs were used for your household's use as food?	How many kgs were used as food for cattle or poultry?	How many kgs were used as gifts, lending or payment for outside hired labors?	How many kgs have been left for future use?	The value of produce harvested for the last 12 months?
SOE.....1 Non-state.....2 Businesses.....3 Private.....4 Traders.....5 Retail sales.....6 Others (specify)....7	KG	KG	KG	KG	KG	Thousand VND

Table 1.3. Other starchy, vegetable and annual plants

C	2	3	4	5	6	7	8
O	What of the following products has your household harvested for the last 12 months?	What was the area in which you grew crops?	How many kgs has your household harvested over the last 12 months	How many kgs did your household sell or barter of the total harvest for the last 12 months?	What is the total amount your household obtained from selling/bartering [...] in the last 12 months	How many kgs or the harvested output for the last 12 months was retained for consumption?	Value of the output harvested for the last 12 months?
D	Ask question 2 for all kinds of plants before starting question 3						
E	Mark X if the answer is yes	SQM	KG	KG	Thousand VND	KG	Thousand VND
8	Maize/corn						
9	Sweet potatoes						
10	Cassava/manioc						
11	Other starchy plants						
12	Potatoes						
13	Water spinach						
14	Kohlrabi						
15	Cabbage, cauliflower						
16	Mustard greens of all kinds						
17	Fresh beans of all kinds						
18	Tomatoes						
19	Spiced herbs						
20	Other vegetables						

Table 1.4: Annual and perennial industrial crops

C	2	What of the following products has your households harvested for the past 12 months? Ask question 2 for all kinds of plants before starting question 3	3		4	5	6
			What is the area or amount of plants and trees grown or taken care of by your household? CODE M2.....1 Amount of trees.....2				
			Amount	Code			
22	Soybeans						
23	Peanuts						
24	Sesame seeds						
25	Sugar cane						
26	Tobacco						
27	Cotton						
28	Jute, ramie						
29	Rush						
30	Other annual industrial crops						

31	Tea									
32	Coffee									
33	Rubber									
34	Pepper									
35	Coconut									
36	Mulberry									
37	Cashew									
38	Other perennial industrial crops									



Table 1.5: Fruit crops

C	2	3	4	5	6	7	8
O	What of the following products has your households harvested for the past 12 months?						
D	Ask question 2 for all kinds of plants before starting question 3						
E	Mark X if the answer is yes	Amount	Code	KG	Thousand VND	KG	Thousand VND
39	Citrus fruits						
40	Pineapples						
41	Bananas						
42	Mangoes						
43	Apples						
44	Grapes						
45	Plums						
46	Papayas						

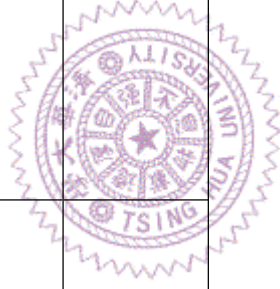
Table 1.6: Income from crop by-products

C O D E	1	2	3	4	5
	Has your household used or sold any [...] for 12 months? Ask question 1 for all kinds of by-products before starting question 2 Mark X if the answer is yes	How much did your household sell for the last 12 months Thousand VND	What is the amount used as animal food for your household for the last 12 months Thousand VND	What is the amount used for other purposes in your household for the last 12 months Thousand VND	Total crop by-products value for the last 12 months Thousand VND
1	Straw, thatch				
2	Sweet potato leaves and stems				
3	Cassava and maize stems				
4	Stems of beans of all kinds				
5	Sugarcane leaves and tops				
6	Jute, ramie stems				
7	Mulberry plant stems				
8	Firewood (from agricultural plants)				
9	Other crop by-products				

Table 1.7: Crop planting expenditure

C	1 On which of the following has your household spent for growing crops in the past 12 months? (including those purchased, bartered, self-generated, given, excluding collecting and picking...)	2 How much has your household spent on the following crops: If none, record 0; if you don't remember detail, record "KB", write total amount in the total column	a.Rice Thousand VND	b.Starchy and other crops Thousand VND	c.Industrial crops Thousand VND	d.Fruit crops and others, excluding forestry trees Thousand VND	e.Total (a+b+c+d) Thousand VND
1	Seeds	Mark X if the answer is yes					
2	Saplings						
3	Chemical fertilizers (nitrogenous, phosphate, potassium...)						
4	Organic fertilizers (self-provided)						
5	Organic fertilizers (bought)						
6	Pesticides						
7	Herbicides						
8	Small, non-durable tools (sickles, shears, shovels, bamboo baskets...)						
9	Energy, fuel (electricity, petrol, oil, lubricant, burning fuel..)						
10	Minor repairs, maintenance						

11	Depreciation of fixed assets								
12	Land rental or contracting								
13	Rental of asset, machinery, equipment and means of transport								
14	Rental of cattle for ploughing								
15	Expense for outside hired laborers								
16	Irrigational fee								
17	Agricultural taxes								
18	Payment for cultivation loan interest								
19	Other costs (postage, advertisement, marketing, production insurance)								
20	Contributions to various fees (plant protection, field improvement, extension, administrative management, food for working cattle)								



Part 2: Some crop indicators in Vietnam from 1981 to 2006

Table 2.1: Planted areas, production and yield of Paddy

Year	Planted area (thousand ha)	Production (thousand tons)	Yield (tons/ha)
1981	5652	12415	2.19
1982	5712	14390	2.52
1983	5612	14743	2.63
1984	5675	15566	2.74
1985	5704	15875	2.78
1986	5689	16003	2.81
1987	5589	15103	2.70
1988	5726	17000	2.96
1989	5896	18996	3.22
1990	6028	19225	3.19
1991	6303	19622	3.11
1992	6475	21590	3.33
1993	6559	22837	3.48
1994	6599	23528	3.56
1995	6766	24964	3.69
1996	7004	26397	3.77
1997	7100	27524	3.88
1998	7363	29146	3.96
1999	7654	31394	4.10
2000	7666	32530	4.24
2001	7493	32108	4.29
2002	7504	34447	4.59
2003	7452	34600	4.64
2004	7445	36149	4.86
2005	7328	35833	4.89
2006	7324	35827	4.89

Source: Statistical yearbook for Asia and the Pacific, GSO and own calculation

Table 2.2: Planted areas, production and yield of Maize

Year	Planted areas (thousand ha)	Production (thousand tons)	Yield (tons/ha)
1981	385	430	1.12
1982	381	438	1.15
1983	378	467	1.24
1984	386	532	1.38
1985	379	587	1.55
1986	401	570	1.42
1987	406	561	1.38
1988	511	815	1.59
1989	509	838	1.65
1990	432	671	1.55
1991	448	672	1.50
1992	478	747	1.56
1993	497	882	1.77
1994	735	1144	1.56
1995	557	1177	2.11
1996	615	1537	2.49
1997	663	1651	2.49
1998	650	1612	2.48
1999	692	1753	2.53
2000	730	2006	2.75
2001	730	2162	2.96
2002	816	2511	3.08
2003	913	3136	3.43
2004	991	3431	3.46
2005	1053	3787	3.60
2006	1032	3819	3.70

Source: Statistical yearbook for Asia and the Pacific, GSO and own calculation

Table 2.3: Planted areas, production and yield of sweet potatoes

Year	Planted areas (thousand ha)	Production (thousand tons)	Yield (tons/ha)
1981	441	2444	5.54
1982	406	2381	5.86
1983	357	1842	5.16
1984	328	1642	5.01
1985	320	1778	5.56
1986	329	1959	5.95
1987	332	2202	6.63
1988	336	1902	5.66
1989	327	1909	5.84
1990	321	1929	6.01
1991	356	2137	6.00
1992	396	2593	6.54
1993	387	2405	6.21
1994	344	1906	5.54
1995	305	1686	5.52
1996	303	1697	5.60
1997	267	1691	6.33
1998	254	1525	6.00
1999	270	1745	6.46
2000	254	1611	6.34
2001	245	1654	6.75
2002	238	1705	7.16
2003	220	1577	7.20
2004	202	1512	7.5
2005	185	1443	7.8
2006	182	1455	8.0

Source: Statistical yearbook for Asia and the Pacific, GSO and own calculation

Table 2.4: Planted areas, production and yield of cassava

Year	Planted areas (thousand ha)	Production (thousand tons)	Yield (tons/ha)
1981	396	2962	7.48
1982	336	2861	8.51
1983	353	2905	8.23
1984	346	3039	8.78
1985	335	2940	8.78
1986	315	2880	9.14
1987	299	2738	9.16
1988	318	2839	8.93
1989	280	2585	9.23
1990	257	2276	8.86
1991	273	2455	8.99
1992	284	2568	9.04
1993	285	2450	8.59
1994	279	2358	8.45
1995	277	2212	7.99
1996	276	2067	7.49
1997	254	2403	9.46
1998	236	1773	7.51
1999	225	1801	8.00
2000	238	1986	8.34
2001	292	3509	12.02
2002	337	4438	13.17
2003	372	5229	14.06
2004	389	5821	15.0
2005	426	6716	15.8
2006	475	7714	16.2

Source: Statistical yearbook for Asia and the Pacific, GSO and own calculation

Table 2.5: Planted areas, production and yield of coffee

Year	Planted areas (thousand ha)	Production (thousand tons)	Yield (tons/ha)
1981⁸			
1982			
1983			
1984			
1985			
1986			
1987			
1988			
1989			
1990	119	92	0.8
1991	115	100	0.9
1992	104	119	1.1
1993	101	136	1.3
1994	124	180	1.5
1995	186	218	1.2
1996	254	317	1.2
1997	340	421	1.2
1998	371	427	1.2
1999	478	553	1.2
2000	562	803	1.4
2001	565	841	1.5
2002	522	700	1.3
2003	510	794	1.6
2004	497	836	1.7
2005	488	752	1.5
2006	487	854	1.8

Source: Statistical yearbook for Asia and the Pacific, GSO and own calculation

⁸ The accurate figures of the data for coffee production from 1981 to 1989 have not been found by the author.

Table 2.6: Planted areas, production and yield of rubber

Year	Planted areas (thousand ha)	Production (thousand tons)	Yield (tons/ha)
1981	85	45	0.53
1982	94	46	0.49
1983	115	47	0.41
1984	148	47	0.32
1985	180	48	0.27
1986	202	50	0.25
1987	204	52	0.25
1988	210	50	0.24
1989	216	51	0.24
1990	222	58	0.26
1991	221	65	0.29
1992	212	68	0.32
1993	242	97	0.40
1994	258	129	0.50
1995	278	125	0.45
1996	303	143	0.47
1997	348	187	0.54
1998	382	194	0.51
1999	395	249	0.63
2000	412	291	0.71
2001	416	313	0.75
2002	429	298	0.69
2003	441	364	0.83
2004	454	419	0.92
2005	483	482	0.99
2006	512	546	1.07

Source: Statistical yearbook for Asia and the Pacific, GSO and own calculation

Table 2.7: Fertilizer consumption, 1981-2006

Year	Fertilizer consumption (tones)			
	Total	Nitrogen	Phosphate	Potash
1981-1982	219.2	169.1	28.0	22.1
1982-1983	274.7	214.7	38.0	22.0
1983-1984	374.1	318.3	39.4	16.4
1984-1985	374.9	299.1	47.5	28.3
1985-1986	469.2	342.3	91.0	35.9
1986-1987	524.1	382.4	70.7	71.0
1987-1988	421.7	309.0	68.3	44.4
1988-1989	576.1	428.8	109.0	38.3
1989-1990	563.0	424.0	97.7	41.3
1990-1991	560.3	425.4	105.7	29.2
1991-1992	781.9	619.0	146.9	16.0
1992-1993	766.4	541.3	183.5	41.6
1993-1994	754.1	565.0	165.3	23.8
1994-1995	1184.9	874.9	241.6	68.4
1995-1996	1223.7	813.7	322.0	88.0
1996-1997	1484.5	995.3	380.2	109.0
1997-1998	1471.7	922.9	386.8	162.0
1998-1999	1856.9	1,186.1	399.8	271.0
1999-2000	2057.6	1,224.2	456.4	377.0
2000-2001	2283.0	1,332.0	501.0	450.0
2001-2002	2027.8	1,136.0	492.0	399.8
2002-2003	2230.8	1,305.0	532.0	393.4
2003-2004	2439.4	1,371.0	568.4	500.0
2004-2005	2563.2	1,437.4	576.9	548.9
2005-2006	2063.6	1,155.1	554.1	354.4

Source: IFA⁹ data bank

⁹ For more detail: <http://www.fertilizer.org/ifa/statistics.asp>.

Table 2.8: Tractor usage, 1981-2003

Year	Tractor usage (number)
1981	24985
1982	25555
1983	28400
1984	29830
1985	31620
1986	30301
1987	29010
1988	27700
1989	26400
1990	25086
1991	35375
1992	37627
1993	45776
1994	89106
1995	97817
1996	109501
1997	115487
1998	122958
1999	145850
2000	162746
2001	163000
2002	163000
2003	163000

Source: Statistical yearbook for Asia and the Pacific, FAO statistics

REFERENCES

- A.Alchian and H.Demsetz**, *Production, Information Costs and Economic Organization*, The American Economic Review, Vol.62, No.5, 1972, pp777-795
- A.Alchian and H.Demsetz**, *Property Rights Paradigm*, Journal of Economic History, 1973, pp174-183
- Besly** 1995, *Property Rights and Investment Incentives: Theory and Evidence from Ghana*, Journal of Political Economy 103(5), pp 903-937
- CIEM, ISAP**, *Characteristic of Vietnamese Rural Economy: Evidence from 2006 Rural Household Survey in 12 Provinces of Vietnam*, Research Report 2008
- Do, Quy Toan and Iyer, Lakshmi** , *Land Rights and Economic Development: Evidence from Vietnam*, World Bank Policy Research Working Paper No. 3120, May 2003
- Do, Quy Toan and Iyer, Lakshmi**, *Land Titling and Rural Transition in Vietnam*, *Economic Development and Cultural Change*, Vol. 56:531–579, April 2008
- Douglass North and Robert Paul Thomas**, *The First Economic Revolution*, the Economic History Review, No.2, 1977, pp 299-241
- Deininger, Klaus W.**, *Land Policies to Growth and Poverty Reduction*: Oxford University Press, 239p, 2003
- General Statistics Office**, *Vietnam Household Living Standard Survey 1993, 1998, 2002, 2004.*
- Gershon Feder and David Feeny**, *Land tenure and Property rights: theory and implications for development policy*, World Bank Economic Review, vol. 5, issue 1, pp.135-53,1991

Green, David J and Volke, Richard W.A, *Agriculture and the Transition to the Market in Asia*, Asian development Bank, March 1997

Guo Li & Scott Rozelle & Jikun Huang, 2000, *Land Rights, Farmer Investment Incentives, and Agricultural Production in China*, Working Paper Series 1033, Department of Agricultural & Resource Economics, UC Davis.

Harord Demsetz, *Toward a Theory of Property Rights*, American Economic Review, Vol 57, Papers and Proceedings of the Seventy-ninth Annual Meeting of the American Economic Association (May, 1967), pp. 347-359

Hoa Nguyen and Ulrike Grote, *Agricultural Policies in Vietnam: Producer Support Estimates, 1986-2002*, MTID discussion paper No.79, December 2004.

Justine Yifu Lin, *the Household Responsibility System in China's Agricultural reform: a theoretical and empirical study*, Economic development and cultural change, Vol.36(3), 1988, pp199-224

Justine Yifu Lin, *Current Issues in China's Rural Areas*, Oxford Review of Economic Policy, vol.11, No.4, pp85-pp96

Justine Yifu Lin, *The Household Responsibility System Reform in China: A Peasant's Institutional Choie*, American Journal of Agricultural Economics, Vol.69, No2, May 1987, pp.410-415.

Nguyen, Van Bich and Chu, Tien Quang, *Economic Policy and its Role to Agriculture in Vietnam* (Vietnamese version), National Political Edition, 1996

Nguyen, Van Bich and Chu, Tien Quang, *Agricultural and Rural Development in the Process of Industrialization and Modernization in Vietnam* (Vietnamese version), Agriculture Edition, 1999

Statistical yearbook of Asia and Pacific 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006.

SuJianGuo, *Economic Transition in China and Vietnam: A Comparative Perspective*, Asian Profile, Vol.32, No.5, 2004, pp 393-410

