

2012 Modularization of Korea's Development Experience: Land Reform in Korea

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MINISTRY OF
STRATEGY
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OF FOREIGN STUDIES

2012 Modularization of Korea's Development Experience:
Land Reform in Korea

2012 Modularization of Korea's Development Experience

Land Reform in Korea

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Preface

The study of Korea's economic and social transformation offers a unique opportunity to better understand the factors that drive development. Within one generation, Korea has transformed itself from a poor agrarian society to a modern industrial nation, a feat never seen before. What makes Korea's experience so unique is that its rapid economic development was relatively broad-based, meaning that the fruits of Korea's rapid growth were shared by many. The challenge of course is unlocking the secrets behind Korea's rapid and broad-based development, which can offer invaluable insights and lessons and knowledge that can be shared with the rest of the international community.

Recognizing this, the Korean Ministry of Strategy and Finance (MOSF) and the Korea Development Institute (KDI) launched the Knowledge Sharing Program (KSP) in 2004 to share Korea's development experience and to assist its developing country partners. The body of work presented in this volume is part of a greater initiative launched in 2010 to systematically research and document Korea's development experience and to deliver standardized content as case studies. The goal of this undertaking is to offer a deeper and wider understanding of Korea's development experience with the hope that Korea's past can offer lessons for developing countries in search of sustainable and broad-based development. This is a continuation of a multi-year undertaking to study and document Korea's development experience, and it builds on the 40 case studies completed in 2011. Here, we present 41 new studies that explore various development-oriented themes such as industrialization, energy, human resource development, government administration, Information and Communication Technology (ICT), agricultural development, land development, and environment.

In presenting these new studies, I would like to take this opportunity to express my gratitude to all those involved in this great undertaking. It was through their hard work and commitment that made this possible. Foremost, I would like to thank the Ministry of Strategy and Finance for their encouragement and full support of this project. I especially would like to thank the KSP Executive Committee, composed of related ministries/departments, and the various Korean research institutes, for their involvement and the invaluable role they played in bringing this project together. I would also like to thank all the former public officials and senior practitioners for lending their time, keen insights and expertise in preparation of the case studies.

Indeed, the successful completion of the case studies was made possible by the dedication of the researchers from the public sector and academia involved in conducting the studies, which I believe will go a long way in advancing knowledge on not only Korea's own development but also development in general. Lastly, I would like to express my gratitude to Professor Joon-Kyung Kim and Professor Dong-Young Kim for his stewardship of this enterprise, and to the Development Research Team for their hard work and dedication in successfully managing and completing this project.

As always, the views and opinions expressed by the authors in the body of work presented here do not necessary represent those of the KDI School of Public Policy and Management.

May 2013

Joohoon Kim

Acting President

KDI School of Public Policy and Management



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Summary

Land reform, which became widespread all over the world for a while after World War II, lost steam rapidly after the 1970s. Then, when the 21st century began, land reform—forgotten for a generation—has received attention again. Above all, this is because it has been a widely recognized perception that land reform should be required in order to solve poverty. This report examines how land reform has had an effect on the general economy and society of a country, based on Korea's experience in land reform. It is highly expected that Korea's experience will provide developing countries and international organizations, which have renewed interest in land reform, with a lot of implications. Although Korea's land reform was historically the most successful case, it is unfortunate that continued research has not been conducted both at home and abroad. Taking the opportunity of the KSP module project, this report has been prepared for sharing implications of Korea's land reform with developing countries through more systematic evaluations of land reform.

Korea's land reform was promoted as part of the U.S.'s anticommunism strategy for the occupied countries after World War II. In order to improve agricultural production and farm household economy under the circumstances where tenant-farming households accounted for 86% of the total farm households and tenant farming land ran to 64% of the total farmland at that time of liberation in 1945, it was certainly required to convert landlord oriented land ownership into independent farmer-oriented land ownership. The 1st land reform was implemented at the instigation of the U.S. Military Government, whereas the 2nd land reform was carried out according to democratic procedures at the instigation of farmers. As a result, it is deemed that the land reform was successfully implemented. The results of land reform were not limited to the agricultural sector, since land reform had a decisive effect on Korea's industrialization by promoting human capital development.

This report is comprised of the background, development process, implementation, evaluation, and implications of land reform. In the background of land reform, the characteristics of farmland systems from the Chosun Dynasty to the Japanese colonial period and the needs of the times on land reform through analysis of economic conditions are examined. In the development process of land reform, the legislation and enforcement process of the Land Reform Act are covered. In terms of the evaluation on the results of land reform, the results of land reform are examined from an economic perspective such as food supply, income distribution, industrialization, and human capital development. Accordingly, abolition of the landlord system, creation of independent farmers, corruption elimination, farmers' standard of living, and so on are examined from a social and political perspective. Finally, in the implications, Korea's land reform results in lessons learned from the viewpoint of international comparison and some instructions on consultation of land reform are described. Based on precedential studies on land reform, a quantitative analysis on the effects of land reform on agricultural production, human capital, and farmers' standard of living is conducted in the Annex.

2012 Modularization of Korea's Development Experience
Land Reform in Korea

Chapter 1

Introduction

1. Background of Studies on Land Reform
2. Definition and Significance of Land Reform
3. Importance of Studies on Land Reform in Korea

Introduction

“I shall never sell the land! Bit by bit, I will dig up the fields and feed the earth itself to the children and when they die I will bury them in the land, and I and my wife and my old father, even he, we will die on the land that has given us birth (Pearl S. Buck, *The Good Earth*, 1931).”

As Pearl S. Buck captures in her words above, land seems an exceptionally sensitive and special issue for people. Throughout mankind’s historic dependence on land, it sometimes became a good in the market, while it used to be sacred; beyond being an object for trade. Mankind has wished to farm in his own land, and land reform redistributing land to farmers has been mankind’s long-cherished desire. After World War II, land reform became an important issue all over the world, however it has not been able to lure people’s attention since the 1980s. As the 21st century dawns, land reform has resurfaced as part of fundamental measures against the problem of poverty among international organizations as well as developing countries.

First, Chapter 1 demonstrates why land reform receded from our attention and then why it has recently returned, following a review of what land reform is, in what form it existed and what is important. Lastly, the significance of studying Korea’s land reform has been examined.

1. Background of Studies on Land Reform

1.1. Long-Forgotten Land Reform

Poverty is a global problem, getting worse over time. Above all, poverty in rural communities has not been solved yet. For instance, there are still 500 million people, the poorest of the poor, from 100 million farm households in traditionally poor countries. As tenant farmers or agricultural workers, most of them are barely making ends meet, and are without any ownership of the farmland where they are working. Not only must tenant farmers pay high farm rental fees, but are also not able to secure safety of farming. Although agricultural workers get paid a minimum wage, they do not enjoy job security as well. Living mostly in India, Bangladesh, Pakistan, Indonesia, the Philippines, South Africa, Brazil, Columbia, Guatemala, Honduras and so on, about 500 million people in rural communities comprise a large portion of the poorest of the poor on earth (Prosterman and Hanstad, 2003, p.1).

However, one of the important reasons why the population of the poorest people in rural communities is limited to 500 million is a successful implementation of land reform in some countries. Besides Korea, Japan, China and Taiwan, other countries historically succeeding in implementing land reform include Poland and Yugoslavia from regime change countries, Mexico and Bolivia from South America as well as West Bengal and Kerala in India (Prosterman and Hanstad, 2003, p.1). Poverty in rural communities is still the central problem of poverty. In that one of the most important objectives of land reform is to eliminate poverty in rural communities, land reform is deeply involved with poverty in rural communities.

Despite its importance, land reform has been forgotten; without any attention from policymakers, media and international organizations for a long time. Although land reform used to appeal to the public and some media during the period of regime change in old socialist countries, it is not too much to say that land reform is almost a forgotten issue. While some issues—such as elimination of disease, family planning and foreign debt—drew the interest of media and the general public, land reform failed to interest the international community. Thus, what is the reason land reform did not draw the interest of the general public?

Above all, the first reason is political. Developing countries and regime change countries used to deploy land reform politically, so that they merely gave a negative impression of land reform to developed countries and international organizations. Specifically, some leaders of developing countries took completely opposite stands against land reform, failing to demonstrate a united front internally. On the other hand, some land reform

supporters carried out land reform in the process of regime change or times of revolution. Resulting from trials under insufficient conditions, most land reform ended up failing to achieve any desired outcomes. The more serious problem is, however, that the leadership in most developing countries strongly resisted land reform since they or their families would suffer a loss owing to land reform. Therefore, the leadership strongly against land reform in developing countries looked displeased with the fact that developed countries and international organizations supporting their country raised the issue of land reform. Also, a few developed countries and international organizations recognized the importance of land reform, but they fell short of capability to push the issue of land reform into the agenda of development and cooperation. In particular, the more underdeveloped countries that allowed private ownership of land, the more restricted was the discussion of land reform.

The previous failed land revolution programs make people consider land reform as inherently negative. On one hand, there are not a few countries that attempted to implement land reform with wrong-headed policies from the beginning. On the other hand, the specific cases of failure with either lack of political intention or inability of execution can often be seen in spite of well-established policy. To make matters worse, the failure of land reform triggered violence or introduced intensive posterior restrictions, resulting in failure to enforce the policy. As such, a previously wrong experience of land reform has people no longer regard land reform as part of reform program. In this regard, land reform has been lost for such a long time in spite of its appropriateness.

1.2. Revisitation of Land Reform

Like many other structural reform programs, land reform has long-term social benefits much superior to its short-term costs. These long-term social benefits are social welfare expansion caused by land reform, and the short-term costs are political pain inflicted by conflicting political interests. Despite the advantages of reform, the current political reality in developing countries is not amicable with land reform's accompanying social benefits at all. Nonetheless, it is not impossible to overcome political obstacles to land reform. Therefore, policymakers, economy experts, social activists and potential beneficiaries should continue to make their respective efforts in order to generate favorable conditions for land reform. For example, policymakers should design a land reform program, taking into consideration any means to maximize social benefits. Economy experts should objectively evaluate social benefits as well as costs, seeking plans not only to maximize benefits but also to minimize costs. Social activists should inform stakeholders of the importance of land reform, making every effort on creating social conditions in order to carry out land reform. Above all, the most important thing is that potential beneficiaries of land reform should firmly deliver their positions to politicians and have land reform carried out in accordance with democratic procedure.

Recently, the reason that land reform has begun to draw attention from the general public again is as follows (Borras et al. 2006): First of all, the most important factor is expanding interest in poverty problem. In order to solve poverty in underdeveloped countries, it should be necessary to examine the problems of farm households where a large portion of the poorest of the poor live. The majority of tenant farmers and agricultural workers in underdeveloped countries, working under incorrigible contracts, are not able to escape from the mire of poverty. In this way, the appropriateness of land reform internationally emerged.

However, contrary to the land reform following World War II, the probability of large-scale land reform has gradually declined from both a political and economic perspective in the 21st century. Politically, colonial issues have already been settled and economically, the governments cannot afford to purchase expanses of farmland. Therefore, a new generation of land reform corresponding to the 21st century is required. Although there is no agreed-upon land reform among international experts, there is at least a general consensus about what type of land reform would be appropriate. International organizations such as the World Bank played an important role in the process of forming the consensus about the type of land reform. Having kept quiet on the issue of land reform since the 1980s, the World Bank began discussing the necessity of land reform in earnest through the World Bank (2003, 2005). In this regard, as a means to solve poverty in rural communities, land reform has returned in the 21st century.

2. Definition and Significance of Land Reform

2.1. Definition of Land Reform

Historically, there have been many types of farmland distribution policies. Land reform has a long history. For example, there were compulsory transfers in ownership of farmland at the instigation of a country in ancient Greek and Roman times. However, land reform started drawing social concerns from the French Revolution. The expropriation of land from churches during the French Revolution could also be called a kind of land reform in the modern sense. After the French Revolution, various actions were taken to restrict ownership of land in many European countries in the 19th century. Then, in the early 20th century, Russia experienced land reform as a form of socialism along with the Bolshevik Revolution in 1917. In order to hold the socialistic land reform in check, another type of land reform began to appear from the cold war paradigm after World War II. As shown above, it can be seen that land reform in modern sense started in earnest in 1945.

It does not seem easy to define land reform clearly. In general, most articles relevant to land reform deal with the development process of land reform without any definition-although

some tried to define land reforms that turned out to be mostly ambiguous. Specifically, land reform can look totally different in accordance with political and economic systems of a country that carried out land reform, creating diverse definitions and types according to differing systems. In this regard, it is hard to define land reform concretely. Nonetheless, land reform has common features regardless of political and economic systems in terms of a political action to change the relationship between or within communities through compulsory redistribution of farmland ownership structure (Kawagoe, 1999, p.4). It is political intervention that is important since land reform used to cause conflicts of interest between the former and the new farmland owner. Eventually, land reform pursues a specific type of farmland ownership through structural changes of former farmland ownership.

In the meantime, ownership or cultivating rights on farmland can be transferred through market transaction or compulsory measures of a country. Generally, farmland ownership is transferred from large landowners to tenant farmers or agricultural workers, although privately-owned farmland was vested in a country in some cases of land reform. Compensation schemes for ownership transfer differ from case to case, however most compensations for compulsory expropriation used to be inferior to market prices. Besides, land reform accompanies systematic changes relevant to former ownership as well as usage. The systematic changes sometimes have radical aspects, but land reform used to be achieved at the level of regulatory reform. Therefore it is desirable to define land reform according to objectives pursued. As Kay (1998) stated, land reform should be evaluated in terms of impact on agricultural production, income distribution, employment, poverty and gender relations as well as from a social and political perspective.

2.2. Significance of Land Reform

2.2.1. Economical Aspect

The accomplishments of land reform have been determined in respect to economical as well as social and political aspects. First of all, the economical aspect has been examined. Land reform contributes to an increase in farm households' incomes through improving agricultural productivity, which can be measured in two ways: increase of products per arable area of land as well as productivity per farmer. The reason why land reform improves agricultural productivity is as follows. First, a landlord or government owned huge acreages of farmland before land reform; that this type of farmland was not efficiently cultivated due to its immense size, resulting in very low productivity per unit of arable land. Second, although there was excessive labor in rural communities before land reform, farmland was comparatively small and limited so that productivity was quite low. As land reform let surplus farmland be distributed to tenant farmers, productivity of the farmland rapidly

grew by farming intensively. Excessive labor in rural communities took part in production activities so that labor productivity increased as well. Due to the above changes, land reform alleviated the mismatch between surplus farmland and excessive labor prior to land reform, resulting in a rapid increase in productivity. According to Borrás, S. M., Jr. et al. (2005), land reform contributes to increasing productivity per unit of arable land area rather than productivity per farmer.

Meanwhile, land reform is able to offer incentives to farmers, resulting in an increase in productivity. As farmers own their farmland due to land reform, the investment incentive of farm households increases compared to the past, when they were tenant farmers or agricultural workers. Farmers owning their farmland have more incentives to utilize better-quality seeds and fertilizers. When they were tenant farmers or agricultural workers, they did not care about quality as they got paid only part of production. However, owing to land reform, farm households can expand value added by using high quality inputs.

It is not certain that all land reform automatically increases agricultural productivity. First, land reform converts the huge farmland ownership structure of the past into a petty farmland ownership structure, so that agricultural productivity could decline from the viewpoint of economies of scale. Especially, the effect of increase in productivity caused by land reform does not emerge in the short term, when the effect of decrease in production caused by reduction of arable land cancelled out any benefits of increase in production caused by land reform. Second, if petty farmland owners are not sufficiently provided with better agricultural input and fertilizer, agricultural output levels could be lower than before the land reform period. Korean experiences in the 1950s showed that shortly after land reform, Korean petty and independent farmers did not have money enough to invest in agriculture (Ban Sung Hwan et al. 1989, p.234).

Consequently, a verification of whether or not land reform increased agricultural production can be done through comparative analysis of whether the factor boosting agricultural productivity after land reform exceeded the factor impeding agricultural productivity output. In other words, the effect of land reform on productivity is a matter of empirical issues according to the circumstances of each country rather than that of pure theory.

As most empirical studies on land reform have shown, land reform turns out to improve agricultural productivity when taking into consideration excessive population in rural communities, inefficiency of farmland prior to land reform and incentives to farmers (Prosterman and Hanstad, 2003, p.5). This is because agriculture was carried out inefficiently, and agricultural productivity was very low, under the semi-feudal production system comprised of a minority of landowners owning immense farmland and a majority

of poor agricultural workers. According to Otsuka, Chuma and Hayami (1992), feudal or semi-feudal agricultural production systems did not work in terms of management and supervision over agriculture and had low efficiency due to lack of incentives to agricultural workers. Moreover, a recent empirical analysis shows that there is inverse correlation between the size of farmland and agricultural productivity in low agricultural productivity countries (Fan and Chan-Kang, 2005).

In this regard, land reform increases farm households' income through improving productivity per unit of labor and per unit of arable land. Due to land reform, the overall improvement in farmers' standards of living results in accelerating economic growth as the increase in farm households' income generates a new demand for materials as well as services, from improvement of housing to purchase of school supplies. As a result, land reform contributes to improving employment in non-agricultural sectors. That is to say, the redistribution of farmland through land reform establishes the foundation of sustainable economic growth as well as the improvement of standards of living for the poor in rural communities.

Lastly, land reform vastly contributes to farmers' asset building, improving farm households' standards of living. As a result of land reform, farmers can own farmland and the market price of farmland stabilizes. Afterward, farmers can prepare investment resources with the security of their farmland in order to help their assets proliferate. They can also hand down their farmland, strengthening the foundation of living in rural communities. Consequently, the farmland owned by a farm household can be used for funds after retirement, thus helping improve the quality of life. In particular, real estate registration systems should be equipped to develop agricultural banking. However, real estate systems can not be accomplished without basic institutions including land surveys. In this sense, in developing countries asset accumulation effect can not be reached in the short run.

2.2.2. Social and Political Aspects

Land reform itself has significance in terms of the improvement of productivity, leading to increased household income. In recalling historical processes, land reform is not a reform program restricted to increase income. Land reform has a ripple effect of social and political aspects as important as economical aspects.

First, land reform makes tenant farmers or agricultural workers free from local landlords or collective farm managers. Although most farmers prior to land reform legally had an independent status, they lived as de facto agricultural workers known as serfs in rural communities. However, land reform freed a majority of farmers from landlords, resulting in farmers' economical stability caused by improvement of their income. In this respect, land reform provides farmers with an actual independent status. This manumission from a

rigid caste system had a significant effect on political activities. Farmers free from the caste system could participate in political activities more positively. In the beginning, farmers took part in political activities, requesting fairer land reform of the government. Later, they gradually became involved in political activities in order to protect their rights and interests, playing an important role in disrupting the authoritarian system of the past.

Second, land reform reduces political instability by essentially getting rid of conflicts caused by the relationship between tenant farmers and agricultural workers and landlords in developing countries (Prosterman and Hanstad, 2003, p.6). Historically, serious conflicts occurred when the issue of farmland was ignored. Land reform mitigates basic discontent in rural communities and at the same time contributes to social stability by letting farmers take part in a democratic process. Particularly, if the conflicts in a rural community increasingly grew acute, social instability could be amplified through ideological instigation with rapid expansion of revolutionary ideology such as Marxism. Historically, the discontent at farmland used to incur a range of types of violence in undeveloped or developing countries. Specifically, along with religious extremism, the farmers' discontent at farmland triggered increased violence both internally and externally in recent years. Hence, the role of land reform is important.

Third, Borras et al. (2005, p.6) points out that land reform is historically carried out in a close relationship with political situations such as decolonization, cold wars, and so on. During the process of decolonization after World War II, governments having nationalist tendencies carried out land reform to distribute the previously government-owned farmland to farmers. Both independence from colonial period and government-leading land reform took place in Algeria, Egypt, Indonesia, Zimbabwe, and other countries. Meanwhile, as the cold war system after World War II continued to remain stable, land reform was an important program in both camps. For instant, close to China and Russia, countries in East Asia such as Japan, Korea and Taiwan implemented overall land reform under the major control of the United States to prevent communism. For this reason, land reform is a policy program inextricably linked to political ideology.

Fourth, land reform redistributes farmland to poor farmers who did not have farmland, helping them live in rural communities and make a living by farming. Land reform also contributes to protect from urban poverty, caused by excessive urbanization, by blocking migration of the poor farmers to urban areas. Specifically, land reform models from Brazil, the Philippines and Indonesia provide poor farmers with farmland, contributing to sustainable development by keeping the poor farmers from destroying the environment through deforestation and slash-and-burn farming (Borras et al. 2005, p.8). As a result, land reform protects indiscriminate urbanization and makes environmentally-friendly and sustainable development occur.

3. Importance of Studies on Land Reform in Korea

Korea's land reform is internationally known as one of the most successful cases. In fact, land reform was rapidly implemented, resulting in collapse of landlords who dominated rural communities in those days. Compared to the disappointing results of other countries' land reforms, Korea's land reform seems exceptional. Nonetheless, Korea's land reform failed to draw attention from the public both internally and externally. Carried out twice, once in 1947 and again in 1950, Korea's land reform has been forgotten by the Korean government as well as academia. The Korean government even tried to publish an official report on Korea's land reform several times in the 1960s and 1970s, but every effort turned out to be a failure. In the 1980s, the Korea Rural Economics Institute (KREI) published a comprehensive report relevant to Korea's land reform. However, land reform remains an abandoned issue in Korean society.

Studies on Korea's land reform primarily focus on verifying how Korea proceeded to achieve successful land reform. It is uniquely expected that Korea's land reform illustrate a lot of implications for developing countries from the viewpoint that Korea has accomplished both land reform and economic growth. Therefore, Korea's land reform has been examined from the historical and institutional perspective in this report. Particularly, the effect of Korea's land reform on Korean society has been considered in detail as well. Studies on Korea's land reform should be extensive enough to identify features within the correlation of land reform with industrialization. Along with Japan and Taiwan, Korea is a country which has achieved both land reform and economic growth at the same time. It is never by chance that they achieve both land reform and economic growth. The study on Korea's land reform has a great significance since it is the first case study to illustrate concretely how the successful promotion of land reform leads to industrialization.

Accordingly, this report examines not only land reform itself but also land reform as correlated with Korea's industrialization process. The content of this report is as follows. Chapter 1 is the introduction, followed by Chapter 2 which demonstrates the relationship between economic growth and land reform. Specifically, it is examined if there is any relationship between a country with long-term economic growth and a country with successful land reform. The results of analysis show that most countries with economic success (excluding countries rich in natural resources) become countries achieving successful land reform. Namely, a country successfully implementing land reform turns out to succeed in industrialization though economic growth. Also, Chapter 2 illustrates theoretical analysis of the relationship between land reform and industrialization through what mechanism land reform promotes economic growth. Chapter 3 examines land reform's development process. In order to understand the development process of two previous land

reforms, Korea's agrarian system is historically examined. This helps try to explain what land reform means in Korean society and why Korea's ruling elites promoted land reform. The process of Korea's land reform is divided into legislative and implementation processes in detail. In Chapter 4, the effect of land reform is considered in terms of economical, social and political aspects. From the viewpoint of economical aspects, the effects of land reform on the tenancy system, agricultural production, income distribution and industrial capital formation are analyzed. From the viewpoint of social and political aspects, the effects of land reform on social structure and standards of living as well as corruption are examined. Finally, Chapter 5 describes if there is any implications provided for developing countries based on comprehensive evaluation on Korea's land reform.

An econometric analysis on the effects of land reform is conducted in the Annex. After reviewing the content of previous empirical analyses and analyzing pros and cons of the studies, we tried to conduct empirical analyses by making use of a econometric model to verify the effects of land reform. On the one hand, the effects of land reform on agricultural productivity and farmers' standards of living are examined. On the other hand, in order to take into consideration the effect of land reform on Korea's socio-economic situation, the effects of land reform on human capital formation and total factor productivity are analyzed.

2012 Modularization of Korea's Development Experience
Land Reform in Korea

Chapter 2

Economic Growth and Land Reform

1. Successful Cases of Economic Growth
2. Successful Cases of Land Reform
3. Land Reform and Industrialization

Economic Growth and Land Reform

As seen in the previous chapter, land reform does not only influence the agricultural sector, but it is also a national reformation program influencing the economic sector as well as the social and political sectors. The effect of land reform on economic development was recently identified based on the concept of human capital. In particular, studies on relationships among land reform, human capital and economic growth, present the result of empirical analysis that land reform expands educational opportunities by solving initial imbalances in a society. Reflecting this perspective, the study on Korea's land reform tries to intensively analyze land reform, human capital and economic growth as well. In Chapter 2, the relationship between land reform and economic growth is examined as follows. On the one hand, it is possible to separate countries with sustained high growth from countries without sustained high growth. On the other hand, there exist some countries with successful implementation of land reform and others without successful implementation. A country achieving sustained and high growth means a country of which per capita GDP grows rapidly throughout one generation. The success or failure of land reform can be assessed in consideration of tenancy rate, income distribution, agricultural productivity, and other socio-political factors. By the standards of economic growth and success or failure of land reform, the world can be categorized as follows in the table below. Furthermore, the relationship between land reform and economic growth will be seen more clearly once economic growth and success or failure of land reform can be assessed. In terms of economic growth, it is possible to collect data comparing the entire world. It is, however, impossible to assess whether the land reforms of the entire world were successful or not. Some countries such as Korea, Taiwan and Japan are recognized as typical successful cases in land reform. Since the assessment of success or failure of land reform is not as simple as economic growth, it is a difficult task.

In order to enhance understanding of the relationship between economic growth and land reform, Chapter 2 represents success or failure of land reform aiming at the countries that have achieved rapid growth. In other words, the relationship between economic growth and land reform is intended to be examined by considering which countries correspond to A, B and C in the table below and what common factors they have.

The content of Chapter 2 is as follows. Section 1 presents criteria for economic growth and shows which countries have achieved rapid growth and what factors those countries possess. Section 2 examines the cases of the countries, among the countries that have achieved rapid growth, that have successfully implemented land reform and looks into what the common background is in those countries. Last, Section 3 observes how economic growth is connected with land reform based on recent studies.

Table 2-1 | Land Reform and Economic Growth

			Land Reform		
			Yes		No
			Success case	No	
Economic Growth	Fast & Sustained	Industrialization	A	B	C
		No	D	E	F
	No	Industrialization	G	H	I
		No	J	K	L

1. Successful Cases of Economic Growth

1.1. Countries with Sustained Rapid Growth

The ‘Commission on Growth and Development of World Bank’ pointed out the importance of sustained rapid growth with the report titled ‘Growth Report Strategies for Sustained Growth and Inclusive Development’. The Commission on Growth and Development is a committee composed of 19 leaders from developing countries and Nobel Prize laureates such as Michael Spence and Robert Solow. This report deals in detail with successful cases of 13 countries that have achieved annual economic growth of 7% for 25 years since 1950. These rapidly-growing developing countries include Botswana, Brazil, China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Malta, Oman, Singapore, Taiwan and Thailand. <Table 2-2> shows the period of rapid growth and GDP of 13 countries analyzed by the Commission on Growth and Development.

Table 2-2 | Success Stories of Sustained, High Growth

(Unit: US \$)

Economy	Period of High Growth	per capita GDP	
		At the Beginning	2005
Botswana	1960-2005	210	3,800
Brazil	1950-1980	960	4,000
China	1961-2005	105	1,400
Hong Kong	1960-1997	3,100	29,900
Indonesia	1967-1997	200	900
Japan	1950-1983	3,500	39,600
Korea	1960-2001	1,100	13,200
Malaysia	1967-1997	790	4,400
Malta	1963-1994	1,100	9,600
Oman	1960-1999	950	9,000
Singapore	1967-2002	2,200	25,400
Taiwan	1965-2002	1,500	16,400
Thailand	1960-1997	330	2,400

Source: Commission on Growth and Development (2009, p.20)

The report points out 5 things regarded as common characteristics of 13 countries succeeding in sustained rapid growth. Common characteristics based on pages 23 to 34 in the report from the Commission on Growth and Development can be summarized as follows. First, the 13 countries utilized the world economy well enough to import knowledge and use the demand of the world economy. Second, the 13 countries achieved macroeconomic stability with regard to inflation and the country's public finances. Third, these countries are mainly future-oriented as the high investment and saving rates illustrate. Fourth, they operate with a market-oriented allocation of resources. Fifth, these countries have leadership which keep their promises to people. Also, this report analyzes factors in policies relevant to common characteristics of these countries in detail.

However, there are some questions arising in the report despite understanding of the importance of sustained rapid growth. The first item is the classification system of characteristics amongst countries. The 13 countries mentioned in the report have had very different growth processes. All these 13 countries show large differences in terms of size of population, industrialization strategy and resource endowment status. The second item is that the GNP growth seems to be more significant than the GDP growth based on the

population growth and the extent of actual improvement in people's life. The third item is a controversial issue left out of the report; there is not even a single comment on the role of the agricultural sector.

This study extracts sustained rapid growth countries in different ways in order to complement such weaknesses. First of all, we have determined the countries considered to be rapidly-growing after 1945 by making use of 'Historical Statistics of the World Economy: 1-2008 AD' as reported by Angus Maddison to ensure the stability of the data. The results of examining which countries have achieved rapid growth during one generation shown in <Table 2-3> below. There are only 11 countries that recorded an annual average growth rate surpassing 5.5%. If per capita GDP increases at the annual average growth rate of 5.5% for 30 years, it will quintuple over the same period of time. We can find some distinct characteristics in examining diverse aspects of these countries. On the one hand, many of them are natural resource-rich countries. The Republic of Equatorial Guinea, Oman, Libya and Saudi Arabia are all natural resource-rich countries. This fact helps us understand the characteristics of these countries through the ratio of natural resources to national wealth as well as the ratio of natural resources to export. On the other hand, excluding natural resource rich countries, the other countries with sustainable rapid growth share the common factor that they have successfully achieved industrialization.

Table 2-3 | Sustained, High Growth: Period of 30 Years

(Unit: 1990 International Geary-Khamis dollars, %)

Ranking	Economy	Period	Period of High Growth (30 years)			Per capita GDP in 2008	Ratio of natural resources over national wealth
			Beginning year	Ending year	Per capita growth rate		
1	Equatorial Guinea	1974-2004	1,128	16,416	8.9	22,049	0.309
2	Oman	1955-1985	766	6,545	7.1	8,332	0.523
3	Libya	1950-1980	857	7,272	7.1	2,994	--
4	South Korea	1965-1995	1,436	11,850	7	19,614	0.011
5	Botswana	1960-1990	403	3,304	7	4,769	0.092
6	Taiwan	1963-1993	1,545	11,929	6.8	20,926	--
7	China	1976-2006	853	6,048	6.5	6,725	0.209
8	Singapore	1964-1994	2,541	18,005	6.5	28,107	0
9	Japan	1950-1980	1,921	13,428	6.5	22,816	0.004
10	Saudi Arabia	1950-1980	2,231	13,217	5.9	8,435	0.664

Ranking	Economy	Period	Period of High Growth (30 years)			Per capita GDP in 2008	Ratio of natural resources over national wealth
			Beginning year	Ending year	Per capita growth rate		
11	Hong Kong	1958-1988	2,924	16,716	5.8	31,704	0
12	Thailand	1965-1995	1,308	6,577	5.4	8,750	0.207
13	Cape Verde	1977-2007	518	2,599	5.4	2,735	0.022
14	Greece	1950-1980	1,915	8,971	5.1	16,362	0.02
15	Iraq	1950-1980	1,364	6,377	5.1	1,049	--
16	Malaysia	1967-1997	1,830	8,139	5	10,292	0.197
17	Yugoslavia	1952-1982	1,448	6,139	4.8	6,686	--
18	Spain	1950-1980	2,189	9,203	4.8	19,706	0.018
19	Burma	1977-2007	720	3,009	4.8	3,104	--
20	Indonesia	1967-1997	922	3,704	4.6	4,428	--
21	North Korea	1951-1981	709	2,841	4.6	1,122	--
22	Israel	1953-1983	2,910	11,586	4.6	17,937	0.015
23	Portugal	1950-1980	2,086	8,044	4.5	14,436	0.014
24	Puerto Rico	1950-1980	2,144	8,183	4.5	15,074	--
25	Ireland	1976-2006	7,302	27,760	4.5	27,898	0.019

Source: A. Maddison (2010), "Historical Statistics of the World Economy: 1-2008 AD", The World Bank (2011), "Changing Wealth of Nations"

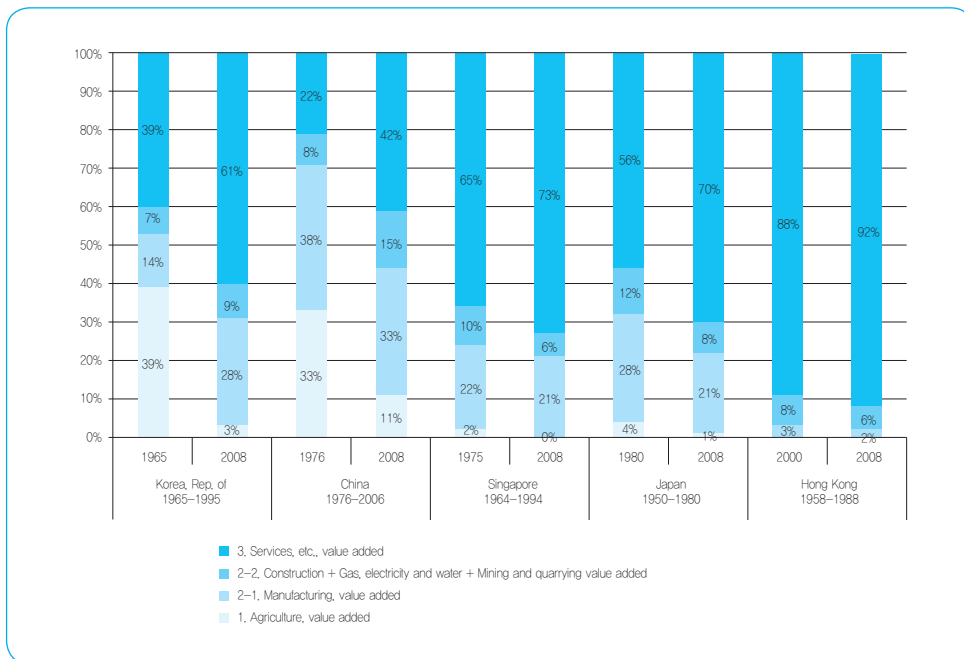
1.2. Classification and Common Features of Successful Countries

The countries that have achieved rapid growth for one generation, 30 years, are, excluding natural resource-rich countries, the Asian countries with successful industrialization. This fact can be identified through examining the changing process of industrialization structure. As seen in [Figure 2-1], Korea, China, Singapore and Japan have achieved their industrialization based on manufacturing. The ratio of manufacturing to GDP has significantly increased throughout the rapid growth process. The ratio of manufacturing in Korea was 28% in 2008; this was the second highest after China, of which the ratio was 33%. Singapore, where manufacturing is of relatively less importance compared to other countries, also recorded above 20%. Also, the East Asian countries with successful industrialization have recorded continuous economic growth even after the period of 30 years with rapid growth. Korea recorded per capita GDP of US \$11,850 during the period of 30 years with rapid growth (1965 to 1995) and has achieved continuous growth even after

that period, resulting in per capita GDP of \$19,614 in 2008. This type of growth trend can also be found in China, Taiwan, Singapore and Hong Kong. In the case of Japan, there was a continuous growth in GDP after the period of 30 years with rapid growth (1950 to 1980).

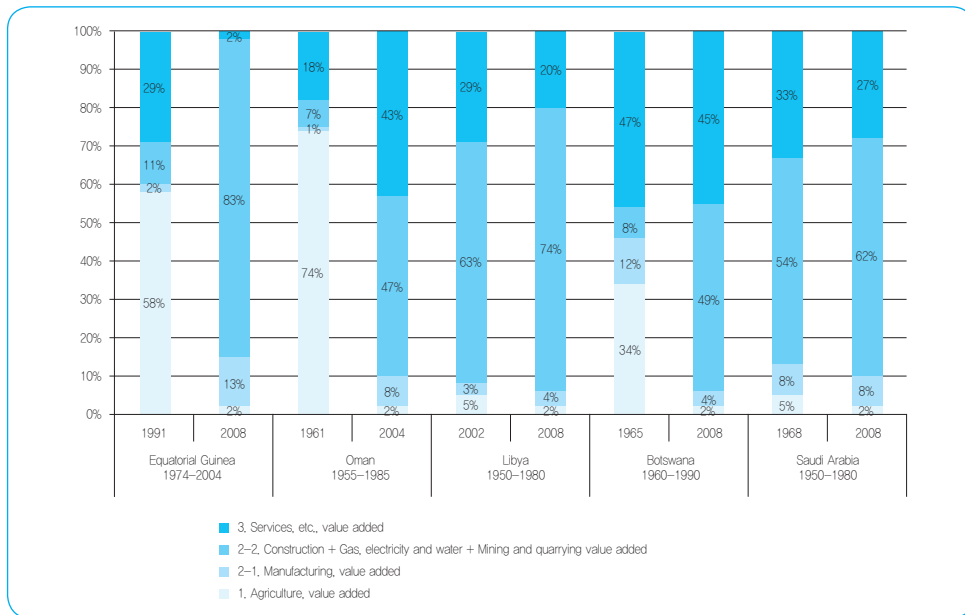
Meanwhile, as was the case with the Republic of Equatorial Guinea, Oman, Libya, Botswana and Saudi Arabia, natural resource-rich countries had lower ratios of manufacturing compared to that of other countries that have achieved economic growth through successful industrialization. The Republic of Equatorial Guinea is the only country that recorded a manufacturing ratio of 13% in 2008, while Botswana and Libya remained around 4%. This shows that even the countries with plentiful natural resources that achieved successful economic growth failed in industry diversification. As a result, most of the natural resource-rich countries showed rapid growth during the period when the resource prices increased, but the growth trend discontinued when the resource prices decreased.

Figure 2-1 | Industrial Structure of High-Growth Countries with Industrialization



Source: WDI

Figure 2-2 | Industrial Structure of High-Growth Countries: Resource-Rich Countries



Source: WDI

Consequently, the countries that achieved rapid growth throughout one generation after 1950 can be classified into two forms. One is the natural resource-rich country and the other is a country which achieved rapid growth through industrialization. However, the economic growth rate of natural resource rich countries is largely affected by the fluctuation of resource prices since the countries rely heavily on the price of resources. Especially, in terms of the natural resource-rich countries that failed to diversify in industrialization, they could not be equipped with growth drivers, so that they had no choice but to experience economic slowdown. Though unlikely, Korea, Taiwan, China, Singapore and Japan have successfully achieved manufacturing-centered industrialization. As a result, these countries could maintain a continuous growth trend beyond the period with rapid growth. Countries like Korea, Taiwan, China, Singapore and Japan that have achieved rapid growth through industrialization share common factors that cannot be seen as easily as it would seem. It is nothing but the fact that these countries all have successfully achieved equal distribution relevant to land. Korea, Japan, China and Taiwan have achieved equal distribution of land through land reform, while Singapore has nationalized land since the foundation of the country. As such, the Asian countries that achieved rapid growth have a common factor: land reform. On the other hand, although some natural resource-rich countries achieved sustained rapid growth, it is shown that these countries do not demonstrate industrialization as well as equal distribution of land (See <Table 2-4>).

Among the countries that achieved successful land reform, there exist a few which failed at rapid growth. These countries correspond to G and J indicated in the previous <Table 2-1>. Therefore, a causal relationship that the countries with successful land reform can achieve rapid growth is not universally established. Of the countries that achieved successful land reform, all that succeeded in industrialization have also all succeeded in equal distribution of land. Until now, it has been unknown whether there is any relationship between land reform and industrialization or whether the relationship can be demonstrated empirically. After examining the cases of the countries with successful land reform in Section 2, we will look into how land reform and industrialization are related to each other (Section 3).

Table 2-4 | Land Reform Success Countries and High Growth Countries

		Land Reform		
		Yes		No
		Success case	No	
Fast & Sustained Growth	Industrialization	Korea, Taiwan, China, Japan, [Singapore]	-	
	No	-	-	Equatorial Guinea, Oman, Libya, Botswana and Saudi Arabia, Hong Kong

2. Successful Cases of Land Reform

There are not many countries that have successfully implemented land reform. Taking a look at history after World War II, Japan is the first country to implement a successful land reform. As noted by Kawagoe (1999, p.1), McArthur, the Supreme Commander of the Allied Powers, assessed Japan's land reform as the most successful land reform in history. The Japanese initiated the actual land reform although the land reform was implemented under the instruction from the McArthur headquarters.

Followed by Japan, Korea, Taiwan and China are also regarded as the countries with successful land reform. In the following section, the development process of land reform of the countries that successfully implemented it, such as Japan and Taiwan, and the background of the successes in common for these countries is examined.

2.1. Japan's Land Reform

Approximately 75% of Japan's farm households were either tenant farming or partially tenant farming after World War II. Tenant farmers paid high tenant rental rates and the size of farms was very tiny as well. Thus, tenant farmers constantly requested reform of land ownership for landlords. The U.S. also thought that creation of independent farmers by breaking the landlord system up could improve the situation of tenant farmers, and could be useful to eliminate the hotbed of militarism. The U.S. started implementing a policy on reformation of feudal land ownership in their occupied territory as they judged it to be an important way of anticommunism.

The U.S. actually had set land reform as a basic direction of the occupation policy against Japan even before they began occupying. The policy on land reform was initiated by W. Ladenjinsky of the Department of Agriculture and Robert Fearey of the State Department on July, 1944. The policy on the land ownership system of Japan called the 'Fearey Document' was created, focusing on foundation of thorough tenant farming. However, the Fearey Document could not be formally adopted because of the opposition from the moderate group against Japan within the State Department. Land reform opposition parties did not agree with the entire implementation of land reform since they thought that land reform would lead to decreasing food supplies which could threaten living in both the city and the countryside, and that land reform would cause confusion in the rural community and lead to communism. However, in the land reform document of Japan submitted to McArthur on October 12, 1945, the importance of land reform was emphasized and concrete methods like the Fearey Document were proposed. According to the land reform document, land reform was considered a basic essential in order to democratize and demilitarize Japan, and the document contained the thorough content that the government accommodated the entire tenant farmland.

Nonetheless, the Japanese government voluntarily implemented Japan's 1st land reform. The Japanese government passed the Farmland Adjustment Revision Plan (the 1st Land Reform) during the 89th Imperial Conference (1945. 12. 18) and promulgated this plan on December 29, 1945 prior to the order of a supreme commander. This shows that the request for land reform was already spread widely within the Japanese society. In fact, starting the creation of the independent farmer was already being attempted during the war in order to ensure food supplies and stability of the countryside.

The reason for the promulgation of the 1st land reform by the Japanese government was because they feared food riots and communism. Japan's tenant farmers were largely dissatisfied with the landlord system. There was no way to increase food supply and the delivery towards the government but to allocate the farmland to farmers under land reform.

As such, Japan's land reform can be referred to as the result of the negotiation between ruling powers under consciousness of crisis. However, the 1st land reform was strongly criticized by the farmers who had requested a thorough reformation. Actually, a parasitic form of landlord system was not abolished after the land reform and many landlords clawed back the land that they had rented to the farmers for tenant farming. The number of disputes on the redemption of landlord's farmland for 1 year since the end of the war was about 27,000, and the actual size of the farmland was more than 22,000 hectares. As a result, Japan's farmers association demanded withdrawal of the existing bill, requesting a land reform for farmers.

Land reform became one of the most important worldwide issues after World War II. Reflecting on this, the Allied Council for Japan required of Japan a thorough land reform. Japan's land reform was an opportunity for testing and applying various ideas regarding land reform. The 2nd land reform policy was established based on the suggestion of the Allied Powers and was promulgated on October 21, 1946. The main content of this land reform was the land ownership system based on tenant farming in excluding the previous land ownership based on territorialism. In order to institutionally complement this, reinforcement of tenant farming, money payment for tenant rental and liberalization were promoted.¹

Under the control of the Allied Occupation Forces, the 2nd land reform preceded the election of farmland members and the formation of a farmland member committee from December 1946 to February 1947. The land reform was completed by 1949. As a result of the land reform, 80% of the tenant farmland was reallocated. Before the land reform, 46% of total farmland and 53% of paddy land were tenant farms; they declined to 13% and 14% respectively after the land reform. Forest was excluded for the land reform and the landlord system was over, although the efficiency of management on small lands remained a problem. Also, this became the basis for conservatism in Japanese society, caused by increasing food supplies and stabilization of the countryside (Dore, 1959, p.233-234).

Japan's land reform was implemented as a compromising reform from the top in order to prevent the farmer movement from uniting people's movement, such as laborers, and to make farmers conservative. In fact, as a result of land reform, the farmers association lost the goals of struggle and rapidly declined once farmers became the landowners. After the end of the war, in the beginning of the reformation, the farmers association fought for the freedom of farmers against landlords. However, a conservative ideology such as maintenance of the market economy system was on the rise at the end.

1. Cf. http://en.wikipedia.org/wiki/Allied_Commission.

Consequently, Japan's land reform was initiated based on a demilitarization and democratization policy. Additionally, land reform is assessed to have contributed to anticommunism. Also, the basis of the Japan's land reform was not changed even while the U.S. occupation policy was changing. The U.S. occupation policy, based on demilitarization and democratization, was promoted in focusing on anticommunism, caused by the spread of communism in Asia and increasing struggle of farmers and laborers in Japanese society since 1947. The U.S. tried to give consolation to farmers by relieving the social, political, and economic dissatisfaction caused by relation of tenant farming through land reform. Ladenjinsky, who directed Japan's land reform said, "On the one hand, one cause of land reform was the hunger of the Japanese farmers. On the other hand, the other was the U.S. occupation policy on Japan in order to improve farmers' quality of life and make the Japanese agricultural industry resist against communism." He also concluded that "The Japanese countryside nearly allowed communism to permeate with the foundation of the extensive independent farming as a momentum (Kawagoe, 1999, re-quoted from page 35)." In this respect, Japan's land reform contributed to the establishment of a new economical, political system and became a solid foundation for political stability until this day.

2.2. Taiwan's Land Reform

Taiwan's land reform was implemented based on the will of the State Department of the U.S. in order to respond to the China's communism. Taiwan was freed from Japanese colonial rule (1895-1945) after Japan's defeat in World War II. Taiwan has been governed by China since 1945, when Chiang Kai-Shek had been evacuated from China with 2 million soldiers and bureaucrats due to the defeat against Mao Zedong. Chiang Kai-Shek's National Party tried to get rid of their corrupt image and give Taiwan a new image. During this process, Chiang Kai-Shek carried out land reform. He took the lead in the land reform, focusing on the fact that the main reason of their failure with the military in China was because they did not gain the support of farmers.

At the time Taiwan started implementing land reform, independent farmers accounted for 34%, half-independent farmers 26% and tenant farmers 40%. Tenant farmers accounted for approximately 66% of the total farming population by combining tenant farmers with half-independent farmers. While the top 10% of farmers owned 60% of farmland, the bottom 40% owned only 5% (Kim Sung Ho, 1983, p.41).

Aware of the importance of land reform to confront communism, the U.S. also actively supported Taiwan's land reform. Ladenjinsky of the State Department in the U.S., who had designed Japan's land reform, actively helped Chiang Kai-Shek's National Party implement Taiwan's land reform successfully.

Taiwan's land reform was carried out in the 3 phases based on the Taiwanese Constitution 3 Clause of Article No. 143: "The country is in charge of allocating and managing land and have to support and maintain independent farmers and the farmers using the land." (Kim Sung Ho et al., 1983, p.260) The first phase of Taiwan's land reform was comprised of a rent reduction program. In 1951, the Taiwanese government reduced the tenant-farming rate from 50% to 37.5%. Taiwan's rent reduction program was carried out on the premise of land reform and was likely to be similar to the tenant rental 3.1 system that was carried out by the U.S. Military Government in Korea (Cho Hyun Joon, 1999, p.261).

In phase 2 of Taiwan's land reform, public land was sold to tenant farmers. The Taiwanese government granted the public land to tenant farmers for the purpose of letting farmers cultivate the farmland owned by the government. In May 1951, the National Party's government allocated the public land to: farmers renting public land, tenant farmers, half-independent farmers lacking in farmland, people owning no land and people changing their job to farming. The government also allowed those who owned public land to make a payment in kind, instead of cash, for land.

The third and last phase of land reform was the land reallocation according to a principle of farmer ownership. In January 1953, the National Party limited the maximum size of the landlord-owned land to at most 3 hectares and confiscated the rest of the land, reallocating it to tenant farmers. The price of the collected land was set 2.5 times as much as the amount of the previous year's production of main agricultural products. In terms of repayment method, 70% of a commodity land bond and 30% of a public management business bond were provided without any cash payment. A commodity land bond was repayable by amortizing over a ten-year period with an annual interest rate of 4%. From February 1953 to January 1954, the land was collected according to this plan and it was allocated to 195,000 farm households. In phase 3, absentee landlords were prohibited as well.

As a result of this phased land reform, 215,000 hectares of additional independent farmland were created in Taiwan. This figure accounted for about 25%, in terms of size, of all farmland in Taiwan. As a result of this land reform, the percentage of tenant farming of total farm households declined to 41% in 1947, 21% in 1953 and 15% in 1960. Also, the percentage of farmland cultivated by tenant farmers to the total of farmland significantly declined from 44% in 1948 to 17% in 1953.

The most important success factor in Taiwan's land reform was that the people in charge of the policy had no stake in land ownership, since most of them were native-born Chinese (Cho Hyun Jun, 1999). They were free from an interest in land ownership since the vast majority of Taiwanese bureaucrats were native-born Chinese. Therefore, bureaucrats of the National Party could have autonomy in the interest of the landlord class. The National Party

might also expect a propaganda effect in Mainland China by implementing thorough land reform as check of land reform implemented by the Communist Party in Mainland China.

The reasons why the Philippines failed to implement land reform²

The U.S. did not want the Philippines to reform the existing power structure during the U.S. colonial period (1898-1941), resulting in no interest in any reformation measures like land reform. Even after the Philippines were liberated from the U.S., the U.S. continued to exercise strong political power. Later on, like Japan, Korea and Taiwan, the Philippines tried to implement land reform after World War II. Robert Hardie, who belonged to the Mutual Security Agency and was also in charge of Special Technical and Economic Mission to the Philippines, did research on the Philippines' land and tenancy system. In particular, farmers' uprisings led by communists constantly occurred at that time, so it was urgent that measures to resolve these problems be established. In 1952, Hardie issued a report proposing an intensive land reform aimed at 70% of the Philippines' land. However, the Philippines' landlords and party in power were furiously opposed to the report and the president of the Philippines, Quirino, called the report a national insult as well. In the wake of Hardie, John Cooper proposed only small-scale land reform in 1954. Nevertheless, every land reform for the Philippines was scrapped due to changes in the position of the U.S.

Above all, it was change in the political environment of the U.S. which caused the change in the position of the U.S; McCarthyism in the U.S. regarded Ladejnsky, who had led land reform in Korea and Japan, as a nationally dangerous person and disparaged land reform itself as dangerous idea. Consequently, the ongoing land reform led by the U.S. was completely disappeared. Any land reform initiated by the U.S.-led foreign powers could no longer be carried out in the Philippines. Furthermore, the same land reform led by national politics as in Japan and Korea could not be expected in the Philippines since the landlord class and the party in power formed an alliance.

2.3. Background of Successful Land Reform in the East Asian Countries

Like Japan, Korea and Taiwan, countries with successful land reform have a few common elements in their backgrounds. First of all, Historicity existed at the time when land reform was implemented. As World War II came to a close and the Cold War system was established internationally, the U.S. took responsibility for preventing the spread of communism in the international community. In the process, land reform was regarded as

2. Cf. You (2005) and Putzel (2000).

one of the most important policies preventing the threat of communism, so that it was possible to implement U.S.-oriented land reform in the international community. Another part of the background that made it possible to implement land reform in East Asia was the fact that groups with a vested interest in resisting reformation collapsed. It is not too much to say that the success of reformation mostly depended on whether the groups resist or not (Arroyo Dennis, 2008, p.23). However, as for Korea, Japan and Taiwan in East Asia, the landlord class with a vested interest on land ownership didn't have enough power to resist land reform at the time of initiating land reform. As a result, it was possible for land reform to be implemented without any resistance from the groups with a vested interest. Lastly, the democratic process of land reform could be pointed out. In the cases of Japan, Korea and Taiwan, tenant farmers could actively get involved in the process of land reform. The U.S. Military Government encouraged tenant farmers to get involve in the process of land reform, deciding that it would maximize the effects of land reform. Consequently, the transparency in policy implementation process of land reform increased so that any corruption that could occur in the reformation process, as well as the possibility of policy failure, could be prevented in advance (You Jong Sung, 2005). Likewise, it was possible to achieve successful reformation in East Asia, as they were qualified for good conditions to fulfill land reform.

2.3.1. Threat from Communism and Role of the U.S.

The most important reason why land reform was successful in Japan, Korea and Taiwan was the threat against the spread of communism after World War II. One of the most important reasons why China was successfully communized was that farmers supported Mao's Communist Party. Also, the first program North Korea carried out in the process of communization was land reform in the way of confiscation as well as distribution without payment. Whether land reform had a long-term effect or not, it could draw absolute support from the farmers in itself. The U.S Military Government, which occupied Japan, Korea and Taiwan after World War II, decided that it should make an ally of farmers in order to overcome communism. The land reform of the U.S. Military Government was acutely implemented in a sense of being prepared for the threat of communism rather than improving farmers' living conditions. Also, the position of the U.S. was not contrary to the position of Korea, Japan and Taiwan, and thus the intentions of the U.S. were fully satisfied nationally.

There was a discussion on land reform between conservatives and progressives after the end of World War II. At that time, the progressives took a stronger position in the U.S. and so adopted an active land reform policy to be implemented in the countries freed from colonialism. As a result, the U.S. Military Government implemented strong land reform policies in Korea, Japan and Taiwan.

However, as McCarthyism was on the rise from the beginning 1950s, the U.S' attitude on land reform drastically changed in the 1950's. Bureaucrats of the U.S. State Department including Ladenjinsky, who had led land reform, were branded as dangerous people and the U.S. no longer considered land reform policies in developing countries. As for the Philippines, land reform failed due to the conservatism of the Philippines government as well as the attitudinal change of the U.S.

2.3.2. Collapse of the Groups with a Vested Interest

Another reason for successful land reform in Korea, Japan and Taiwan was that the groups with a vested interest had not enough power to resist a reformation. The landlord class, who were the dominant forces in Korea and Japan, lost their power along with the end of World War II. The ruling class in Japan was ruined to the level of war criminals due to the defeat, and the ruling class in Korea morally had a critical weakness since they had cooperated with the Japanese government during the Japanese colonial period. Thus, despite the implementation of land reform, these ruling classes did not hold a position of resistance and they had no political power to resist the land reform.

As for Taiwan, as people or groups who took the lead in the land reform came from the National Party, they had no connection with landlords. Hence, the new Taiwanese government could implement an intensive land reform in order to gain the support of the Taiwanese farmers. On the other hand, it was impossible to implement the land reform in the Philippines because groups with political power representing the landlord class had taken control of the country since World War II.

2.3.3. Democratic Process of Land Reform

The last reason why a successful land reform was possible in Taiwan, Korea and Japan, is because they could be free from corruption. Bureaucrats of the U.S. State Department including Ladenjinsky, who made the land reform plan in Japan, Korea and Taiwan, strongly insisted on tenant farmers' participation in the process of land reform. Land reform experts of the U.S. State Department made the establishment of the land commission consisting of 3 landlords, 5 tenant farmers and 2 self-employees farmers at the national and regional level compulsory in the course of land reform. They applied this experience in establishing the land commission to Korea and Taiwan. In Korea, the land commission, consisting of 3 landlords, 1 government official and 3 tenant farmers, was established at the regional level. The land commission was able to contribute significantly to avoiding corruption by getting deeply involved in the process of land reform.

Meanwhile, resulting from land reform, a country's autonomy was extended as the power of the landlord class was weakened. As a result, national organizations were freed

from the past ruling class including landlords; the possibility of corruption was reduced with the chain of corruption weakened. In particular, officials could remain relatively independent from people with a vested interest through introducing a transparent system like an examination system for public service personnel recruitment.

3. Land Reform and Industrialization

Lucas (1993) raised an interesting issue about the comparison of economic performances between Korea and the Philippines. According to Prof. Lucas, Korea and the Philippines had a similar degree of development in the early 1960s based on population, rural economy, degree of urbanization and GDP. The Philippines was slightly higher than Korea in terms of proportion of manufacturing to GDP and level of education (Lucas, 1993, p.251). However, from 1960 to 1988, the Philippines recorded a per capita GDP growth rate of 1.8%, which was at the world's average level, whereas Korea's per capita GDP growth rate reached 6.2% during the same period. Thus, Prof. Lucas called Korea's rapid growth 'a productivity miracle' (Lucas, 1993, p.252). A theoretical analysis was attempted to explain the difference of economic performances between Korea and the Philippines, resulting in the importance of human capital (Lucas, 1993, p.270). If the difference of economic performances between Korea and the Philippines tried to be found only based on the macroeconomic environment as professor Lucas had done, it could be said that Korea's rapid growth was close to a miracle.

However, when comparing Korea and the Philippines from the perspectives of land ownership and income distribution, the two countries were in completely different situations. While Korea's income distribution and land ownership were very equal, those of the Philippines were not. First of all, comparing income distributions of the two countries based on the income quintile ratio, which compares the top 20% in income and the bottom 20%, income inequality was even more serious in the Philippines, where the quintile ratio was nearly double that of Korea. In addition, comparing the concentration of farmland ownership based on Gini's coefficient of farmland, the extent of inequality in farmland ownership of the Philippines was much more serious than that of Korea, of which Gini's coefficient of farmland was 38.7, while that of the Philippines was 53.4 in 1961 (Bilancieni and D'Alessandro, 2005, p.2). This shows that the initial conditions of Korea were much more equal, compared to those of the Philippines.

As Prof. Lucas has pointed out, the difference in economic performances between Korea and the Philippines can be analyzed based on the difference in the performance of macroeconomic variables. But, the economic performances in Korea and the Philippines can be largely influenced by other conditions such as income distribution and farmland

ownership structure in addition to macroeconomic variables. Especially, it has been identified through recent studies that the lower the extent of inequality in asset allocation is, the more positive a contribution can be made to economic growth (Rudolf, 2012). In most developing countries, farmland is regarded as the most important asset. Therefore, it is very important to identify the extent of inequality in farmland ownership for examining asset allocation structure. In particular, as identified in Galor, O., Moav, O., and Vollrath, D. (2009), the extent of inequality in farmland ownership has a decisive effect on human capital formation. In this sense, as pointed out by Prof. Lucas, the difference in economic performances caused by the differences in human capital can be explained through considering farmland ownership structure.

Therefore, asset allocation, inequality in farmland ownership, land reform and the relationship between human capital and economic growth are examined below based on recent studies. First of all, the relationship between asset allocation and economic growth is examined. Research relevant to asset ownership concentration and economic growth has been the interest of many scholars for a long period of time. However, making use of consistent data, Deininger and Squire (1998) of the World Bank conducted systematic studies. In their studies, farmland distribution variables were used as a substitute variable of asset allocation. According to Deininger and Squire, the initial inequality in asset distribution decreases economic growth and cannot reduce poverty. Especially, since education investment requires a lump sum of money and poor farmers owning less farmland have difficulty in obtaining a loan due to a lack of collateral, they cannot provide enough investment in child education (Deininger and Squire, 1998, p.260). The more serious the extent of inequality in assets gets, the harder it is for a majority of poor people to raise funds for investments in education due to lack of collateral.³ Likewise, unequal asset allocation hampers human capital investment, leading to a negative impact on economic growth. Thus, Deininger and Squire (1998) insisted through their research on asset allocation and economic growth that farmland ownership structure used as a substitute variable of asset allocation plays an important role in economic growth.

Then, the relationships among human capital, land reform and economic growth are examined. There are many studies that have already been conducted on human capital, such as those by Galor and Weil (2000), Galor and Moav (2002, 2006) and others. These studies theoretically determine that cultivation of human capital, resulting from an increase in demand on human capital in the process of industrialization, has become a driving force of economic growth since World War II. However, in terms of effects of human capital in the process of economic development, the studies were conducted in association with geopolitical

3. Deininger and Squire used data of land ownership distribution from World Census of Agriculture of FAO, published every 10 years.

factors⁴ or political systems.⁵ In the way that our main interest is economic growth and land reform, the implications of Galor et al.'s research (2009) on the relationship between concentration of land ownership distribution and human capital has a great significance. According to Galor et al. (2009, p.143), the difference in concentration of land ownership in the process of industrialization brought the difference in economic performance all over the world. For example, in terms of economic performance, the countries with a relatively high concentration of land ownership, which had been wealthy and had owned large-scale land during the preindustrial period, got left behind the countries where land was scarce or the countries where land ownership was equal through the process of industrialization. According to Galor et al. (2009), human capital investment in the countries where farmland ownership is unequal is at such a low level due to the imperfection of the credit market. Accordingly, the public investment in the education sector contributes to accumulation of human capital, which can promote economic growth again. However, accumulation of human capital does not evenly benefit all industry sectors. The expansion of general public education, especially in rural areas, increased average labor costs above labor productivity, so that it reduced rate of return to land. Therefore, landlords do not have any economic incentives to support education policy for accumulation of human capital. The higher the concentration of land ownership is, the more public education will have a negative effect on the income of the landlords. If landlords can affect the political process, they will block public education. Consequently, high inequality in land ownership acts as an obstacle to accumulation of human capital. In economies with a high concentration of land ownership, skilled workers could not be fostered due to the under-investment in the public education sector caused by the indifference of landlords, resulting in failure of industrialization. On the other hand, the countries where land was scarce or the countries where land ownership was equal, nurtured highly-skilled industries through introducing the educational policies that would help economic growth, resulting in achievement of rapid economic growth.

Aside from this, Bilancini and D'Alessandro (2005) analyzed the relationship between industrial development and demand base according to the form of land ownership. First of all, they assumed that industrialization was achieved by exchanging traditional constant return technology for increasing return technology. Under this assumption, they examined how industrialization developed in accordance with land concentration. The more unequal land ownership becomes, the more unequal income becomes as well. When inequality in income gets intensified, the demand base of products is weakened, and mass production becomes impossible. Authors pointed out that based upon the premise of the equal distribution of land, the demand base of the general public can be expanded and it is possible to build a

4. Cf. Acemoglu, Johnson and Robinson (2004), Easterly and Levine (2003), Alesina et al. (2003).

5. Cf. Glaeser, La Porta Lopes-de-Silanes and Shleifer (2004).

mass production system. Bilancini and D'Alessandro (2005, p.2) pointed out that Korea's successful land reform largely contributed to the progress of industrialization by applying their research results to Korea's land reform. As a result of land reform, inequality in asset allocation including land has been solved. Consequently, Korea could establish a stable domestic demand base. Korea's stable domestic demand base made it possible to mass-produce products, and companies could enhance productivity and profitability in investment by fulfilling economy of scale. According to their studies, Korea's economic growth was possible because Korea satisfied equal distribution of land ownership, the precondition of successful industrialization.

Likewise, it was found that human capital and industrial structure, the most important factors for economic growth, were largely affected by distribution structure of land ownership. However, land reform can have a huge effect on economic growth since it determines the distribution structure of farmland ownership. Therefore, land reform plays a very important role in the process of transition from agricultural society to industrial society. Korea's land reform played an important role in the process of industrialization as well. In particular, the effects of land reform on industrialization have become even more obvious in Korea in the way that land reform and compulsory education were carried out at the same time.

Let us examine the results of empirical analysis on the relationship between land ownership, human capital and economic growth. First, the study of Galor et al. (2009) can be pointed out with regard to land ownership and education in the U.S. As shown before, according to these studies, great landlords maintained opposition to the introduction of systems for fostering human capital, like public schools, since human capital and the agricultural sector were not really complementing each other. It has been proven that high concentration of land ownership had a negative effect on education expenditure, resulting from the analysis on land distribution and education expenditure in the U.S. during the period from 1900 to 1940. Using the census data related to education expenditure by the U.S., Ramcharan (2010) analyzed the relationship between inequality in land ownership and education expenditure from 1890 to 1930. As a result of the analysis, it was demonstrated that the higher inequality in land ownership was, the more education expenditure was minimized. Vollrath (2010) investigated the relationship between inequality rate of land ownership measured by the Gini coefficient and taxes to raise funds for establishing local public schools in the U.S. during the 1890s. He found that the higher the concentration of land ownership was, the more people were negative about raising funds for establishing schools. Resulting from the analysis of the differences in school attendance between in the north and the south of the U.S. in 1850, Go and Lindert (2010) found that local governments in the north had higher autonomy, and residents also had more equal political voices. It has

been proven that when the right to vote was given to the poor in North America, taxes for public education, and as a result of that, school attendance rates and the period of attendance at school increased.

Cinnirella and Hornung (2011) of Munich University analyzed the relationship between the inequality in land ownership and education during the Prussian period. According to their studies, it was identified that unequal farmland ownership at that time made the introduction of elementary school education delayed. The landlord class of Prussia could resist the spread of public education since they had enough political power. They insisted that the landlord class, who were the financial supporters for schools and churches, ignored farmers' demand for education by settling down serf labor.

2012 Modularization of Korea's Development Experience
Land Reform in Korea

Chapter 3

Korea's Land Reform

1. History of Land Reform
2. Development Process of Land Reform
3. Implementation of Land Reform

Korea's Land Reform

1. History of Land Reform

Korean society was shaped by rural communities, and Korea's agriculture had been administrated under the feudal tenant farming system until Korea was liberated from Japan in 1945. Conflicts related to farmland permission and tenant rental had no end in the tenant farming system. Although a reform of the farmland system was attempted in order to resolve these conflicts, it still stuck to the feudal system. After World War II, Korea was divided into North and South and both Koreas carried out land reform in order to abolish the tenancy system. South Korea's successful land reform has contributed to industrialization and settlement of the market economy since the 1960s. The content relevant to Korea's land reform prior to the beginning of land reform after liberation is examined as follows.

1.1. Farmland System and Land Reform Prior To Liberation

1.1.1. Before Japanese Colonial Period

Until recently, Korea's farmland system had been under the control of a centralized system of government. There was a small group consisting of royal family, the nobility, and bureaucrats in the centre; most people were poor tenant farmers cultivating private or public land and paying tenant rental to the nobility or bureaucrats. Local landlords – who were mostly the nobility who had moved from the capital to rural areas–exerted powerful authority in their rural areas. Farmers had to pay high tenant rental and had obligation of forced labor. Once farmers could not afford to pay taxes or repay their loans, they became slaves that could be traded freely like products. Farmers became disaffected with this unstable status and sometimes they revolted.

Historically, who owns the land of a country has been at the heart of the farmland system. The period prior to the establishment of modern Korea was basically composed of dynastic societies wherein the king literally had the ownership of the land in the country. However, the ownership used to change according to the times. For example, when the nobility had power, they occupied large amounts of land. On the other hand, when the royal authority was relatively strengthened, the government dominantly owned the land, distributed the land to the people and collected taxes. Since the power of the nobility generally seemed stronger than the royal authority before the Chosun Dynasty, the land owned by the nobility tended to increase. Even in the Silla Dynasty, the nobility were granted the right to collect taxes from their farmland and the right to requisition forced labor. As a result, the authority of the nobility was much more strengthened. During the Koryo Dynasty, rent from public land was used for running the government and public land was also used for school, public office, military unit, and so on. The nobility could trade their private land without restraint and collected rent from tenant farmers. Most private land were hereditary. Governmental officers and soldiers were given small plots of land as a sort of salary, which had to be returned when they retired. At the end of the Koryo Dynasty, national revenues declined sharply since the nobility and monks owned considerable amounts of public land. Additionally, the nobility owning private land continued to increase rents so that disaffection among farmers was growing.

Founding the Chosun Dynasty, Yi Song-Gye reformed the farmland system, one of the problems that had brought on the collapse of the Koryo Dynasty. First of all, he nationalized land and imposed a ceiling on tenant rental. Specifically, he confiscated the Buddhist temples' land so that the power of the Buddhist temples was eroded. The recognized founding contributors and bureaucrats were granted parcels of public land to collect taxes, but did not have ownership of the land.

Based on Kwajenbeop, the basics of the land system of the Chosun Dynasty were established. According to Kwajenbeop, bureaucrats were granted a fixed amount of land in accordance with their class from the government; retirees were also granted land under an additional provision. Farmers cultivated the land, while bureaucrats lived on tenant rental from the farmers. In order to protect the farmers, the government stopped bureaucrats from depriving them of farming. This land was limited to be kept during the current generation, while other lands granted by the government used to be hereditary.

Since the hereditary land and the number of bureaucrats grew as the Chosun's royal authority was established and governmental activities became active, there was a lack of land that was supposed to be granted to new bureaucrats. Therefore, King Sejo reinforced governmental ownership of land. However, many bureaucrats owned large-scale farms and expanded their economic base due to actual progress of privatization of land. Expansion of

farms caused a lack of land, resulting in the abolishment, in King Myung Jong's reign, so that bureaucrats received only a stipend.

Meanwhile, land reformism was on the rise with Silhak scholars and intellectuals as the central figures during the period of the Chosun Dynasty in order to nationalize land weighted towards landlords, and redistribute the land. Yu Hyung Won was a representative supporter, proposing a theory called Yejeon at the beginning of this time. This theory was an ideal form of agricultural production considered as agricultural management of collective farming. According to his assertion, only farmers should be able to own farmland and the land from landlords should be confiscated, aiming at farmers' economic equality through collective labor, farming and distribution. Implementing his theory in a way that maintained feudal status relationship as well as ruling order was not a feasible reform plan under the historical condition in which the feudal ruling class monopolized economic power as well as political authority. Accordingly, Yu Hyung Won proposed a new theory called Kyunjeon, which includes a differential distribution of land to bureaucrats, scholars and farmers and fosterage of independent farmers. This system was a kind of land reform in order to guarantee a minimum standard of living, however it could not deviate from the limitation of a rigid caste system due to differential payment according to the traditional four classes of society (scholars, farmers, artisans, tradesmen). Although his new theory was not adopted as policy, it was an innovative plan to break down the harmful effects of the landlord system; it was passed down to posterity through scholars such as Hong Dae Yong and Park Ji Won.

1.1.2. Japanese Colonial Period

Before a system of property rights was instituted, most of the land had been owned by a few Korean landlords who did not keep official titles of ownership during the Chosun Dynasty, prior to Korea's colonization by Japan. Ownership rights were on a historical basis prior to Japan's colonization. The land survey conducted by the Japanese colonial government from 1910-1918 essentially formalized the land tenure structure in Korea. The land survey served as the basis for establishing a system of land registration. Besides establishing property locations and rights of land ownership, the land survey also used to appraise land values for tax purposes and map topographic and terrain features. The land was registered and ownership rights were recorded based on a "reporting system." As Pak (1966) writes: "Under the reporting system, the nominal person who reports himself as the owner of land was acknowledged as the owner of the land."

Under the reporting system, the owners of land were registered and official records or titles issued that included various information including size, type, and location of land,

the owner's name, and land value. Though a topic of much debate, it is believed that the Japanese colonial government not only registered the land but also acknowledged the ownership rights of most Korean landowners. The land survey was presumably thorough, considering that it was reportedly carried over eight years and covered a total of 4.8 million hectares of land and employed some 3,400 men.

After the land survey, fairly accurate and reliable cadastral mapping had been completed and ownership maps were available at the national level. The rights of property owners were legally formulized in 1912 when the Civil Law was enacted. The land registry system instituted by the Japanese established a legal basis for ownership, effectively abolishing the historical basis for property claims. It also instituted mechanisms for transfers of title as new deeds could be drawn and recorded in the land register.

After the collapse of the Chosun Dynasty, the most epoch-making work of Japan's colonial government was the implementation of the land investigation project, meaning the establishment of a modern land system by law. However, it resulted in the collapse of tenant farmers and the development of a landlord system. As the modern land system including the registration system and cadastre was established, the number of land deals sharply increased due to declining transaction costs. The Japanese Government General of Korea announced a short period of time – only 30 days – in order for all Koreans to confirm their land ownership. However, most farmers overlooked the importance of the land investigation project and did not verify their ownership with required documents, resulting in abandonment of land ownership and transfer of the ownership of unregistered lands to Japanese. Through this process, approximately 15% of land and 60% of forest passed to Japanese. The actual size of land and forest confiscated by Japan is estimated to be more than that when taking into consideration the fact that Japanese owned most of the land registered under Korean names. In terms of land value, the value of the land owned by 120,000 Koreans was 32% of the total land value, compared to 68% of the land owned by only 8,000 Japanese. Specifically, compared to 365 Japanese, only 228 Koreans owned over 100 *jungbo*⁶ of land. Under Japanese imperialism, the centralization of land ownership was rapidly achieved, and the tenancy rate increased from 39% for the period of 1913–1917 to 56% in 1938. The area of tenant farming also increased from 160,000 hectares in 1914 to 260,000 hectares in 1938.

By 1945, it is estimated that nearly 50% to 75% of the farmland was operated by tenants. From 1900 to the time of Korea's liberation, the number of landlords that owned large plots of land had steadily increased. By some estimates, the number of landlords who owned more than 50 hectares of land increased from 1,899 in early 1910s to 3,048 in 1942. As more of

6. Since 1 *jungbo* is equal to 0.99174 hectares, we will use "hectare" instead of "jungbo" in the categorization of farm sizes for convenience.

Korea's land came under the system of landlords during the colonial period, farmers were increasingly subjugated to the tenant-farming system. By the late 1930s, 55.7% of all arable land was controlled by landlords while the rest was owned by small farming households as shown below in <Table 3-1>. Tenant farmers had to pay rent that was generally between 50% and 90% of their output, or about 40% to 70% of net inputs and maintenance costs, which were supplied by the landlords. During the Japanese colonial period, Korean farmers had to pay a greater share of production for taxes while their living standards continued to decrease. According to Morrow & Sherper (1970), the unequal distribution of land, the dire economic situation of farmers, and growing population pressure worsened by the lack of arable land, led to widespread poverty and social instability, making Korea ripe for land reform.

Table 3-1 | Owner-Tenant Distribution of Land before 1945

(Unit: %)

	1913-17	1918-22	1923-27	1928-32	1933-37	1938
Owners	21.8	20.4	20.2	18.4	19.2	19
Part-owners	38.8	39	35.1	31.4	25.6	25.3
Tenants	39.4	40.6	44.7	50.2	55.2	55.7
Total	100	100	100	100	100	100

Source: Ban et al. (1981, p.284)

Under Japanese colonial rule, it was possible to collect a high rate of tenant rental, and so the rate of return on agricultural management was high, followed by escalating land prices and demand. In particular, as agricultural financing based on mortgage loans developed, investment in land began to heat up. Japan changed into a rice-importing country during the process of the Industrial Revolution, and so the demand for Korea's rice production increased, which made advantageous conditions for Korea's agricultural management. Non-agricultural capital flew into rural communities and the scale of land owned by landlords also increased in order to rationalize the agricultural management. In addition, competition amongst farmers was accelerated to secure land for tenant farming, which contributed to increasing the rate of return on agricultural management again. However, tenant farmers' lives were getting worse since they had to provide landlords with high agricultural benefits.

Japan's land investigation project reinforced private land ownership, but there were no follow-ups for land users. Farmers, who made up most of the public, experienced suffering due to only contribution to the landlord system. Therefore, farmers caused farm tenancy disputes and their anger was intensified under Japanese colonial rule for the issue of equal distribution of agricultural products rather than ownership distribution.

1.2. Land Reform of the U.S. Military Government

1.2.1. Establishment of the U.S. Military Government

The U.S. Military Government subsisted for 2 years and 11 months: from September 8th, 1945 when the U.S. Military landed in Incheon to August 15th, 1948 when the South Korean government was founded. The military government means that people or groups from a special class, such as soldier, exert political power over a country through their special status. However, the U.S. Military Government corresponded to the case in which a country governs another country, seizing political power by taking over from the Japanese Government General of Korea, a colonial authority. As a comprehensive occupation authority, the power of the U.S. Military Government was not limited to the U.S. Army Military Government but included the military, which accounted for 77,000 soldiers and was stationed throughout the occupied territory. The military was the final force as well as the basis of the U.S. Military Government's power to impose the military governmental policy on the public (Lee Hye Sook, 1993, p.3-4).

The U.S. Military Government did not officially express anticommunism, but practically carried out anticommunism policies. It suppressed attempts to establish a governmental authority and succeeded to the previous colonial governmental organizations as well as laws as they were, in order to govern Korean society. As an occupying power, the U.S. Military Government seized governmental authority and applied the U.S.'s interests, playing an important role in reinforcing governmental structure. Therefore, its containment policy was carried out since the beginning of occupation so that stability was the first priority of guideline on occupation policy; drastic change was referred to as a main factor of disorder. Eventually, the situation immediately following Korea's liberation experienced a new change due to the establishment of the U.S. Military Government.

Unlike other disputed regions after World War II, Korea encountered a unique situation developed by the U.S. and the Soviet Union resulting in a physical manifestation of the Cold War carried on between two countries that had occupied the Korean Peninsula. The U.S. Military Government wanted to play an active role in controlling governmental organizations as well as material resources and amending legislations in order to apply the U.S.'s policies.

1.2.2. Land Reform of the U.S. Military Government

After Korea's liberation, the U.S. Military Government had a significant effect on the Korean economy. In particular, the U.S. Military Government took the lead in Korea's 1st land reform, implementing land reform aiming at Japan's devolving properties. Before

dealing with the land reform of the U.S. Military Government, the devolving property redemption policy is examined as one of the main policies of the U.S. Military Government.

a. Devolving Property Redemption Policy

Devolving property means the property that remained in the Korean Peninsula when Japan was expelled due to the collapse of the Japanese empire in World War II in August 1945 and was legally vested in the Korean government and the U.S. Military Government. On December 6, 1945, the U.S. Military Government issued Ordinance No. 33, stating that the U.S. Military Government would consolidate all Japanese privately- and publicly-owned properties, and Managing Property Decree No. 2, relevant to reporting on Japanese property and management, occupation and usage of the properties. This meant that the properties of Japanese organizations, groups and associations were to be vested in the U.S. Army Military Government. According to Ordinance No. 33, Japanese-owned property in Chosun was acquired and owned in full by the U.S. Army Military Government in Korea. Owing to the ordinance, the U.S. Army Military Government in Korea exclusively owned the existing Japanese devolving property that Korea's autonomous organizations had administrated and managed, and so the basis of material resources among the organizations managed by Koreans was destroyed while the U.S. Military Government prepared the stable ground of material resources in order to maintain its national organizations and itself. Due to these measures, the U.S. Military Government could accumulate vast riches that were the financial base of the U.S. Military Government along with taxation.

However, it is difficult to find these measures of the U.S. Military Government in the past experience of military occupation. As pointed out by Prof. Lee Dae Gun, the confiscation of Japanese-owned property carried out by the U.S. Military Government explicitly violated the Hague Convention which prohibits confiscation of private property in the occupied territory (Lee Dae Gun, 2011). Nonetheless, Japan could do nothing but follow the measures of the U.S. Military Government since the U.S. Military Government ruled Japan at that time.

Let's examine the size of devolving property such as businesses and farmland vested in the U.S. Military Government from Japanese. First of all, devolving businesses consisted of factories, banks, stores, restaurants and hotels. 4/5 of all businesses were industry and the rest of them were commerce, agriculture, mining and shipping (USAFIK, 1948, p.7). In terms of devolving factories, half of them were distributed in Seoul and Gyungnam (province), and they were comprised of food, machinery, chemical and petroleum in order of weight by type of business. At that time, South Korea's industry did not properly operate due to the severance of the Japanese economy, the division of Korea, lack of resources and skills, and so on. Thus, according to the then-current statistics, it was estimated that

the devolving factories accounted for approximately 1/4 of all factories and the number of workers 1/2 of the whole number.

Meanwhile, devolving farmland was largely divided into two types: Oriental Development Company-owned farmland, and the previously Japanese-owned farmland. Officially founded based on Oriental Development Company in accordance with Ordinance No. 52 in February 1946, the New Korea Company took charge of these farmlands. In the beginning of foundation, the New Korea Company involved farmland of Japanese farms, Japanese private farmland, small-scale factories and commercial and industrial facilities. Afterwards, land accounted for 95% of the property of the New Korea Company. As a result, the U.S. Military Government became a gigantic landlord and the management and operation of the New Korea Company was a very important part of the U.S. Military Government's operations.

Administrated by the U.S. Military Government, collection of tenant rental fees was one of the most important businesses of the New Korea Company. Employing intensive administrative power, the U.S. Military Government collected tenants' rent. Because they collected taxes by threatening tenant farmers with deprivation of their tenant rights, the New Korea Company attained a good compliance rates. Food delivery was the most successful achievement of the New Korea Company, which shared 1/3 of the U.S. Military Government's food procurement. Therefore, the U.S. Military Government was guaranteed a minimal amount of stability while confronting a food crisis. The farmland area cultivated by the tenant farmers of the New Korea Company accounted for 27.7% of South Korea's total farmland area although the New Korean Company owned only 15.3%. Therefore, the influence of the New Korea Company was much bigger for the area of the farmland owned by the company. Specifically, one policy that the central government had created could influence the tenant farmers belonging to the New Korea Company within 2 or 3 weeks. Accordingly, it was the New Korea Company could successfully pass the policies of the U.S. Military Government to farmers, rather than any other organizations. In this regard, the U.S. Military Government obtained the basis of material resources for ruling South Korea through the New Korea Company.

<Table 3-2> shows the size and characteristics of devolving property around devolving businesses and farmland. Devolving property accounted for 305.3 billion won based on a total of devolving property including farmland (Kim Gi Won, 1990, p.37). Although the percentage of devolving property could not be calculated due to no data on a total value of South Korea's property at that time, the value of devolving property reached 9 times that of expenditures from the fact that the expenditure of the budget in 1948 accounted for 35 billion. As seen in detail, the value of businesses accounted for about 2/3, which reached 11 times the value of the New Korea Company, and the value of buildings and land except for farmland more than doubled that of farmland.

Table 3-2 | Estimated Value of Devolving Property

(Unit: 1,000 won)

Items (unit)	Amount
Firms (1,812)	217,099,265
Banks (9)	5,871,883
Fire Insurance (19)	953,901
Life Insurance (19)	309,204
Housing Corporation	4,833,623
New Korea Corporation	19,991,271
Chosun Household Items Corporation	1,821,621
Commodities Corporation	10,077
Cigarettes Corporation	79,212
International Telephone	725,000
Woods and Forest	1,316,664
Temples	209,282
Land and Buildings (except farmland)	52,060,544
Securities	41,848
Misc.	7,603
Total	305,331,089

Source: USAFIK (1948, September-October), Republic of Korea Economic Summation (No.36, p.9)

b. The U.S. Military Government and Land Reform

Right after Korea's liberation, 77% of the total population was engaged in farming and Korea's land ownership relation succeeded the colonial landlord system under Japanese imperialism, thus a rational solution on land problem was the biggest task facing Korean society. At that time, the major features included the ownership of huge tracts of land limited to a few landlords, farmers' dispersive micromanagement and high rate of tenant rental in kind. As of the end of 1945, 65% of the total farmland of 2,230,000 hectares in South Korea, or 1,450,000 hectares, was farmland for tenant farming. In terms of paddy land, 71.2% of the total of 1,260,000 hectares, or 890,000 hectares, was farmland for tenant farming. Previously Japanese owned farmland was 230,000 hectares and 50,000 landlords, who owned over 5 hectares, owned approximately half of Korean-owned farmland, or 570,000 hectares. That is to say, Japanese and Korean large landlords occupied most of the farmland for tenant farming. As of the end of 1945, original tenant farmers accounted for 49% of 2,060,000 farm households, landed and tenant farmers 35%, and independent farmers only 14% or 284,000 households.

After Korea's liberation, agricultural production declined due to lack of fertilizers and agricultural machinery, while the food situation was worsening along with an increase in the number of returning displaced Koreans. At first, it was likely that the U.S. Military Government removed the control and it was left to the free market. However, only merchants' cornering and hoarding as well as profiteering were encouraged under the condition of lack of agricultural products. As a result, the measure of food liberalization changed into the delivery system. Moreover, farmers were highly repulsed by the introduction of market mechanisms to agriculture, and so no market system was any longer considered.

Meanwhile, resulting from a survey of the U.S. Military Government, 77% of the total population supported socialism as well as communism and North Korea implemented land reform in 1946. In order to solve these problems, the U.S. Military Government referred to land reform as practically the best alternative. Specifically, the tradition of farmers' movement was built from the period of Japanese colonial rule so that farmers also expressed their rights and benefits in a variety of forms. The U.S. Military Government sided with these farmers' opinions, thus it was possible to implement land reform.

In the meantime, the position of politicians on land reform largely was divided into two. On the one hand, there was the leftist Korean Worker's Party, and the Democracy National Front, regarded as a progressive political group leading a farmers' movement. On the other hand, comprised of pro-Japanese forces and the landlord class, the Korean Democratic Party represented the interests of the landlord class with regard to land reform. In the beginning, the Korean Democratic Party opposed confiscation of farmland caused by land reform, since landlords' profits would sharply decline under the 3.1 system and landlords would naturally give up the land. The Korean Democratic Party also insisted that distribution of land be done without land reform if the government bought land from landlords at that point, and industrialization could be achieved at the same time if the government guaranteed investment of landlord's money from land sales in industry.

However, as North Korea implemented land reform, the Korean Democratic Party changed its land reform policy. In September 1946 when the Joint Soviet-American Commission was actively working and the collaboration between the left and the right was raging, the Korean Democratic Party adopted land reform with confiscation of compensation and distribution with cost approach. In this respect, there were often conflicts between two groups in Korea's political community: one group defending the landlord class and the other group speaking for farmers. Soon, the landlord class agreed to land reform that had become irresistibly mainstream, insisting that the government guarantee them a switch from the landlord class to the capitalist class as well as land reform with confiscation of compensation and distribution with cost approach to the private property system. Then, they intended to sell their land before land reform, postponing implementation of land reform.

The U.S. wanted South Korea to become an advance base camp against the Soviet Union, so it tried to weaken farmers' movements and develop capitalism in Korean society. Specifically, burdened by the need for exporting surplus products, the U.S. had an advantage from getting rid of the landlord class opposing food imports. Therefore, there was no reason for the U.S. to be against land reform. From this viewpoint, the U.S. fortified its efforts to cope with communism and rapid nationalism through land reform as well as aiming at economic benefits for the U.S.

After liberation, the U.S. Military Government and the Korean government carried out Korea's land reform through two phases. The U.S.'s goal of liberal democracy and the political motivation of the Rhee Syngman government merged together, resulting in completing a successful land reform. Specifically, it was practically impossible to maintain a stable government in ignoring increased expectations of South Korea's farmers as North Korea's land reform began to be implemented.

Like Japan, Korea's first land reform began in the period of the U.S. Military Government. The U.S. Military Government made a decision to carry out the 3.1 system of tenant rental by promulgating the Issuance of U.S. Military Government Ordinance No. 9 on October 5, 1945, less than one month after they had arrived in Korea. Since Korea's farmers were suffering from high tenant rental fees, the U.S. Military Government wanted to resolve the tenant rental problem quickly in order to implement new policies effectively in the occupied territory. Along with this, the U.S. Military Government applied some Japanese measures existing as an extension of Japan's land reform implemented as part of policy in the occupied territory. The main points of the decisions of minimum tenant rental announced by the U.S. Military Government at that time were as follows. The tenant rental could not exceed 1/3 of production in cash or any form, landlords could not unilaterally terminate tenant rights and tenant rental should not exceed 1/3 of production in a new contract. It was specified that the military court would impose a severe punishment if the regulations of the Ordinance were violated. Not only was the 3.1 system a tenant rental problem, but it also had a significant meaning as the first step of land reform regarded as a basic countermeasure against Korea's land problem.

Meanwhile, the U.S. Military Government issued U.S. Military Government Ordinance No. 33 on December 6, 1945 in order to take over all previously Japanese-owned land and revenues. As a result, the U.S. Military Government owned 324,464 hectares including 282,480 hectares of farmland, 4,287 hectares of orchards, 37,697 hectares of forest, and so on, and the New Korea Company managed all the land owned by the U.S. Military Government.

In 1946, Arthur C. Bunce⁷ of Iowa State College led a group of economists to Korea to assist in drafting a land reform program. Under the US Military Government, a land reform program was drafted by the “Land Reform Law Drafting Committee” with the purpose of divesting formerly Japanese property. In 1947, the Korea-US Joint Sub-committee was established to evaluate the land reform program drafted by the committee. In parallel, an alternative draft of the law was prepared by the Industry and Labor Committee of the National Assembly, Korean Provisional Government. The proposals for land reform from both committees were used to draft the Land Reform Law in 1947, which failed to pass the assembly after several revisions. By early 1948, the Land Reform Law was due to strong opposition from “certain power groups.” Many of the members of the assembly argued that: “a measure as significant as land reform should be handled by the New Constitutional Government and not the liberation Military Government.”

The land reform program faced great opposition from the landed elite who were politically influential and well-represented in the National Assembly. Indeed, some members of the Legislative Committee of the Interim South Korean government refused to even deliberate the land reform bill in the national assembly.

On March 1948, the US Military Government dissolved the New Korea Company and established the National Land Administration under ordinance No. 173 issued by the Korea Interim Legislative Assembly to have control over disposal of ex-Japanese holdings and regulation of procedures regarding such sales of land. It set a limit of two hectares for the land distributed. The actual amount of land redistributed was about 245,554 hectares, or 91.4% of the land available for distribution. The land was distributed based on the following: “1) farmers already cultivating the farmland, 2) farmers, agricultural laborers and refugees from North Korea or abroad, and 3) experienced farmers living near the farmland.” Most of the land was allocated to farmers already farming on the land, which was planned on the part of the US to prevent misallocation of land or rent seeking. As Morrow and Sherper (1970) write: of ex-Japanese holdings and regulation of procedures regarding such sales of land. It set a limit of two hectares for the land distributed for the purchase of formerly Japanese-owned land was to be made in kind and the price of the land was set at three times average annual production. The farmers had to make principal payments for 15 years with no interest cost. Over the 15 year period, an installment payment made in kind and the price of the land was set at three times the average yield (48). Title of the land was transferred to the farmer and the deed was registered in the land registry. Moreover, the conditions of the sales also included provisions which restricted farmers from selling, leasing, or mortgaging their land until full payment was made or before 10 years from date of purchase.

7. Dr. Arthur C. Bunce was also the architect of Japan’s land reform and later became the head of the ECA (Economic Cooperation Administration) in Korea.

Table 3-3 | Chronological Sequence of Events Leading to Land Reform⁸

September 8, 1945:	Arrival of United States Liberation Forces in Korea.
October 5, 1945:	Issuance of U.S. Military Government Ordinance No. 9 reducing farm rent not to exceed one-third of production.
December 6, 1945:	Issuance of U.S. Military Government Ordinance No. 33 vesting all formerly owned Japanese property in the Military Government under the New Korea Company
May 1947:	U.S.-Korea Joint Committee established to draft land reform bill.
September 1947:	Proposed land reform law submitted to Legislative Assembly where it was revised four times and deferred until next session.
January 1948:	Land reform bill failed to pass the Legislative Assembly.
March 1948:	Legislative Assembly dissolved.
March 22, 1948:	Issuance of U.S. Military Government Ordinance No. 173 dissolved the New Korea Company and transferred vested property to newly-established National Land Administration for disposal. It provided for distribution under terms of a two-hectare limit, a price of 150 percent of production and 15 years to pay. Distribution of the majority of vested lands took place under the above program.
August 15, 1948:	Establishment of the ROK Government and placement of the National Land Administration under MAF.
February 1949:	Land reform bill drafted by MAF and Industry and Labor Committee land reform bill submitted to National Assembly.
April 29, 1949:	Farm land Reform Bill approved by National Assembly setting land price to farmers at 125 percent of production and compensation to owners at 150 percent. This was rejected by executive branch of government because of lack of funds for the subsidy between sale price and final compensation.
May 15, 1949:	National Assembly disapproved proposed revision by government to increase land price to 150 percent of production.
Fall & Winter 1949-50:	Industry and Labor Committee submitted revised bill to National Assembly, which was revised several times.
March 10, 1950:	Revised Farmland Reform Law (Law No. 108) promulgated and implemented. Provided for three-hectare limit, equal price and compensation of 150 percent of production and issuance of securities to sellers.
June 25, 1950-July 1953:	Korean War
February 1952:	Vested Lands and ROK land tenure program lands fully distributed.
April 1958:	An additional 8,254 families received 3,783 hectares of land due to adjustment of borders between North and South Korea.
December 1969:	All land securities had been redeemed.

8. Morrow (1970, p.17).

2. Development Process of Land Reform

After Korea's liberation, the process to get to land reform of the Korean government was a long and tough journey. North Korea started implementing land reform through confiscation of compensation and distribution of costs in April 1946. Accordingly, as farmers' movements on land reform were intensified, the U.S. Military Government prepared land reform in earnest from the beginning of 1946. However, it was hard to come to an agreement due to antagonism between progressives and conservatives respectively on behalf of farmers and landlords. Afterward, they reached an agreement on the 7 principles. Article 3 of the agreement illustrated that the government secure land through confiscation, conditional confiscation and current price purchase, and distribute it free of charge to farmers. However, the Korean Democratic Party opposed it for several reasons, including that free distribution to farmers would cause financial difficulties for the government, providing only the right of cultivation would deceive farmers and this would be discrepant from the private property system. As a result, the agreement between the two groups was broken.

Although the U.S. Military Government organized Chosun Transitional Legislation Member on December 1946 and at least formally tried to deal with the issue of land reform through the agreement, the legislation members intended to postpone land reform as they mainly consisted of the right wing, or landlords. Afterward, the Korean-American Land Reform Liaison Committee was established in the beginning of 1947 and reviewed a bill in secret, which was proposed to the legislation members by the U.S. Military Government in September 1947 when the Joint Soviet-American Commission broke down. The bill prepared in this way was revised 4 times and tabled at the plenary session of the legislation members. However, like land reform, an important issue should be carried out after establishment of the Korean government, and so there were many members to oppose the introduction of the bill. Therefore, the U.S. Military Government put up a policy to separately distribute only previously Japanese-owned property vested in the New Korea Company by the ordinance on February 1946. However, the policy was abolished without deliberation of the bill due to the domestic political situation.

In order to get support for the 5.10 general election on March 22, 1948 from farmers, the U.S. Military Government issued the Devolving Property Disposal Ordinance, Transitional Government Ordinance No. 173, and distributed previously Japanese owned property vested in the New Korea Company. Afterward, despite stiff opposition and an absence of democratic forces and 4.3 Democratic Resistance, the 5.10 general election was enforced and the National Assembly was composed of the right wing. After the Rhee Syngman government was established, land reform became mainstream and the implementation of land reform was specified in the Constitution. Drafts of the Constitution left no room for

any exceptional measure favorable to landlords based on ‘Land to the Tillers’ and forest was excluded from the list of targets for reformation although it formed an important part of agricultural production.

The legislation process of land reform was a compromise and confrontation process amongst the position of the U.S. monopolistic capital represented by Rhee Syngman, the position of landlords by the Korea Democratic Party and the position of farmers by independent members. The main issues were the ceiling on ownership, prices applied in purchase and distribution, and installment compensation as well as the redemption period.

Progressive minister Jo Bong Am opened the plan of the Ministry of Agriculture and Forestry (MOAF) to the public. This plan involved items such as ‘ceiling of ownership at 2 hectares per household, reward for 15% of annual average production in 10 years with a 3 year grace period for landlords selling land, redemption for 12% of annual average production with 2% per year in 6 years for farmers distributed land to, and prohibition on free trade, gifts, collateral, rental, tenant farming for all land’. As such, this plan strongly regulated restriction on exertion of private property, the governmental ownership on land, complete abolishment of tenancy system, and so on. This plan was remitted to the Legislative Office and the Planning Office on January 1, 1949, resulting from collecting public opinion and holding a public hearing. At that time, farmers mostly agreed with the plan. After the plan of the Planning Office was reviewed again, the previous plan was decided as the governmental plan. Lee Soon Tak, chief of the Planning Office, belonged to the Korea Democratic Party so he prepared the plan of the Planning Office by revising the plan from the Ministry of Agriculture and Forestry on behalf of the Party. Since this plan included things such as ‘ceiling of ownership at 3 hectares per household, reward for 20% of annual average production in 10 years for landlords selling land, prohibition on exertion of right limited to distributed land until completion of repayment, and prohibition on rental and tenant farming for all land’, landlords benefitted from the plan compared to the plan from Ministry of Agriculture and Forestry and limitation on private ownership was moderated as well.

However, the Korea Democratic Party, which at the time dominated the National Assembly, submitted a plan devised by the Agriculture and Forestry Department in Industry Committee to a plenary session on March 1949, ignoring the government’s plan as well as a Temporary Measure Act on Land Reform proposed by the government. Benefiting landlords rather than farmers, the Industry Committee’s plan set up a main goal of switching from land capital to industry capital. The plan included items such as ‘ceiling of ownership at 3 hectares per household, reward for 30% of annual average production in 10 years for landlords selling land, redemption for 30% of annual average production (the same amount as reward) in 10 years for farmers distributed land to, and prohibition on free trade, gifts,

rental and tenant farming for all distributed land'. There was fierce criticism to the plan around an independent junior group in the National Assembly and farmers associations such as the Korean Farmers Association issued a statement opposing the plan as well.

Land Reform Law passed the National Assembly on April 26, 1949 and was transferred to the government. In terms of the most controversial issue on percentage of 'reward', the plan with 15% was passed by 80 votes to 3. In terms of the ceiling of ownership, the plan with 2 hectares was rejected by a vote of 51 in favor, lacking in a majority vote, so the plan with 3 hectares was chosen and the amount of redemption from farmers was revised to 12.5%. Consequently, the landlords' scheme was frustrated. However, the government returned the Land Reform Law to the National Assembly since the governmental finance to pay for the difference between reward to landlords and redemption from farmers was not secured yet. Therefore, the National Assembly reconsidered and promulgated the Land Reform Law as of June 21, 1949. Reviewing amendment of legislations from January 1950, the Industry Committee proposed a plan with 24% of annual average production as a reward and redemption reflecting landlords' benefits. But, although this amendment was rejected by a vote of 81 against, the government's amendment with 15% of both reward and redemption for consideration of the government's finance was passed by a vote of 90 in favor. Therefore, the Amendment of Land Reform Law was promulgated on March 10, 1950, enforcement ordinance for the same Act on March 25, and enforcement regulations on April 29. The Land Reform Law, decided in this way, disbanded the pre-modern semi-feudal landlord system through the government's intervention. <Table 3-4> shows the size of distributed farmland, reward price and method, redemption price and method, and other items discussed in the process of legislating the Land Reform Law.

Table 3-4 | Comparison of Land Reform Laws

	MoAF	Planning Office	Industry Committee	1 st Draft	Revised Draft
Size	2 ha	3 ha	3 ha	3 ha	3 ha
Reward price	150%	200%	300%	150%	150%
Method	3 yr grace period, 10 yr payment	10 years equal payment	10 years equal payment	5 years equal payment	5 years equal payment
Compensation price	120%	200%	300%	125%	150%
Compensation method	6 years equal payment	10 years equal payment	10 years equal payment	5 years equal payment	5 years equal payment

The land subject to government purchase for redistribution included: “1) farmland owned by individuals other than farmers, 2) farmland not owner-cultivated, 3) farmland exceeding the upper ceiling of three hectares, and 4) land not cultivated for perennial plants beyond three hectares.” Priority was given to the following: “1) farm households currently cultivating farmland subject to distribution, 2) farm households cultivating extremely small areas in comparison to cultivating capacity, 3) bereaved families of martyrs, 4) agricultural laborers having a capability to farm, and 5) farmers returned from abroad.” The key terms and conditions of the purchase and sales distributed under land reform include: “1) land for distribution was valued based on the government purchase price of 150% of the ‘standard production’, 2) land owners were compensated with government issued securities with a government guarantee, that the securities could be invested in industrial stocks or redeemed in cash, 3) Repayment by farmers to the government was 150% of ‘standard production’ made by yearly installments spread over five years or payment in advance of the whole or part of the purchase price.”

The land reform program sought to achieve multiple objectives in redistributing the land, essentially based on the land-to-tiller’s principle. The economic objectives of land reform were to improve agricultural productivity and the income of famers by dismantling the oppressive tenant farming system, to encourage reinvestment, and to provide incentives through ownership of land and production. A major political objective of the land reform was “to lay a foundation for democratic rural society.” The oppressive terms of the tenant farming and widespread poverty in rural areas was fueling communism, which reached a fever pitch soon after Korea’s liberation. Though the presence of the US Military Government helped to establish some semblance of political order and to dissipate growing

overtone of communism, much of it went underground. Socially, land reform sought to secure social stability by abolishing tenant farming and mitigating class conflict between tenants and landlords.

However, the Land Reform Law had a serious flaw in the process of legislation. The government legislated a Temporary Measure Act in order to stop landlords from transferring farmland to tenant farmers or others. Article No. 27 of the Act, including prohibition of advanced trading, was tabled four times for legislation, then was passed the fifth time. The problem was a loophole in Article No. 27 stating ‘understated transactions after the passing date prohibits this’ since the Article of Law could not take effect on the ‘passed date’ but on the ‘promulgated date’. When the Act was passed to the National Assembly and submitted to the government, the government raised a question about the prohibition of the Temporary Measure Act on the fact that all laws take effect from the promulgated date. The Act could not be enforced since the government itself made an issue of ‘illegality’ of the article. It is still not clear whether the error in the process of legislation was a ‘mistake’ or ‘negligence’, but the damage was enormous as there was no way to stop landlords from forcing farmers to buy their farmland. During deliberation on amended legislation on February 2, 1950, the ‘passed date’ was revised to the ‘promulgated date’ and the amendment to the Act was promulgated. However, land reform was already implemented so this did not produce actual results. Eventually, urgent measures did not come true in spite of several members’ efforts, and landlords’ high-pressure selling was ignored.

3. Implementation of Land Reform

3.1. Institutional Arrangements

In May 1949 right after the National Assembly passed the Farmland Reform Act, the Ministry of Agriculture and Forestry discussed several items necessary to implement land reform, such as the establishment of administrative organizations, compilation of budgets, surveys on actual conditions in rural communities, composition of farmland committees. First of all, the government reorganized the central and local administrations for implementing land reform. Composed of four departments (designation, assessment, conciliation, and farmland improvement), the Bureau of Farmland Administration was in charge of the land reform project. All of these departments except for that of farmland improvement were dedicated to the preparation process of land reform: the designation department for policy and plans related to land reform and audit of distributed farmland, the assessment department for assessment and arrangement of farmland grade and resolution of disputes, and the conciliation department for farmland distribution and management and distribution of acquired farmland. Since then, the administrations were retained without any changes in a large framework despite partial adjustments. The departments in charge of land reform began shrinking in the late 1950s when 80% of the work plan was achieved. The local administrations were reorganized largely similar to the central reorganization plan.

In terms of promoting the land reform project, the Farmland Committee was established along administrative agencies. Granted determination, agreement and consultation, the Farmland Committee was not only an advisory organization for all levels of administrative agencies but also an organization for resolution and agreement on complaints. The Farmland Committee performed a mission taking legal effect in carrying out intrinsic functions delegated in the Farmland Reform Act and fulfilled its advisory duties on decisions of the administrative agencies at the same time. Legally, the Farmland Committee held the right of consent to the farmland that the government temporarily deferred purchasing, as well as the right to examine the application of stakeholders for reassessment. It contributed to minimizing civil appeals by playing the role of impartial mediator between the administrative agencies and stakeholders. In the case of stakeholder's lawsuits over dissatisfaction with the Committee's decisions, the court used to recognize the decision of the Committee as frequently as possible unless there was a special legal problem.

The Farmland Committee was established at the central level (Ministry of Agriculture and Forestry) as well as all levels of administrative units including city and province, county and village. The Committee largely consisted of civil servants and civilians except at the village level, and the ratio of civilians became higher toward the lower level of

administrative units. Farmers and landlords each made up half of the civilian component. As farmers, landlords and administrative agencies took part in the coordination process, land reform could be implemented in accordance with democratic procedure.

Table 3-5 | Composition of Farmland Committee

(Unit: number of person)

	Chairman	Members		
		Civil servant	Civilian	Total
National level	1	6	8	14
Metropolitan City	1	4	6	10
City level	1	2	6	8
County level	1	1	6	7
Village level	1	0	6	6

3.2. Determination of Distributed Farmland and Excluded Farmland

3.2.1. Determination of Distributed Farmland

The survey on actual conditions in the rural community was the most important phase of the land reform project. Land reform began in earnest on May 5, 1949, when the Ministry of Agriculture and Forestry commanded a land reform survey on actual conditions. In order to be used for purchasing and distributing farmland in determining actual cultivating conditions and status of farm households, the survey on actual conditions in the rural community was conducted. This survey, conducted for the first time since liberation, was large-scale. Although the survey was designed to be conducted based on a prescribed form as of June 21 and aggregated by September 15, it was delayed and only completed in December. The items reported included acreage under cultivation, farmland production, family size, labor, farm equipment holdings and livestock rearing status. After being verified by the head of each village, the declaration form was collected in cities, counties and villages, and reported to mayors and governors. The Ministry of Agriculture and Forestry announced the results of the survey on December 21, 1949. According to the official announcement, the total number of farm households was 2,473,833 and the total farm household population was 14,416,365; 71% of the total population. The per farm household population was 5.46 and the total cultivated area was 2,070,577 *jungbo*, of which area for purchasing was aggregated to become 601,049 *jungbo*, 29% of the total acreage under cultivation.

According to the Land Reform Act, the government's acquisition of farmland and distribution of acquired farmland had separate provisions. However, these processes actually merged into one since farmland was not just owned by the government and distributed to farmers but rather its ownership was directly transferred from landlords to farm households for distribution. In this process, the government realized distribution through determining farmland and farm households for distribution, taking responsibility for collecting repayment from the farm households who received distributed farmland and paying compensation to the landlords whose farmland was distributed. Once farmland was determined to be distributed farmland, the legal effect automatically occurred so that no special procedure for acquiring farmland was needed. Therefore, the acquired farmland was in actuality distributed farmland.

On the other hand, the acquired or distributed land was limited to farmland according to the Land Reform Act. However, the government did not acquire all farmland. The farmland the government acquired included farmland owned by non-farm households, non owner-cultivated farmland, farmland exceeding the upper ceiling of ownership and other farmland owned by farmers owning and cultivating perennial crop fields such as orchards and mulberry fields. Meanwhile, according to Article 5 of the Land Reform Act, land reform was also intended for farmland regarded as government-acquired farmland, confiscated or nationalized by ordinance or treaty as well as farmland of which ownership was obscure. Here, nationalized farmland included devolving farmland handed over to the Korean government through the agreement between Korea and the U.S. as well as farmland that the Minister of Finance decided not to be necessary for the public out of existing government-owned farmland.

3.2.2. Acquisition Excluded by the Law

The Land Reform Act differentiated between farmland automatically excluded from acquisition, and farmland only excluded through a special administrative disposition of the government. First of all, the farmland automatically excluded from acquisition included (1) owner-cultivated or owner-operated farmland less than 3 *jungbo*, (2) owner-operated farmland for cultivating perennial crops such as orchards and mulberry fields, (3) farmland owned by non-farm households, (4) small scale farmland for home gardening, (5) land reclaimed incompletely as well as farmland reclaimed after the enforcement of the Land Reform Act. In terms of the farmland automatically excluded, stakeholders could have different views in accordance with decisions on criteria. In particular, there were not a few controversial issues over the extent of self-operated farmland as well as incomplete limitations on cleared and reclaimed land. Meanwhile, farmland only excluded through a special administrative disposition of the government included, (6) farmland owned by the

government, public organizations and educational institutions and recognized necessary to change its intended use by the government, (7) owner-operated farmland owned by accredited schools, religious groups, welfare agencies, etc. (8) owner-operated farmland owned by academic, research and religious organizations. In the case of exclusion through a special administrative disposition of the government, there were less controversial issues than in cases where the farmland was automatically excluded since it was determined through screening of implementing agencies.

3.3. Repayments and Compensation on Farmland Price

3.3.1. Repayments on Farmland Price

Land reform was implemented in accordance with the principle of acquisition at a cost and distribution at a cost. In this regard, the person to whom farmland was distributed had to repay the government the farmland price. The amount of repayment was equal to the appraised value of the acquired farmland, namely the amount of compensation to landlords. Farm households receiving distributed farmland had to repay by a 5-year installment plan to the place designated by the government with cash or goods in kind as designated by the government. The repayment was an obligation on farm households; the government could sue them in court for not fulfilling the obligation to repay the farmland price, and ask them to return the farmland. A common magnification system was applied to valuation on general farmland. As a rental value comparison system, this system was a method of appraisal on the basis of average production of standard intermediate level farmland designated per unit area.

The repayments collected by the government were used for general compensation paid to landlords and compensation for special and subsidiary facilities. Also, the repayments for devolving farmland were used for farmland improvement projects carried out by the government or local governments as well as agricultural development projects.

Meanwhile, not only dealing and bestowal of distributed farmland but also mortgages, superficies and security rights were all prohibited until termination of repayments except in special cases. Accordingly, ownership could not be exercised externally and the ownership of distributed farmland could only be exercised after complete repayment.

The settlement of repayments was made through checking distribution area, total amount of repayments, amount received and amount outstanding at the level of cities and provinces according to the instruction of the Ministry of Agriculture and Forestry. Repayments for distributed farmland were unified as the quantity of rice in principle. When other grains were received instead of rice, they had to be converted to rice to serve as a unit of measurement.

The conversion process was not so simple since there were many kinds of grains; the inspection rating was also not constant. This is why the process of converting other grains into rice was constantly a controversial issue.

Statistics relevant to the relationship between acreage of distributed farmland and amount of repayments were basic statistics in the land reform project. Unless the basic statistics relevant to the relationship between acreage of distributed farmland and amount of repayments were not accurate, the amount of repayments could not be determined. Therefore, establishment of the basic statistics relevant to repayments was very important. Specifically, in order to make accurate basic statistics, checklists and summary sheets were created and the settlement of repayments was to be censored by provinces.

3.3.2. Compensation for Farmland Price

If a landlord whose farmland had been acquired by the government received compensation, application for compensation was to be submitted to the governor of the province where the landlord resided by May 3, within 40 days of the date of promulgation of the enforcement ordinance of the Land Reform Act (March 25, 1950). Then, the government was supposed to issue land stock by May 31, 1950. The reason why the government was in a hurry to compensate was a sort of consideration in order for landlords to avoid losing opportunities to take part in disposition of devolving properties and job change for landlords. However, in reality it has been judged to have expedited the project in order to cover up the backlash of landlords who had lots of complaints against land reform (Kim Sung Ho et al., 1989, p.724). However, the statutory period was not kept. The Ministry of Agriculture and Forestry determined that the statutory period was too tight and postponed the application deadline. The callous attitude of landlords toward compensation helped delay the application for compensation as well.

Although the government took special action on these landlords' responses, the further action had no meaning due to the outbreak of the Korean War. Along with the 9.29 Seoul Recapture, suspended compensation work resumed, nevertheless the processes could not begin. The Ministry of Agriculture and Forestry enacted temporary measures both on November 15 and December 2, 1950. But, caused by the 1.4 Retreat, the resumed compensation work was interrupted again, and then eventually compensation measures guaranteeing maximum benefits of landlords were prepared after the Capital Movement to Busan.

Land securities were securities issued to landlords by the government worth the price of farmland that the government acquired. Indicating a quantity of main agricultural products, the land securities displayed a converted single quantity, which was intended to maintain the actual value regardless of fluctuations in the value in money. As land securities held

effectiveness as securities, they could be used to pay the sale price of devolving properties and to pay the amount of repayments for devolving farmland. In addition, land securities were used to pay for devolving properties using land securities as collateral. Transfer ownership of land securities was also allowed.

On the other hand, project costs such as administrative costs and arrangement costs for land registry had to be prepared to promote the land reform project. For this purpose, the government deducted part of the costs from landlords' compensation. Determined in accordance with the Presidential Decree, the experiential rate did not apply to farmland less than 75 *suk*⁹, but progressively higher to higher-worth farmland. In this way, the burden on small-scale landlords was lightened, whereas the larger-scale landlords were the more burdened. However, the experiential rate did not apply to some organizations operated by the government such as educational, edificatory, academic and welfare institutions. Resulting from the application of standard experiential rate, the experiential number of *suk* amounted to 1,224,660 *suk* corresponding to 9.8% of the total compensation.

In March 1961, the Ministry of Agriculture and Forestry enacted by laws related to land securities including commission and contract of payment for compensation of land securities to the Korea Development Bank. The Korea Development Bank had dealt with payment for compensation until November 1952, and afterward the Korea Financial Union Federation handled the commission. At that time, the commission fees became equivalent to 5% of the amount of compensation payments. According to the direction of the Ministry of Agriculture and Forestry, general compensation began on March 11, 1951. However, the payment for compensation was often interrupted since government funding for compensation to agencies for payment was not supplied smoothly. This was because the government had a lack of funding for compensation. On the one hand, this was caused by lack of collecting repayments for acquired farmland due to the Korean War, but on the other, the government extremely suppressed the release of government funds to prevent inflation in wartime. As a result, the payment of compensation funds was not made properly. But, this payment for compensation funds could not be improved afterward. Moreover, the delay in payment for compensation inevitably caused a bargain sale of land securities, resulting in sell-off of land securities at giveaway prices.

According to the Land Reform Act, compensation for farmland was in principle made by yearly installments on 15% of general compensation over a 5-year period. However, an exception of special compensation was allowed if the government recognized the case. At that time, in terms of farmland owned by educational foundations as well as reclaimed and cleared farmland, the government determined to take additional actions due to a problem

9. *Suk* is a unit to measure the weight of rice in Korea. 1 *suk* is 144 kg.

with general compensation. The Special Compensation System was a measure to solve the problem.

With regard to special compensation for the farmland owned by educational foundations, the Ministry of Education issued an additional 15% of land securities above the 15% of land securities for general compensation issued by the Ministry of Agriculture and Forestry. The land securities on special compensation were appropriated only by price for acquiring devolving property. Furthermore, when educational foundations applied to acquire devolving property, the government had all applicants sell off them preferentially to educational foundations. Additionally, educational foundations were excluded from the target groups to whom the experiential rate applied. As a result, the land securities on special compensation corresponding to 775 cases or 1,019,100 *suk* were issued for educational foundations. Among them, private foundations accounted for 64%, temples and Buddhist foundations 13%, Confucian foundations 12%, religion foundations 6% and other foundations 5%. These land securities on special compensation were used only by price for acquiring devolving property, so that 14,530 million *Hwan* (equivalent to the amount of 1,019,100 *suk*) had to be paid to the national treasury. In practice, the government allocated devolving property corresponding to the amount of compensation to 755 educational foundations free of charge (Kim Sung Ho et al., 1989, p.754).

The Land Reform Act recognized special compensation for reclaimed and cleared land. But, people who received distributed farmland did not burden themselves with the special compensation so that its financial resources could be diverted from part of the amount of general compensation. Therefore, it was possible to get special compensation if there were enough financial resources after the legal payment period for general compensation. An actual review on special compensation was conducted in 1956 and the special compensation process began based on a survey on real conditions of reclaimed and cleared land in 1957. However, actual compensation did not occur, as it was found that a calculation method for the amount of special compensation was unreasonable as well as hard to implement at that time. Consequently, petitions from people who were supposed to receive compensation flooded the Ministry of Agriculture and Forestry, forcing the ministry to revise the compensation scheme. Nevertheless, only 17 out of 33 applications were calculated with the amount of special compensation as of 1959. However for the rest, not even the amount was calculated. As the 5.16 Revolution broke out, the compensation scheme caused controversy and a lawsuit was filed with the government for the amount of special compensation that was not enough. Eventually, the special compensation for reclaimed and cleared land was finished in 1968.

3.4. Registration and Accounting of Distributed Farmland

3.4.1. Registration

Except for cases in which lot number, land category and area of distributed farmland were equal to official books (cadastre, cadastral map), the ownership could be transferred to the farm households receiving distributed farmland only through a cadastral survey. Therefore, it was preferable to conduct a cadastral survey on distributed farmland before the distribution was finalized. It was practically impossible to survey 2 million lots of land required for a cadastral survey at the same time. Necessary expenses for surveying were also not prepared. In fact, the Ministry of Agriculture and Forestry annually conducted a cadastral survey in cooperation with the Ministry of Finance from 1951. Due to delay of farmland improvement projects as well as budget constraints, the survey was completed on 94% of the entire lots of target land by 1969.

The cadastral survey aimed at the complete processes including settlement on partition boundaries, area calculation and cadastral map arrangement in accordance with division and combination of previously registered land according to Presidential Decree as well as boundary settlement of newly-registered land listed on the new cadastre. Only registered surveyors authorized by the government could conduct the survey. As a result, the Korea Cadastral Survey Association conducted the survey under the supervision of the Ministry of Finance. The cadastral survey on distributed farmland was completed for 1.94 million lots of land (97% of the total of 2 million lots of land) by the end of 1959. The farmland that was not completed by that time was mostly target land where working conditions were poor such as farmland mainly located in backwoods or north of the 38th parallel.

The land reform project proceeded in 3 phases: acquisition and distribution of farmland, compensation and repayment for target farmland and ownership transfer of distributed farmland. The registration of ownership transfer, ownership transfer to farm households who received distributed farmland, was the last step in the process to realize a principle of farmer ownership. Although the registration was a requirement in order that farmland ownership go into effect, general farmers thought that change of ownership was made only with the right of cultivation and a bill of sale at that time. Accordingly, some farmers were less interested in registration where costs were incurred, or intended to avoid it. As for the farm households who received distributed farmland, they could not get out of the status of ‘tenant’ so they felt burdened even by registration fees.

Land reform intended to establish a farmland ownership system for farmers in order to make tenant farmers free from their status and promote economic independence. However, the past habitual routines such as small-scale agricultural production, low intellectual

level of awareness, and so forth remained at actual circumstances in the rural community. Therefore, they were not so much interested in social and economic independence and improvement of their status due to farmland ownership. In some cases, contrary to the intention of land reform, abandonment of cultivation, migration and exodus from farming, black-market dealings of farmland and even degeneration into secret tenant farmers were done (Kim Sung Ho et al., 1989, p.822). Thus, a role to sort out and rectify activities such as migration and exodus from farming and black-market dealings in the process of transferring the ownership of farmland was as important as ownership transfer.

Meanwhile, registration was processed in accordance with the Real Estate Registration Act. Therefore, the process of ownership transfer registration for distributed farmland should have complied with the Real Estate Registration Act due to lack of regulations in the Land Reform Act. However, changes in the ownership of distributed farmland were not made through free trade between landlords and farmers, but were forced by governmental authority of the country. Thus, unlike ownership transfer made by dealing and bestowal of general real estate, this held distinctiveness. Taking into account this distinctiveness, the Ministry of Agriculture and Forestry planned to enact separately a registration act on distributed farmland. But, enactment of a special act was withdrawn as it could have made the existing registration order fall into confusion. On August 31, 1951, the Ministry of Agriculture and Forestry enacted the Handling Key Point of Ownership Transfer Registration for Distributed Farmland by mutual agreement with the Supreme Court. This specified detailed procedures and enforcement methods for ownership transfer registration of distributed farmland. The features made allowance for the distinctiveness of registration for distributed farmland, although all procedures complied with the Real Estate Registration Act.

Registration for distributed farmland began in earnest from 1955 when the legal repayment period came to an end. However, the registration work performed by employees of *eup* and *myeon* (rural administrative districts) reached the limit in terms of processing capacity. The District Court and Registrar also thought that it was desirable to entrust professional groups with the registration work for rapid processing of registration. As the final supervisory authority, the Supreme Court entrusted the Korea Judicial Scrivener Association with ownership transfer registration work *en bloc*.

As of the end of November 1959, 650,000 out of the total of 1,550,000 farm households that received distributed farmland were completed with regard to ownership transfer registration for distributed farmland. 450,000 out of 900,000 unregistered farm households were estimated pre-dealing farm households (Kim Sung Ho et al., 1989, p.834). Article 16 of the Land Reform Act prohibited random disposal of ownership for distributed farmland prior to completion of repayment, and Article 15 limited the ownership transfer registration made by the government to only a person who received distributed farmland once s/he

completed repayments for farmland price. Also, Article 19 provided that direct dealing was possible for only distributed farmland of which repayment was completed. However, in spite of these legal regulations, the appearance of approximately 450,000 pre-dealing farm households, corresponding to 50% of unregistered farm households, was as follows. First, there were not a few cases in which farmers who had received distributed farmland, had then died or gone missing due to the Korean War. Second, it was common to sell off farmland and move from farming due to extreme fluctuations of the rural economy. Third, standardization of farmland was in progress due to the exodus of poor farm households who received small-scale distributed farmland.

As a result of this migration of farmland, the farmland could not be registered in his/her own name (even though they were the real owners of the farmland) under the current law, in case of taking over and cultivating distributed farmland. Resulting from discussion on measures against pre-dealing farmland, the government set a policy to enact a temporary law. The main content was to allow ownership transfer in cases in which a person, who purchased farmland of which repayment had been completed, was the actual farmer and the farmland did not exceed 3 acres. The National Assembly passed this bill unanimously on April 27, 1961 in a way that this bill was directly connected with farmers' interests. This law was a temporary statute valid until May 4, 1963, 2 years from the promulgation of the law. Nonetheless, applied by the law, unregistered distributed farmland was estimated to be 284,000 cases ahead to the due date. Contrary to the expectations at the time of enactment, registration results were poor due to lack of recognition, and so half of the total of target farmland remained unregistered. Consequently, amendments were inevitable to prolong the period of validity. The government submitted amendments prolonging the period of validity by 1 and half year again to the National Assembly and these amendments were passed and promulgated (Kim Sung Ho et al., 1989, p.838).

3.4.2. Accounting on the Land Reform Project

Along with the implementation of land reform, accounting system could fall into 3 phases depending on the time of implementation. As the preliminary stage from the preparation period right before implementing land reform to 1951, the first phase was the period in which accounting systems were not properly equipped. During this period, revenues and expenditures of the land reform project were organized and executed through general accounting. As for devolving farmland, they were executed during 3 years from 1949 to 1951 according to the 'Act on the Special Accounts for Devolving Farmland Management' enacted in February 1950. The second phase was the period between 1952 and 1961. During this phase, the special accounts for the land reform project were established in 1952 in order to operate separately farmland price accounts and devolving farmland

management accounts. The third and final phase was a period for terminating the project, having various complicated issues that were not resolved despite a low amount of project work. Specifically, the budget for revenues and expenditures of the land reform project was managed through general accounting, as the Act on Special Accounts for the Land Reform Project was abolished in 1961.

As the Land Reform Act was promulgated on June 21, 1949, it was important to raise expenses necessary to enforce the law. The government submitted 502 million won worth of a revised supplementary budget as the first-year expenses to the National Assembly on December 1, 1949. However, the government allocated 100.44 million won out of the governmental reserve fund as the deliberation on the budget in the National Assembly was delayed. Then, resulting from a curtailment of appropriation in the process of deliberation in the National Assembly, the budget was confirmed to be 349.69 million won on March 21, 1950. As the budget was secured, distribution of acquired farmland was carried out. As repayments for the farmland price began, the appropriation of the revenue became available in the budget and the expenditure budget was properly organized.

However, a financially independent accounting was needed in order to facilitate the land reform project. Although devolving farmland was operated according to the ‘Act on the Special Accounts for Devolving Farmland Management’, it was inevitable that a special account for operating funds for the land reform project such as newly launched repayment for land price of distributed farmland and compensation for landlords be established. There were sharp interagency conflicts surrounding the revenue from devolving farmland in the process of the government’s legislation, but eventually the Act on Special Accounts for the Land Reform Project was enacted on April 12, 1952. Except for some administrative costs, the revenue from devolving farmland was used for farmland improvement projects since the national finances at the time were not enough to prepare for these expenses.

Meanwhile, extreme inflation under way over the period of the land reform project led to the downfall of small- and medium-scale landlords who received land securities as payment for acquired farmland. On the other hand, this inflation significantly contributed to the funding of the land reform project. Surplus on the special accounts for the land reform project came from the difference between the amount of repayments and compensation.

The farmland improvement projects to establish the foundation for agricultural productivity had been carried out to aim at landlords in the past. There was, however, no doubt that the farmland improvement projects were implemented mainly for farmers after land reform. In particular, it was impossible for poor independent farmers to afford improved agricultural technology as well as improvement and repair of irrigation facilities that landlords used to be in charge of in the past. Accordingly, the Land Reform Act

mandated that the government conduct the land improvement projects. Likewise, the land improvement projects were implemented in earnest as the Act on Special Accounts for the Land Reform Project fully supported for the land improvement projects. From 1953 to 1960, the projects corresponding to an annual average of 9,654 *jungbo* were promoted (Kim Sung Ho et al., 1989, p.862).

As the Act on Special Accounts for the Land Reform Project was abolished on December 31, 1961, the claims and obligations occurring in the special accounts were all taken over to general accounting. Since 1962, the budget for the land reform project was organized through general accounting. Revenue mostly consisted of repayment for farmland price, and expenditure was composed of expenses of the land reform project as well as compensation for farmland price and the land improvement projects. During this period, the land reform project was already more than 90% completed, and the remaining work was handled. Although the workload was not heavy, there were many unresolved problems. For instance, in terms of repayment for farmland price, default on repayment fell short of 1% of the total repayments, however it was practically impossible to collect them normally since the target farmland was troublesome farmland (Kim Sung Ho et al., 1989, p.868).

3.5. Litigation and Project Completion

3.5.1. Litigation

In order to realize the principle of “land to the tillers”, land reform was enforced regardless of any opinions of stakeholders. However, there was much left to do with regard to legal or procedural aspects, as the land reform project was the first implemented project. Specially, as soon as the land reform project was launched, the Korean War broke out and so the confusion was exacerbated. In this process, a lot of disputes such as petitions, appeals and accusations were made, but they were spread to judicial processes due to lack of administrative handling.

Appealed to the Farmland Committee, objection cases on the Land Reform Act were originally to have gotten deliberation and decision. However, the land reform litigation system gave rise to confusion, as there were many examples of directly filing lawsuits against cases that were not passed through mediation of the Farmland Committee. The Supreme Court ruled that an objection to the Land Reform Act should not become an administrative litigation but only a civil suit. As a result, most of administrative litigation cases proceeded to file civil suits as the plaintiffs withdrew the cases voluntarily.

Litigation for return of distributed farmland with defaulters who did not repay the farmland prices was filed based on Article 18 of the Land Reform Act. In January 1957, the Ministry of Agriculture and Forestry and Ministry of Justice enacted the litigation case handling tips for facilitating efficient litigation and simplifying the litigation process. In November 1957, hands-on training was offered for officials who were in charge of litigation cases, aiming to increase the quality and efficiency of their work.

Meanwhile, the government filed litigation for return of compensation paid in error in the process of terminating the land reform project. The compensation paid in error was compensation that was already paid for overpaid portions of land securities, which had been over issued by mistake or had been issued without any legitimate reasons (Kim Sung Ho et al., 1989, p.893). On May 10, 1961, the Ministry of Agriculture and Forestry established policies to collect the amount of overpaid compensation through litigation with people who avoided, denied and neglected the notice of repayment for the amount paid in error according to the handbook for termination of the land reform project enacted to wrap up the project. The main issues in the litigation process included compensation bonds and extinctive prescription. As long as there were any other regulations in law, the fact that bonds had a 5-year extinctive prescription was the Supreme Court's precedent. Accordingly, the compensation bonds paid in error resulted in extinction of prescription. The compensation for acquired farmland had almost entirely been issued during the legal compensation period between 1950 and 1954, whereas litigation was filed in earnest after 1961. With regard to return of compensation paid in error, the Supreme Court interpreted that it was practically possible to claim it from the time when compensation paid in error had occurred, so that the government could file litigation for return of compensation paid in error.

3.5.2. Project Termination

As of the end of 1959, 10 years after implementation, the land reform project had almost entered the final stage. As the project performance was examined as a quantity of each sector, compensation for farmland price amounted to 96%, repayment 98.7%, cadastral survey 89.8%, ownership registration of distributed farmland 63% and ownership registration except for transfer registration reached over 90% (Kim Sung Ho et al., 1989, p.913). According to the Land Reform Act, the period for compensation and repayment was 5 years, so the settlement process was supposed to begin from 1955. However, the biggest reason for the delay of settlement was an interruption of the project due to the outbreak of the war. Next, agricultural production depended upon natural conditions due to the nature of agriculture, so it was too much to complete repayment in kind within 5 years in considering actual conditions of farm households. Therefore, the land reform project could not be done as planned.

Meanwhile, acquisition and distribution of farmland were done simultaneously in 1950. Nonetheless, people who were left out in distribution at that time continued to receive distributed land at the local government's discretion afterward. Compensation and repayment for farmland price were applied retroactively to the year 1950. Also, 'new distribution' farmland – that which newly took effect in terms of acquisition and distribution – was additionally distributed. Particularly, farmland distribution was a unique privilege of mayors and the heads of city, county and village, it was not interfered with by higher authorities unless an illegal problem was clear. Over time, there was a case of acquiring property by exploiting farmland distribution and a dispute might occur in some regions (Kim Sung Ho et al., 1989, p.913). In order to prevent disordered handling, the Ministry of Agriculture and Forestry introduced a prior approval system for farmland distribution on February 13, 1960. In cases of new distribution or disposal of farmland or distribution omitted farmland, prior approval of the Minister of Agriculture and Forestry was needed and the scale and criteria of distributed farmland needed to be clear. The implementation of a prior approval system provided an opportunity to prevent civil appeals and wrap up the land reform project at the same time.

The land reform project was terminated through collecting and settling repayments. Thus, settlement work was actively examined after the repayment period had passed. On May 4, 1960, the Ministry of Agriculture and Forestry prepared the "handling tips for settlement work on repayment in kind for farmland price" and instructed each city and province to abide by them, in order to unify the settlement work.

The last step of land reform was the procedure to transfer ownership to farm households that received distributed farmland. Like dealing, random disposal of the distributed farmland was prohibited before repayment was completed. Nevertheless, as of the end of 1959, 450,000 farm households corresponding to 50% of the total farm households with distributed farmland unregistered were identified as pre-acquired farm households, which was why ownership transfer was delayed. It could not be said that the land reform project was completed when there still remained distributed farmland of which registration had not completed. Thus, the handling of pre-dealing farmland was a problem to be certainly resolved by law at the level of project termination. In order to solve this problem, the government introduced the 'Act on Special Measures for Ownership Transfer Registration of Distributed Farmland' as a temporary act, so that the government allowed ownership registration of pre-acquired farm households when they, as eligible farm households in the Land Reform Act, had paid delinquent repayments. As a result of the two-time extension of the validity period, ownership transfer registration was facilitated for a full 4-year 2-month period until the end of June 1965, promoting the project wrap-up (Kim Sung Ho et al., 1989, p.916).

Due to the 4.19 Revolution in 1960, the Liberal Party regime collapsed. The new Democratic Party regime wanted to complete unsolved projects of the old regime as soon as possible. Grappling with the termination of the land reform project, the Ministry of Agriculture and Forestry submitted the handbook for termination of the land reform project to a cabinet council and the new government determined it. In the step of finalizing the project, the 5.16 Revolution became another turning point. The problems unsolved by then were compensation for farmland-affiliated facilities, part of ownership transfer registration of distributed farmland, litigation against the government, and so on. It was not appropriate to establish an exclusive organization beyond a central or local department in order to handle the problems. Hence, the new government reduced organization of office, shortly afterward the Act on Special Accounts for the Land Reform Project was abolished.

According to the handbook for termination of the land reform project, the project wrap-up proceeded in perfect order, resulting in remarkable performance. Specifically, owing to the definite termination of farmland distribution, farmers who had not yet received distributed farmland for some reason could not but depend on litigation as the last resort. Litigation was filed against the country or between stakeholders. Contrary to the government's expectations, the judgment mostly passed for the direction of identifying target distributed farmland such as checking the government's acquisition as well as the right of cultivation. The entire confrontation between law and the government's measures to resolve important cases unsolved by that time was inevitable. As a result, termination of farmland distribution was emerging. In this atmosphere, legislation work rapidly progressed in order to terminate the land reform project. In 1964, a bill to terminate the land reform project began deliberation for the first time. Eventually, the "Act on Special Measures for Termination of the Land Reform Project" was enacted in 1968. The focal point of the act was that the handling period was 1 year from the effective date of this act and repayments for farmland price were paid within 1 year. This act was to resolve the issues that were not solved by the Land Reform Act or relevant laws. Therefore, this act eliminated disputes by getting rid of the friction between the administration and the judiciary and clearly regulating the issues exerting a bad influence upon the project termination.

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Land Reform in Korea

Chapter 4

Evaluations of Land Reform in Korea

1. Economical Aspect
2. Social and Political Aspects

Evaluations of Land Reform in Korea

1. Economical Aspect

Various evaluations on Korea's land reform have been done historically. The past evaluations on land reform were done dominantly based on ideological decisions rather than empirical analyses. In particular, Korea's land reform could hardly be free from ideological color in the point that North Korea's land reform and the U.S. played a decisive role in Korea's land reform. Land reform had an extensive effect on politics, economy and society, so land reform would not reasonably be evaluated if it were assessed only in respect of the economy. Thus, in this report, evaluations on land reform are examined in respect of the economy together with society and politics. The economical aspect of land reform is examined from the viewpoint of agricultural production, income redistribution, industrialization, human capital development, and so on. The social aspect of land reform deals with changes in social structure, specifically the progress of becoming an independent farmer and changes to standards of living due to land reform. Finally, the political aspect of land reform is considered from the viewpoint of corruption elimination amongst the effects of land reform on Korea's democracy in the respect that land reform is a kind of reformation program.

Evaluations on Korea's land reform have changed with the times. From the implementation of land reform to the 1980s, the whole atmosphere was full of a negative view of land reform (Kim Sung Ho, 1989, p.2-4). This position was represented by the sentiment that "Not only is land reform recognized as very limited 'historical meaning', but it also cherishes farmers' poverty and identity of agricultural production (Yoo In Ho, 1975, p.174)". Behind this negative view, the idea that "South Korea's land reform (at-a-cost principle) is inferior to North Korea's (free-of-charge principle)" is tacitly required (Kim Sung Ho, 1989, p.3).

Ideological evaluations on South Korea's land reform have been largely alleviated through working on awareness of facts on land reform. Nonetheless, as pointed out in Kim Sung Ho et al's (1989, p.4-11) 'The Studies on the History of Land Reform', which is the most representative research relevant to land reform, the fact that the Korean government has still not published any business report relating to land reform brings its negative position to land reform upon itself. Evaluations on land reform implemented in the Korean community are comprehensively examined in the paragraphs below. In Chapter 4, complementing these contents, an empirical analysis is attempted.

1.1. Production of Agricultural Products

Land reform has an effect on agricultural production in one form or another. The cause of a positive effect of land reform on agricultural production can be referred to as the development of independent farmers caused by land reform. As tenant farmers are switched to independent farmers, agricultural incentives can play a significant role in increasing agricultural production. On the contrary, land reform could have a negative effect on agricultural production. The main reason is due to the reduction of the size of farmland as well as diminished investment ability. As unit areas under farming get smaller, agricultural productivity could be reduced according to economy of scale. If farmers' investment ability after land reform is getting to be less than that of the time in the landlord system of the past, agricultural production can decline. In this regard, it is difficult to lexically identify an effect of land reform on agricultural production. If positive effects of land reform on agricultural production overpower negative effects, agricultural production increases, while if not, land reform can reduce agricultural production. Thus, it is examined below how Korea's land reform has affected agricultural production.

In order to examine the effects of land reform on agricultural production, the tendency of agricultural production growth rate during the Japanese colonial period is compared to that after land reform. The agricultural production growth rate in the 1930s was an annual average rate of 2.9%, while that in the 1950s after the Korean War was 3.6%. Based on rice production reflecting the effects of land reform much better, it was at the level of 3.7% in the 1930s, while it declined at the level of 2.7% during the period 1957 to 1969. Specifically, it is estimated that the agricultural production growth rate including rice in the 1950s reflected little effect on production increase caused by land reform in consideration of the period to restore agricultural production diminished during the war.

The most important reason why land reform did not contribute to increasing agricultural production is that in becoming independent farmers, tenant farmers did not have enough money to invest in agriculture. According to Ban Sung Hwan et al. (1989, p.234), landlords in the 1930s took responsibility for major capital expenditures such as cash expenses and

5-10 day labor input, and also invested in the input of agricultural materials such as seed, chemical fertilizers and farming equipment. Before liberation, rental contracts on paddy land conventionally included 50% of agricultural products, but landlords were entirely in charge of capital expenditures and agricultural inputs. However, as tenant farmers became petty landlords through land reform, they could not afford to increase investment. As a result, a verification on whether land reform increased agricultural production or not can be done through comparative analysis on whether the investment increased by tenant farmers after land reform exceeded the previous investment landlords had made or not. However, as Ban Sung Hwan et al. (1989) pointed out, verification through comparative analysis is realistically impossible due to lack of data on agricultural investment. In consideration of the situation at the time, tenant farmers were too poor to afford the previous level of agricultural investment at which landlords used to invest. According to some studies, the amount of expenditures landlords paid for the investment in agricultural production accounted for approximately 20% of annual production. In addition, in a situation where farmers barely made ends meet at the time right after land reform, it was practically impossible for them to invest in agricultural input equivalent to 20% of agricultural products. If investment of farmers cannot reach the last level, an alternative can be enlargement of agricultural production through the government's support. That is to say, if the government lends money at low interest rates to farmers, the farmers can afford their investment in agricultural production. It is not possible to verify how much money or why farmers borrowed money at that time since the farm households' economy survey from the National Statistical Office was not conducted before 1962. However, in examining the size and composition of farm households' debt in the annals of finance and economy published by the Bank of Korea (2000, p.87, p.153), it can be confirmed that farmers got into debt not to get a loan for investment in agricultural production but to get a household loan for their living. Namely, in consideration of the farm households' debt situation at the time, farmers increased their loans for living in harsh times, where they could not think of investment or financing for capital formation, so that in this situation it was hard to expect increasing agricultural production.

On the other hand, in order to examine the effects of land reform on agricultural productivity, the economy of scale that could occur in the process of dissolution of large-scale farming (over 3 hectares) and switch to small-scale farming should be considered. In examining the previous situation before land reform, the percentage of farm households that owned over 3 hectares as of 1945 was 4.1% of total farm households. Additionally, the farmland owned by those farm households accounted for 30% of the total farmland. However, an important issue relevant to economy of scale was whether the economy of scale existed for farmland larger than 3 hectares or not. In this context, as already seen in the results of the study from Pak et al. (1966, p.175), the economy of scale has not been

verified, resulting from estimating the production function of rice and barley with regard to independent farmers, independent-tenant farmers, tenant-independent farmers and tenant farmers.

Although the maximum amount of land ownership was limited to 3 hectares based on land reform, it was believed that the reduction of agricultural production, caused by the loss of economy of scale due to land reform, did not happen if the economies of scale did not exist before land reform. Thus, it should be verified whether the fact that setting up artificially the maximum amount of land ownership had caused small-scale farming to result in a negative effect on agricultural production or not. Land reform prohibited landowners from owning large-scale farmland, over 3 hectares, but it did not create small-scale farming. During the Japanese colonial period, 50% of Korea's farm households cultivated less than 0.5 hectares, which was higher than the percentage of farm households cultivating less than 0.5 hectares after land reform. The reason why the area of farmland constantly increased after land reform was not only because marginal farm households left farming, but also because farmland was expanded through cultivation or reclamation. Specifically, in examining the tendency of changes of farmland size, it was shown that farm households that could not support their family due to small-scale farmland size changed farmland size per household. In fact, after land reform, the number of farm households cultivating less than 0.5 hectares constantly declined, while that of farm households cultivating 1-2 hectares increased. The fact that farmers could adjust farmland size per household by themselves means that the efficiency of agricultural management would be improved to that extent. For this reason, the contention that setting up the maximum of land ownership reduced agricultural production through reduction of economy of scale just conflicts with reality.

Table 4-1 | Composition of Land Size (1945-1973)

(Unit: %)

Land size	1945	1955	1960	1965	1970	1973
Under 0.3 ha	10.4	5.8	5.3	3.8	3.4	3.4
0.3-0.5 ha		12.2	11.4	8.6	7.3	8
0.5-1.0 ha		29.2	27.9	26.7	27.8	26.9
1.0-2.0 ha	40	35.9	37	40.5	40.6	41.4
2.0-3.0 ha		15.9	17.3	15.3	13.6	13.3
Over 3.0 ha	26.4	1	1.2	5.1	7.3	7

Source: Ministry of Agriculture (1968, 1974)

In examining the effects of land reform on agricultural production, the loss of agricultural production caused by the loss of economy of scale was very little, but it had a negative effect on agricultural production due to lack of investment in agricultural capital made by independent farmers who had switched from being tenant farmers. Nonetheless, as a result of land reform, agricultural production increased. The government more than a little played a role in that process since land reform increased the government's fiscal revenue and agricultural production through increasing investment in the agricultural sector. In fact, part of the funds raised through land reform was invested in irrigation facilities, so that it was used for the improvement of the infrastructures for agricultural production.

Contrary to poor tenant farmers who could not afford to invest in agricultural production, the government raised funds through land reform and made use of part of them for agricultural investment. The background of the government's fund raising was because the government gave landlords little rewards and received the goods in kind. The government compensated landlords with land value stock and the base value of the stock was repaid in cash, calculated not at the market price but at the government's purchasing price. Also, the government received the goods in kind for repayment on distributed farmland from farmers. Part of the funds raised in this way was invested in irrigation facilities, so that it was used for the improvement of the infrastructures for agricultural production. Due to the expansion of irrigation facilities, the percentage of rain-fed fields declined from 34.4% to 19.4% and the area of farmland expanded by about 170,000 ha, from 1,710,000 ha to 1,880,000 ha. As a result, in terms of agricultural productivity, rice production increased from 1.03 to 1.54 and land utilization rate increased from 140.7% to 150.8%.

Likewise, agricultural production gradually increased as the government's agricultural investment expanded. However, as the surplus agricultural products of the U.S. came in bulk according to the conclusion of the introduction agreement on surplus agricultural products of the U.S. based on PL 480 in May 1955, grain prices plunged sharply and farmers' desire to produce declined, and so agricultural production used to record a negative growth rate. Despite the factors that lowered farmers' desire to produce such as surplus agricultural products and temporary land acquisition tax, agricultural production constantly expanded; food supplies increased from 200 million tons under Japanese imperialism to 350 million tons in the beginning of the 1960s.

1.2. Income Redistribution

Once landlords are rewarded at the market price in terms of distribution of farmland, this is not land reform but market price compensation. If tenant farmers could afford to purchase farmland at the market price, they would be switched to independent farmers without land reform. Income transfer from landlords to tenant farmers takes place in the way that land

reform has farmland rewarded at less than the market price. Korea's land reform is no exception. In the process of land reform, the biggest issues were farmers' compensation for farmland prices and tenant farmers' terms and conditions of repayment for farmland. Income redistribution of land reform is considered, divided into two parts: land reform under the U.S. Military Government and land reform after the establishment of the Korean government.

First, the land reform under the U.S. Military Government is examined. In terms of the land reform implemented by the U.S. Military Government, the amount of compensation for the Japanese-owned land was determined to be 3 times the annual average production of the land, which was the amount reflecting the real price of the land after the 1930s. The U.S. Military Government made use of the level of production in the 1930s as the data on computation of compensation. The method of compensation was to pay 20% of the production made over 15 years. From the viewpoint of tenant farmers, the burden was greatly reduced compared to the past tenant rental of 50%. Additionally, the practical land price was far below 2 times the annual average production of the land if the amount of compensation was discounted by the interest rate of 10% reflecting the level of rural areas at the time. Therefore, the land reform under the U.S. Military Government contributed to tenant farmers' asset development by compensating landlords at relatively low prices.

The land reform of the Korean government was evaluated as intensive reformation. After 1948 when Korea's independent government was established, all politicians adopted a party platform, which included an election pledge of a principle of farmer ownership, and this was clearly stated in the constitution as well. After liberation, Korea's landlords were in a weak position due to the blemish of their cooperation with the occupying Japanese. Although the landlord class, and politicians of the Korea Democratic Party on their behalf, tried to prevent legislation of the Farmland Reform Act several times, they could not overcome the limit. Therefore, it was possible that Korea's land reform to be an intensive reformation compared to that of other countries. Accordingly, the amount of compensation to landlords also could be appropriated lower than under the U.S. Military Government. According to the Farmland Reform Act established in 1949, the compensation rate decreased to 1.5 times the agricultural production. Repayment and compensation on the land price were annually made at 30% of annual production over 5 years. Applying a discount rate of 10% to this, it actually accounted for 1.13 times the annual production. Moreover, landlords were rewarded with a government bond marked with rice for their land. The government did not repay the bond on time and landlords could not use the bond as collateral for applying for a business loan, so the farmland government bond price sharply dropped in the bond market.

The loss of landlords caused by land reform occurred threefold. First, landlords were harmed by inflation according to the payment delay of compensation. Landlords' nominal

compensation was 11,760,000 *suk*, nonetheless it was practically 5,190,000 *suk*, which accounted for 44.8% of real compensation when calculated at the legal price of grain. Second, the real amount paid to landlords was paid not at the market price but at the legal price of grain and so the real amount of compensation decreased by that much. If it was calculated at the market price at that time, it accounted for 2,980,000 *suk*, which was only 25.3% of the nominal compensation. Lastly, landlords had sold the land value stock in advance, before they received compensation in cash. By and large, the selling price was around less than 50% of the stock price on average, depending on the repayment schedule. Likewise, most farmland capital of landlords collapsed without being accumulated into industrial capital (Kwon Byung Tak, 1984).

The compensation for landlords started on January 15, 1951. Landlords were awarded the amount of 8 million *suk* in grain units at the price fixed by the government for 5 years. Divided by per landlord unit, the average amount of per capita compensation was 30.2 *suk*; however, industrial capitalization of landlords' compensation originally intended with that kind of amount of compensation by the government was hardly practical. In addition, the Korean War and the landlord class's inexperience in industrial settings were a setback to the industrialization of landlords' capital.

Table 4-2 | Details of Compensation of Landlords for Land Price

(Unit: *suk*)

	Compensation amount	Number of people	Per capita compensation
1950	2,212,754	-	-
1951	2,152,802	-	-
1952	1,121,400	-	-
1953	883,940	-	-
1954	1,613,018	-	-
Total	7,983,914	264,271	30.2

Source: Kwon Byung Tak (1984)

Likewise, landlords suffered a huge loss, but the loss of landlords did not result in a benefit to farmers. As the Korean War began in June 1950, the government required a lot of grain for the military. In the process of procurement, the government provided war expenditures not only by letting farmers repay in kind, but also by paying landlords at the legal price of grain. Specifically, it was no small burden for farmers to repay rice equivalent to 30% of the annual production in the war. Thus, the situation arose where neither farmers nor landlords

wanted the government to distribute farmland, and so landlords avoided farmland bonds by selling directly their farmland. Tenant farmers had to repay 30% of the annual production in kind for 5 years and it was absurd that they would pay higher prices than the value of the farmland bond traded in the market.

Meanwhile, during the Japanese colonial period, landlords corresponding to 4% of the total rural population received the portion equivalent to 50% of production of major grains or 25% of income for land price. After land reform, Japanese landlords lost all, while Korean landlords were compensated at the level of 1/6-1/4 of farmland that they had owned before. In effect, landlords that had no income aside from farmland collapsed. Although independent farmers who had more than 3 hectares suffered a loss, they accounted for only 4% of the total.

Eventually, the primary beneficiary benefiting from land reform was the tenant farmers who were distributed farmland. However, the government made a huge profit from redistributed farmland during the period of repayment. The post-war restoration work as well as repayment for farmland progressed at the same time. Therefore, without this repayment plan, the government would have covered the corresponding grains in different ways. With completion of repayment for farmland, the tenant farmers who had paid 1/4-1/2 of production for land price in the past would not have paid for land price any longer, which could have increased personal income significantly. According to Moon Pal Yong et al. (1981, p.147), in terms of increase in personal income of tenant farmers, the point that “supposed that the gross agricultural production of before and after land had been the same, the decline by 80% in average income of farmers corresponding to the top 4% of the total would have been equal to the increase by 20-30% in average income of farmers corresponding to the bottom 80% who had been tenant farmers or independent-tenant farmers before 1948” was presumed. In the process, land reform left a lot of business surplus. The reason why business surplus took place was summarized into the following two things. On the one hand, business surplus resulted from the compensation of devolving farmland. Devolving farmland was not necessary to be compensated so that the full amount was left over. On the other hand, the reason was because repayment for farmland was made in kind, whereas compensation was offered in cash. Particularly, a huge difference took place in consideration of inflation at that time.

The size of business surplus in the process of land reform can be briefly estimated as follows. First of all, from 1945-1959, the total tax revenues from land reform was 439.4 billion won, of which direct expenditures disbursed to land reform such as compensation for land price and office expenses accounted for only 60.3% (Source book for land reform, 3-101). Therefore, the difference, business surplus, was invested in land improvement projects and agricultural technology improvement projects.

Table 4-3 | Settlement Details and Business Surplus of Special Accounting on Land Reform Project

(Unit: 1,000 won)

	Vested land	Distributed land	Total
Total tax revenue A	1,934,449	3,904,795	5,839,244
Repayment	1,696,537	3,618,683	5,313,220
Additional tax revenue	237,912	286,112	524,024
Total compensation B	-	2,072,392	2,072,392
Administration cost	641,911	896,283	1,538,194
Agriculture investment	975,930	724,990	1,700,920
Government revenue	316,608	211,130	527,738
surplus A-B	1,934,449	1,832,403	3,766,582

Source: Kim Sung Ho et al.(1988, p.1054)

With regard to generally distributed farmland as shown in <Table 4-3>, the size of business surplus was 18.3 billion won, equivalent to 3 times the total tax revenues from generally distributed farmland and was estimated to be 37.7 billion won, or 65% of the total tax revenues, in consideration of devolving distributed farmland together. Although generally distributed farmland should have been rewarded to landlords by collecting the repayment from farmers, the government took possession of approximately half of them as a surplus without compensating landlords. A considerable portion of business surplus was used for agricultural investment focusing on farmland improvement projects as well.

Meanwhile, the Land Reform Act was established by the government and the National Assembly, however it seemed that farmers took the lead in reformation when the real implementation process was examined. Resulting from land reform through farmers' active participation, land reform could be developed favorably for farmers. As Kwon Byung Tak (1984) estimated how and how much land reform contributed to socioeconomic development, this contribution size of land reform can be ultimately regarded as the income transferred from landlords to farmers. According to Kwon Byung Tak (1984), 1,550,000 households of tenant farmers and independent-tenant farmers, 75% of the total farmland households, purchased 643,000 ha at first out of 959,000 ha for tenant farming during the period 1946 to 1955 and then distributed 316,000 ha at a cost. Compared to the case before land reform, 14,261,250 *suk* was paid for land purchase and repayment costs and 32,478,750 *suk* was generated in revenue so that it was estimated to result in 18,261,500 *suk* in net income. This result was equivalent to 4.78 million *suk* of grain converted before land reform so that as a result of land reform, farmers could secure and dispose of 4.78 million

suk. However, the outbreak of the Korean War in the middle of the implementation of land reform largely constricted the redistribution effect of land reform. Specifically, small-scale farmland households could not but degrade to tenant farmers due to implementation of a temporary land acquisition tax system for the purpose of war expenditure, collection of around 30 miscellaneous fees, farmers' abnormal expenditure for conscription exemption, low price of grains policy through import of foreign grains, lack of an agricultural financial system and stagnation of agricultural movement.

1.3. Industrial Capital Formation

One of the goals of land reform was the conversion of landlords' land capital into industrial capital or conversion of landlords to capitalists, contributing to forming the capitalist class of Korea by promoting primitive accumulation of capital through land reform. However, industrial capital formation of Korea's land reform has been evaluated as a failure in the way that only very few of the landlord class succeeded in transforming to the capitalist class in the process of land reform; most landlords were ruined.

After liberation, accumulation of native capital was absent in Korea as industry did not have its earliest beginning except in the agricultural sector. The only native capital left in the country was land capital that had been going on since the Chosun Dynasty via the Japanese colonial period until post-liberation. Therefore, capital industrialization of land capital was a very significant task for Korea's industrialization. Particularly, right after his inauguration, the then-President Rhee Syngman promoted land reform under the slogan of 'Farmland To Farmers' in order to reform the basis of Korean society, since it was essential to eliminate conflict in relationships between landlords and tenant farmers in order to establish the market economy as well as democracy in Korea. With that background, President Rhee Syngman rushed into land reform.

President Rhee Syngman said, "In Korea where capital mostly exists in land, it could be possible to set to work on industry only if landlords provided their land, received money and raised capital (Seoul Shinmun, December 10, 1948)." He then implemented land reform in a form of confiscation at a cost and distribution at a cost, making a declaration saying that he would make the funds paid landlords for land flow into industrialization. Although landlords received land stock on condition that they should provide their fields and paddies, the Korean War began just 3 months after implementation of land reform. The government required huge funds to conduct war, and printed and circulated money, leading to wartime inflation. A price index demonstrated a preference of hyperinflation, skyrocketing from 100 in 1945 on the basis of Seoul wholesale price index to 855 in 1947, 1974 in 1950, 18,753 in 1951, 40,605 in 1952 and 50,863 in 1953. Landlords fleeing to Busan dumped their land stock which was nothing more than scraps of paper due to wartime inflation, making

use of them for living expenses. As a result, the landlord class around the Honam region collapsed and land capital, which was supposed to be used for economic revival and industry development, was washed away in the form of living expenses of landlords or consumption funds. Resulting from promotion of industrialization under poor accumulation of capital, companies fell into the condition of chronic lack of capital and so companies started with structural limitations, which meant they had no choice but to constantly depend on foreign loans and bank loans payable. Since the basis of small and medium sized businesses was very weak, it resulted in the situation where economic development had to rely on large-sized companies.

Meanwhile, the government compensated landlords by providing land stock at the government's legal spot price equally for 5 years. In examining details of compensation of landlords for land price shown in <Table 4-2>, the average amount of per capita compensation of landlords throughout 5 years accounted for 30.2 *suk*.

Compensation by providing land stock began on January 15, 1951. The government intended to draw the compensation of landlords to industrial capital. However, landlords could not convert the compensation into industrial capital. Above all, social instability and wartime inflation weakened investment motivations and landlords had a lack of desire and skills to manage modern companies even though they were highly educated.

As landlords who owned land capital, the 'native capital' of Korea, collapsed due to the Korean War, the government allowed corporate raiders to purchase land stock under disguised ownership and to pay them for takeovers of devolving companies. The government intended to draw land stock into industrial capital through this open-door policy.

A majority of landlords suffered from wartime inflation and disposed of their land stock at 40-80% of face value to prepare their living expenses, followed by collapse. On the contrary, emerging entrepreneurs purchased land stock cheap and paid the disposal price of devolving property, so that they easily had a chance to jump into the industrial capitalist class. The Chosun Ilbo newspaper reported a bargain sale of land stock during the Korean War as follows.

“The rumor that if you buy land stock, you will make money is spread, so that during the evacuation, the streets of Gwangbok-dong in Busan was crowded with people who were willing to sell or purchase. All sorts of signboards of securities companies were placarded and there were quite a few people who called themselves emerging stockbrokers with something collected while they were holding a leather bag and shouting, “Please buy stock”. Although it was only Korea Securities Co., Ltd. that was duly authorized by the government at that time, the rest of many securities companies and brokers were unlicensed and fake stockbrokers after all.”

After land reform, entrepreneurs made use of land stock as business funds and disposal prices of devolving property. Kim Yun Soo, chairman of Samyang Corporation, raised part of his investment funds with land stock when he established a sugar refinery and an agar factory in Ulsan in the beginning of the 1950s. Park Doo Byung, chairman of Doosan Group, paid 10% of disposal price of 34 billion won in land stock in the process of transferring Dongyang Beer Co. to private ownership and the land stock that had been purchased at 30% of the face value was allocated to the rest of the amount. Choi Jong Geon, chairman and founder of Sunkyung Textile Co., paid 130,000 *hwan*, deposit on purchasing, in land stock that Cha Chul Soon, indigenous landlord in Suwon, had owned in the process of transferring Sunkyung Textile Co. to private ownership. In addition, it was known that Kim Jong Whi, chairman and founder of Korea Hwayak Co., paid 1 billion won, part of deposit, in land stock that he had purchased cheap in the market in the process of transferring the company to private ownership.

Nonetheless, the success rate of landlord's capital conversion by making use of land stock was quite low. Specially, written in the Land Reform Act No. 10, measures of support for job change of landlords generally ended in failure. As landlords who owned over 400 *suk* were regarded as the target of job change, the number of landlords who could be converted into the capitalist class was estimated to be approximately 3,400 at the time of land reform. However, the number of applications for job change was 181, of which the number of job placements was 90 and the number of successful cases was only 20. Above all, this was because landlords did not have experience and skills to manage modern companies. Except for precious few extraordinary cases, the conversion into capitalists ended in failure. Although landlords failed to convert into capitalists, it was looked into that most of them made a living through educating and letting their children begin the world. According to one study, resulting from a survey on 418 of landlords from the Honam region who had received over 20 ha at the time of land reform, the number of landlords who succeeded in converting into industrial capitalists was merely 47 among them. Only 11% of landlords succeeded; jumping on the bandwagon called industrial capitalization of land capital was easier said than done.

During land reform, the percentage of the amount brought to purchase devolving property in the total compensation of land stock paid for general compensation was tallied. Half of the disposal price for the total devolving companies was paid in land stock, resulting in industrial capitalization. The rest of it was used for living expenses, consumption funds, and so on.

Song In Sang, who served in the Rhee Syngman government as the Minister of Revival and the Minister of Finance and played a role of top leader in formulating and implementing economic policy, looked back upon the land reform of the Rhee Syngman government as follows.

“Land reform was implemented under a principle of farmer ownership, which means that farmers own the land, not landlord or tenant system. However, as seen in Taiwan, I still feel regret if the landlords’ capital from land reform had been connected to disposal of devolving property and then converted into industrial capitalization. Due to the Korean War right after land reform, the inflation rate exploded by more than 50% per year. Owing to inflation, the value of the land stock owned by landlords plunged, resulting in no conversion into industrial capital. Land capital, sole native capital, was not converted into industrial capital, so that the shortage of capital intensified in Korea.”

However, since the landlord class who owned sole capital at that time did not have any experience in industry, it was not possible for them to manage companies despite conversion of land capital into industrial capitalization. The failure of Jeonju Textile Co., a detailed case related to this, was examined. 5 great landlords including Lee Bu Young, who owned 120 ha in Jeonju region, got private ownership of textile factories by investing 2/3 of land stock per person. As they had no experience in managing textile factories, they had employees, who had worked under Japanese imperialism, take over the management. Moreover, they had no knowledge of modern corporate management. They realized for the first time that they needed working funds besides disposal funds in order to take over and reopen factories. Thus, these 5 great landlords prepared working funds by saving money. However, besides working funds, a considerable burden was following. They gave up operation of the company and handed over it to Samyang Co. Ltd. Within one year of getting private ownership over textile factories, they lost their land stock. This example of failure on Jeonju Textile Co. was a general case showing how little landlords were aware of industry at that time.

Land reform dissipated the landlord class and contributed to Korea’s industrialization by excluding landlords’ influence, which was an impediment to the development of capitalism. Particularly, land reform allowed people to own land stock and receive devolving property, contributing to forming the capitalist class. In this process, the conversion of landlords into the capitalist class failed, whereas land capital was converted into industrial capital so that it became the foundation for Korea’s industrialization. According to Kim Sung Ho et al. (1989, p.1063), since land stock was paid for disposal funds of devolving companies, people who became capitalists through disposal of devolving companies enjoyed large-scale privilege. In the way that the land stock amounting to 53.6% of general compensation was used for disposal of devolving property, and this amounted to 42.8% of disposal of devolving companies, land reform has been deemed an opportunity to accumulate capitalist wealth in Korea.

1.4. Human Capital

Land reform itself has the temporary effect of property redistribution. Since land reform is a measure to distribute land free of charge or at a cost by legal measures from landlords who own vast tracts of land to tenant farmers, it is hard for land reform to have a significant effect on human capital formation in itself. However, as previously reviewed in Chapter 2, landlords had no incentive in expansion of public education under the system where landlords owned most of land, so the educational opportunities for farmers and their children decreased. Land reform restricts land ownership of great landlords, so landlords' resistance to expansion of educational opportunities will decrease. Consequently, the opportunity for public education will be able to be expanded. Thus, a theoretical background to explain the relationship between land reform and human capital is that this expanded public education can have a positive effect on industrialization. Regarded as the best expert in terms of land reform and industrialization, Prof. Galor has pointed out that Korea is a representative case of providing appropriate human resources required for industrialization due to successful land reform.

Kwon Byung Tak (1984) was the first to discuss the relationship between land reform and education in Korea. According to Kwon Byung Tak, farmers' children could be normally educated due to land reform based on the tendency of changes in the number of students before and after land reform. It was insisted that it was possible for farmers' children to get educated since annual income earned by farmers due to land reform reached 4,780,000 *suk*.

Table 4-4 | Number of Students (1935-1963)

(Unit: 1,000)

	Elementary School (A)	High School (B)	University (C)	B/A * 100	C/A
1935	717	34	3	4.7	0.4
45	1,366 (100)	89 (100)	8 (100)	6.5 (100)	0.6 (100)
52	2,369	445	33	18.8	1.4
55	2,877 (210.6)	749 (841.6)	79 (987.5)	26.0 (400)	2.7 (450)
60	3,621	820	98	22.6	2.7
63	4,422 (323.7)	1,030 (1,157.3)	127 (1,587.5)	23.3	2.9

As seen in <Table 4-4> above, the number of students in elementary school was 1.366 million in 1945, doubling to 2.877 million in 1955. While elementary school students doubled, high school students increased by 8.4 times and university students by 10 times. High school and university entrance rates after graduation of elementary school increased

by 4 times and 4.5 times respectively during the same period. Specifically, it cannot be denied that the education standards were greatly improved at that time in consideration of 3 years of the Korean War from 1950. The effects of Korea's land reform on human capital formation are examined in two ways. On the one hand, land reform let many private school foundations be established, leading to public education intensively focused on elementary education curriculum (Kim Young Hwa, 1997, p.154). On the other hand, land reform provided farmers with an economic base for education, resulting in contribution on human capital accumulation (Suh Chan Soo, 1987, p.84). Thus, land reform and promotion of private foundations are examined below.

Land reform led to promotion of private foundations by setting up an exception to target land for reformation in the process of legislation; this was clearly shown in the Land Reform Act No. 6, 7, 8 and Article No. 27. The Land Reform Act excluded the land used for education institutions and academic purposes. The legal provisions related to private foundations are as follows (Suh Chan Soo, 1987, p.84-85).

No. 6. The farmland below is not bought according to the act.

(4) Farmland determined to be necessary to change the purpose of use for the government, public organizations and educational institutions

(5) Self-cultivated farmland owned by authorized schools and welfare foundations at the level of religious organizations, but the farmland owned by educational foundations are bought according to what is determined separately

(6) Farmland within the extent of licensing used for specific purposes such as academic research

Likewise, the government excluded the land used by private foundations from reformation targets and induced some landlords to participate voluntarily in educational foundations by admitting exceptions with regard to compensation and donations. In the meantime, the government did not apply a lapse rate to compensation for education, culture, research, and welfare foundations and provided special favors for educational foundations in terms of compensation method. Regarding compensation, it was a principle to make a payment in won at the annual decisive price of agricultural products in annual installments for 5 years, however it was possible to pay in a lump sum or reduce the payment period if the compensation was a small amount of money or the compensation was used for education, culture and research foundations. In addition, the government prohibited selling, buying and giving non self-cultivating farmland, whereas the Land Reform Act permitted giving to education, charity and miscellaneous public organizations as exceptions (Kim Sung Ho et al., 1989, p.751).

Established based on basic properties of farmland and forest, 128 educational foundations had 20,000 ha of their owned farmland bought. People involved in educational foundations organized an Educational Foundation Association, requesting legislation of a special act to protect and foster educational foundations. The contents of the requests were as follows: The compensation should be paid in a lump sum and be prohibited from having a lapse rate applied to educational foundation-owned farmland and assessing specially farmland, the government should facilitate a loan on security of stock when paid by stock, and the government should guarantee a dividend of over 60% annually on stock invested in favorable government-run companies. The National Assembly and government promulgated the Special Compensation Act and Enforcement Ordinance on educational foundation-owned farmland on July 18, 1951 and May 7, 1953 respectively to reflect opinions of the Educational Foundation Association on educational foundation-owned farmland. According to the Special Compensation Act, it had to be determined to compensate by 300% instead of 150% in Item 1 of Article 1 of No. 7 of the Land Reform Act with regard to evaluation of the farmland owned by educational foundations granted permission of foundation by April 30, 1950. Also, the amount corresponding to 150% of compensation could be paid in devolving property. It was brought into regulation that when the educational foundations, which had their farmland purchased, applied for the purchase of devolving property, the government should sell them to the educational foundations according to the ranking of educational foundations. The privilege of educational foundations through the legislation of the special act provided new opportunities for landlords who were driven into a corner at that time (Kim Sung Ho et al., 1989, p.752).

First of all, the position titled ‘founder of a private school’ served as a momentum to acknowledge social status of landlords under the cause of returning property to society. The double compensation, which was not applied a lapse rate for educational foundations contrary to general compensation, contributed to transfer of farmland to educational foundations. According to of Enforcement Ordinance No. 3 of the Special Compensation Act, the special act to the educational foundations granted permission of foundation needed to be applied by April 30, 1950 (Kim Sung Ho et al., 1989, p.753). At the time, 10 months had gone by since the Land Reform Act had been passed in June 1949. In other words, landlords were provided with 10 months during which they could convert their land into educational foundation-owned land. Likewise, legislation of the special act and provision of incentives in the process of legislation were likely to contribute to fostering private school foundations. However, it is difficult to determine how much they contributed. By examining private school growth rate just at the point before and after land reform, it can be identified indirectly how much it contributed to fostering private foundations.

Table 4-5 | Number of Private Schools

(Unit: number of school)

	Junior High School	High School	University
1943	39 [67]	-	10
1947	114 [120]	-	23
1953	246	144	49
1957	424	256	49
1963	452	284	71
1968	641	396	80
1973	718	491	110
1978	730	614	139

Source: Suh Chan Soo (1987)

In <Table 4-5> above, it can be seen that the number of private schools by each education level showed a higher rate of increase for the period from 1943 to 1953 than for any other periods. Especially, in terms of universities, the number quintupled in the same period. Although it is hard to verify that all private schools were established according to the special act at that time, a fair number of these schools were likely to benefit from the Special Act on Educational Foundation Ownership.

Likewise, many private school foundations took part in secondary, higher and university education so that the government could concentrate only on elementary education. In 1947, 3/4 of the educational expenses of the government went into compulsory education. Only 12% of the amount required of public education besides compulsory education was borne by the government, whereas the remaining 88% was comprised of burdens on private school foundations and their students (Seo Chan Soo, 1987, p.87). In particular, Korea experienced difficulties in raising funds including educational expenses. Under these circumstances, an inroad of private school foundations into secondary and higher education caused by land reform was of significant help to the government, enabling the government to concentrate only on elementary education. After all, farmers' children, who were educated in elementary, secondary and higher education due to many private school foundations established from land reform, could play the leading roles in economic growth during the period from the end of the 1960s to the 1970s.

On the other hand, land reform contributed to human capital development in the way that it prepared economic bases for the public to be educated. From the viewpoint of distribution, land reform returned tenant rental, which was vested in landlords as well as land capitalists

before land reform, to farmers producing agricultural products directly. According to Seo Chan Soo (1987, p.89), the tenant rentals accounted for 4.78 million *suk* annually. Farmers could sell off 4.78 million *suk* of grain freely due to land reform, so that they could have their children receive regular education. Without land reform, farmers could not have afforded high educational expenses for their children and it would not have been possible for Korean society to develop human capital. The reason Korea was poor in accumulation of human capital traditionally despite high passion for education was that farmers could not raise funds for children's education. If the national finances were adequate, the accumulation of human capital could be possible through completely free education. However, the Korean government could not afford free education since it always had a lack of funds historically. Therefore, most of the public was not provided with any opportunity to be educated. The high burden of private education had an effect on human capital development through two channels. Firstly, a majority of children had to cover all the educational expenses, which private schools charged, for themselves when they entered schools above the secondary level. Secondly, although elementary curriculum and public secondary schools claimed to stand for free education, parents had to pay a portion of educational expenses due to lack of governmental finances.

Eventually, Korea could achieve a groundbreaking human capital accumulation once land reform was engaged with reinforcement policy on compulsory education. The Rhee Syngman government implemented the "6-year Compulsory Education Plan" on June 1, 1950 after legislating the Education Act in 1949. The government increased the educational budget from 8.9% of the governmental budget in 1948 to 15.2% in 1960 in order to expand compulsory education and establish schools and classes, so that it enlarged public education for people. As a result, the goal of the 6-year Compulsory Education Plan was achieved through reaching the rate of enrollment of 96% of all school-aged children by 1959. In this point, promoted along with education policy at the same time, the land reform of the Rhee Syngman government largely contributed to the human capital accumulation in Korean society. As seen in Shin Hyuk Hwak's memoirs below, then-President Rhee Syngman's viewpoint on education was not a fluke but foresight to look ahead into Korea's future.

"The 1950s was a period when no achievement would be visible no matter how you tried. We were laying the foundations of economic development in undergoing the Korean War. Education was the most urgent and important thing in the 1950s. Unless the educational foundations had been arranged in the period of Rhee Syngman, the economic development could not have been possible in the period of Park Jung Hee. We made restoring educational facilities from elementary school to university a top priority of the country. In order to expand educational facilities, President Rhee opened private schools extensively. Based on such an effort, we already reached close to the level of developed countries in the world in

educational sector in the period of Rhee Syngman. Opening the Wartime-United University in Pusan, the temporary capital, during the war, President Rhee made undergraduate students enroll at the University. He also ordered the Cabinet to prohibit the university students from entering the army, saying that the university students should be kept no matter what happens. The blame from the public fell on him, saying, ‘Should we, only a pushover, go into a battlefield to become cannon fodder?’ However, President Rhee made up his mind and said, “We absolutely need talented people in order to develop our country after the war. There is no choice despite such blame.”

2. Social and Political Aspects

2.1. Collapse of Landlords and Formation of Independent Farming

Although a caste system was officially abolished in Korean society due to the Gabo Reform of 1894, it still remained until the end of the Japanese colonial period. The discrimination between the Yangban class and the lowest class legally disappeared due to emancipation of slaves, nonetheless there were still many farmhands working for rich farmers and middle-class farmers. After liberation, what farmers (comprising a majority of the public) eagerly hoped for was land reform. The U.S. Military Government and the Rhee Syngman government supported land reform in taking into consideration that land reform would become the most effective way to secure legitimacy and fight against communism. On the other hand, the landlord class tried to resist land reform, but it was beyond their capability due to their pro-Japanese activities under the Japanese imperialism. Right after implementing land reform, the Korean War took place, whereas both the North and South Korean government accepted land reform as an established need. Therefore, the caste system, which had been established based on the relationship between landlords and tenant farmers, practically disintegrated. The conversion of tenant farming into independent farming rapidly progressed as the landlord class collapsed due to land reform and the Korean War. Extensive creation of independent farmers moves farmers toward conservatism in Korea like in Japan, which contributed to settling market economic order in Korean society. However, the Korean War dealt a crucial blow to the poor independent farming system, since it passed on the burden of war expenditures to farmers who had relatively minimal damage, as the war seemed to head towards prolongation. Farmers who had received distributed farmland made a payment in kind for loan repayment, taxes including the temporary farm-income tax converged to farmers and agricultural production infrastructure became precarious due to the introduction of surplus agricultural products of the U.S.

Meanwhile, the collapse of the landlord class incurred a huge change in Korean society. As the Korea Democratic Party representing the landlord class was losing ground, it lost power against reformation. Consequently, land reform progressed swiftly. Continuing from the Japanese colonial period, farmer movements such as tenancy disputes lost bases and disappeared due to the collapse of the landlord class.

There were no accurate statistics of how many landlords were in Korea before and after land reform. According to studies on land reform history, landlords for whom land reform was intended were estimated at 169,803. Resulting from a survey of the real conditions in rural communities on June 21, 1949 in order to examine the size of target area before implementation of land reform, the size of target area for distribution was 601,049 *jungbo* and the number of landlords who owned these farmlands was 78,978. (Guidelines of Land Reform, Ministry of Agriculture and Forestry) According to Kim Sung Ho et al. (1989, p.1012), tenant landlords as a percentage of target landlords were estimated at 54.8% (43,312) and poor landlords at 45.2% (35,666).

The collapse of the landlord class had begun before land reform and was identified in the trend of changes in the number of landlords who had a harvest of over 500 *suk*. During the period from the end of Japanese imperialism, 1943, to land reform, the number of great landlords and the size of their land area constantly declined, which showed that the landlord class had collapsed before the beginning of land reform. From 1943 to 1946, the number of landlords decreased by 29.5%, from 1,680 to 1,184, and the size of their land area by 33.4%, from 172,732 *jungbo* to 114,983 *jungbo*. The reason why the landlord class drastically diminished was due to a random disposal (Kim Sung Ho, 1989, p.1014). The Korea Democratic Party, representing the landlord class, interrupted attempts to prevent landlords from randomly disposing of their land through the Committee on Industry of the National Assembly. At that time, President Rhee Syngman tried to restrict the landlords' random disposal by taking potent means, however they failed due to the opposition of the Committee on Industry of the National Assembly dominated by the Korea Democratic Party. As a result, random disposal took place openly and legally, and the government's land reform dealt with the remaining area that the landlord class did not dispose of. Likewise, landlords' selling off tenant farming land beforehand countered the effects of land reform by excluding the land, which was supposed to be a target for land reform.

Table 4-6 | Trend in the Number of Landlords Who Had Harvest of over 500 *Suk*(Unit: 30 *jungbo*)

	Before Land Reform		After 1950
	June 1943	December 1946	
No. of Landlords	1,680	1,184	700
Area	172,732	114,983	62,668

Source: Kim et al. (1989, p.1015)

It is later examined how much land landlords sold off before land reform. After liberation, the Korean landlords owned farmland that was a target for land reform changed from 1.24 million *jungbo* to 281,000 *jungbo* in 1951 after land reform, resulting in 77.3% of farmland ownership transfer. The Korean tenant farming land out of the total 1.51 million *jungbo* of farmland for distribution diminished from 1.24 million as of 1945 to 1.056 million as of June 1947. Namely, 184,000 *jungbo*, 14.8% of the target farmland, was transferred to farmers within 2 years. At that time, the absentee landlord-owned farmland in urban area was mostly purchased. Some of it was purchased by returning compatriots, who wanted to cultivate independently in those farmlands after liberation. As of June 1949, the distribution-required farmland accounted for 597,000 *jungbo* so 459,000 *Jung-bo* of farmland was dealt in within 2 years after 1947. Eventually, it can be seen that over 50% of the distribution-required farmland was dealt in before land reform (Kwon Bung Tak, 1984, p.194).

Table 4-7 | Trend of the Korean Tenant Farming Land (1945-1951)(Unit: 10 thousand *jungbo*)

	Required Farmland Distribution	Real Distributed Farmland
December 1945	124.0(100)	
June 1947	105.6(85.2)	18.4 (by buying-selling)
June 1949	59.7(48.1)	45.9 (by buying-selling)
April 1951	28.1(22.7)	31.6 (by law)

Source: Chosun Bank 1945-49, *Economic Yearbook* (1949), *Financial Union Combination* (1951), *Agriculture Yearbook* (1955), *Byung-Tak, Kwon* (1984, p.195)

At the time, there were two conflicting views over landlords' selling off of tenant farming land beforehand. Meanwhile, some people leveled the criticism that farmers were forced to purchase farmland at a high price, so that they ended up with a lot of debt and landlords'

land capital also collapsed. However, as empirical studies related to land reform after the 1980s progressed, the criticism that the farmland deals of the day were done at a high price under pressure has been denied. As pointed out by Chang Sang Hwan (1985), Kim Sung Ho (1989), and others, it was aptly illustrated that landlords' selling off of tenant farming land beforehand was regarded as part of the process of land reform intending to disband the landlord system and build an independent farming system. That is to say, farmland trading occurred when farmers' demand for purchasing farmland was equal to landlords' supply for selling off their land at that time. As seen in <Table 4-7>, farmland transfer warmed up, so that 643,000 *jungbo* out of 1.24 million *jungbo* and 51.9% of the distribution-required farmland were transferred within 4 years.

As a result, 281,000 *jungbo* of the distribution-required farmland were excluded from land reform. The reason why land reform was not completely implemented was due to general farmland. At the time of land reform, general farmland and devolving farmland amounted to 830,000 *jungbo*, for which the distribution-required farmland accounted. 96.6% of the devolving farmland was completed, whereas only 52.9% of the general farmland was carried through. According to Kwon Byung Tak (1984, p.198), in the process of land reform, the Agricultural Committee carried out all tasks relevant to land reform such as acquisition, distribution, compensation, conciliation on conflicts and so on. In fact, tenant and independent farmers actively took part in the Committee. However, the Agricultural Committee excluded some land from target land in terms of resident landlords from the viewpoint of traditional ethics. In particular, according to Articles 2 and 4 of Chapter 6 of the Land Reform Act, self-managing orchards, commercial real estate, farmland where perennial plants were cultivated and farmland authorized by the government, public organizations and educational institutes to be required for changing the purpose of use were excluded from the target land. Consequently, new orchards and educational institutes became independent, being granted exceptions to do so. Also, the landlords who gave farmland for tenant farming out of poor landlords having less than 3 hectares were none or lacked an independent labor force. In this case, it was taken for granted that the farmland would become target land for land reform owing to self-cultivating farmland. However, this farmland was excluded from target land for land reform as the Agricultural Committee granted exceptions to the farmland. Additionally, based on a legal exception that the farmland owned by people who temporarily moved to the rural community owing to unavoidable circumstances such as diseases, public duties, enrollment in school, etc. should be put on hold, the farmland was excluded from target land.

Table 4-8 | Results of Land Reform In Accordance With Law (1949. 6.-1951. 4.)

(Unit: 10,000 jungbo)

	Total	General Land	Nested Land
1949.6 (Land required Reform)	83.0 (100)	59.7 (100)	23.3 (100)
1951.4 (Reformed Land)	54.1 (65.2)	31.6 (52.9)	22.5 (96.6)

Source: Kwon Byung Tak (1984, p.196)

At the time of liberation, the total area of tenant farmland accounted for 1,447,000 *jungbo*; 714,000 *jungbo*, equivalent to 49.2% of the total tenant farming land, was sold off beforehand. Devolving land and distributed land were 273,000 and 302,000 *jungbo* respectively, so that they amounted to 39.9% of the total tenant farming land (Refer to <Table 4-9>).

Table 4-9 | Results of Landlords' Random Selling Off of Tenant Farming Land

(Unit: 1,000 jungbo)

	Nested Land	Distributed Land	Landlord Selling	Holdings		Holdings (at the time of Independence)
				Excluding Distributed Land	Covered	
Land Area	273	302	714	74	84	1,447
Proportion	18.9	21	49.2	5.1	5.8	100
	39.9		49.2	10.9		

Source: Cho Suk Gon (2001, p.347)

For a while, the criticism that the effect of land reform was halved became dominant due to the point that a large amount of land was sold off by landlords prior to land reform. But, landlords' random selling off land had positive effects from the viewpoint of creating independent farmers. Landlords would never have sold off their land beforehand, unless there had been the threat of land reform. Moreover, the price at which landlords sold their farmland to tenant farmers was also close to the level of a bargain sale rather than selling off. As pointed out by Cho Suk Gon (2001), it is desirable that evaluation of land reform is examined from the viewpoint of significance and limitation of land reform. In this regard, it is also desirable that landlords' selling off is determined as an indirect effect of land reform. Consequently, the proportion of tenant farming land, which had run to 65%, dropped to 8.1% at the end of 1951 right after land reform. This contributed to stability in the rural community by fulfilling farmers' desire for land and led to the increase in farm households'

net income and the maximum control over population outflow into cities caused by the net income increase. The population per farm household gradually increased from 5.83 in 1949 and reached the peak of 6.35 in 1964, thereafter declining steadily.

Lastly, how land reform contributed to creation of independent farmers is examined through changes in farm household ownership types before and after land reform. According to Kim Sung Ho et al. (1989), the proportion of independent farmers was 14.2% in 1945, 17.0% in 1947 and after land reform it went up to 80.7% in 1951. On the other hand, the proportion of independent-tenant farmers was 35.6% in 1945, 39.6% in 1947 and 41.4% in 1949, then it dropped sharply to 15.4% in 1951. Namely, about 2/3 of independent-tenant farmers became independent farmers. The proportion of tenant farmers ran to 50.2% in 1945, 43.4% in 1947 and 21.2% in 1949, before dropping sharply to 3.9% in 1951.

In conclusion, Korea's land reform was carried out through the government's farmland distribution and landlords' farmland disposal. Founded on land for several hundred years, the landlord class collapsed. In addition, more than 95% of the total farmland became independent farming land within a short period of time.

Table 4-10 | Trend of the Number of Farm Households Based on Farmland Ownership Types Before and After Land Reform

(Unit: 10 thousand, %)

Year	Total Agrarian Households	Owners	Cultivators	Tenants
1945	2,010 (100)	285 (14.2)	716 (35.6)	1,010 (50.2)
1947	2,106 (100)	358 (17.0)	834 (39.6)	914 (43.4)
1949	2,474 (100)	925 (37.4)	1,023 (41.4)	526 (21.2)
1951	2,184 (100)	1,763 (80.7)	336 (15.4)	85 (3.9)
1960	2,350 (100)	1,729 (73.6)	461 (19.6)	160 (6.8)
1970	2,483 (100)	1,651 (66.5)	591 (23.8)	241 (9.7)
1980	2,155 (100)	1,205 (55.9)	853 (39.6)	97 (4.5)

Source: Kim Seung-Ho (1989, p.1034)

2.2. Standard of Living

Accounting for 75% of the total population in the 1930s, the rural population continuously decreased to 2,965,000 in 2011. The rapid decline of the rural population is closely related with life in the rural community. It is examined below how land reform had an effect on the standard of living in rural communities: what changes happened in farmers' standard

of living and farm households' income, compared to people who live in urban areas, which positions people in the rural community occupied, and so on.

According to Ban Sung Hwan et al. (1981, p.239-264), the average income per farm household showed a marginal improvement in the 1960s, compared to the 1930s. This was because agricultural productivity did not increase distinctly due to land reform. If farm households' income increased due to land reform, it could be interpreted as a diminishing of the portion of payment for tenant rental in prohibiting the tenant farming system.

Table 4-11 | Net Income of Farm Households After Payment for Tenant Rental

(Unit: 1,000 won)

	Earnings	Rent	Earnings-Rent
1933	370.55	84.29	286.26
1938	406.19	117.44	288.75
1962	327.89	3.83	324.06
1965	327.74	6	321.74
1970	382.44	9.69	372.75
1973	421.83	8.03	423.8
1975	436.82	9.29	427.83

Source: Mun Pal Yong et al. (1981. P.264)

As shown in <Table 4-11> above, the changes in farmers' standard of living can be explained from two different perspectives. One is the increase in agricultural production. Compared to the 1930s, farm household incomes began increasing in earnest from the 1970s. Therefore, it is hard to discuss the extent of improvement in life in the rural community clearly due to increases in farm household incomes before that point. Also, due to lack of the data on farm household incomes, farm household incomes after land reform cannot be estimated accurately. As supposed circumstantially, it is difficult to say that farm household incomes in the 1950s exceeded the income level under Japanese imperialism. In other words, there is no obvious evidence to identify that farm household incomes increased in a short period of time due to land reform. On the other hand, although there was no increase in farm household incomes, the standard of living in the rural community could be improved as rental diminished remarkably due to land reform.

Meanwhile, there is a limitation to a quantitative approach to farm household incomes in the 1950s, since the farm household economy survey started being carried out in 1962. Thus, an indirect method should be utilized in order to examine farmers' standard of living in the 1950s. First of all, the changes in the standard of living are examined with the utilization

of statistics reflecting the lifestyle of the time. The unemployment rate was 13-15% in the early 1950s and gradually increased. The unemployment rate was estimated at 15.4% in the base year of 1958, when the 3-year economic development plan was established, and 14.1% in the target year of 1961. However, it can be seen that the unemployment rate in 1958 was underestimated. On top of that, refugees from North Korea made national life extremely difficult in wartime as well.

At least, the urban area was better off as the basic supply for vital commodities was done to some extent through the United Nations' CRIK (Civil Relief in Korea) aid and a food distribution system for government officials. However, farming conditions were definitively worse in the rural community due to the war and a sharp drop in grain prices caused by massive inflow of grain aid made farmers' lives difficult. Specifically, the price difference between agricultural products and other products was deepening during the war, resulting in a marked decline in farmers' desire for farming. This caused the congestion of agricultural productivity as well as the deterioration of farm household profitability. Likewise, deficit farming and an increase in farm household loans urged farmers to have no choice but sell their farmland. As a result, farmers returned to become tenant farmers and the exodus from the agricultural sector was becoming worse. Especially, the situation of deficit farming continued in wartime, so the barley hump appeared in earnest in spring poverty due to continuous occurrence of food-short farm households. Since the food-short farm households sold rice before the harvest in their own way, which cornered farmers into a deadly situation, the government strongly cracked down on the cases. Nonetheless, selling rice before the harvest remained common practice and farm households that could not afford to do so had no choice but to move away from the rural community. In order to prevent the exodus of the food-short farm households from the rural community, the government encouraged farm households to cultivate special crops and supported them through special funding to pay off high-interest loans at that time, which was wanting in ability to diminish food-short farm households.

According to the comparison of management profitability between agriculture and non-agriculture in the economic yearbook (1955) published by the Bank of Korea, disposable income in the non-agricultural sectors increased by 121%, while expenditures increased by 91%, resulting in surplus. In the agricultural sector, disposable income increased by 33%, but expenditures increased by 37%, resulting in deficit. Meanwhile, according to the economic statistics research from the Bank of Korea, the management profitability per farm household was constantly in deficit.

Table 4-12 | Changes of Average Management Profitability per Farm Household in the 1950s

(Unit: 1,000 won)

	Income			Expenditure			Balance
	Farm Income	Others	Total	Farm Expenditure	Others	Total	
1954	146	25	171	21	153	174	-4
1955	307	43	350	43	307	350	-0.2
1956	460	85	545	65	490	555	-10
1957	485	114	599	66	546	612	-13
1958	429	142	571	122	484	606	-35
1959	412	133	545	131	428	559	-14

Source: *Economic Statistics*, Bank of Korea (1960, p.280-283)

As shown in <Table 4-12>, the extent of the farm households' deficit was not so great during the period from 1954 to 1955. However, deficits began increasing sharply from 1956 and ran to 35% in 1958. In spite of a bumper year in 1958, the largest deficit in farm household profitability was recorded, with an average income of 599,000 *hwan* and expenditures of 612,000 *hwan*. The income of farm households was enough to show the reason. The income of farm households was growing at a rapid rate until 1957, while it shrank noticeably after 1958 as grain prices dropped significantly due to the surplus agricultural products introduced by the U.S. Likewise, the standard of living in the rural community was considerably damaged by the introduction of the surplus agricultural products after the middle 1950s.

In Korea, the proportion of introduced grains in national consumption of grains was not insignificant before the full-scale introduction of the surplus agricultural products as well. Since the harvest was in bad shape both in 1951 and 1952, the government called on the U.S. to provide as much food aid as possible. However, the U.S. provided superabundant barley and wheat although the barley crop was very large in 1953. As a result, the barley crops were completely ruined. As seen below in <Table 4-13>, the ratio of rice import to rice production was 13% with the rice production of 2.033 million tons and the import of 134,000 tons in 1953, when rice was most imported. Meanwhile, the ratio of barley import ran to 86.4% in the same year. Resulting from this introduction of food aid focusing on mostly wheat and flour, shrinkage in Korea's wheat farming was unavoidable.

Table 4-13 | National Grain Production and Grain Aid in the Early 1950s

(Unit: ton)

	Output		Input		Proportion (B/A)
	Rice	Barley (A)	Rice	Barley (B)	
1950	2,103	699	13	15	2.1
1951	1,634	409	128	72	17.6
1952	1,377	584	134	215	36.8
1953	2,036	690	272	596	86.4
1954	2,161	870	15	163	18.7
Total	9,311	3,252	562	1,061	161.6

Source: Bank of Korea (1957)

In accordance with PL 480, full-scale introduction of the surplus agricultural products began from the end of 1956. This period was the time when national grain production largely increased. Nonetheless, the size of grain aid did not diminish, but increased. Consequently, the increasing grain aid had adverse effects on farm household income, aggravating farmers' standard of living.

Table 4-14 | National Grain Production and Grain Aid in the Late 1950s

(Unit: ton)

	Output		Aid		Aid/Output
	Rice	Barley	PL 480	MSA 402	
1956	1,840	722	238	199	15.2
1957	2,266	685	299	478	24.2
1958	2,390	837	695	91	22.4
1959	2,391	963	89	107	5.4
Total	8,887	3,207	1,321	875	67.2

Source: *Korean 20-years' Agricultural Administration*; National Cooperative Federation (1965)

Meanwhile, the temporary farm-income tax was pointed out as one of the factors making life in the rural community difficult. In order to contribute to prevention of currency expansion and grain policy, the temporary farm-income tax was introduced on September 1951 by integrating tax on land revenue with payment of tax in kind to control instability of the national economy caused by the Korean War. A top priority that the Rhee Syngman government had to resolve in going through the war was food supplies for soldiers and

urban people. In order to secure food for the army and cities through collection of grains, the Rhee Syngman government established the temporary farm-income tax for preventing currency expansion. The government applied a progressive tax rate under the justification of guaranteeing the livelihood of petty farmers at that time. However, the rate of 15% collected from petty farmers harvesting less than 10 *suk* was a huge burden for the farmers.

The reason why the life of farmers was tougher was because land reform was implemented at a cost and there was a situation where they had to pay 30% of production for 5 years in repayment of land granted according to the Land Reform Act. Most petty farmers harvesting 10 *suk* to less than 20 *suk* had to pay 45% of their annual production for land price and taxes, which was a huge burden for the farmers.

In order to examine life in the rural community, the size and composition of farm household debt in the 1950s were determined. The farm household debt was 1,066 hwan in the early 1950s, jumping to 67,788 hwan in 1959. It was composed of 63% in private loans, 30% in debt from financial institutions and 7% in *gye*. High-interest rate of private loan and *gye* ran to nearly 70% and the ratio of farm households with debt to the total farm households represented 90%.

Table 4-15 | Size and Composition of Farm Household Debt in the 1950s

(Unit: won)

	1951	1952	1953	1956	1957	1958	1959
No. of Households	522	182	14,012	23,262	25,447	27,655	630
Proportion of Debt Agrarian Households (%)				86.7	89.8	88.8	91.1
Debt per household	1,066	2,509	4,036	39,370	46,232	65,252	67,788
Components (%)							
1) Private Loan			73	76	70	73	63
2) Financial Institution			19	18	22	21	30
3) Total			8	6	8	6	7

Source: Bank of Korea (2000)

As seen in <Table 4-15>, the then farm household debt was not farming capital but consumption-oriented household capital. Not only daily cash liabilities but also debts in kind borrowed for immediate food shortage on a base in goods comprised a large portion of the total debt. Debt in kind captured 60% of farm household debt in 1953, which represented that food-short farmers borrowed rice on security of next year's harvest in advance. As the composition of debt was examined, the highest was food debt of 46.3%, the next was

farming capital of 26.9% and the rest was housework capital such as miscellaneous medical expenses, educational expenses, etc. Passing through the war after land reform, it is evident that life in the rural communities was not improved at all.

The accumulated deficit of farm households resulted in an increase in farm household debt and the hardship of living caused by increasing debt became more serious. Deficit of household profitability was not only a rural problem. Household profitability in Seoul was also in deficit, with the exception of the year 1958, and the size of household deficit ran to 16% of the gross household income. This level of deficit was similar to the size of farm household deficit. However, urban household deficit was solved by various transfers and secret income, while there was no choice but to dispose of tangible assets such as farmland or farming cattle in the rural community.

In this respect, life in the rural community was not yet improved in the 1950s despite land reform. Farmers had been greatly damaged from the war above all; nonetheless, they had to afford a considerable part of the war expenditure. In order to avoid financial bankruptcy caused by the war, farmers had to pay taxes additionally, even in kind. The system of payment in kind for taxes was very rare in modern countries. However, the government inevitably levied taxes in kind to curb wartime inflation at that time.

2.3. Corruption Eradication

Land reform contributed significantly to Korea's political development. Above all, land reform had a significant effect with regard to elimination of corruption. As examined in Chapter 2, the Philippines somewhat moved ahead of Korea in terms of GDP and per capita GDP after World War II. However, the Philippines failed in land reform due to the culture of nepotism between the landlord class and the ruling class, while Korea successfully implemented land reform. Likewise, the culture of nepotism weakened national organizations and raised a hotbed of corruption, resulting in hindrance factors of economic growth. Resulting from a comparative study on reasons for corruption among countries, corruption was significantly associated with economic growth, democracy, religion, racial diversity, extent of trade openness, income inequality, etc. (Treisman, 2000). Additionally, as a result of empirical analysis on the relationship between these factors and corruption, the relationship between income inequality and corruption was most clearly shown.

The relationship between income inequality and corruption has been explained as follows. On the one hand, the landlord class, who had political power, bought off national organizations to be able to protect their benefits from farmers who wanted land reform. However, the possibility of corruption diminished in the countries where land reform was successfully implemented, since there was no such thing as a powerful landlord class able to

buy off national organizations. On the other hand, educational opportunities were extended in the countries where land reform was successfully implemented, as farmers' standard of living was improved after land reform. Therefore, selection of governmental officials occurred through fair competition. However, intervention of power groups was frequent in the process of selecting governmental officials in the countries where land reform failed.

Easterly (2007) describes the relationship between income inequality and corruption as follows. It was emphasized that the public's desire for redistribution grew and the rich actively made use of corruption in order to protect their assets from desire for redistribution at that time, as inequality in income and property was more substantial. In particular, he pointed out that negative effects of income inequality on economic development took place through corruption and school education. But, inequality in income and property was closely related to land reform. As a result, inequality in income as well as the level of corruption level determined according to success or failure of land reform.

Korea's land reform and the Korean War led to equality in income and property in Korea. The war destroyed almost all industrial and commercial properties, and inflation made the value of bonds plunge. Disbanding the landlord class and extending educational opportunities led to high social migration and made an egalitarian society. Corruption amongst businessmen and political groups was prevalent in Korean society after the 1950s as well. Japanese-owned devolving properties were sold off to people connected to political groups. The Rhee Syngman government sold off the properties at prices lower than market value, so that people who had bought devolving properties benefited. Thus, these people returned part of their benefits to the governing party. Some of them who had bought devolving properties became *chaebol*, or powerful business conglomerates, afterward. The Rhee Syngman government's import substitution industrialization policy also provided the opportunity of corruption and rent seeking. There was a difference between import substitution and export-led industrialization policy with regard to rent seeking activity (Cho Hyun Jun, 1999). Under the import substitution industrialization policy, profitability of companies was significantly affected by the government's industry protection policy, while profitability was affected by competition rather than the government's protection under the export-led industrialization policy. Therefore, backlash from existing privileged class could be very strong in general in the case of changing policies from the import-substitution industrialization policy to the export-led industrialization policy. However, as for Korea, it was not hard to shift to an export-led industrialization policy since the political power of the companies benefiting from the import-substitution industrialization policy was not so significant (Cho Hyun Jun, 1999, p.270). Consequently, Korean society reached egalitarianism as the inequality in income and property was mostly settled in undergoing land reform and the Korean War. Although corruption took place in the process of disposal

of Japanese devolving properties and the import-substitution industrialization policy, factors that could reduce corruption also increased in going through the collapse of the caste system, the expansion of education. Specifically, the recruitment process for talented people in Korean society played an important role from the viewpoint of corruption elimination.

At that time, Korean society did not have any groups that had vested right economically. If a group that had a huge economical effect existed, government officials would be selected based on a culture of nepotism rather than fair competition. However, there was no group that had a huge economical effect in Korean society, so the recruitment process of government officials became meritocratic through fair competition. 80% of high-level government officials were recruited and promoted through the Higher Civil Service Examination. Especially, in terms of government officials higher than the level of deputy director, special appointments were diminishing as the level of dependence on the Higher Civil Service Examination increased (Kang, 2002).

Corruption elimination through land reform happened not only in Korea but also in Taiwan, where the following process like Korea's land reform can be seen: Land reform → Reduction of inequality → Training talented individuals → Increase in transparency → Corruption diminishment. After being liberated from Japan in 1945, Taiwan was governed by the Nationalist Party of Chiang Kai-shek. But, Taiwanese rose up against corruption and depredation of the Nationalist Party on February 28, 1947. The Nationalist Party lost the civil war against the Communist Party in China and fled to Taiwan, proclaiming martial law that lasted until 1987. The Nationalist Party government, an authoritarian government, developed bureaucracy based on integrity as well as a performance-based system. Although both the Chinese government and the Nationalist Party government were notorious for corruption, Chiang Kai-shek of the Nationalist Party succeeded in diminishing corruption most significantly through intensive reforms. The reason why Chiang Kai-shek could eradicate corruption was because the Nationalist Party government of Chiang Kai-shek was able to be free from Taiwanese landlords and corrupt officials. Based on this background, the Nationalist Party government gained the public's confidence by successfully promoting land reform during the period from 1949-1953. As the landlord class was disbanded due to land reform, strong special interest groups that could exert their influence on the government disappeared in Taiwan. As for Taiwan, political power came from Mainland China, whereas businesses were operated by Taiwanese. Therefore, corruption could be blocked since governmental organizations could be cut off from personal benefits (You, 2010).

2012 Modularization of Korea's Development Experience
Land Reform in Korea

Chapter 5

Conclusion and Implications

1. Land Reform in the 21st Century
2. Lessons from Korea's Experiences

Conclusion and Implications

1. Land Reform in the 21st Century

Since the 19th century, mankind has achieved economic growth that can never be comparable to the past (Maddison, 2001, Chapter 1). As a result, a considerable number of countries have benefited from the rapid economic growth unparalleled in history. Nevertheless, over 50 million people, most of whom live in rural communities, still experience severe poverty day by day (Prosterman, Hanstad, 2003, p.1). After World War II, many countries tried to implement land reform; however, a majority of countries experienced the failure of land reform, except some Asian countries like Korea and Taiwan.

As in the case of Korea and Taiwan, successful land reforms often took place in times of grand political change and were government-led. In many cases, the class of rural landless and near-landless people found powerful allies in other groups of society, and sometimes even from abroad. Land reforms might yield only limited success if land redistribution is not flanked by productivity-enhancing complementary reforms. Such complementary reforms might include improvements in general public infrastructure, better access to credit, improved inputs like new seed varieties, increased supply of fertilizer, extension services, and agricultural R&D. The Korean case showed focuses on the effects of agricultural technology adoption and productivity improvements since the early 1960s with the establishment of Rural Development Administration. Strongly positive effects on agricultural productivity are found from the increased use of fertilizer, improved seeds, pesticides, and related technical education in Korea during the 1960s. Effective agricultural technology adoption requires government effort and can have beneficial effects for the poor, thus reducing the relative income gap between the rich and the poor (Rudolf, 2011, p.2).

However, history has also taught that implementing successful land reform is not a simple task. The reason why land reform ended in failure in most cases is because land reform was used for political purposes without fulfilling pre-conditions of land reform. When international organizations or developed countries considered policy issues in order to support developing countries, the failures that a majority of developing countries experienced helped them exclude land reform. As a result, land reform vanished from the priority list of development policy in developing countries in the 1970s and 1980s.

Recently, as international attention to the poverty problem grows, the interest in land reform is being magnified in order to solve rural problems. Land reform newly reviewed in the 21st century totally differs from the past, huge land reform after World War II. Politically, there are no new independent countries free from a colonial period; economically, governments cannot afford to buy farmland from landlords at the national level. Thus, it seems likely that land reform in the 21st century should be promoted in order to achieve concrete objectives of poverty reduction.

In the 20th century, the typical method of land reform was to forcibly acquire farmland as defined by law from landlords and to redistribute it to tenant farmers or agricultural workers. Thus, land reform was regarded as a restriction to enhance the tenant farmers' rights by law. However, land reform in the 21st century essentially differs from that in the 20th century. The most important thing is to recognize stable rights to farmland through contracts for farmland and ownership of farmland. Specifically, the fact that these stable rights of farmers contribute to political and social stability should be clearly recognized. Land reform in the 21st century can benefit from lessons learned through the cumulative experience of land reform in the 20th century.

With regard to land reform in the 20th century, a government played a leading role in implementing large-scale land reform at national level. However, land reform in the 21st century should be carried out with a market-oriented and microscopic approach (Prosterman and Hanstad, 2003, p.15). Unlike the 20th century when the colonial period came to an end after World War II, the 21st century represents the fact that land reform is not a reform program any more to exert its influence over entire sectors such as politics, economy, society and so on at the national level. Therefore, as seen in Vietnam and China, it is desirable that land reform in the 21st century becomes a program guaranteeing stable land rights. If a country retains a collective farm system as seen in a few developing countries, it should foster a market-friendly environment, facilitate decollectivization as soon as possible, and establish a land registry in order to help the land market function.

In addition, it is hard to modify the relationship between landlords and tenant farmers at a time in the 21st century, unlike land reform in the 20th century. A government cannot

practically afford to acquire farmland from landlords and distribute it to tenant farmers. Hence, land reform that can stably retain the preceding tenancy relationship rather than land reform through transfer of ownership is more important. Along with this, a government should reinforce creation of favorable conditions such as provision of infrastructure-including road and electricity-and improvement of funds supporting ways to improve the agricultural environment in order to generate external economy.

Especially, it is likely to seek practical plans among microscopic level reform programs in order to help farmers concretely. For instance, even a tiny vegetable garden near a home can contribute to the improvement of farm households' income or nutrition, and can improve farmers' status. It is also valuable enough for a government to acquire farmland and redistribute vegetable garden to farmers. But, the previous failed experiments including the case of moving the poor farmers to isolated public land should not be repeated (Prosterman and Hanstad, 2003, p.15). Besides, land reform in the 21st century has to pay heed to the allocation issue of land rights within households, more focusing on women's rights to own farmland.

Finally, land reform should be implemented in a market-friendly way. To do so, documentation of land ownership is required. Only if a system of farmland ownership rights has been established can a modern relationship on agricultural production be developed. Korea, Japan and Taiwan have achieved successful land reform and one of the common backgrounds of these successes is that the countries established a registration system for farmland very early (Putzel, 2000, p.7). Meanwhile, in order to achieve market-friendly land reform, it is important to invigorate farmland transactions through negotiations between stakeholders – sellers and buyers – who want to trade in farmland. (Deininger, 1999) In the case of new farmland ownership or contracts made by voluntary negotiation between landlords and tenant farmers, a decentralized land reform can be achieved through minimal governmental intervention. This type of land reform has already been seen in Korean society. In Korea, landlords had disposed of land extensively before land reform was implemented (This report, Chapter 3, Paragraph 2). This type of voluntary trade is likely to be a typical type of negotiated reform strongly emphasized by Deininger (Putzel, 2000, p.15). It is necessary to foster a social and political ambiance in order to achieve voluntary trade between landlords and tenant farmers. This is because the contract can be concluded when both landlords and tenant farmers agree that the conditions for negotiation before land reform are more favorable than conditions that a government proposed.

2. Lessons from Korea's Experiences

Korea's land reform was implemented based on a compound combination of political, social and economic factors. In the way that Korea abolished a semi-feudal tenancy system as well as landlordism in a relatively short period of time, Korea's land reform is acclaimed as the most successful case of land reform all over the world. Therefore, a redistributive land reform at an early stage of development can be a crucial means to lay the basis for agricultural productivity gains while enhancing growth and poverty reduction prospects. Such government interventions can lead to both equity and efficiency gains. The background to Korea's outstanding achievement in the implementation of land reform is as follows.

To begin with, the role of farmers is the crucial point from the stakeholders' perspective. Requesting land reform strongly on behalf of farmer organizations and benefits to rural communities, numerous intellectuals developed diverse forms of farmer movements from the Japanese colonial period to after liberation so that the U.S Military Government in Korea and the Syngman Rhee government could not ignore the requests at all. If the U.S. Military Government in Korea and the Korean government had become a political prize, speaking for benefit of the landlords at the time, the requests of land reform would not have been accepted. Although a few politicians defended landlords' position at that time, landlords had lost their political power significantly throughout the Japanese colonial period. Therefore, they could not dispel a general trend of the time. Moreover, the U.S. wanted to stave off diffusion of communism and wanted South Korea to become the last bastion against communism, and so land reform accorded closely with the U.S.'s policy on the Korean peninsula. The Syngman Rhee government also wanted to weaken landlords' power and to obtain farmers' support so that more-intensive land reform was available to promote implementation.

Although Korea's land reform hardly had a substantial effect due to the Korean War, it did bring about a huge change in Korean society. First, accumulation of human capital was possible owing to land reform, resulting in a successful industrialization after the 1960s. The Syngman Rhee government promoted both land reform and education reform at the same time so human capital could be successfully accumulated in Korean society. In this respect, when land reform implemented in accordance with other related, it is certain that the effects of land reform can gradually increase. In promoting both land reform and education reform at the same time, a synergetic effect occurred with a virtuous circle in Korea. On the contrary, land reform did not contribute to agricultural production and improvement of farm households' income since it was not accompanied by any follow-up measures in order to achieve maximization of agricultural production. Although land reform enabled the switch from tenant farmers to independent farmers to be accomplished

successfully, the independent farmers had less than enough to invest in farming compared to the in the past, when they had worked for landlords. The past landlords made use of part of their agricultural products in funding for agricultural investment, while the new independent farmers could not afford to invest in farming. Accordingly, productivity was not expected to increase, and the increase of agricultural products was tardy in processing land reform. Although the government provided part of the surplus produced in processing land reform, the amount was not enough and even the life of farmers was getting worse since farmers were burdened by most taxation that was introduced to raise the necessary funds during the Korean War. Eventually, despite a successful land reform, the increase of farm households through increasing agricultural production did not happen. Since the 1960s, the government gradually increased investment in the agricultural sector, establishing the Rural Development Administration so that farm households' income began to increase in earnest.

Finally, if a land reform project is to be implemented effectively, government should be able to implement the reform project. Without government's efficient intervention, successful land reform cannot be achieved. Instead of discreet intervention, government should prepare laws, directives, regulations and relevant procedures in order to enforce the land reform law in a fair and transparent way. To this end, the government should be able to work together with the legislative body, the judiciary and the private sector. In this sense, government's ability to manage the national agenda is crucial to implementing land reform.

Lessons learned from Korea's experience of land reform are as follows. First, in order to achieve a successful land reform, the resistance of the privileged class on behalf of landlords should be overcome. As seen in the case of the Philippines, a successful land reform should not be expected if the privileged class and landlords formed a coalition. In Korea and Taiwan, the privileged class did not become a prize to landlords, and so it was possible to establish and implement land reform. Second, in order to aim to increase farm households' income through increasing agricultural production, land reform should be accompanied by follow-up measures. Third, in order to maximize the social benefits of land reform, education reform should be promoted at the same time. Finally, a government's ability to implement reforms matters both at establishment and implementation levels.

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Reassessment on Korea's Land Reform

1. Literature Survey

1.1. Review of Preceding Studies

Reviewing the effects of land reform from the viewpoint of economics and socio-politics, we try to analyze the accomplishments of Korea's land reform in this chapter. First of all, we'll see whether land reform contributes to industrialization and income growth or not through examining how Korea's land reform and human capital formation have been developed. Second, we have analyzed effects of land reform on agricultural production. Lastly, we have considered the effect of land reform on farmers' standard of living, evaluating the accomplishments of land reform based on these three analyses. Prior to the evaluation of Korea's land reform, we reviewed the results from preceding studies and discussed how we account for the preceding studies in order to fairly evaluate land reform.

So far, Pak (1966), Moon Pal Yong and Ban Seong Hwan (1981) have conducted a systematic analysis on Korea's land reform. Pak Gi Hyuk (1966) made a tremendous contribution to preparing basic data relevant to Korea's land reform based on detailed information on before, during and after of land reform. Therefore, it is not too much to say that most of the studies on Korea's land reform were conducted based on Pak's data. Following Pak Gi Hyuk, Moon Pal Yong and Ban Seong Hwan carried out a full-scale data collection relevant to agriculture including Korea's land reform.

Moon et al. (1981) estimated a gross agricultural production function of Korea's modernization period after land reform, using the Cobb-Douglas production function with the period of analysis from 1955 to 1974. Resulting from the estimation of the gross agricultural production function developed by Moon et al. (1981), there is a statistically

significant effect on cultivation area in all models, while there is no statistically significant effect on labor input. In terms of capital input, there is a statistically significant effect only on fixed capital input in the T-1 model, however there is no statistically significant effect on capital input in the other models. There is also a statistically significant effect on time variables and accumulated weather variables (regarded as control variables).

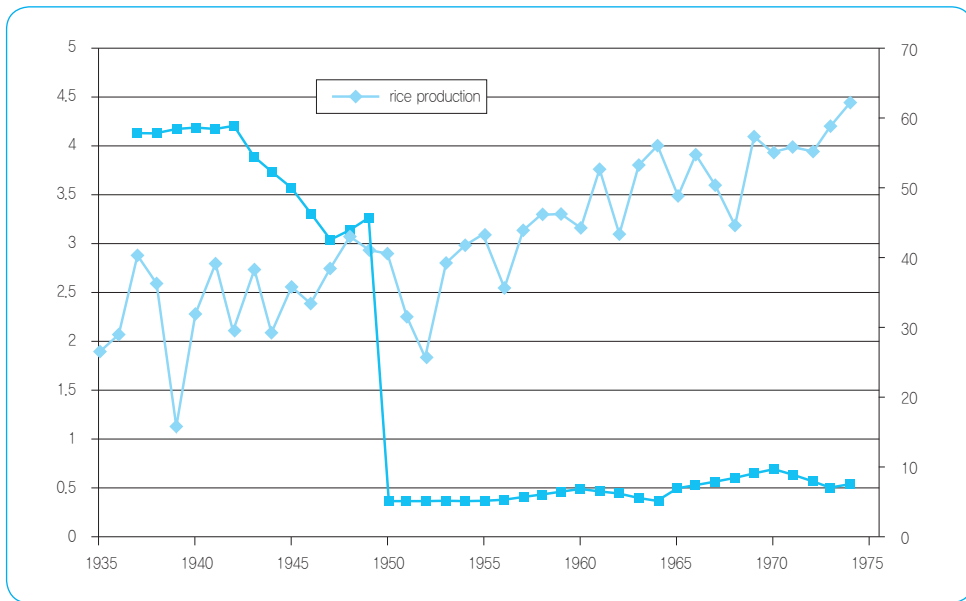
Since Pak Gi Hyuk, Moon Pal Yong and Ban Seong Hwan's studies, Jeon and Kim (2000) conducted a full-scale quantitative analysis pertaining to Korea's land reform, analyzing rice production, labor, land, capital and tenant farming rates during the period from 1937 to 1974, based on the Ministry of Agriculture and Fisheries' data from 1978. According to Jeon and Kim (2000), an agricultural production function including tenancy rate was estimated to examine accomplishments of land reform and the results are as follows. To begin with, similar to the results from Moon et al. (1981), the results of estimation on agricultural production function using rice production showed that there is a statistically significant effect on cultivation area, while there is no statistically significant effect on labor and capital input. Time trend indicates positive value (+) at the level of 1%, which means that there is a statistically significant increase on productivity. Also, there is a statistically significant effect on cultivation area at the level of 1%, while no effects are visible on labor and capital. Moreover, there is statistically significant effect on accumulated weather, division of territory and change of tenancy rate with negative (-) values, which means that rice production decreased in bad weather and division of territory and radical changes to the tenancy system had a negative effect on rice production as well. The most remarkable estimation result is that there is a statistically significant effect on tenancy rate with negative value at the level of 5%. This result shows the abolition of tenancy system caused by land reform had a positive effect on rice production, so the hypothesis that land reform failed to increase rice production was rejected. Based on the results, Jeon and Kim (2000) pointed out that market-oriented land reform providing economic incentive successfully increased rice production. After Jeon and Kim (2000), Rudolf (2012) published an article, quantitatively analyzing the economic effects of land reform. Making use of agricultural statistics such as gross agricultural output, agricultural population and number of agricultural households, he estimated agricultural production function, and then analyzed the effects of land reform on personal well-being. In addition, he estimated the effects of land reform on agricultural production as well as standard of living through modifying Korea's previous raw data. To start with, he examined the effects of land reform on the decline of tenancy rate in two ways. He demonstrated that the decline of tenancy rate and the diminution in inequality of cultivation area expressed through the Theil index does not have any direct effect on agricultural products. Namely, land reform itself does not have a direct effect on agricultural production; however, there is a statistically significant effect at an interval of 3 years, although he could not explain whether land reform had had an effect on agricultural production at the

interval of 3 years. In order to determine how land reform affected personal well-being, he examined changes in the height of Korean citizens. His research method that human height is used for substitution variable of biological standard of living has already been used in Komlos (1993), Komlos and Baten (1998), Steckel (1995, 2009), and others. According to these studies, genetic and environmental factors of human determine his final height. Although parental height is the most important factor in determining their children's height, it is argued that environmental factors have a considerable effect on children's height. In the case of Korea, Pak et al. (1966) specified the change of Engel's coefficient from 73.6 in 1954 to 59.3 in 1964, which indicates that the standard of living has been improved as much as the figure decreases. With this background, Rudolf (2012) examines Koreans' heights by year-of-birth (YOB) based on the results from the national nutrition survey conducted in 1998, 2001, 2005 and 2007, demonstrating that land reform contributed to the improvement of Korea's standard of living through verifying there is statistically significant effect on height changes in Korean males and females during the same period between the breakpoints: land reform in 1950 and the 1st Five-Year Plan. The average height of people who were born in between 1920 and 1987 increased by 8.1-12 cm for females, and by 7-9.6 cm for males. Rudolf insists that Korea's two land reforms contributed to the improvement of Korea's standard of living due to the fact that 2/3 of height increases occurred after land reform, specifically 45-50% of them since 1962/63.

1.2. Necessity of Supplement to Preceding Studies

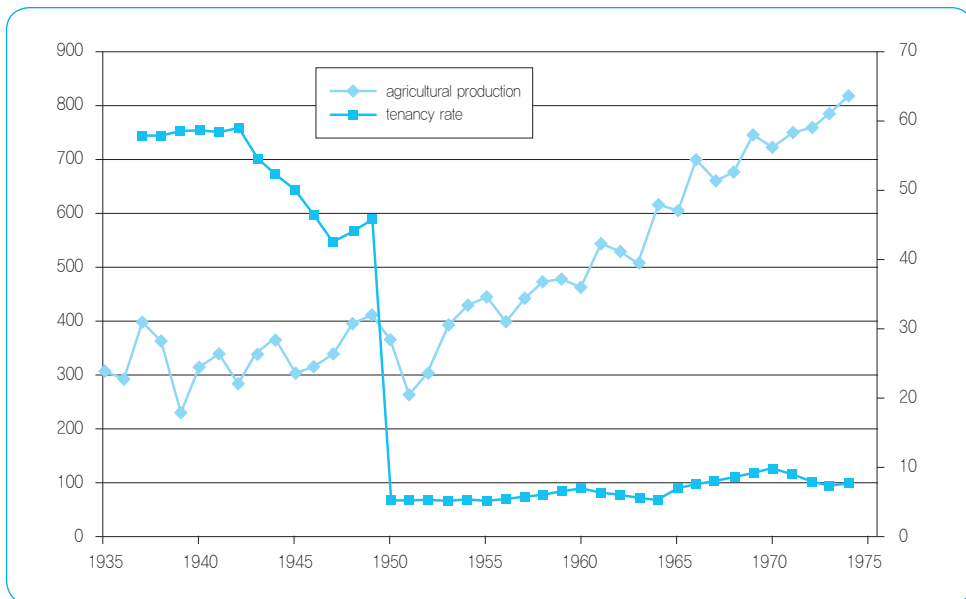
In the preceding studies, Jeon and Kim (2000) found that tenancy rate is a statistically significant variable on rice production and has a positive value. However, in [Figure 4-1] and [Figure 4-2], tenancy rates tended to decrease after land reform, and so it is hard to exclude a positive correlation between changes of tenancy rate and agricultural production. Moreover, Jeon and Kim's (2000) analysis excluded the period before and after land reform between 1945 and 1954, due to limited data. Therefore, based on an estimation model of agricultural production function used in Jeon and Kim (2000), the correlation between changes in the tenancy rate and agricultural production needs to be double-checked through complementing data as well as variables.

Figure A-1 | Tenancy Rate and Rice Production (1935-1974)



Source: Keidel (1981), Jeon and Kim (2000), Rudolf (2012)

Figure A-2 | Tenancy Rate and Gross Agricultural Output (1935-1974)



Source: Keidel (1981), Jeon and Kim (2000), Rudolf (2012)

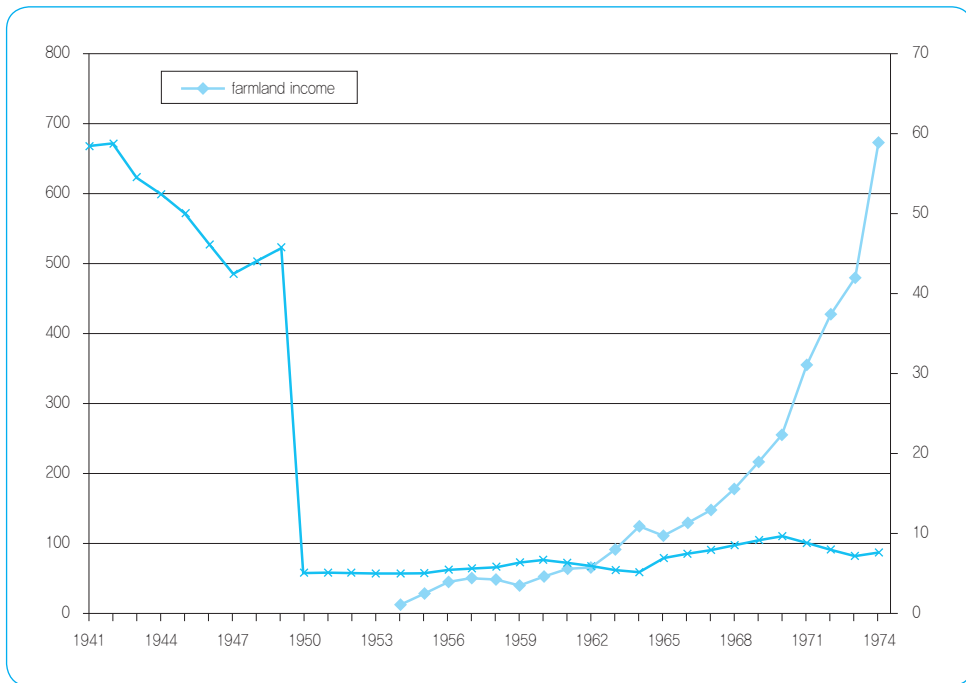
Meanwhile, in order to identify effects of land reform on Korea's entire economy, some complements are required from the following three viewpoints. First, additional analysis of education regarded as a link between land reform and industrialization is needed. Second, in order to examine how land reform contributes to the improvement of efficiency throughout Korea's entire economy, further studies on relationship between land reform and total factor productivity (TFP) are needed. Lastly, concrete examination of what effects land reform has had on Korean farmers' standard of living is. Thus, relationships between land reform and one of the factors such as education, agricultural production, total factor productivity and farmers' standard of living have been examined in detail as follows.

2. Re-evaluation of Korea's Land Reform

2.1. Land Reform and Education

This section starts with the relationship between land reform and human capital development and then shows the extent of the improvement of productivity and farmers' standard of living. To begin with, the relationship between changes of ownership structure and human capital development caused by land reform is examined according to the tenancy rate statistics reviewed by Rudolf (2012), changes in tenancy rate caused by land reform occurred drastically. Before land reform, the tenancy rate was at the level of 45.8% in 1949, while after land reform, it tumbled to the level of 5.2%. Making use of the statistics of the farm household economy provided by the national statistical office has resulted in securing consistent time series data on farm household income since 1962. However, the data of farm household income are available in the annals of economic statistics published by the Bank of Korea. As seen in [Figure 4-3], farm household income was on a gradual rise in the 1950s, started to increase in the 1960s then rose rapidly in the 1970s.

Figure A-3 | Tenancy Rate and Farmland Income



Source: Keidel (1981), Jeon and Kim (2000), Rudolf (2012)

<Table A-1> shows tenancy rate, farmland ownership distribution and educational statistics for the period from 1941 to 1975. The Theil index is used for farmland ownership distribution and the objects for analysis are the number of students in elementary, middle and high school, the enrollment rate for elementary school and average years of education in accordance with educational statistics.

Table A-1 | Tenancy Rate and Educational Statistics: 1941-1975

(Unit: %, 1,000, year)

Year	Tenancy rate	Theil index	No. of elementary school students	No. of middle school students	No. of High school students	No. of university students	No. of college students	Total Students	Enrollment Rate for Elementary School	Average Schooling
1941	58.5	-	-	-	-	-	-	-	-	-
1942	58.8	-	-	-	-	-	-	-	-	-
1943	54.6	-	-	-	-	-	-	-	-	-
1944	52.4	-	-	-	-	-	-	-	-	0.6

Year	Tenancy rate	Theil index	No. of elementary school students	No. of middle school students	No. of High school students	No. of university students	No. of college students	Total Students	Enrollment Rate for Elementary School	Average Schooling
1945	50.2	0.854	1,373	10	-	-	-	1,383	64	0.65
1946	46.3	0.925	1,623	76	-	-	-	1,700	67.4	0.71
1947	42.5	0.717	2,243	212	-	-	-	2,455	71	0.77
1948	44.1	0.555	2,426	279	110	-	-	2,815	74.8	0.84
1949	45.8	0.43	2,771	323	115	-	-	3,209	73.1	0.91
1950	5.2	0.333	2,658	381	119	-	-	3,159	71.4	0.99
1951	5.2	0.258	2,074	226	124	-	-	2,424	69.8	1.07
1952	5.2	0.2	2,400	293	130	31	-	2,854	71.3	1.17
1953	5.2	0.208	2,259	324	172	38	-	2,794	72.9	1.27
1954	5.2	0.216	2,678	407	223	63	-	3,372	82.5	1.38
1955	5.2	0.225	2,947	480	268	79	-	3,774	89.5	1.5
1956	5.5	0.229	2,997	453	288	90	-	3,829	89.9	1.81
1957	5.8	0.234	3,171	440	289	84	-	3,983	91.1	2.19
1958	6.1	0.239	3,316	429	267	74	-	4,086	92.5	2.64
1959	6.5	0.243	3,558	458	272	76	-	4,364	96.4	3.2
1960	6.8	0.248	3,621	529	273	93	-	4,516	95.3	3.86
1961	6.4	0.247	3,855	621	296	134	-	4,905	95.3	4.03
1962	6	0.246	4,089	655	324	116	-	5,183	95.2	4.22
1963	5.6	0.245	4,422	666	364	105	-	5,557	95.2	4.41
1964	5.2	0.244	4,726	667	400	113	-	5,906	95.1	4.61
1965	7	0.243	4,941	751	427	106	23	6,248	95.1	4.81
1966	7.5	0.248	5,165	822	435	131	28	6,581	94.5	5.03
1967	8.1	0.252	5,383	912	442	124	31	6,892	96.7	5.2
1968	8.6	0.257	5,549	1,013	481	124	31	7,198	96.3	5.37
1969	9.2	0.262	5,623	1,147	530	133	33	7,466	96.7	5.55
1970	9.7	0.267	5,749	1,319	590	146	33	7,838	97	5.74
1971	8.9	0.266	5,807	1,530	647	155	37	8,177	97.2	5.91
1972	8.1	0.265	5,776	1,686	730	164	42	8,398	97.3	6.08
1973	7.3	0.263	5,692	1,832	839	178	48	8,590	97.5	6.25
1974	7.7	0.262	5,619	1,930	981	192	56	8,778	97.6	6.43
1975	-	0.261	5,599	2,027	1,123	209	63	9,021	97.8	6.62

Figure A-4 | Trend of Tenancy Rate and Number of Students in Elementary School: 1945-1974

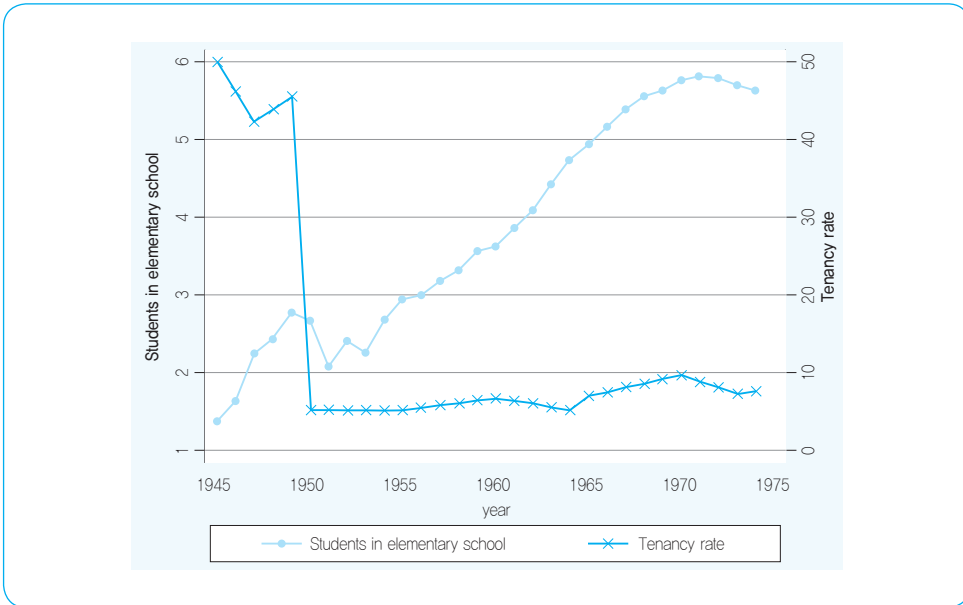


Figure A-5 | Relationship between Tenancy Rate and Number of Students in Elementary School: 1945-1974

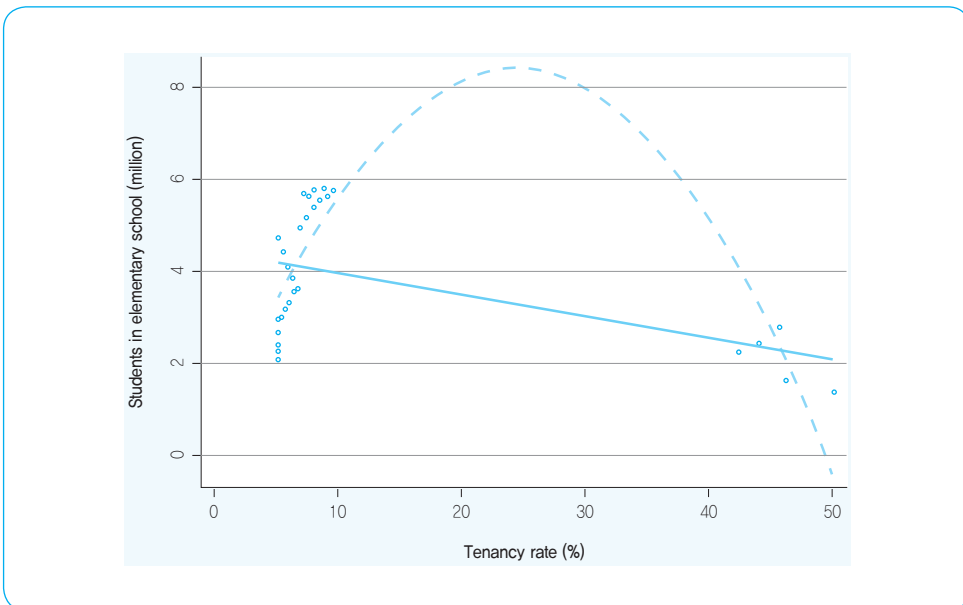


Figure A-6 | Tendency of Tenancy Rate and Enrollment Rate for Elementary School: 1945-1974

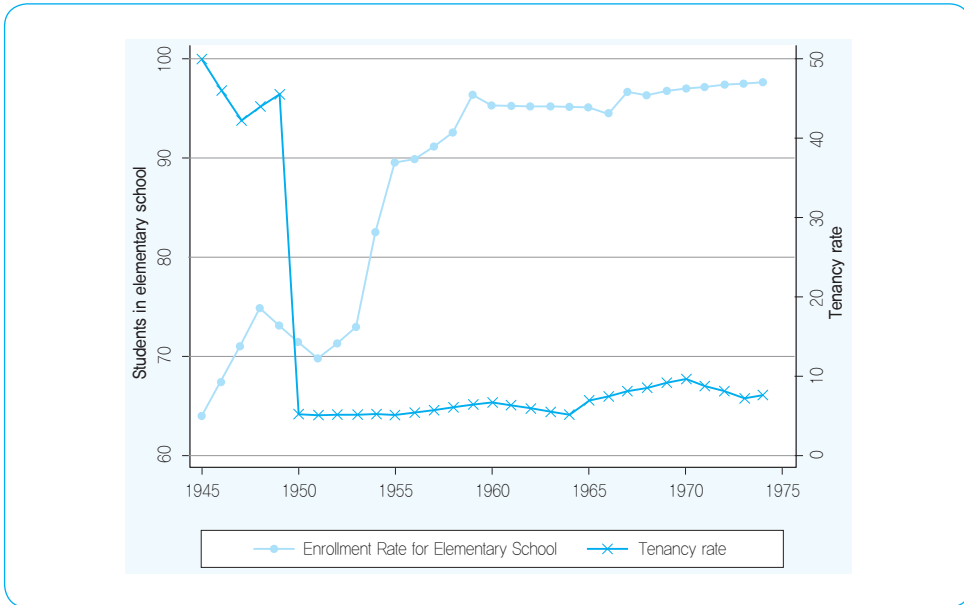
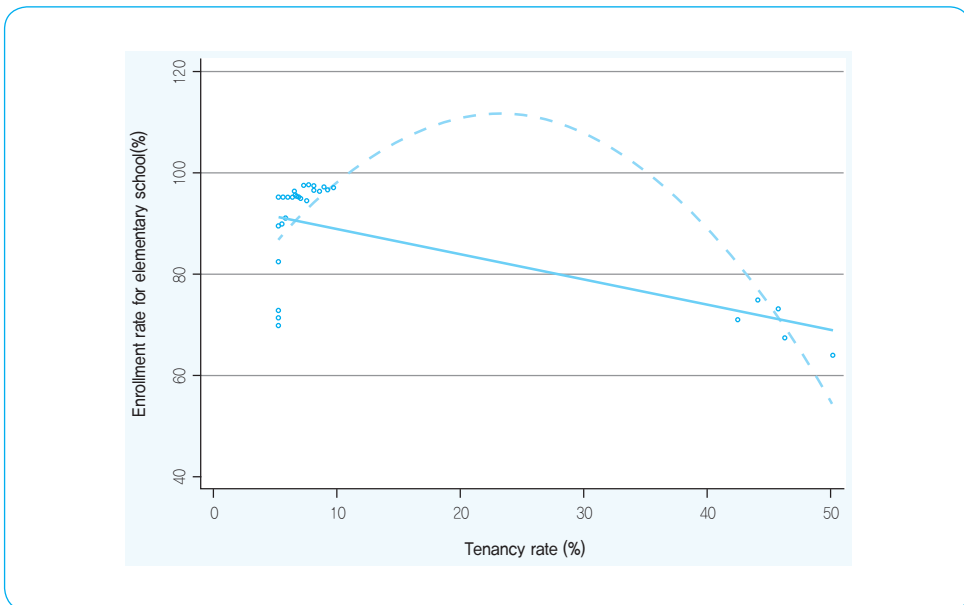


Figure A-7 | Correlation between Tenancy Rate and Enrollment Rate for Elementary School: 1945-1974



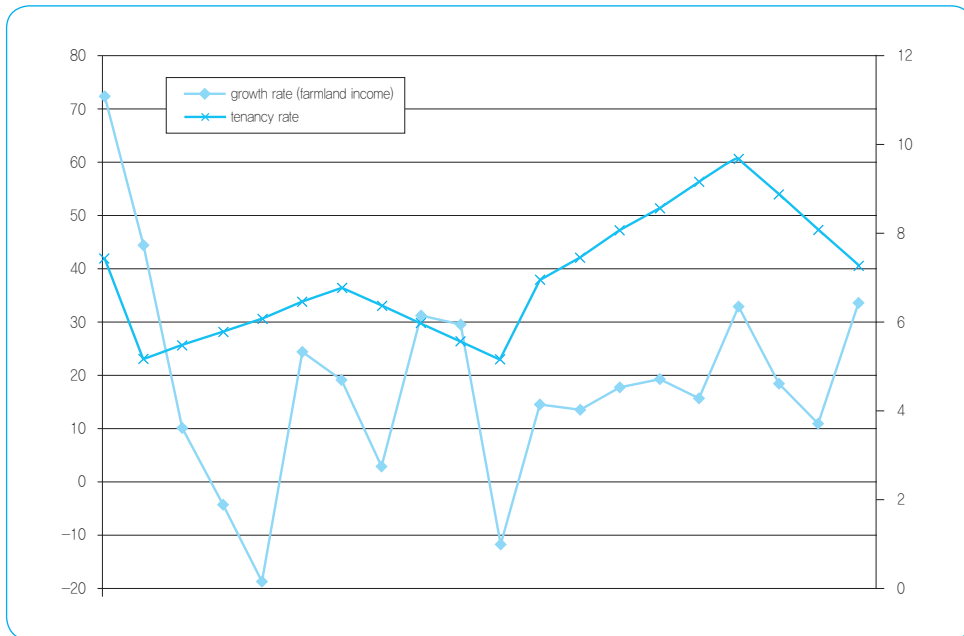
As demonstrated in the figures above, farm household income steadily increases along with changes in tenancy rates caused by land reform and enrollment rates for elementary school, as well as greatly increasing numbers of students. In order to examine correlation between tenancy rates and human capital development more strictly, regression analysis was conducted between tenancy rates and substitution variables of human capital such as number of students in elementary school, total number of students from elementary school to university, average years of education, and so on. As a result of a unit root test, every variable has a unit root, but instead of differential variables, a time variable has been used for controlling the effects of tendency of time series to observe the effects of changes in the tenancy rate on the level of human capital development. Also, in order to take apart differences between pre- and post-land reform, dummy variables with 1 for post-land reform in 1950 and 0 for pre-land reform are included.

Table A-2 | Correlation between Tenancy Rate and Human Capital Development

period: 1945-1974						
Dependent variable	<i>EST</i>		<i>TST</i>		<i>TYS</i>	
Intercept	-333.67*** (14.44)	-293.46*** (25.54)	-524.51*** (15.09)	-503.50*** (27.36)	-485.26*** (16.13)	-487.04*** (31.78)
TR	0.01*** (0.004)	-0.08* (0.05)	0.02*** (0.004)	-0.09* (0.05)	0.02*** (0.004)	0.06 (0.05)
D x TR		0.21** (0.08)		0.16* (0.09)		-0.04 (0.10)
D		-4.86** (2.11)		-5.15** (2.26)		1.99 (2.62)
T	-0.17*** (0.007)	0.15*** (0.13)	0.27*** (0.007)	0.16*** (0.14)	0.25*** (0.008)	0.05*** (0.02)

Resulting from the regression analysis without period dummy variables, there are statistically significant effects on the tenancy rate with positive values on all human capital variables. This result reflects the trend that tenancy rate was very low after land reform, but increased a little due to farmland transactions and the migration of small-scale farmers. However, resulting from the regression analysis including period dummy variables on before and after land reform, the coefficient of tenancy rate is negative. The negative correlation of tenancy rate with human capital development before 1950s shows that tenancy rate declined and human capital increased before land reform.

Figure A-8 | Trends of Tenancy Rate and Farm Household Income Growth Rate After Land Reform: 1954-1975



2. 2. Land Reform and Agricultural Production

2.2.1. Empirical Analysis on Korea's Agricultural Production

With an estimation of agricultural production function before and after land reform, correlation between changes of tenancy rate along with land reform and agricultural production has been examined. The period of analysis is from 1973 to 1974, and the model used for analysis is as follows.

$$\ln RP_t = \alpha_0 + \alpha_1 T + \alpha_2 \ln L_t + \alpha_3 \ln K_t + \alpha_4 \ln RN_t + \alpha_5 TR_t + \alpha_6 BD_t + \alpha_7 WD_t + \alpha_8 RD_t + \varepsilon_t$$

Here, RP is rice production, T is time variable, L is labor, K is capital, RN is farmland area and TR is tenancy rate. The data from Keidel (1981) is used for rice production and labor is based on the data of farmland labor, which is converted to labor per adult, from Moon et al. (1981), and the same data from Jeon and Kim (2000) are used in terms of the data before 1945. Capital is estimated based on the data from Jeon and Kim (2000) as well as the gross agricultural fixed capital growth rate from Moon et al. (1981) that is used during the missing period was from 1945 to 1954. Farmland area for rice is based on the data from Jeon and Kim (2000) and is estimated as the farmland area growth rate from Moon et al. (1981) during the missing period between 1945 and 1954. Tenancy rate is based on the data

from Rudolf (2012) and the data from Jeon and Kim (2000) prior to 1940. Also, under the assumption of consistent growth rate, tenancy rate is estimated through the interpolation method, as there was no available statistical data in 1948. During the period between 1950 and 1954 when there are no available statistical data as well, the values of tenancy rate from 1950 to 1953, after land reform in 1950, are pretended to be the same as the tenancy rate of 1955.

Additionally, *BD* used for the model is a dummy variable for preparing against a year of famine, of which the value is 1 when rice production growth rate is negative. *WD* is a war period dummy variable, of which the value is 1 during the period from 1950 to 1953. While Jeon and Kim (2000) used a dummy variable to distinguish between before and after the Korean War, it seems more appropriate for this study to use a dummy variable of the Korean War for the period from 1950 to 1953 when agricultural production changed rapidly due to the war. Lastly, *RD* is a dummy variable separating pre- and post-land reform and its value is 1 after 1950 when land reform was completed.

Table A-3 | Results from Empirical Analysis on Land Reform and Rice Production

Dependent variable: ln RP, period: 1937-1974				
	I		II	
constant	1.621	[2.365]	1.1	[2.205]
<i>T</i>	0.025***	[0.008]	0.026***	[0.008]
<i>lnL</i>	0.046	[0.198]	0.109	[0.171]
<i>lnK</i>	-0.219	[0.200]	-0.186	[0.192]
<i>lnRN</i>	1.348***	[0.348]	1.305***	[0.338]
<i>TR</i>	-0.034***	[0.009]	-0.033***	[0.010]
<i>BD</i>	-0.129***	[0.042]	-0.135***	[0.041]
<i>WD</i>	-0.065	[0.100]		
<i>RD</i>	-1.452***	[0.406]	-1.464***	[0.403]

As a result of the analysis, the significant variables and signs of correlation are similar to those of Jeon and Kim's (2000) study. First of all, with regard to labor and capital, there is no statistically significant effect on rice production. Land used for rice production has a positive correlation, while tenancy rate has a negative correlation with rice production. In terms of dummy variables used for control variables, year of famine and the period after land reform have positive signs, which becomes statistically significant; however, the dummy variable for the period of the Korean War does not have any significant effect.

Compared to the results of analysis from Jeon and Kim (2000), the above results are very similar except the extent of effects. According to Jeon and Kim (2000), the tenancy rate has the greatest effect on rice production, but farmland area has much less effect. However, resulting from the analysis based on the supplementary data in this study, farmland area has the most significant effect on rice production, while changes of tenancy rate have comparatively little effect.

By employing the data of labor and capital used for agricultural production, not rice production, due to the limitation of data collection as in Jeon and Kim (2000), there is no statistically significant effect of both labor and capital. Therefore, in order to complement these results and examine effects of land reform on the whole agricultural production, the empirical analysis on gross agricultural output continues to be conducted and the model of analysis is as follows.

$$\ln FP_t = \beta_0 + \beta_1 T + \beta_2 \ln L_t + \beta_3 \ln K_t + \beta_4 \ln N_t + \beta_5 TR_t + \beta_6 BD_t + \beta_7 WD_t + \beta_8 RD_t \varepsilon_t$$

Above, FP is gross agricultural output (constant value in 1970), T time variable, L labor, K capital, TR tenancy rate. The data on gross agricultural output is based on the data from Keidel (1981), and the data on labor and capital are the same as those of the previous analysis on rice production. The data on total farmland area are based on Moon et al. (1981) and complemented by the data from Rudolf (2012) and Jeon and Kim (2000). The data on tenancy rates are the same as those of the previous analysis and BD is a dummy variable that is 1 when the gross agricultural output growth rate is negative. WD and RD also dummy variables, the same as those of the previous analysis.

Table A-4 | Results of Empirical Analysis on Land Reform and Gross Agricultural Output

Dependent variable: $\ln RP$, period: 1937-1974				
	III		IV	
Constant	3.687	(2.313)	3.115	(2.253)
T	0.017**	(0.006)	0.018*	(0.006)
$\ln L$	0.201	(0.152)	0.281**	(0.132)
$\ln K$	0.278*	(0.143)	0.313**	(0.139)
$\ln N$	0.623**	(0.250)	0.575**	(0.246)
TR	-0.001	(0.006)	-0.002	(0.006)
BD	-0.085**	(0.035)	-0.089**	(0.035)
WD	-0.082	(0.078)		
RD	-0.049	(0.258)	-0.1	(0.253)

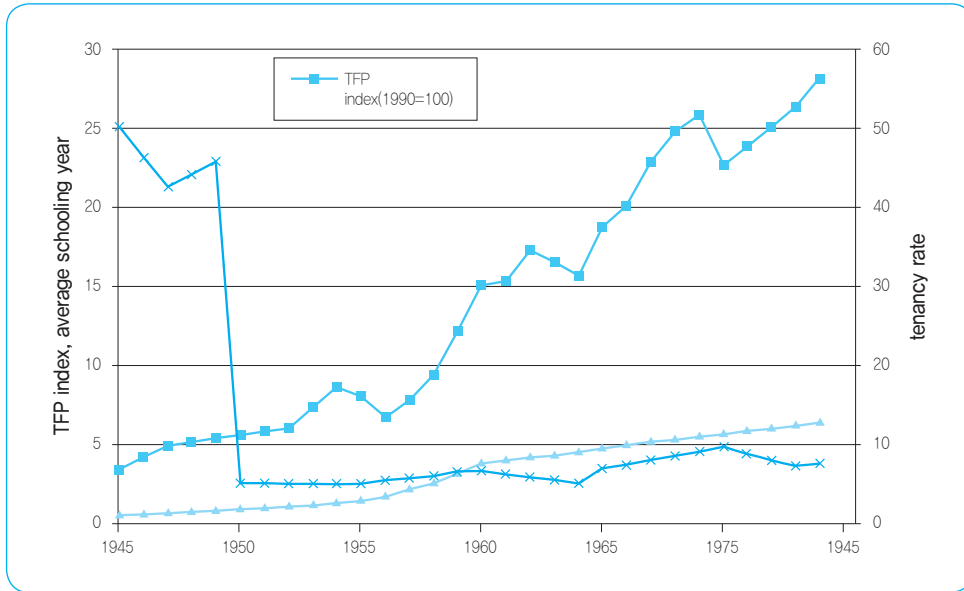
There is a huge difference between the results of analysis on gross agricultural output and the results of analysis on rice production conducted in this study as well as Jeon and Kim (2000). First, the dummy variable for the Korean War still has no significant effect, while there is a statistically significant effect of most production factors including land, labor and capital except for the dummy variable based on the results of analysis. These results above differ from the conclusion of Moon et al. (1981), analyzing the gross agricultural production for the period after the Korean War with the exception of the tenancy rate. Regarding the extent of effects on gross agricultural production, the analysis illustrates that farmland area is still the most effective. Moreover, as a major interest variable, tenancy rate has no significant effect on gross agricultural output, contrary to the results of the analysis on rice production.

2.2.2. Land Reform and Total Factor Productivity

In order to examine how land reform affected Korea's entire economy, the relationship between land reform and total factor productivity is reviewed. Since total factor productivity is a typical substitution variable that demonstrates the efficiency level of a country, this study has tried to verify the effects of land reform on Korea's entire society through determining the relationship between land reform and total factor productivity.

Through the use of total factor productivity, tenancy rate and substitution variable for human capital, changes of average years of education are examined as follows. Total factor productivity as well as average years of education were on the consistent rise after 1945, while the tenancy rate sharply declined before 1950 and then was on a steady growing trend after land reform.

Figure A-9 | Trend of Total Factor Productivity, Tenancy Rate and Human Capital: 1945-1975



The model for analyzing the relationship among total factor productivity, land reform and human capital is as follows. *TFP* is total factor productivity, *TR* tenancy rate, *TYS* is average years of education used for substitution variable for human capital. As a result of a unit root test, every variable has a unit root, time *T* variable has been used for controlling the effects of tendency of time series. The period of analysis on the data is between 1945 and 1974 and total factor productivity index estimated by Pyo Hak Gil (2000) is used for *TFP*. The data from the Korea Education Development Institute (1986, 1991) and Seo Chan Soo (1987) are used for average years of education.

$$TFP_t = \beta_0 + \beta_1 TR_t + \beta_2 TYS_t + \beta_3 T + \varepsilon_t$$

Table A-5 | Results of Analysis on the Effects of Total Factor Productivity on Land Reform and Human Capital Development

Dependent variable: <i>TFP</i> , period: 1945-1974		
	I	II
Intercept	-1942.07***(78.79)	-957.36**(429.12)
<i>TR</i>	0.10***(0.02)	0.06**(0.03)
<i>TYS</i>		2.03**(0.87)
<i>T</i>	1.00***(0.04)	0.49**(0.04)

Note: *, **, *** are significant respectively at 10%, 5%, 1* level. Standard deviations are in parentheses

As a result of analysis, both tenancy rate and average years of education have a statistically significant effect with positive signs on total factor productivity. Although the other variables such as number of students in elementary, middle or high school or university, enrollment rate for elementary school and so on were employed as substitution variables for human capital besides average years of education, there is no statistically significant effect in this regard. To some extent, the fact that enrollment rate for elementary school has no statistically significant effect on total factor productivity is a predictable result, however it is somewhat unexpected that enrollment rate for middle and high school has no statistically significant effect on total factor productivity. Although time difference is employed to identify the relationship between enrollment rates for middle and high school and total factor productivity, the results are the same. This implies that the increase of total factor productivity was improved by other factors rather than human capital at that time. Namely, it is indirectly confirmed that the improvement of Korea's total factor productivity was caused more by other factors such as economy of scale through expansion of market size or system improvement aside from human capital until the middle 1970s.

In addition, resulting from analyzing agricultural production per person in farm household, PRD as the dependent variable, which means agricultural productivity instead of TFP tenancy rate has a significant effect with positive sign, the same as the result of the analysis on TFP as follows in the table below. However, it is rather analyzed that average years of education has a significant effect with negative sign.

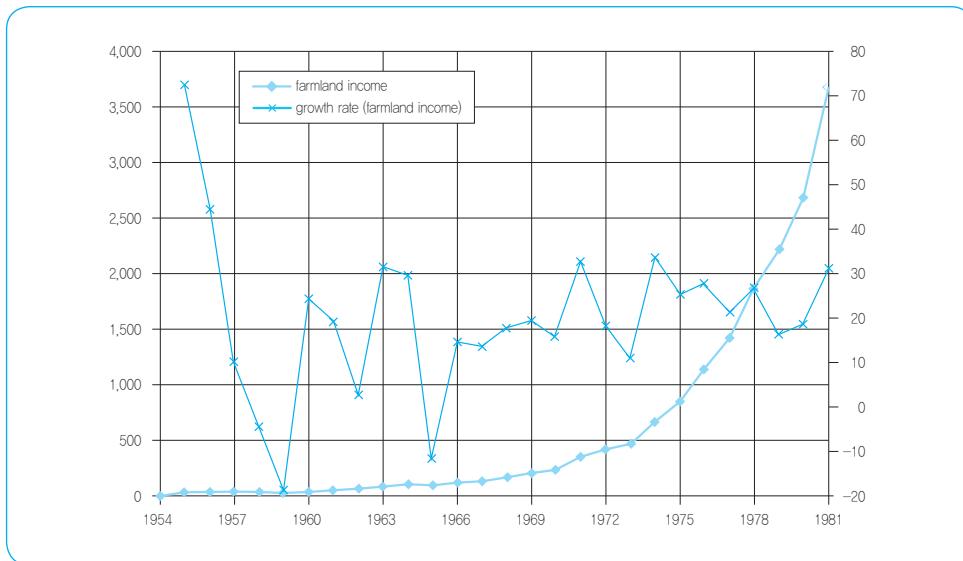
Table A-6 | Results of Analysis on the Effects of Agricultural Production per Person on Land Reform and Human Capital Development

Dependent variable: PRD, period: 1945-1974		
	III	IV
Intercept	-2368.73*** [158.38]	-4827.25*** [812.26]
<i>TR</i>	0.18*** (0.05)	0.27*** (0.05)
<i>TYS</i>		-5.06*** [1.64]
<i>T</i>	1.22*** (0.08)	2.48*** (0.42)

3. Land Reform and Farmers' Standard of Living

For the period after land reform, farm household income is observed to steadily increase with a high growth rate. [Figure 4-10] shows that the farm household income increased with a high growth rate by 20% from 1960 to 1980.

Figure A-10 | Farm Household Income and Farm Household Income Growth Rate (1954-1981)

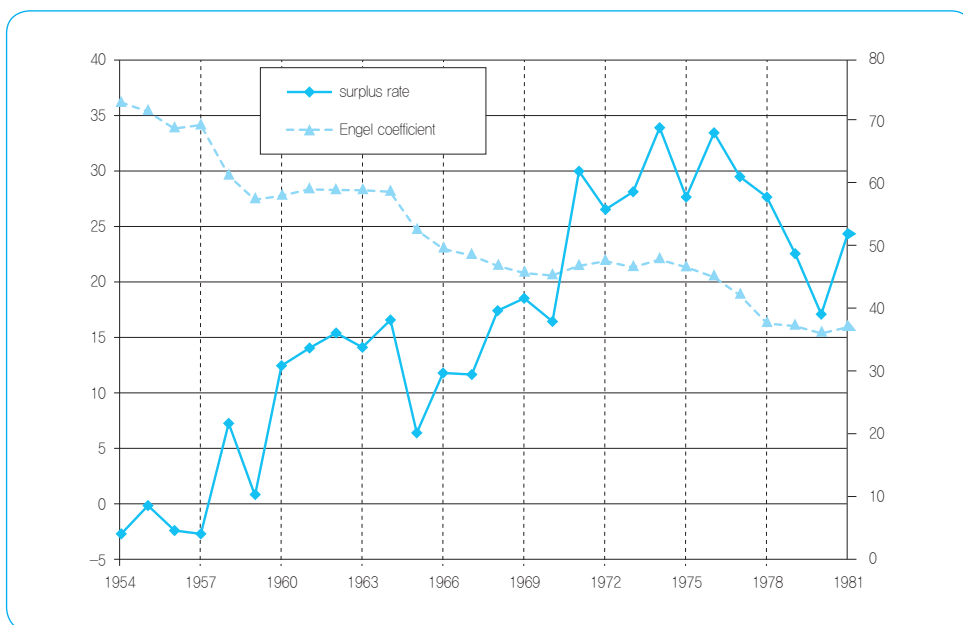


In order to examine not only farm household income but also whether farmers' standard of living is practically improved, surplus rate of farm households' total income and expenditures, total tax revenue as a percentage of GDP and Engel coefficient are reviewed. The surplus rate of farm households' total income and expenditure means the ratio of the

amount of surplus to disposable income excluding consumptive expenses such as groceries, dwelling, clothes, heating, and so on.

The following [Figure 4-11] shows that the surplus rate of farm households' total income and expenditure did not change much from the year of land reform to the middle 1950s, but has been improved remarkably since 1958. Even until the mid-1950s, farm households' total income and expenditure had been in deficit. However, it continued to be improved sharply from 1958 to the middle 1970s, except for the mid-1960s, and so it is expected to examine not only farm household income but also farm households' standard of living farm reflecting households' consumptive expenses. Furthermore, the farm households' Engel coefficient was very high (73.6%) in 1954, which is generally regarded as the level of undeveloped countries. After land reform, it declined vastly in the mid-1950s and then steadily continued its downward trend, resulting in 36.8%-the average level of general developed countries-in 1980.

Figure A-11 | Surplus Rate of Farm Households' Total Income and Expenditures, Engel Coefficient (1954-1981)



In order to examine farm households' standard of living after land reform, it is necessary to look at farm households' interest on debt burden as well as tax burden. The terms and condition of repayment for farmland, distributed according to the Farmland Reform Act legislated in 1949, was redemption by installment which is payable annually at 30% of land value equivalent to 150% of annual yield in 5 years. However, due to the Korean War, it

was difficult to distribute and redeem farmland, so the redemption period was extended in 1961. Moreover, enforced by the Temporary Land Acquisition Tax Act that was legislated to recover fiscal deficit caused by the war, the temporary land acquisition tax was a huge burden to farm households after land reform as well. The tax rate at the time of legislation was about 15-28% of land yields depending on kinds of farmland, in particular 15-60% of the cumulative rate on the farmland distributed from land reform. This taxation remained throughout several amendments along with post-war restoration and was abolished with the legislation of the Land Tax Act in 1960. As it looked to this situation, tax burden on farm households or burden on debt repayment was likely to become quite substantial after land reform.

<Table A-7> indicates tax against farm household income and ratio of interest on debt after land reform. In fact, compared to 1961 when the Land Tax Act was legislated, it is observed that the tax and ratio of interest on debt prior to 1961 were largely high. In particular, the highest tax and ratio of interest on debt in 1955 almost doubles the numbers in 1961. However, as long as the temporary land acquisition tax was abolished and the redemption of debt on farmland distributed from land reform was finished, tax and the ratio of interest on debt started declining gradually.

Table A-7 | Farm Households' Tax and Ratio of Interest on Debt after Land Reform

Year	Income (won)	Expenditure (won)		Tax and Debt Payment over Income (%)		
		Tax	Debt payment	Tax	Debt payment	Tax + Debt payment
1954	14,808	778	168	5.3	1.1	6.4
1955	30,651	1,821	317	5.9	1.0	7.0
1956	47,909	2,005	448	4.2	0.9	5.1
1957	53,166	1,447	379	2.7	0.7	3.4
1958	51,070	1,510	590	3.0	1.2	4.1
1959	42,420	1,580	790	3.7	1.9	5.6
1960	54,270	1,390	840	2.6	1.5	4.1
1961	65,870	1,480	860	2.2	1.3	3.6
1962	67,880	1,480	500	2.2	0.7	2.9
1963	93,170	1,930	970	2.1	1.0	3.1
1964	125,700	2,750	1,630	2.2	1.3	3.5
1965	112,200	3,060	1,620	2.7	1.4	4.2
1966	130,180	3,370	2,140	2.6	1.6	4.2
1967	149,470	2,610	2,210	1.7	1.5	3.2
1968	178,960	3,030	2,370	1.7	1.3	3.0

The model of analysis on the effects of land reform on farm households' standard of living is as follows. As FH represents farm households' standard of living, Engel coefficient EG is used as a substitution variable. As AID is aid import, PL480 (AID1) as well as total foreign aid (AID2) are used. As LT is a substitution variable of the temporary land acquisition tax, average tax expenditures of farm households are used. As a result of a unit root test, all variables have unit roots so that time T variable is employed for control variable and the period of analysis is between 1954 and 1968, when the data of farm households' tax expenditures are available.

$$FH_t = \beta_0 + \beta_1 TR_t + \beta_2 AID_t + \beta_3 LT_t + \beta_4 T_t + \varepsilon_t$$

**Table A-8 | Effects of Tax Burden and Tenancy Rate
on Farm Households' Engel Coefficient**

Dependent variable: <i>EG</i> , period: 1954-1968		
	I	II
intercept	-86.29*** (4.02)	-86.29*** (4.02)
TR	-2.32*** (0.77)	-2.63*** (0.84)
LT	0.001 (0.001)	0.0007 (0.001)
AID1	- 5.5E-5 (0.00)	
AID2		- 1.0E-6 (0.00)
T	-1.59*** (0.27)	-1.38*** (0.28)

Resulting from the analysis, there is a statistically significant effect of tenancy rate with a negative sign on the Engel coefficient. This and the result of analysis on the relationship between tenancy rate and agricultural production have something in common. The structural change of farmland ownership after land reform led the tenancy rate to increase. Nevertheless, it is shown that tenancy rate and farm households' Engel coefficient have a negative relationship as farmers' standard of living was improved. On the other hand, farm households' tax expenditures and foreign aid such as PL480 have no significant effect on farm households' Engel coefficient. As such, resulting from the analysis by using the amount of profit for households' total income and expenditure instead of Engel coefficient as substitution variable indicating farm households' standard of living, there is no statistically significant effect of tenancy rate, tax expenditures and foreign aid.

Table A-9 | Basic Statistical Data on Analysis of Correlation between Tenancy Rate and Agricultural Production

Year	Rice production	Agricultural production	Labor input	Capital input	Arable land (rice)	Total arable land	Tenancy rate
1937	2,882,955	399,681	1,782	22,392	1,626	2,113	57.9
1938	2,606,841	362,846	1,806	23,085	1,647	2,141	58.0
1939	1,145,352	230,010	1,684	20,827	1,225	1,592	58.4
1940	2,283,842	315,417	1,874	21,920	1,629	2,117	58.6
1941	2,807,820	339,914	1,842	22,140	1,633	2,122	58.5
1942	2,117,359	285,400	1,687	20,821	1,203	2,113	58.8
1943	2,747,660	340,643	1,814	19,530	1,505	2,643	54.6
1944	2,089,523	367,083	1,753	17,402	1,319	2,316	52.4
1945	2,560,116	305,726	1,691	18,775	1,120	2,067	50.2
1946	2,400,040	316,195	1,588	19,068	1,030	1,901	46.3
1947	2,764,200	340,681	1,627	19,829	1,004	1,854	42.5
1948	3,080,743	397,789	1,656	21,040	1,098	2,028	44.1
1949	2,945,067	411,021	1,676	21,473	1,112	2,053	45.8
1950	2,913,560	364,437	1,646	15,012	1,058	1,954	5.2
1951	2,258,392	264,255	1,502	18,262	1,052	1,942	5.2
1952	1,846,818	305,840	1,497	20,565	1,052	1,942	5.2
1953	2,821,375	394,125	1,656	20,752	1,050	1,939	5.2
1954	3,000,351	431,156	1,678	22,634	1,056	1,950	5.2
1955	3,093,986	444,603	1,629	25,125	1,080	1,994	5.2
1956	2,554,260	398,253	1,719	26,240	1,088	1,991	5.5
1957	3,137,698	442,255	1,831	26,684	1,096	1,998	5.8
1958	3,308,936	472,973	1,928	24,161	1,099	2,012	6.1
1959	3,312,787	479,176	2,154	22,465	1,104	2,016	6.5
1960	3,174,733	464,537	2,234	21,862	1,112	2,024	6.8
1961	3,769,419	543,891	2,349	23,469	1,119	2,032	6.4
1962	3,116,706	529,246	2,095	26,847	1,130	2,062	6.0
1963	3,813,960	508,048	2,239	35,661	1,146	2,079	5.6
1964	4,013,504	616,582	2,315	37,056	1,186	2,171	5.2
1965	3,501,122	606,657	2,335	39,317	1,218	2,256	7.0
1966	3,919,271	699,257	2,341	39,171	1,221	2,293	7.5

Year	Rice production	Agricultural production	Labor input	Capital input	Arable land (rice)	Total arable land	Tenancy rate
1967	3,603,094	661,879	2,328	40,353	1,225	2,311	8.1
1968	3,195,326	678,884	2,168	37,974	1,224	2,318	8.6
1969	4,090,435	745,957	2,096	40,772	1,218	2,311	9.2
1970	3,939,251	722,950	2,010	42,252	1,219	2,297	9.7
1971	3,997,627	751,904	2,031	43,276	1,201	2,271	8.9
1972	3,957,181	760,192	1,934	43,001	1,192	2,242	8.1
1973	4,211,618	786,211	1,916	48,224	1,183	2,241	7.3
1974	4,444,847	818,692	1,324	54,188	1,204	2,238	7.7

Table A-10 | Statistics for Average Households' Total Income and Expenditure per Farm Household and Engel Coefficient

Year	Farmland income (A)	Disposable income (B)	Consumption expenditure (C)	Non-Consumption expenditure (D)	Food expenditure (E)	Farmland budget (B-C)/B	Engel coefficient (E/C)
1954	14,808	13,863	14,224	778	10,467	-2.6	73.6
1955	30,651	28,513	28,533	1,821	20,583	-0.1	72.1
1956	47,909	45,456	46,493	2,005	32,294	-2.3	69.5
1957	53,166	51,341	52,673	1,447	36,800	-2.6	69.9
1958	51,070	48,970	45,350	1,510	28,050	7.4	61.9
1959	42,420	40,050	39,640	1,580	23,000	1.0	58.0
1960	54,270	52,040	45,500	1,390	26,730	12.6	58.7
1961	65,870	63,530	54,510	1,480	32,560	14.2	59.7
1962	67,885	65,905	55,739	1,476	-	15.4	59.6
1963	93,179	90,271	77,464	3,674	-	14.2	59.4
1964	125,692	121,314	101,118	5,003	59,925	16.6	59.3
1965	112,201	107,519	100,492	5,327	53,373	6.5	53.1
1966	130,176	124,668	109,878	5,085	55,138	11.9	50.2
1967	149,470	144,645	127,667	5,434	62,623	11.7	49.1
1968	178,959	173,561	143,104	5,490	67,817	17.5	47.4
1969	217,874	210,451	171,371	6,062	79,537	18.6	46.4
1970	255,804	249,084	207,766	6,821	95,445	16.6	45.9
1971	356,382	349,390	244,463	7,915	115,851	30.0	47.4
1972	429,394	421,725	309,665	13,141	149,255	26.6	48.2
1973	480,711	470,241	337,350	16,146	159,590	28.3	47.3
1974	674,451	659,859	435,490	14,018	210,933	34.0	48.4
1975	872,933	852,731	616,280	22,207	291,508	27.7	47.3
1976	1,156,254	1,127,110	749,183	29,582	342,651	33.5	45.7
1977	1,432,809	1,386,741	976,407	36,231	418,046	29.6	42.8
1978	1,884,194	1,825,809	1,320,508	52,190	505,253	27.7	38.3
1979	2,227,483	2,147,507	1,662,168	81,219	628,788	22.6	37.8
1980	2,693,110	2,579,145	2,138,323	96,589	787,903	17.1	36.8
1981	3,687,856	3,541,986	2,676,090	133,038	1,008,156	24.4	37.7
1982	4,465,175	4,294,331	3,257,836	141,217	1,085,896	24.1	33.3

Year	Farmland income (A)	Disposable income (B)	Consumption expenditure (C)	Non-Consumption expenditure (D)	Food expenditure (E)	Farmland budget (B-C)/B	Engel coefficient (E/C)
1983	5,128,244	5,050,815	4,053,675	151,784	1,232,663	19.7	30.4
1984	5,549,132	5,467,414	4,272,220	113,776	1,257,972	21.9	29.4
1985	5,736,246	5,689,669	4,690,854	83,243	1,332,528	17.6	28.4
1986	5,995,009	5,949,990	4,994,705	95,746	1,370,664	16.1	27.4
1987	6,535,314	6,490,354	5,200,649	115,534	1,400,957	19.9	26.9
1988	8,129,615	8,075,023	6,030,657	146,914	1,581,701	25.3	26.2
1989	9,436,669	9,384,823	7,065,148	197,044	1,691,868	24.7	23.9
1990	11,025,781	10,965,423	8,227,213	320,091	1,932,877	25.0	23.5
1991	13,105,046	13,035,690	9,416,754	380,480	2,149,146	27.8	22.8
1992	14,505,454	14,419,387	10,045,960	347,803	2,339,633	30.3	23.3
1993	16,927,966	16,812,911	12,202,567	448,934	2,678,149	27.4	21.9
1994	20,315,756	20,174,968	13,333,699	568,071	2,998,475	33.9	22.5
1995	21,802,558	21,628,739	14,781,890	721,895	3,117,594	31.7	21.1
1996	23,297,662	23,103,249	17,038,753	1,116,172	3,410,598	26.2	20.0
1997	23,488,360	23,272,034	17,044,886	713,300	3,485,536	26.8	20.4
1998	20,493,727	20,276,807	16,442,064	545,596	3,445,339	18.9	21.0
1999	22,322,955	22,104,393	17,123,221	606,244	3,629,662	22.5	21.2
2000	23,072,123	22,838,398	18,003,434	707,447	3,637,422	21.2	20.2
2001	23,906,771	23,669,428	18,457,501	630,642	3,752,151	22.0	20.3
2002	24,474,620	24,236,084	17,858,245	822,902	3,738,491	26.3	20.9

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