THE FEASIBILITY STUDY OF LAND READJUSTMENT FOR KAMPUNG UPGRADING IN JAKARTA

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March, 2011

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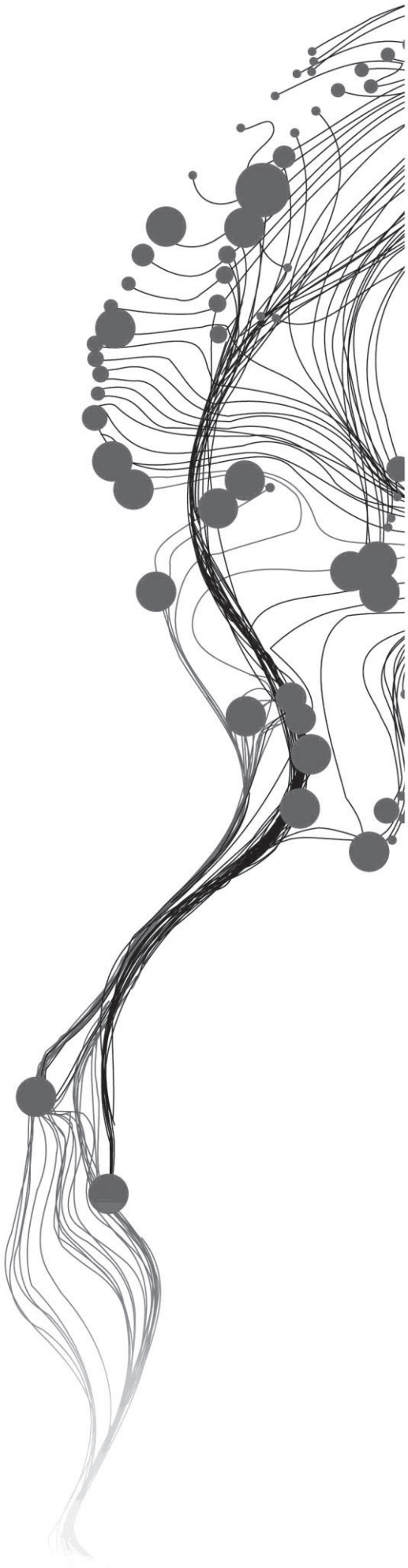

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Thesis submitted to the Faculty of Geo-Information Science and Earth Observation of the University of Twente in partial fulfilment of the requirements for the degree of Master of Science in Geo-information Science and Earth Observation.
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ABSTRACT

Nowadays the centre of Jakarta has seen quite a spectacular rapid growth as a business centre with the construction of a large number of high rise buildings. At present, *kampung* resides on the other side of those buildings. Even its existence grows rapidly due to urbanization. Many people living in those *kampung*s develop spontaneously and it leads to densification. Such development by *kampung* residents refers to what is termed as informal settlement. The landowners erect houses on unregistered title and without building permit issued by Jakarta municipality, and also neglect the provision of basic infrastructures and facilities in its implementation.

Municipality of Jakarta has exerted every effort to solve such informal settlement. Several strategies represented in the Government program were addressed to tackle the growth of *kampung*. However the foregoing programs have its limitations. The first program discussed in this research is *kampung* improvement program (KIP). The main shortcomings are lack of urban land, not include land tenure issue, and limited budget of municipality. Another program is new housing development. It has limitation in acquiring land for new development. It faces the high land price and social opposition. The program becomes more difficult as fragmented lands are owned by multiple landowners.

Realizing the limitations of the foregoing programs, land readjustment is brought forward to involve public participation to solve the problems in urban development. This research studies about the feasibility of land readjustment for *kampung* upgrading. Lessons learnt are taken from Japan and German land readjustment experiences to design a conceptual model of land readjustment application in *kampung*. The design is on the basis of the existing condition in *kampung* and conceptualized within the framework of land readjustment characters. Ultimately, considering the small plots and total area in *kampung*, social housing in form of multi-storey building is provided for the original residents in a new structure area with better living condition. However, such conceptual model should be measured in reality on the grounded simulation required for further research.

Keywords: *kampung*, public participation, land readjustment, social housing production

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1. INTRODUCTION

Nowadays the centre of Jakarta has seen quite a spectacular rapid growth as a business centre with the construction of a large number of high rise buildings. Recently, however, these high-rise buildings fill up whole blocks of land as development continues (Steinberg, 2007). At present, the modernization of the city centre continues to transform the capital into a sustainable city.

In spite of the fact that Jakarta city centre is modernized continuously. "Jakarta, has been seen as a city of *kampung*s, i.e. urban villages which are partly informal settlements and as a result, approximately 60% of Jakarta's urban population is estimated to reside in *kampung*s" (Steinberg, 2007). In a broad sense, this condition shows the extent of unplanned developments throughout the city. Establishment of these *Kampung* takes place partly on public, partly on privately owned agricultural land which gradually becomes urbanized and it is transferred (informally) to its new residents (Steinberg, 2007). "While some of the inner-city *kampung*s date back to the colonial period and have recognized land titles, a growing number of informally established *kampung*s has appeared towards the south, west and east of the city which are its main growth directions" (Steinberg, 2007). Winayanti and Lang (2004) also describe that, historically, Jakarta's *kampung*s have evolved under the changing social, political and economic conditions of the city from Dutch colonial times, through Japanese occupation and into the independence era. Although many *kampung*s have been transformed into the urban system where lands are registered, there are still some that are considered to be illegal or have unregistered land titles.

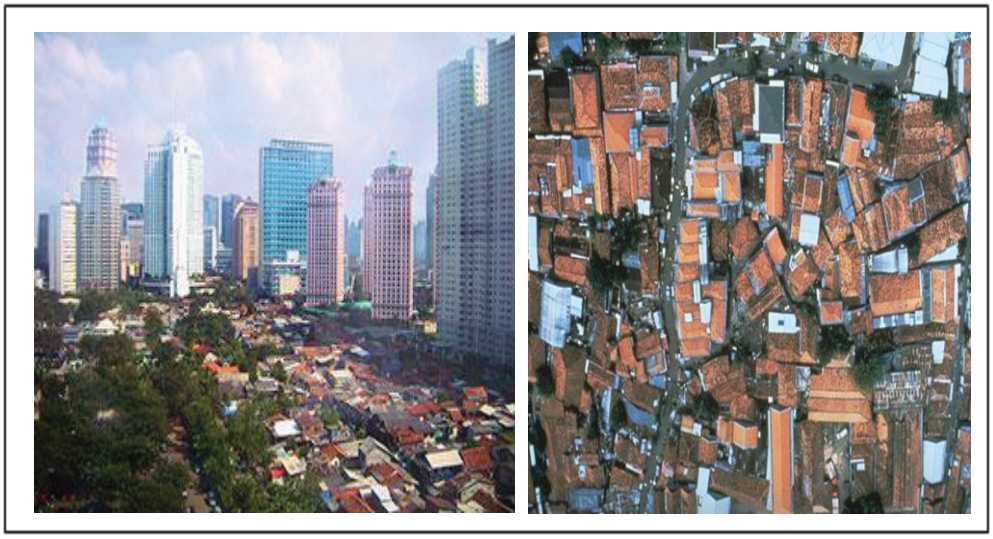

Figure 1-1: *Kampung* condition in Jakarta

These *kampung*s are usually over-crowded neighbourhoods, often on land occupied without legal land tenure, and without minimum urban infrastructure such as sewerage, piped water, and accessible road network. *Kampung* condition in Jakarta is shown in picture in figure 1-1. If the *kampung* conditions become worse deprived from access to basic services, then they can be considered as "slums".

1.1 Background

The government's effort to suppress the slum area is by making several regulations that are (Bustillos, Santosa, & Osman, 2009):
1. Regulation No. 4, 1992 in regard to housing and residence.
2. President Instruction No.5, 1990, about the manual of execution of regeneration of slum area across the state land.
3. The letter from Minister of Housing No.4/SE/M/I/93, 1993, stating that a slum area is a staying and trading place/environment that does not meet the standard of living, technical requirement such as social infrastructure, health, safety and enjoyment as well as with ecological and legal administrative requirement.

Various policies and strategies have been developed by the government to address housing problems. For instance, a policy offering the poor alternatives to formal housing underpins the core of "slum upgrading programs", also known as *Kampung* Improvement Programs (KIP).

The government is currently undertaking The Indonesia Slum Alleviation Policy and Action Plan (SAPOLA) funded by World Bank, UN Habitat, and Aus-AID forming Cities Alliance (Cities Without Slums). The Government of Indonesia, through the Director of Housing and Human Settlements in the Ministry of National Development Planning (BAPPENAS), has initiated steps to develop a national policy and action plan to address the needs of the poor who live in urban slums, especially regarding land tenure, access to housing finance, and housing stock. BPN, in this project, has its role in legalizing assets (land certification) that conducts land consolidation/land readjustment (Figure 1-2). This project would support the development of a National Slum Upgrading Policy and a National Slum Upgrading Action Planthat would focus on the role of the national government in enabling local governments to improve living conditions in urban slums by transforming them into legal, viable communities. These initiatives willbe included as part of the Government's Mid Term National Plan 2010 - 2014 , which will be launched in 2010.

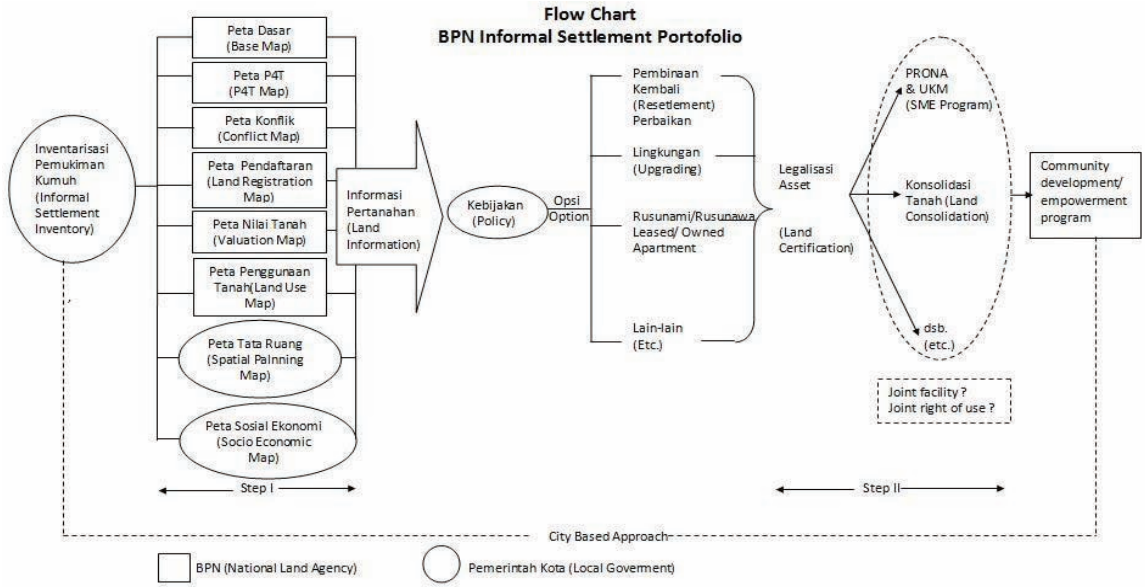

Figure 1-2: Flowchart of BPN Informal Settlement Portfolio
(source: BPN-National Land Agency Republic of Indonesia)

1.1. Research problem

Strategies for tackling inner city problems have become a widely discussed topic. One good contribution to the matter is provided by Agrawal (1999), who stated that, generally speaking, two strategies have been used so far in tackling inner city problems: (a) improvement of existing built-up areas occupied by low-income groups, and of spontaneous and unplanned settlement; and (b) development of new housing sites for displaced inner city low-income population. He also mentioned that, over the past two decades, the first strategy has shown some shift from the public sector-initiated slum clearance to *in situ* development approaches such as self-help improvement, sites-and-services, and *Kampung* Improvement Programs (KIP), with emphasis on community preservation.

According to figure 1-3, Conventional Urban Renewal Model, there is a stage of land expropriation to acquire land for relocation of the affected communities. Land expropriation is considered as an eminent domain to acquire land. In most urban development project where a need of new development is planned and also for the public interest, this approach is undertaken by the local authority. It can be said that expropriation is the most effective way of removing ownership constraints (excluding the unknown or uncertain ownership) that (Adams, Disberry, Hutchison, & Munjoma, 2001) determined. However, because of changes in public ideas and an increasing cost, such active public roles in land assembly may not be preferred (Sevkiye Sence Turk & Korthals Altes, 2010). On the other hand, in most of the cases of land expropriation, the property owners are aware that their properties are the last few remaining land to be acquired usually called hold-out problems. In this case, they tend to overvalue their land and consequently delay the execution of the redevelopment project due to the timely and tedious negotiation.

Figure 1-3: Conventional Urban Renewal Model
(Source: (Li & Li, 2007))

The central government of Indonesia and the Jakarta municipality have conducted various policies and used a variety of tools as requirements for intervention to solve the problems. However, past efforts have not been sufficient.The government has invested in several slum upgrading programs in Indonesia, including the *Kampung* Improvement Program (KIP). Nevertheless, data from BPS (2006) shows that slums in Indonesia have increased in size from 38,053 hectares in 1996 to 47,393 hectares in 2000. As one of prominent newspapers in Indonesia, Media Indonesia, cited that Minister of Public Housing said in the year of 2009, slum area in Indonesia increases in size of 57 hectares (Media Indonesia, 2010). Based on Jakarta Statistical Office in 2007, there are 181.256 units of slum houses (21.720 units categorized as severe slum houses) (Pemda DKI, 2010).

1.2. Significance of the research

As Agrawal (1999) noted that by realizing the limitation of the conventional approaches, various alternative strategies, such as land readjustment/consolidation have been applied in several urban sector projects. Land readjustment involves *in-situ* development and voluntary contribution of private assets by

affected households for the provision of infrastructure. According to Turk and Altes (2010), currently, the LR method can be implemented both in built-up and new development areas. However, Turk and Altes (2010) also mention that in practice, the method is frequently used in new development areas of the city. Nevertheless, the land readjustment trial in the urban environment is as yet very limited as the mechanism itself requires the collaboration of the owners with the leading authority or private developer(Li & Li, 2007). The practice of LR for redevelopment of built-up area is still rare in cities.

Land readjustment (LR) as a multi-purpose technique can provide a number of benefits in urban development, including land assembly for project sites, government land acquisition for public purposes, construction of network infrastructure, official plan implementation, equitable sharing of costs and benefits, land title registration, and timely land development (Ray W. Archer, 1994). The benefits of LR projects in terms of landowners are the considerable increase in value after the LR process despite a reduction in size, the conversion of lands into serviced urban plots in regular forms and sizes, the ease of marketability, and the continuation of ownership after LR (S. S. Turk, 2008).

LR has been applied in many countries all over the world. One of the most successful countries implementing LR is Japan. Although the LR technique has been transferred to many Asian countries, it is particularly important to Japan where approximately 30 per cent of all urban areas had been developed/redeveloped using this method by March 2000 (Li & Li, 2007). Due to different institutional arrangements and differences in culture, may have different degrees of success in the application of the LR concept, since it is usually an informal social arrangement built on economic principles (Li & Li, 2007).

German land readjustment has a very long tradition and really many projects have been completed with thousands of hectares of new building land for residential, commercial, industrial and other use as well as for public infrastructure (Muller-Jokel, 2002). In Germany, the process of land readjustment/land consolidation is called *Umlegung* and implies in fact that the rural land consolidation methods have been adopted to urban conditions (Larsson, 1997).

These days, development in urban area, notably in the city centre, seems to be difficult to conduct due to the scarcity of urban land. Public participation involvement in development seems to be one way to cope with the scarcity of land especially in urban area where most of the urban lands are occupied by private owners. Private owners need to be 'share holders' in the projects being carried out by developers on their lands. They take part in the management of the project. Such mechanism is the essence of a partnership between the private sector, the community and government in urban land development. Therefore, there is a need to establish a mechanism for land transfers that can take ownership of the land from the owners (Firman, 2004). He also noted that land consolidation/land pooling/land readjustment methods could be applied as groups of land parcels are consolidated for subdivision into a layout of building plots, streets, and open spaces, with the sale of some of the plots for cost recovery and the distribution of other plots back to the original landowners.

Having this in mind, the essence of this research is to study the feasibility of land readjustment as an alternative solution to current land management practices for *kampung* upgrading in Jakarta, Indonesia. Land readjustment is brought forward as an alternative solution for *kampung* upgrading since it introduces a partnership between private property owners and public authority/private developer that would bring win-win situation for all parties (see figure 1-4).

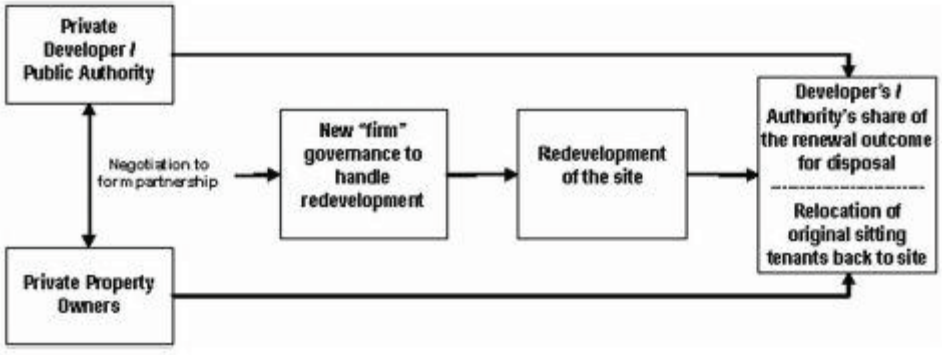

Figure 1-4: Land Readjustment Model of Urban Renewal
(Source: (Li & Li, 2007))

1.3. Research Objectives and Questions

The main objective of the research is to study the feasibility of land readjustment for kampung upgrading in Jakarta.

The main research question is "Is land readjustment feasible for kampung upgrading in Jakarta?"

To achieve the main objective and to answer the main research question, the following sub objectives and sub questions arise:

i. To analyse the existing informal development problems in Jakarta :

1. *What is the current situation of kampung in Jakarta?*
2. *What are the government policies related to informal settlement and its implementation?*
3. *What are the shortcomings of previous programs?*

ii. To explore land readjustment (LR) applications (in German and Japan):

4. *Is LR an effective urban development tool?*
5. *How is LR implemented for urban development?*
6. *Does land readjustment preserve the tenure security?*
7. *How does LR benefit the stakeholders (landowners, government, and private developer)?*
8. *What conditions that may prevent the success of LR application?*

iii. To investigate the applicability of land readjustment (LR) in Jakarta:

9. *What are the potential of LR for urban development?*
10. *What are the lessons learnt from Japan and German LR?*
11. *How can the lessons learnt be applied in Jakarta, in respect to the shortcomings of KIP?*

1.4. Research Methodologies

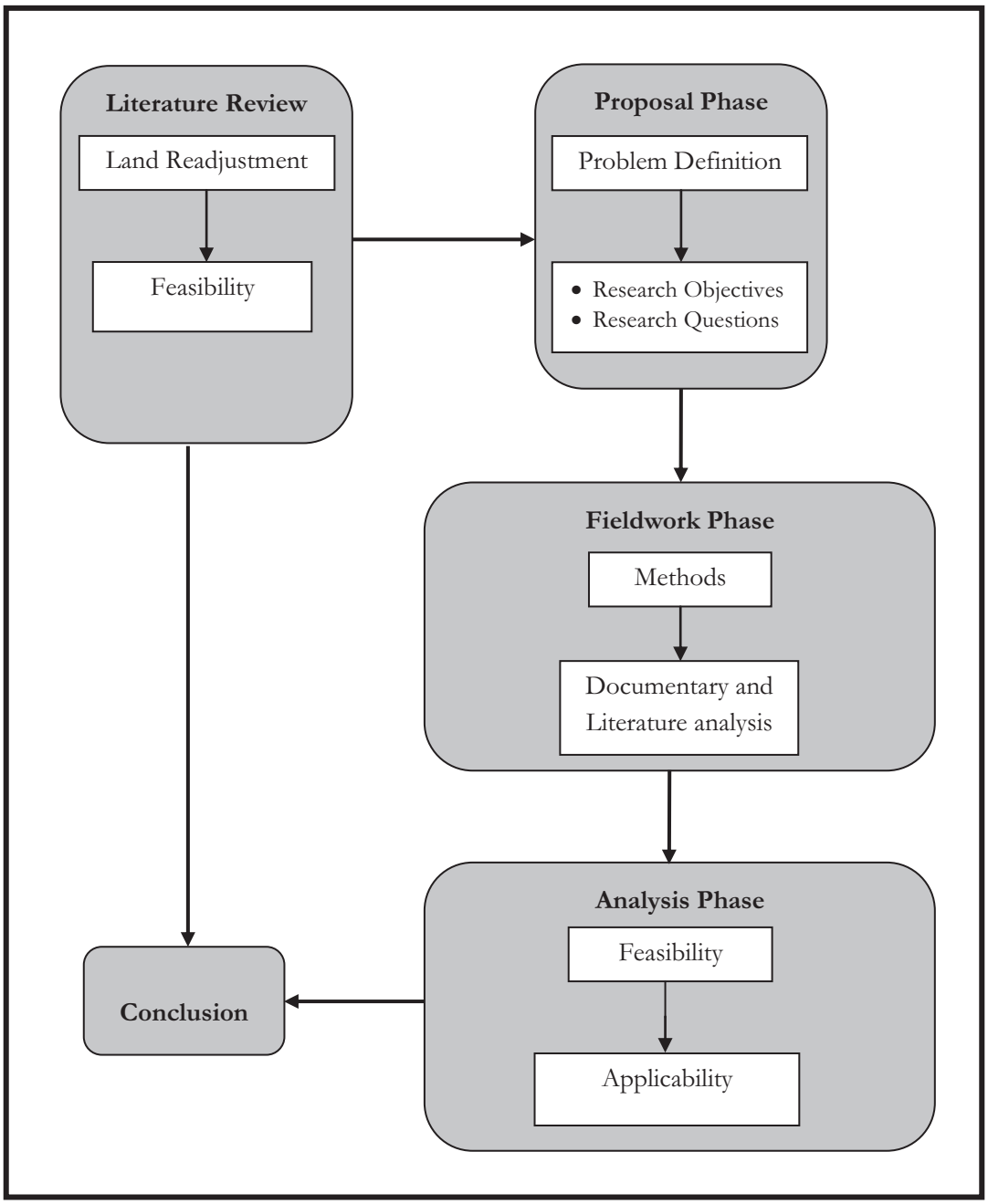

Figure 1-5: Research Methodologies

1.5. Conceptual Framework

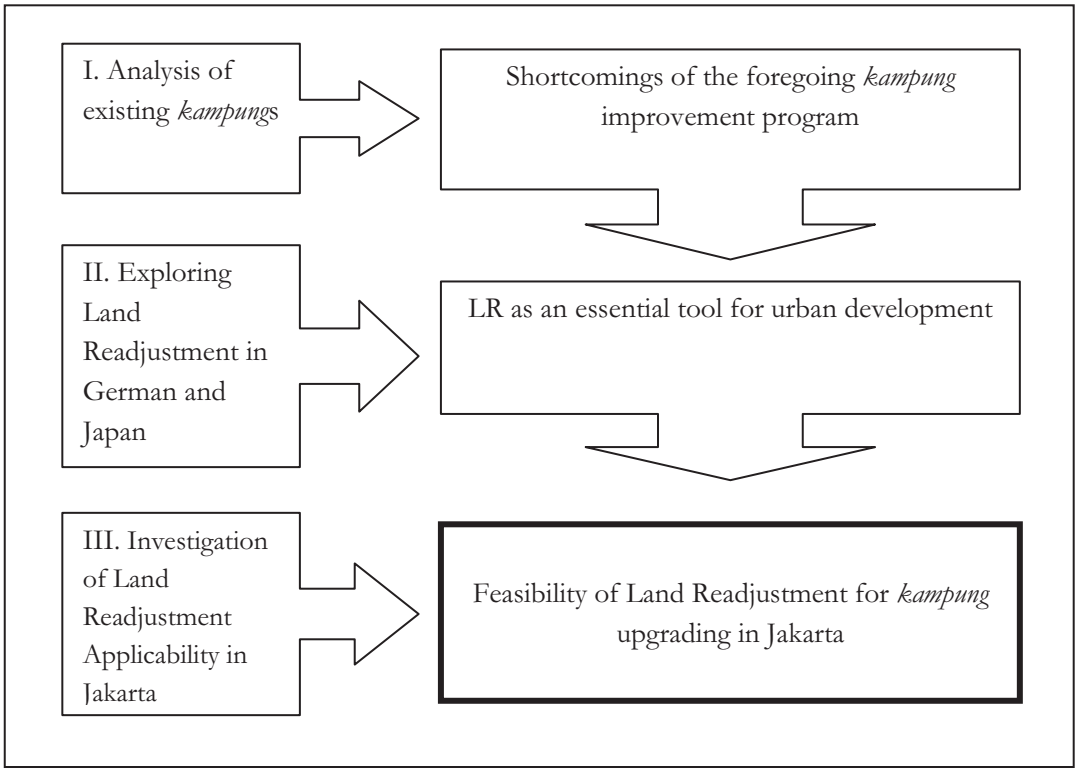

Figure 1-6: Conceptual Framework

1.6. Thesis Structure

Chapter 1: Introduction
This chapter consists of Introduction, Research Problem, Significance of the research, Research objectives and questions, Research Methodologies.

Chapter 2: Informal Settlement and *Kampung* in broad sense
This chapter consists of the literature about informal settlement –*kampung* and previous programs coping with informal settlement.

Chapter 3: Land Readjustment (LR) Concept and Practice
This chapter describes about application of land readjustment in the fieldwork area (German) and Japan, and lessons learnt.

Chapter 4: Applicability of Land Readjustment
This chapter presents the result of the case study analysis and makes inferences about the application of land readjustment during fieldwork. We come up with the possible land readjustment application for *kampung* upgrading in Jakarta.

Chapter 5: Conceptual Model of LR application
This chapter designs a conceptual model of land readjustment for *kampung* upgrading.

Chapter 6: Conclusion and Recommendation
This chapter discusses the conclusions and recommendations for further research regarding to the topic.

2. LITERATURE REVIEW

2.1. Understanding Informal Settlement in Broad Sense

Informal settlements which commonly refer to slums are parts of cities lacking of basic services (limited basic services). UN-HABITAT has identified four indicators against which progress can be measured. These are:
(a) Security of tenure;
(b) Structural quality/durability of dwellings;
(c) Access to safe water;
(d) Access to sanitation facilities.

The term of slums represents housing areas that were once respectable or even desirable, but which have since deteriorated, as the original dwellers have moved to new and better areas of cities (UN-HABITAT, 2002)

In other words, slum is a heavily populated urban area characterized by substandard housing and squalor (UN-HABITAT, 2003). This definition summarizes the crucial characteristics of slums consisting of high densities and low standards of housing that refer to spatial and physical aspect, and squalor referring to social aspect. Generally speaking, the term 'slum' is used to describe a wide range of low-income settlement and/or poor human living condition.

Slums may range from high density to spontaneous squatter settlements without legal recognition or rights, sprawling at city centre and the edge of cities. Slums may be called by various names in different countries like *Favelas* (Brazil), *Barridas* (Peru), *KachiAbadis* (Pakistan), *Shanty Town* (Africa) and so on yet share the same miserable living conditions (Massachusetts Institute of Technology, 2010a).

In short, slums generally do not have basic services – water access, sanitation, waste collection, street lighting, paved footpaths, roads for emergency access, public facilities i.e. schools, clinics, playground, and social building for people meeting. Additionally, "slums condition can be worse as a result of: the average age of people in cities increasing, the average age of slum dwellers decreasing, so the youth suffer most from unhealthful conditions, visible disparities between slums and better-off neighbourhoods increase the social tensions in poorer areas, and unplanned growth of settlements that make conventional service provision complicated" (Massachusetts Institute of Technology, 2010a).

Slums are usually located in city centres where it is centrally close to job market, densely populated and also exist in older parts of cities. Their central location, where land prices are high, has made slums targets for redevelopment, gentrification and commercialization, often resulting in the displacement/eviction of the inner city poor who reside there (Fekade, 2000).

2.2. Informal Settlement in Jakarta and its problems

In most developing countries, like Indonesia, many informal settlements exist with their various characteristics respective to the countries. Based on Fekade (2000) point out, informality refers to (1) illegal occupation of land (2) the non-adherence to building codes and infrastructure standards (3) both to the illegality of the land on which a house is built and the non-conformity of the house to building standards and codes. Informal housing could be considered a continuation of an intrinsic process of human settlement evolution on the one hand, and a response to the inadequacies of public policy intervention/guidance on the other. However, there are common characteristics described by Fekade (2000) irrespective to countries that :

- They are built by the inhabitants themselves with hardly any public assistance, often in spite of eviction threats from public authorities. The houses are built with intents of owner occupation, renting or both.
- They are built, for the larger part, by low-income urban dwellers for which existing formal avenues are hardly realistic options.
- They employ local building materials, skills, designs and indigenous technology.
- They do not, especially during the earlier stages of settlement establishment, adhere to formal/legal building codes and standards.
- They exhibit high variations in types and quality of construction. Some housing stock is of high quality, erected with concrete blocks, corrugated iron, aluminium, zinc or tin. Others may consist of traditional rural construction materials.
- They are built incrementally, ensuring flexibility on the part of builders/owners.

In the case of Indonesia, back to 1870, when private enterprises emerged to run notably in Java, at the same time as the plantation by private sector began. Commercial activities within the cities grew rapidly. During that time, many Indonesian people came to the cities to increase their life quality in terms of better job opportunities. As a consequence, rapid urban expansion existed and rural village became urbanized to meet the housing need in cities and also urban fringes. This is how the *kampung* existed and developed. In some ways, the historical development of *kampung* could be seen as the consequence of the interaction between native Indonesians and the external world (Setiawan, 1998).

Despite the development of *kampung* as part of the Indonesian urban phenomenon, yet, *kampung* is also seen and described from negative perspectives. Firstly, *kampung* recognized as residential areas characterized by: their high-density, irregular patterns of housing lots and pathways; temporary structure of their buildings; and their poor drainage and sanitation system (Setiawan, 1998). Shortly, in other words, *kampung* can be described as a settlement area that is substandard, underdeveloped, and unhealthy for such a modern environment in a city. In spite of this *kampung*, many studies about *kampung* show that some *kampung* can be classified as physically deprived and some have a lively environment. Secondly, the above–mentioned description of *kampung* is one specific *kampung* existing in inner city and occupied by the poor. In fact, there many kinds of *kampung* based on Krausse (1975) classification. He classified *kampung* into three types: inner-city *kampung*, the woodland *kampung*, and the peripheral *kampung*. In this research, we focus on the inner-city *kampung* regarding to its location in city centre and redevelopment of the city centre as my concern. It is because most *kampung* exist in the city centre because they can get job more easily there. They do not integrate with the urban system due to lack of public infrastructures.

Kampung is regarded as rural settlements in urban area, developed in informal and illegal manners, and in fact it is a complex issue that has dynamic nature. However, it may change over time. When *kampung* was developed in the past with its poor condition, it may alter into better condition depending on its

surrounding environment from external factor. It is always trying to adapt to the dynamic changes from outside and also from internal factor like incremental improvement of the legal status of land and building as *kampung* is upgraded. The incremental improvement may be done by the private owner and it refers to as term of private development.

Activities pertaining to private development can be broadly distinguished to formal and informal sector development. The formal sector refers to formal housing development constructed based on regulations developed and imposed by the state. Formal sector development can be described as land subdivision and building development that is carried out on land and is held on a registered title, with the permits required and to the standards specified by the planning and building regulations (Ray W. Archer, 1994). Most of this formal development is undertaken by developers that build ready-made houses, commercial building such as shopping centres, factories, offices and hotels. In many countries the formal sector does not exceed 20 per cent of the total housing supply, and in some cases it is less than 10 per cent (Setiawan, 1998). There are two different housing production systems classified under the formal sector depending on the source of capital and motive of production. The first is the public sector: housing produced by government agencies basically for non-profit motives. The second is the private sector: housing produced by private agencies for profit. Another form of formal sector development also includes single house projects, constructed by individuals and companies on lands which they purchased with a registered title or had converted to a registered title.

Conversely, the informal sector refers to housing constructed outside the system of legal regulation imposed by the state (Setiawan, 1998). Archer (1994) describes informal sector development as land subdivision/partition and building construction, carried out on land, that is not held on a registered title. The land title is required for the issuance of building permits. When the informal development is still undertaken, it is considered as informal development outside the land-use regulatory system. The informal term is much more complex and described by various terms such as 'spontaneous', 'unplanned', 'squatter', 'substandard housing', or 'slums'(Setiawan, 1998).

Many informal settlements exist in the city due to its haphazard development by private owners. They subdivide the land and sell portions of it as building plots with pathway access for self-built housing. This land subdivision and housing construction takes place incrementally, leading to a continuous development and population increase in "*kampung*" settlements, also referred to sometimes as *densification*. The problem is that this process is not accompanied by any basic services. Furthermore, construction of houses and rental rooms is usually not supported by the road network, installation of piped water supply, drainage lines or sanitation systems. Consequently, as densification increases, there is a growing congestion, increasing health risk and environmental deterioration (Ray W. Archer, 1994).

Basically, *kampung* is an informal settlement in the city, which was built by the people themselves with affordable plan, self-building design and standard of construction. The owners provide housing with infrastructure, although the infrastructure is sometimes inadequate. Most of informal settlements, *kampung*, exist on customary land which the owners possess the land with property tax receipts, notarized purchase receipts and letters from district and sub-district head(Ray W. Archer, 1994). These documents show that they hold what is termed as "possessory title"- adverse possession, an owner occupying and using land for years. This kind of title is considered as unregistered title. Another characteristic of informal settlement is that it also takes place in areas with little existing networks and social infrastructure, around the existing *kampung* villages, and on land near the existing urban settlements and along the public roads (Ray W. Archer, 1994). Much of the *Kampung*s are high density with 600 persons per hectare (Jellinek, 1991). These

*kampung*s built and developed incrementally by their inhabitants can be seen as the building blocks and also as a sign occurring due to urban growth that alters from rural village into urban villages with minimum even sub-standard facilities and services, and merging as urban village cluster.

Most *kampung* settlers are the lower and lowest income groups with only limited resources to build houses and manage their neighbourhoods. In the early stages, as Silas (1992) mentioned that government funds to support these informal settlements were very limited and some improvements were gradually made to housing and facilities as neighbourhoods consolidated and the living standards improved. Since a unique mix of socio-economic classes in *kampung*s exists where the poor live close to urban middle class households and also mutual help and informal cross-subsidies for neighbourhood improvement developed. However, this gradual improvement process is hampered by increasing densities and the related lack of space for on-plot and neighbourhood development (Silas, 1992).

*Kampung*s are the traditional form of indigenous urban development in Indonesia which has grown organically and incrementally over many years without planning guidance or regulations, building codes or centralized, coordinated service provision. *Kampung*s are the result of urban expansion, densification and agglomeration of villages, eventually forming contiguous towns and cities.

2.3. Strategy undertaken to alleviate Informal Settlement in Jakarta and its shortcomings

Housing in Jakarta has become a big issue. Although the Government has subsidized the public housing, the housing stock provided by public sector is not sufficient. In 20 years (1984–2004), only 17,600 housing units have been built by the City Housing Agency (*PerumPerumnas*) despite the fact that the city wants to promote apartment life style in centrally located areas, provide healthy environments and ease traffic (Steinberg, 2007).

Low-cost housing intended for the low-income group does not remain in the hands of the poor since gentrification appears where the houses are sold to the unintended group which is the higher income group. In 2007, a massive public housing program was commenced to provide low-cost housing. However, "the price of land in the city and land conflicts will certainly contribute to slow down the implementation of this program" (Steinberg, 2007).

Regarding to the insufficiency of housing stock, the central and local government issued specific permits called location permits for developers to acquire land for housing and urban development. Such development was aimed to provide housing in outskirt of Jakarta, Bekasi and Tangerang. Under this policy, it was assumed that developers would build housing in the proportion of 1:3:6, meaning that in any particular site the developer was obliged to build three units of middle class housing and six units of low-income housing for every unit of exclusive housing(Winayanti & Lang, 2004). However, since there were no sanctions to enforce such obligations, the policy did not work to meet the low-income housing needs.

2.3.1. Kampung Improvement Program (KIP)

Various policies and strategies have been implemented by the government to address housing problems in Indonesia by providing the poor alternatives to formal housing such as slum upgrading programs known

as *Kampung* Improvement Programs (KIP). The innovative *Kampung* Improvement Programme (KIP) in Jakarta, Indonesia, launched in 1969 is the world's first urban slum upgrading project (UN-HABITAT, 2006). The KIP initially started with the upgrading of physical infrastructure and did not include land tenure issues (Winayanti & Lang, 2004). By 1979, it had benefited about 3.3 million residents of Jakarta's slum areas (Werlin, 1999).

KIP is an improvement program implemented in a neighbourhood with low-income dwellers (*kampung*). It was a self-help urban renewal/revitalization carried out with a limited budget in traditional, poorer urban communities in Indonesia. Since the houses, people, and social structure were already in place, the government just provided the basic needs of the people. The KIP focused to provide basic urban services, such as roads and footpaths, water, drainage and sanitation, as well as health and education facilities. The improvement involved little disturbances to the existing infrastructures. The program did not offer direct housing assistance, but improved access, greater flood control and increased economic activity within the *kampung*s has stimulated home improvement (Urban Development Timeline, 2000). From its beginnings in Jakarta, the Bank-supported share of KIP reached nearly 5 million people in fifteen years (the total program reached 15 million over 30 years) and it involved some 300 local government units around Indonesia, emphasizing the provision of water, sanitation, shelter and roads (Massachusetts Institute of Technology, 2010a).

During the initial stage, 1969-1974, the Jakarta Administration (DKI) managed to improve living standards for 1.2 million people through an average expense equivalent to only 13 US dollars per head (UN-HABITAT, 2006). It covered not only the slum upgrading but also social improvement. In this case, the community is expected to invest their capital as their livelihood has been improved by the KIP.

In 1974, the KIP obtained the World Bank support with soft loans to speed up the process. By 1979, the Indonesian government endorsed the KIP scheme as national policy and when World Bank assistance came to an end in 1982, the KIP had improved conditions for close to 5 million urban poor(UN-HABITAT, 2006). KIP became a model of program transforming *kampung* integrated to urban system by the provision of such basic services.

However Jakarta's local government has been inconsistent, as settlements that had undergone the KIP were later demolished to accommodate new commercial and business facilities (Winayanti & Lang, 2004). The local government has provided housing for low-income residents in multi-storey building. Thus, they claim that between 1983 and 2000, 17,801 walk-up flat units have been provided under various occupation and financing schemes, usually on land from which poor illegal settlers have been evicted (Winayanti & Lang, 2004).

2.3.2. The Shortcomings of KIP

Despite KIP has succeeded in transforming *kampung*s into part of healthier accessible urban environment, shortcomings remain in place. The idea of KIP is by improving the quality of the *kampung*s, it may stimulate the property owners to improve the physical structure of their houses and status of the landownership.

According to Agrawal (1999), however, the strategy has its limitations due to the limited availability of urban land. The scarcity of urban land becomes the major issue hampering *kampung* upgrading to its

optimal impact. KIP neglected the demand of land in development of an area since no urban is available to develop and it also did not introduce the cost recovery issue. Another thing is that KIP initially started with the upgrading of physical infrastructure and did not include land tenure issues (Winayanti & Lang, 2004).The expectation was that it would increase ownership; as community security increased, more people would be motivated to clarify and improve the status of the land they occupied (WORLD BANK, 1995).KIP only concerned about the provision of access roads, paved footpaths, sewerage, piped water, sanitation facilities and public services (such as primary schools and clinics), while the current residents still stay on the same site as much as possible with the existing condition. As in slum upgrading these programs aimed at improving basic infrastructure but still with lower standards and more cost effectiveness (Fekade, 2000). The picture of *kampung* before and after KIP is provided in figure 2-1.

Moreover, Batubara et al (2002) noted that KIP did not involve improvement in individual residential structure (single house). In other words, KIP only focused on the provision of the basic minimum services and Jakarta municipality had limited budget to fund the program. Nevertheless, the KIP concept had limitations. According to Batubara, et al (2002), for KIP it became increasingly difficult to find project sites where land could be spared for common public services such as roads and footpaths in the over-crowded neighbourhoods and also in spite of the efforts to encourage current residents to stay in the neighbourhood, there has been an influx of relatively higher income groups (gentrification) into the *kampungs* as the quality of its environment improved.

KIP tends to be a short-term program where in the future improvements provided may decay and requires maintenances. It highly depends on the Government funds and neglects the cost recovery issues. In other words, this program produces community's dependency on the state to conduct. The operation and the maintenance is on the responsibility of Government but on the other hand, the Government has shortage of capital in annual budget to develop an area. Furthermore while KIP is carried out in *kampung* level, there is no wider infrastructure network beyond the *kampung* level. Basic services like roads does not give more spaces for transportation in case there is a disaster of fire occurring in *kampung*, no adequate access to evacuate from such risky disaster.

Figure 2-1: Kampung in Jakarta before and after KIP

The last thing, however, KIP has been criticized for not becoming involved in local communities in any real sense (Setiawan, 1998). Even though the Government turned this program into comprehensive KIP that base on community participation but in practice still this does not exist. This program, however, still heavily top-down approach and gives little room for genuine community participation (Setiawan, 1998).

Another strategy, New Housing Development, on the other hand, has become increasingly difficult to apply since this approach requires acquisition of land for relocation of affected communities(Agrawal, 1999). Especially in the city where the land value is getting higher when closer to the city centre, and job market. Thus, it is highly difficult to acquire land for resettlement. In addition to that, strong social tradition of attachment to landownership and social and community ties may negate the resettlement from their present locations.

Public housing programs have minor contribution to the housing supply. Where land has been in short supply but high demand, densities in the *kampung*s have grown rapidly. In some cases they exceed 1,000 inhabitants per hectare.(Silas, 1992)

Among those fore-mentioned shortcomings of KIP, the most important ones are the scarcity of urban land, not include land tenure issue, and limited budget of municipality. We choose those ones because they are the basic crucial issues of urban development in Jakarta that in the future they may have potential to occur again.

3. LAND READJUSTMENT (LR) IN CONCEPT AND PRACTICE

3.1. The Concept of Land Readjustment

"Also known as land consolidation or land pooling, land readjustment has become an important tool for urban development in Japan. South Korea. Taiwan. West Germany. and the state of Western Australia" (Schnidman, 1988). Land readjustment is literally a technique that can provide and/or improve public facilities such as roads, parks, social building (school, clinic) and sewerage and increase the use of land by reshaping the irregular parcels. The landowners contribute part of their land for infrastructure provision and reserve land. The process of land contribution from the landowner is called land reduction and the reserve land captured from land reduction referred to as "cost equivalent" land. The reserve land is sold at the end of the project to pay the costs of planning, administration and construction (A. Sorensen, 1999). The basic principle of land readjustment is illustrated in figure 3-1. The landowners give away a portion of their land through land reduction. After the roads and other infrastructure are constructed and land title of the old parcel is legally transferred to the newly designed parcel, the land value of the remaining land increases substantially. If the owners have no intention to erect a building, they can sell the new remaining parcels with substantial profits as the original parcels has become fully serviced and ready to build.

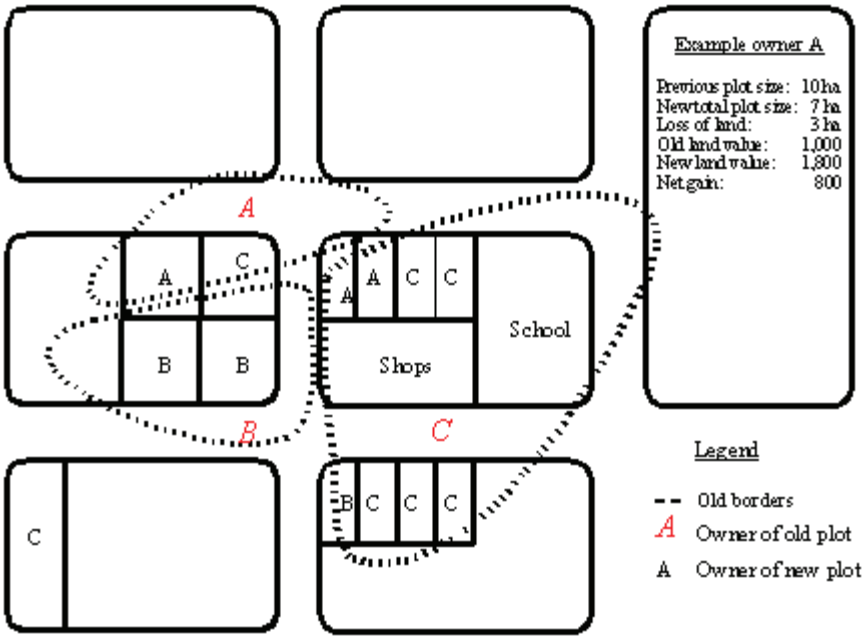

Figure 3-1: Basic principles of land readjustment
Figure indicates the plots of the land owners A, B and C before and after land readjustment.
(Source: (UNESCAP, 1995a)

The general works of land readjustment is firstly an area is designated for the project. Subsequently, a development plan is prepared based on the current and projected market condition, and taking into consideration environmental and aesthetic factors (Schnidman, 1988). He also described that "the development plan can be implemented by an individual, a private corporation, a landowners' association, a

public corporation, an administrative agency, or another public entity". The existing parcels are merged into a single big parcel, and the parcels are reorganized to fit the development plan. The planners has task to estimate the area of land required for public infrastructures and the reserve land. This estimation is used at later stage for calculating a percentage reduction of land for each landowner. The land reduction ratio for each landowner is based on land values both before and after the project(Schnidman, 1988).

Land readjustment can be an essential tool to develop new area and restructure the urban area. In most cases, converting rural land divided up into small parcels or semi-urban land into urban land has been a problem. As Larsson (1997) argued that this normally takes time and it is difficult to get coordinated implementation. It seems that this kind of problems may occur continuously in the future. In the long run it is not advisable to exploit new land far from the city centre while neglecting renewal and more intensive land use in old but closer settlement areas (Larsson, 1997).

Land readjustment (LR) as a multi-purpose technique can provide a number of benefits in urban development, including land assembly for project sites, government land acquisition for public purposes, construction of network infrastructure, official plan implementation, equitable sharing of costs and benefits, land title registration, and timely land development (Ray W. Archer, 1994). The benefits of LR projects in sense of landowners are the considerable increase in value after the LR process despite a reduction in size, the conversion of lands into serviced urban plots in regular forms and sizes, the ease of marketability, and the continuation of ownership after LR (S. S. Turk, 2008). The attraction for planning authorities is that projects provide land for public facilities, build needed urban infrastructure and can be largely self-financing (A. Sorensen, 1999).

As a tool for development either in urban or rural area, land readjustment has become interesting tool, generally speaking, is that it has several abilities leading to advantages for both authorities and landowners. Firstly, as its concept is private-public cooperation, they can meet agreement between them to support each other. For instance, when the local government is planning for development in certain area and they have limited resources in terms of capital or land, the local government can involve the landowners within the area to participate and succeeding the development in order to fit in the land-use planning defined. As Larsson (1997) noted that land readjustment is seen as an interesting alternative when neither public authorities nor any individual landowner has sufficient resources to carry out the development. It supports a planned development in an area including the land and infrastructure network. In many Asian countries, where different types of land uses and densities are mixed (UNESCAP, 1995a) and many plots in urban area are small, the developers find it difficult to acquire a sufficient number of plots next to each other for development so that there exists scattered building development (R. W. Archer, 1987).

There are many ways to acquire land for development for instance is buying-up land by compulsory purchase or expropriation that requires high amount of money. This method faces the resistance from the landowners. Moreover it takes time for negotiating the fixed price for lands. In other words, it is hard to get a fair and uniform response of the landowners. Consequently, this method may delay the timely development process. Unlike expropriation, land readjustment can reduces the tense between the landowners and public authorities in an agreement since a partnership between them should be established in a close link during at the beginning of the project. Land readjustment will return a major part of the land to the landowner (UNESCAP, 1995a) . Ideally, commitment between them in a good manner should be formed during the project implementation.

Another advantage of land readjustment is that it may provide the infrastructure from the systematic reduction of lands and provide the serviced urban land supply. Part of the serviced urban land, reserve land, is sold for the cost recovery for the project. As cost recovery is a major obstacle for municipal governments in most Asian countries, this would probably be the most important component (UNESCAP, 1995a) . Finally, land readjustment initially requires the status of land ownership inventorized and clarified, thus at the end of the project land registration is provided to give tenure security. Subsequently, it may lead to the increased revenue of the local authority from property taxes as the land value is increasing due to the serviced land as a result of land readjustment project.

In view of the clear advantages it can offer both to landowners and to authorities, Larsson (1997) described that the method should be capable of arousing interest and of being introduced in many countries.

- When individual development is prevented by fragmented or inappropriate property subdivisions.
- When an older urban structure is to be reorganized.
- When extensive new infrastructure is to be introduced in an earlier subdivision

The above situation resembles to the situation in informal settlement where the unplanned development occurs. Such situations represent the reality existing in *Kampung,* Jakarta. Land readjustment could be the solution in coping with the unplanned development.

3.2. The Practice of Urban Land Readjustment in Germany

Germany holds the principle of sustainability in development. "According to Urban 21 Conference held in Berlin on July 2000, Sustainable urban development means improving the quality of life in a city, including ecological, cultural, political, institutional, social and economic components without leaving a burden on future generations" (Muller-Jokel, 2004). Urban planning is an important instrument to achieve sustainable urban development. However urban planning is just the first step towards sustainable urban development. There is a need to realize the plans, ideas on a piece of paper. Realizing the existence of different landowners, it is a great challenge to achieve sustainable development. Flashing back to the conventional methods in most countries, the most common method used to realize sustainable urban development is expropriation, eminent domain. Many risks arise as the result. Irregular demands on compensation and controversial negotiations are some of the risks that may arise.

"Land readjustment is a very elegant and economic instrument to realize urban development plans" (Muller-Jokel, 2004). It is a suitable method to implement an approved building plan and at the same time equalizing the development gain according to everyone's share (Larsson, 1997). He also noted that the method is well established in Germany and is considered an important means for town building as shown in figure 3-3.

German land readjustment, usually called *Umlegung*, started about a hundred years ago that is Franz Adickes, the previous Lord Mayor of Frankfurt am Main, created a law to force landowners to participate in so called land readjustment projects. The law that was enacted in 1902 and amended in 1907 is therefore called 'LexAdickes'. "The basic idea of this instrument is to exchange the plots of the landowners and not to expropriate them" (Muller-Jokel, 2004). The basic idea of land readjustment in Germany is illustrated in figure 3-2.

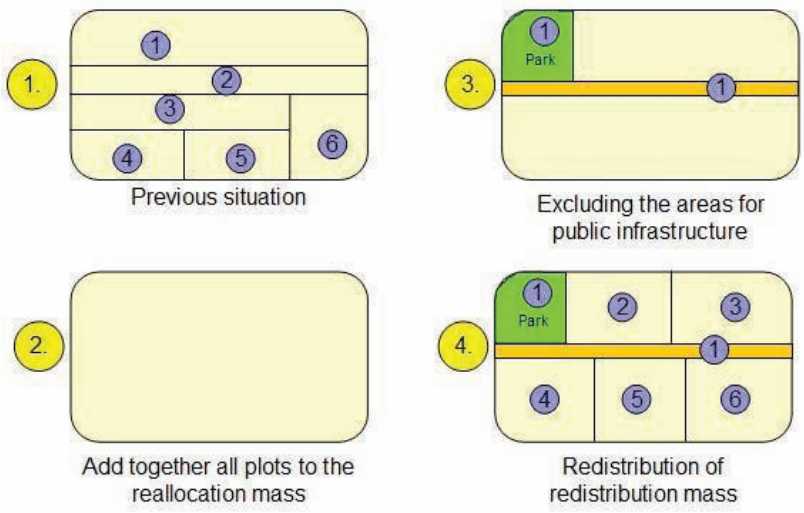

Figure 3-2: Basic Idea of German Land Readjustment
(Source: Lehrstuhl für Bodenordnung und Landentwicklung, TUM)

These days, land readjustment is mainly used in peripheral area for urban expansion and renewal. Basically it was adapted from rural land consolidation methods to urban condition. The land readjustment project is compulsory where require no consent from the landowners and is executed by local authorities(Schnidman, 1988). The executor is either an appointed committee or the proper cadastral or consolidation authority (Larsson, 1997). In some cases, however land readjustment projects can be undertaken by owners or developers with the approval of local authorities (Schnidman, 1988). Larsson (1997) pointed out that the whole process is taken care of by the local authorities from initiative, planning and implementation. Nonetheless the remaining land is given back to the original landowners after relocation to suit a new development plan. The example of German Land Readjustment is represented in figure 3-3.

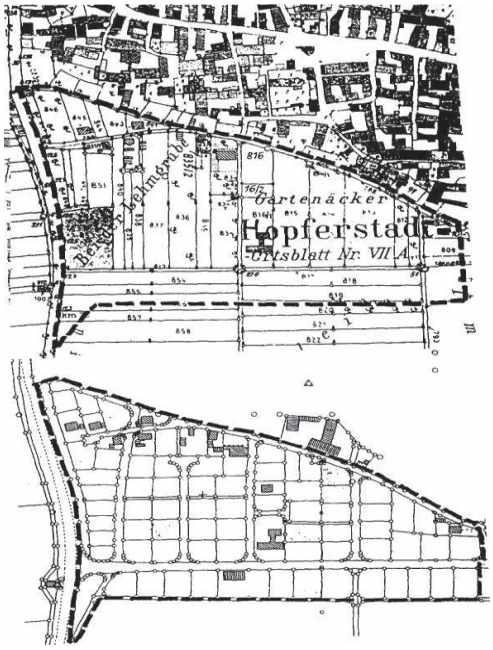

Figure 3-3: Property boundaries before and after a completed Umlegung
(Source: Larsson)

The legal basis of urban land readjustment in Germany is The Federal Building Code *Baugesetzbuch* (BauGB) Section 45 to 84, a federal law statute on land use planning, that allow for mandatory land readjustment. As Larsson (1997) noted that the executor of land readjustment is either an appointed committee or the proper cadastral or consolidation authority. The responsibility for all important decisions in land readjustment project is usually transferred to independent land readjustment boards appointed by the municipalities. That means that a municipal office prepares all decisions and negotiates with all the landowners of a land readjustment area but the final decisions will be made by the independent land readjustment boards. Those boards generally consist of of five persons- a lawyer, a land evaluator, a land surveyor and two members of the local parliament (Muller-Jokel, 2004).

The participation of the landowners is an important component in land readjustment though in Germany the process is undertaken by local authorities as a compulsory project, but still agreement of the landowners is above all in the project. "Within intensive negotiations the general principles of land readjustment, the market value of the landowners input plots, their claims and different options of land redistribution have to be discussed" (Muller-Jokel, 2004). He also noted that "in land readjustment project there is a much more intensive participation of all landowners and other parties involved".

This mandatory land readjustment can be a tool to realize land use plan in general and notably to improve the property of the landowners. They can obtain the readjusted land more suitable for development, surrogate property and the right of the property still remains. The landowners may modify their properties themselves by mutual agreement however if many stakeholders are involved, the transaction costs of voluntary land readjustment are very high (Davy, 2007). He also pointed out that as long as landowners are willing and able to modify the boundaries of their properties by themselves, the land may not be readjusted compulsorily. Land readjustment helps to prepare land whether developed or undeveloped land ready for development based on the desired plan in terms of location, shape and size.

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3.2.1. Workflow of German Urban Land Readjustment

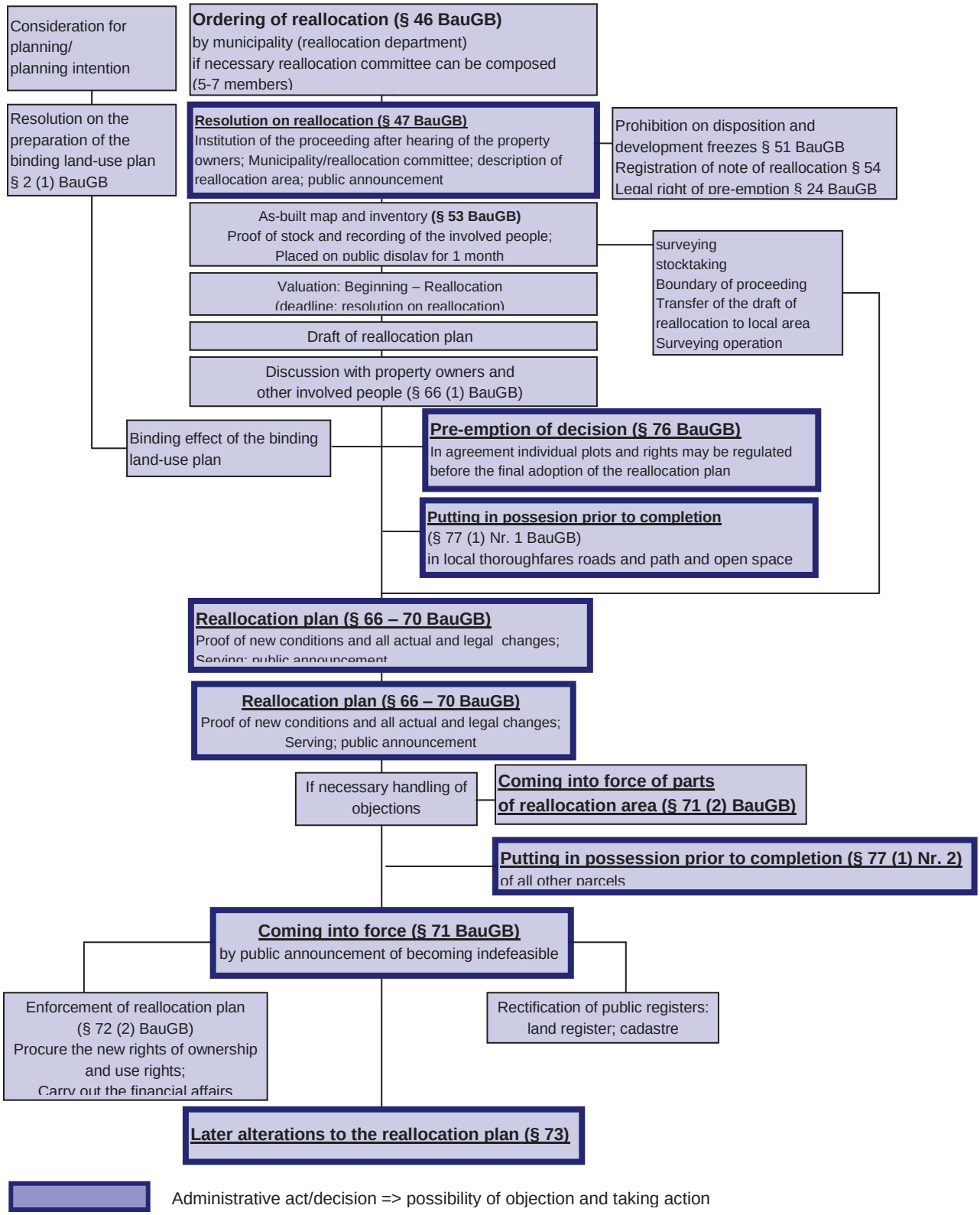


Figure 3-4: Workflow of German Urban Land Readjustment
(Source: Lehrstuhl für Bodenordnung und Landentwicklung, TUM)

The German planning regulation enables the municipality under land readjustment department implement the land use plan through land readjustment. Under section 45 paragraphs 1, of BauGB, both developed and undeveloped land covered by a binding land-use plan can be re-organized/readjusted to create plots suitable in terms of location, shape, and size for built development or for other use.

The workflow of German Urban LR is illustrated in figure 3-4. The municipality starts the urban land readjustment with a formal declaration regarding to the general introduction of the project. The land readjustment committee is established composing 5-6 members that may comprise a lawyer, a land evaluator, a land surveyor, and two members of local parliament. A meeting is held to introduce the project with its rules and procedures. Then the land readjustment committee decides a resolution on land readjustment designating the extent of the project area and public announcement for 1 month. The resolution must designate the reallocation area. Under this resolution, a prohibition on disposition and development freezes in the land readjustment area applies. That means all activities on relevant land in the project area such as land sale, land subdivision, and building on land are not allowed during the process unless provided with formal permission of land readjustment committee. The resolution also requires a map of the public and private properties and a list of affected landowners and then is indicated in land register that plots within the land readjustment project area are affected.

Next is the land readjustment committee merges the plots into one-large plot, reallocation mass (section 55 paragraphs 1). Subsequently, land for public space is deducted from the reallocation mass and allotted to the municipality or to any other agency charged with providing local public infrastructure (section 55 paragraphs 2). The building of streets and other constructions is not included in the proceedings, they are the responsibility of the municipality and are paid for according to conventional charges (Larsson, 1997). The remaining mass constitutes the redistribution mass, land given back to the original owners. Each of them receives readjusted plot from the redistribution mass, in the same location or comparable location to the plots that have been contributed- outside the reallocation area (section 59 paragraphs 1). According to section 59 paragraph 4, with the consent of the other property owners affected, money or property outside the reallocation area or the establishment of joint ownership of a plot, the granting of rights similar to real property rights, rights of condominium can be provided as a settlement. The portion of each landowner's share is based on the size or value of previous condition (section 56 paragraph 1). The landowner who receives his land less than his shares is entitled to get monetary compensation (section 59 paragraphs 2).Owners who leave their properties idle can be forced to develop their land only under extraordinary circumstances, modernization or reinstatement (section 59 paragraph7).

The reallocation plan is prepared by the reallocation department following resolution and after discussion with the landowners (section 66 paragraph 1). "Within individual negotiations with all landowners their wishes and possibilities of redistribution have to be examined and with these results a draft of the land readjustment plan can be designed" (Muller-Jokel, 2004).

After the draft of the reallocation plan is designed, the land readjustment committee decides the reallocation plan indicating the new utilization proposed. The proposed utilization should state all actual and legal changes of the plots within the land reallocation area (section 66 paragraphs 2). The reallocation plan comprises the reallocation map and inventory (section 66 paragraph 3). The description of inventory states as a minimum for each plot containing the owners, the size and use of the plots, and the charges and restrictions of the plot (section 53 paragraphs 1). The decision of reallocation plan must be displayed

by public notice for inspection by anyone who substantiate a legitimate interest (section 69) and the relevant extracts of the reallocation plan should be informed to the involved parties (section 70 paragraph 1).

If no objections exist against the land reallocation plan, the land readjustment committee must publish the date of the land readjustment plan on which it becomes indefeasible (section 71 paragraphs 1). If any objections appear, it may take alterations to those parties affected by the alterations (section 70 paragraph 2) and if objections in legal remedies of particular section of the reallocation plan do not take effect, the land readjustment department may put into force that particular section prior to public notice and those parties appealed for legal remedies are instructed of the coming into force (section 71 paragraph 2). With the issuance of public notice, the landowners are put in possession of the plots allocated to them (section 72 paragraphs 1). Afterwards, the land readjustment department shall forward an authorized copy of public notice and reallocation plan to the land register for rectification of public registers (section 74 paragraph 1). In case there is a need to alter the reallocation plan after it has become indefeasible, it may be altered under following condition: the binding land use plan is altered, a binding ruling by a court renders alteration necessary, or the parties involved agree to the alteration (section 73). There is no expense charged to the landowners in the reallocation project like survey and registration costs and all costs are covered by the municipality (section 79). The breakdown of the German Urban LR workflow can be seen in table 3-1.

In general the steps of the German Urban Land Readjustment as follows.

		The Land Readjustment Committee
Step 1	Commencement of Land Readjustment	• Define the area selected for land readjustment according to the recent land use planning • Freeze changes of present land use and transfer of rights • Map all properties, and list all landowners • Indicate in the land register that land readjustment has commenced
Step 2	Preparation for Land Readjustment	• Merge all properties into one large land designated for readjustment • Assess the present market value of land • Subtract all land designated for public use (e.g. roads) and allocate this land to municipality or development company • Select relative value or size as the standard for the redistribution of readjusted land • Determine the share of each individual owner
Step 3	Value Capture and Reallocation	• Determine the value of the readjustment gain that owners have to pay to the municipality (standard of relative value) or that may be retained in land (standard of relative size) • Consider the present and proposed uses of the land as well as the needs and suggestions of landowners • Allocate readjusted plots of land to each owner • Determine the compensation of landowners who have not received their full shares
Step 4	Readjustment Plan	• Issue a formal decision on land readjustment • Determine the rights and obligations of each party, including municipality • Include a map of new property boundaries

		• Make legal remedies available to all parties • Issue a public notice when upon exhaustion of all legal remedies, the readjustment plan has become legally binding
Step 5	Implementation of Readjustment Plan	• File the readjustment plan with the land register • Monitor the legal and actual implementation of the readjustment plan

Table 3-1: General Steps of German Land Readjustment
(Source: Benjamin Davy, 2005)

3.3. The Practice of Urban Land Readjustment in Japan

Japan land readjustment technique basically are based on procedures that were originally developed in Germany during the nineteenth century to consolidate agricultural land holdings (Masser, 1987). Such procedures are usually called *Kukaku Seiri (KS)* in Japan. "Land readjustment in Japan dates back to the urbanization period following the Meiji Restoration (1868), though it was not formally legalized until the City Planning Act of 1919 specified that it be used to develop public facilities and to improve development potential" (Schnidman, 1988). Since then, Japan has implemented land readjustment since the beginning of the 20th century. Larsson (1997) noted that there was a breakthrough emerging after two catastrophes: the big earthquake of 1923 and the massive destruction of Japanese cities during the Second World War. Reconstruction was called out by developing joint development with the landowners and tenants in form of integrated programs. *Kukaku Seiri* turned into the main model of urbanisation in Japan and is nowadays responsible for around 50% of all new development areas (Larsson, 1997).

KS is based on the European principle of agricultural land consolidation by which land is exchanged among the owners and is consolidated for each owner, whilst some of the land is reserved for public facilities (Sonnenberg, 1994). However, the utilization of this method for urban development was not used by Germany, but the basic idea were picked up by Japanese planners at the end of the first world war and incorporated into legislation designed to control urban development (Masser, 1987).

"KS started as a method for developing residential land in the suburbs, and evolved into a technique for improving infrastructure in built-up areas" (Schnidman, 1988). Sonnenberg (1994) noted that it is used for the planned urbanization of town surrounding areas on which occupation of the land in these fringe zones is mostly more or less unplanned and somewhat untidy. In Japan KS has proved to be an adequate method for the transformation of these areas into well-arranged extensions of the urban areas (Sonnenberg, 1994).

The legal framework of Japan Land Readjustment is The Land Readjustment Act (1954). It provides its guidelines for both urban renewal and new town development. The main aim can either be to develop new town areas, to renew old ones or to adapt the structure to big infrastructural investment (Larsson, 1997). LR is found in the Japan City Planning Law as one of several methods of urban development despite control-type and project-type methods. At present day, land readjustment in Japan has been particularly important in Japan where approximately one third of all urban areas have been developed with the method (A. Sorensen, 1999).

"Strong landowner opposition to expropriation makes land readjustment the method of choice for many large development projects" (Schnidman, 1988). Unlike the German procedures initiated by public sector, Japan land readjustment can be initiated and implemented by the landowners. Moreover Local authorities, public enterprises, big private entrepreneurs and ordinary landowners can take the initiative and implement

the readjustment (Larsson, 1997). Masser (1987) described that the classical model of a land readjustment project is one which has been initiated by private associations of landowners who have made use of the technical expertise that is available from the local authority in the development of an area on the urban periphery. Whoever the initiator and executor are, the ministry of construction must recognize the project. "Almost half of these projects have been implemented by private associations; other initiators include local governments, the national Ministry of Construction, and public and private corporations" (Schnidman, 1988).

Larsson (1997) elaborates the approval scheme when the project is established within the private sector, it must normally be supported by at least 2/3 of both owners and leaseholders (number and area). "A private association must obtain the agreement of two-thirds of the area's landowners and leaseholders who must own more than two-thirds of the owned land and lease more than two-thirds of the leased land" (Schnidman, 1988). The land readjustment project in Japan is most basically based on the consent of the landowners. Public participation is invited to actively contribute within the project. Private land readjustment is basically executed by individuals and association (André Sorensen, 2000). An association is a joint-cooperation between the landowners and the lease holders. He also noted that individuals may only execute projects when all landowners and leaseholders within the project area are in agreement on the project. Typically land readjustment implemented privately concern with sub-urban land development area and redevelopment of the city centre.

Conversely, Public land readjustment focuses on public facilities improvement. The executer can be local governments (municipality), administrative agencies (of the Ministry of Construction), and public corporations(such as the Japan Housing and Urban Development Corporation)(André Sorensen, 2000). "Projects sponsored by associations and public corporations rely mostly on land sales; those sponsored by local government bodies rely mostly on national subsidies" (Schnidman, 1988). In privately sponsored project, the project is designed in to be self-financed since the private sectors do not obtain subsidies from the public authorities. The association normally sells this last part and makes the project self-financed. What is left after the deduction will, after readjustment, be given back to the owners, if possible in a similar location and with similar other conditions, though adapted to the new structure (Larsson, 1997).

At an earlier stage, the ownerships are gathered in maps and records to determine the share according to the areas or values of land. The percentage of land contributed is for public facilities and reserve land referred to "cost-equivalent land". There is a difference in treating the reserve land in the perspective of private and public sponsored project. Schnidman (1988) described that "in privately sponsored projects, 70 to 80 per cent of the cost-equivalent land is sold at market rates to public agencies for schools or for public housing while the remainder of this land is usually sold to owners or lessees within the project area, and on contrary the cost-equivalent land in publicly sponsored projects is generally sold to the public at auction with general shortage of build-able land given leading to speculative price inflation". The cost sharing between the public and the private sector is determined by mutual agreement (Larsson, 1997).

The basic concept of KS is that although the landowners have to give part of their land away for public facilities and reserve land, they will obtain benefit from the substantial increase of the remaining land, as a result of the project, which may exceeds the portion of land contributed. Thus, land valuation is a crucial element in land readjustment project.

"Typically, landowners contribute 10 per cent of their land for cost-equivalent purposes and 20 percent for public facilities" (Schnidman, 1988). He also noted that "contribution ratios are higher for

undeveloped sites and for non-subsidized projects, and lower for projects in older, developed areas and for government-assisted projects". In most cases, a reserve land pooled from land contributed by landowners is sold in the market to cover the cost of the project and represented in a scheme. Such a scheme is illustrated in Figure 3-5.

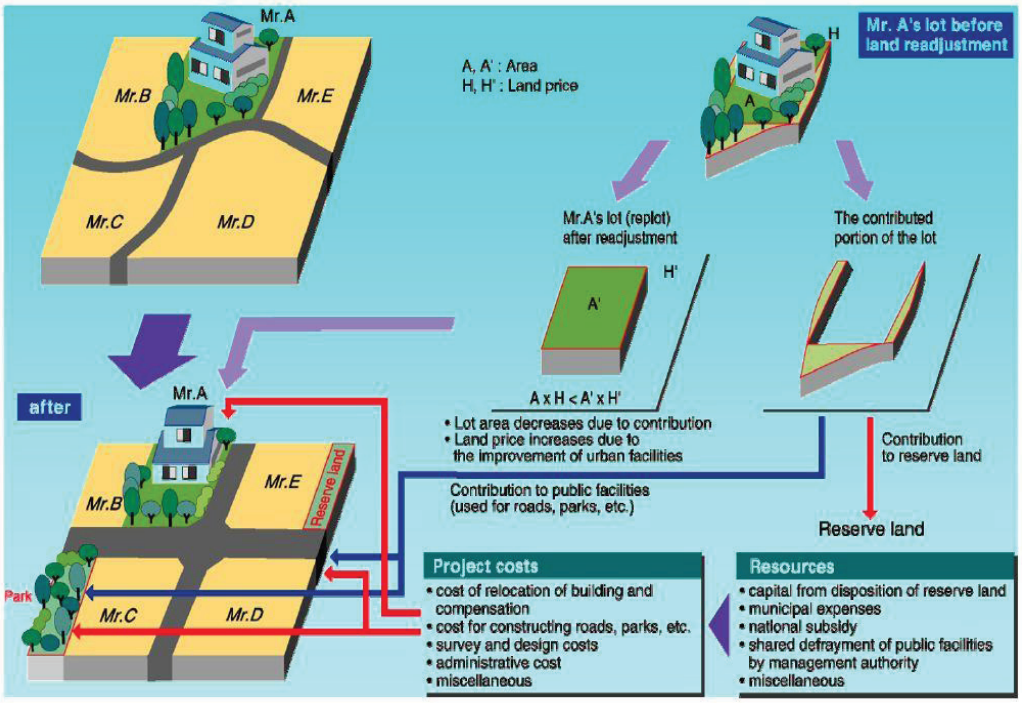


Figure 3-5: A Scheme of Basic Land Readjustment in Japan
(Source: (Japan International Cooperation Agency, 2007))

In general, KS project procedure begins with a preliminary study which involves the preparation of master plans for the project and the estimated project cost and revenue. Furthermore, as this project will be determined as formal planning project, the project area must be determined. The following step is to design public facility lay-out plan with its financial implications. This plan can be studied by the rights holders and their comments should be discussed with the board of city planning so that the plan conforms to the city spatial plan. "The redistributed and original parcels must correspond closely in terms of location, environmental conditions, land use, and size" (Schnidman, 1988). The plans are displayed for 2 weeks and those concerns may raise objections and give viewpoints and may invite corrections (Larsson, 1997). In the case of municipalities, the governor refers complaints to the local city planning council which has power to recommend or deny action on a complaint and in the case of public corporations, the minister is responsible for complaints, after getting the advice of the city planning council (André Sorensen, 2000). The final plans are approved by the governor or the minister. Then the land readjustment committee and advisors committee are assigned to carry out land evaluation. Land valuation and replotting design considered as the most essential work of land readjustment come after that. It is conducted by a committee of land readjustment. As soon as the replotting completed, the designation of the provisional replotting starts based on the design of replotting. The provisional replotting makes possible building demolition, improvement and construction of public facilities and site preparation. After the works and the resettlement are completed, all the rights of the land are transferred to the replotted parcels and registered in the registrar. In principle, replotting is based on the agreement of landowners. When there is a minority of landowners object to the replotting, they may be treated by further discussion and ultimately compulsory purchase. If it still does not come into the expectation of such landowners, after conducting

the legal procedures, expropriation as a last resort is done to enforce the right shift. In addition, the financial equity among the landowners are reviewed and arranged in such a way by financial adjustment (Sonnenberg, 1994).

3.3.1. The Basic Features of Japan Land Readjustment Workflow

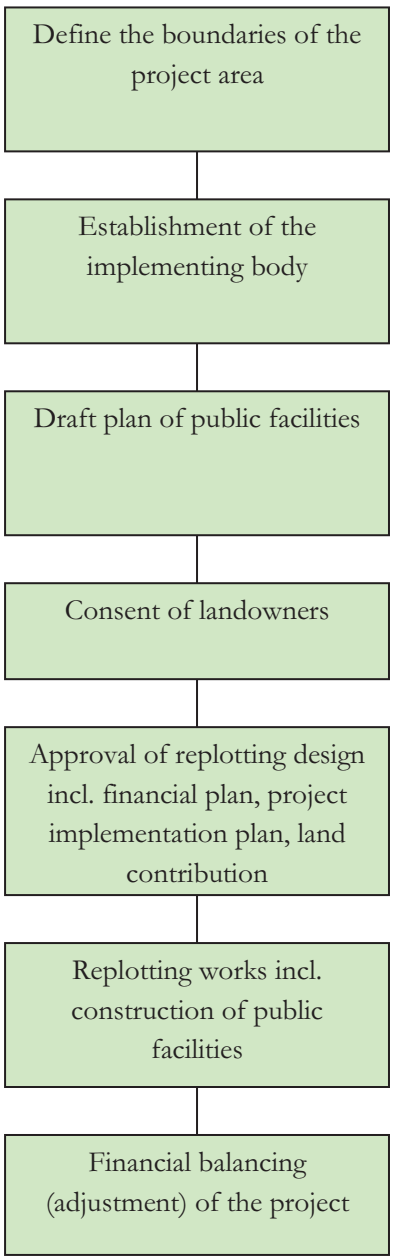


Figure 3-6: The basic features of Japan land readjustment workflow

From the above structure in figure 3-6, it describes the workflow of Japan land readjustment briefly; although there are distinctions between private and public land readjustment. However those types of land readjustment share some basic features shown above. Preliminary study occurs prior to the initial stage of the project and studies about the master plan preparation, estimated project cost and revenue. The first feature is defining the boundaries of the project area. The purpose of it is that this project affects some

lands inside that have some rights attached to the land so it must be clear which rights are affected to obtain the information of the landowners.

The second feature is the establishment of the implementing body. The executor must be legally formed. The members consist of the landowners and the sponsoring agency. In the case of private land readjustment, the landowners are included as members but most of the time they pick a delegate representing them in the organization. It also applies in the case of public land readjustment.

The third feature, a draft plan of public facilities, is designed by usually from the third party- private consultant. The design is aimed to calculate the estimated project costs and possible gains and land contribution from each landowner regarding to the existing condition and requirement of the public facilities. At this stage, comments and ideas are welcomed and discussed with the city planning board in order to meet the city plan. Once the draft plan is completed for discussion, comments, and ideas, it is displayed for a couple of weeks to invite objections, if any and corrections are available for final plan.

The Fourth feature is consent of landowners. This stage collects public participation for proceeding the project. For private project implemented by association, the legal requirement is that 66 percent of the landowners must agree to join the project and provide legal statement of agreement in form of contract. For public project, no specific consensus is required but still the implementation needs a high degree of consent. If they do not have adequate consent, they are extremely difficult to implement (A. Sorensen, 2007).

The Fifth, replotting design, includes financial plan, project implementation plan, and proportion of land contribution from the landowners. Land valuation exists in this stage as an important matter in the project. As the actual value of the land of each owner before and after the project may differ from the respective average values, this differences must be taken into account when computing the area of the replots of each owner(Sonnenberg, 1994). The replotting design must be approved by the landowners. In association with this approval, at this stage the 66 per cent consent holds as in the fourth feature as well.

Subsequently, the replotting works, the sixth, proceed by enabling building demolition, improvement, and construction of public facilities. Once the works is completed, the rights are transferred to the replots and recorded in the land registration.

The seventh feature is the financial balancing (adjustment). If there is inequity among landowners in terms of cost-sharing and imbalance during the project, they are settled by financial adjustment. Surpluses must be spent within the project area (A. Sorensen, 2007). Eventually the organization is dissolved.

3.4. Lessons Learnt from German and Japan Land Readjustment

3.4.1. From German Urban Land Readjustment Experience

Particularly urban fringe in Germany, fragmented land exists with irregular shapes and sizes. This condition does not conform to the areas designated for development. By changing the pattern of these irregular plots, the land can be improved efficiently. Such conditions also exist in Indonesia notably in

Jakarta where fragmented plots scatter over the city. On the other hand, the need of housing is in great demand especially in city centre.

From German LR experience, regulated in German Building Code, several features of LR are important and useful for solving those issues mentioned above. German Federal Building Code contains a mandate to undertake land readjustment in urban area. This method is not aimed to take private property for the sake of development but instead it is a lesser interference with property designed to avoid exercising eminent domain (Davy, 2007). Land readjustment has helped keep housing prices down because it makes more land available for housing development (Schnidman, 1988).

Principles in German Federal Building Code (BauGB) regarding the practice of land readjustment that can be instructive as follow.

1. Preparatory land use plan (part 1 subdivision 2) and Legally binding land use plan (part 1 subdivision 3)
   German urban land use planning comprises preparatory land use plan and legally binding land use plan. The preparatory land use plan is binding the public agency charged with planning tasks. It is a general plan that represents the general type of land use and general level of built development. The binding land use plan contains the legally-binding designation for urban development. It is a concrete detail plan binding the society to follow for the sake of development. Binding land use plan does not establish new plot but it is a sort of recommendation for designation of the area. The society can build the house as it is designated in legally-binding land use planning. This kind of plan can prevent any kinds of development undertaken by the society, notably haphazard developments. In other words, binding land use plan is a proposal of the municipality to take an anticipatory and regulative hand for urban development to prevent the establishment of the haphazard development as it exists in Jakarta.

2. Pre-emption right (part 2 subdivision 3)
   This right is a kind of reservation putting municipality in the first-order place of the queue in case the landowner decides to sell the land, he should offer to the first-order party in line. It is the right of the municipality to purchase private property for general good and the municipality must indicate the use proposed for the site (section 24 paragraphs 3). In general, the municipality is entitled to exercise the pre-emption right within the area designated by the legally binding land-use plan for public use or for counterbalancing/replacing of the damage caused by development; in a reallocation area (land readjustment project area); in a redevelopment area and an urban development zone; within area for preservation; in undeveloped area covered and designated for residential area by preparatory land-use plan and situated in outlying area not covered by a binding land use plan; in a development project area (section 24 paragraph 1). Development project area may comprise undeveloped and developed area. This pre-emption right cannot be exercised for the property purchase of condominium right or building lease (section 24 paragraphs 2). The exercise of pre-emption right may not be available where the owner sells the property to a spouse or to a person related to the owner either by blood or by marriage within the third degree, the property is purchased for the purposes of national defence, protecting the federal borders, custom administration or civil defence or for religious purposes.

   Any contracts of land transfer must inform the municipality in case the exercise of the pre-emption right by Municipality but if it is not exercised, the purchaser is regarded as the title owner in land register by providing a certificate issued by the Municipality as a waiver of pre-emption right (section 28 paragraph 1). The exercise of this right exhausting 2 months from the contract sale date being received by municipality, may revoke the existing contract between the purchaser and the vendor

(section 28 paragraph 2). A priority note, in respect of pre-emption right, is made by land register to protect the municipality's claim to title transfer (section 28 paragraphs 2). The pre-emption right absolutely works in an area covered by binding land use plan for public use, or for counterbalancing space or replacement purpose, and in a reallocation area. In those areas, the pre-emption right cannot be forestalled (section 27 paragraphs 2). The municipality may transfer the pre-emption right in favour of third party. The third party benefited from that right are: a) developer for social housing development, b) public agency for public use development, and 3) redevelopment or development agency for redevelopment or development purpose, if all third parties agree to execute the relevant development. This kind of right of municipality is essential for acquiring land for development purpose especially where there is lack of urban supply as it is in Jakarta. This right also may secure the plan designation for new housing development to meet the housing need in the future.

However pre-emption right is exercised based on the property owner's intention to sell the land. If they do not intend to sell the land, expropriation is put forward as a last resort to acquire land for public use.

3. Prohibition on disposition and development freeze (section 51)
   All activities on relevant land in the project area such as land sale, land subdivision, building on land, or major alteration to plots causing added value are not allowed during the process unless provided with formal permission of land readjustment committee. It is aimed to minimize dynamics in the project area that may lead complexity when development is executed.

   In the case of *kampung* upgrading, LR is executed based on the plan by authorized parties committing to the completion of the project either by local government or developer without any obstructions that may be caused by dynamics from another parties.

4. Allocation and financial settlement (section 59)
   The original landowners receive readjusted new plot from the redistribution mass, in the same location or comparable location to the plots that have been contributed(section 59 paragraphs 1).The landowner who receives his land less than his shares is entitled to get monetary compensation. The financial settlement is assessed on the basis of the standardized market value as the date of adoption of reallocation plan (section 59 paragraphs 2)

   In agreement with the property owners affected, money or property outside the reallocation area or the establishment of joint ownership of a plot, the granting of rights similar to real property rights, rights of condominium, or any other rights within and outside the reallocation area can be provided as a settlement (section 59 paragraphs 4).

   This principle of allocation of financial settlement is related to the compensation based on the redistribution. In the case of *kampung* upgrading, the possible compensation for the landowners can be in form of money, land exchange, or another rights similar to the real property rights. The landowners in *kampung* can be offered by various options in compensation at the completion of the project.

5. Reallocation Mass and Redistribution (section 55, 56, 57, 58)
   Redistribution mass is the remaining land after exclusion of the land for public spaces and redistributed to the original landowners. Land deducted from reallocation mass, one-large plot, for the

public space may be allocated to the public agency charged with the development of the public infrastructure. Such agency may provide suitable alternative land that may be located outside the reallocation area for redistribution mass if they require more land from reallocation mass for public spaces (section 55).

Calculation of the redistribution mass share is based on either relative size or value of the former plots prior to the reallocation. The kind of criterion, either size or value, is decided by land readjustment department (section 56).

Under the standard of relative value, each landowner is entitled to get a new plot which is at least the same value as the former plot. The new plot is smaller than but more valuable than the former plot. In this instance, the landowner must make a payment to the municipality equal to the surplus value (Section 57).

Under the standard of relative size, the readjustment department may get a fraction of land as reimbursement. The amount of land is not more than 30 percent of old plots (if it is unserviced land), and not more than 10 percent of the old plots (if it is serviced land). The assessment of financial restitution and compensatory measures is to be based on current values at the date on which the resolution of reallocation was adopted (Section 58).

The main idea of redistribution is to share the benefit gained from the land readjustment project between the landowners and the municipality. The landowners get the gain caused by land value increase by planning (from agricultural land to potential development land) and the municipality absorbs the land value increase caused by land readjustment itself, which means the land value difference between potential development land and building land (Muller-Jokel, 2004). As the LR project is running, it is important to share the benefits and costs of the project among the parties profiting from the project. For *kampung* upgrading, this redistribution introduces the gain of the landowners that may obtain to compensate their contribution in proportion of land. However, the amount of the compensation for the landowners depends on the land deduction portion.

6. Leaseholders right protection (Part 3- The Preservation Statute and Urban Development Enforcement Orders)
   Under section 179 paragraphs 3 regarding Development Reduction and Unsealing Orders, it is clearly stated that owner, tenant, leaseholder suffering property loss as a consequence of demolition are entitled to get appropriate financial compensation or establishment of a right. Prior to the demolition, replacement accommodation (relocation shelter) must be available and it also applies for the relocation of commercial or professional purposes, if any. Under section 181 paragraphs 1 regarding hardship allowance, on the basis of equity principle, the municipality should grant hardship allowance to prevent economic disadvantage. Under section 185 paragraphs 1 and paragraphs 3 regarding compensation on the termination of tenancies and leases, it is stated that due to the premature termination of legal relationship, the parties suffering from property loss are to be granted appropriate financial compensation and municipality is obliged to provide the replacement land or building for residential, commercial, and professional purpose.

   In the case of kampung upgrading, relocation of the residents is possible to be undertaken by Jakarta municipality. Thus, those principles above should underlie the compensation mechanism and take into account the secondary right holders- leaseholders.

3.4.2. From Japan Urban Land Readjustment Experience

Japan LR contains five basic characteristics. Such characteristics are shown is Appendix 2- Characteristics of Japan LR. Instructive experiences are derived under those characteristics. Instructive experiences from Japan is firstly that land readjustment, in perspective of participation by landowners and leaseholders and impartial procedures, is not simply a tool of urban development where the people and the government are hand-in-hand to promote mutual benefits but it is a planned, organized tool that may invite strong opposition from some people who do not interest to support the government program in development especially in urban area. In land readjustment, the landowners and the leaseholders can participate during the process considered as a democratic measure to reflect their views in the project(Sonnenberg, 1994).In the case of Japan where the practice of land readjustment is well-organized, still there is such opposition from the landowners who do not feel profits from the project. It can be more severe if the project still proceeds without the consent of the landowners since the consent of the landowners has been the basis of the success of land readjustment in Japan. As Sorensen (2007)noted that local veto power over undesired projects is thus strong. Unless the project is sponsored by local government (public project), it may proceed without landowners consent legally. Organizing land readjustment projects clearly spends much time and energy on either local government or landowners sides. In addition to that, land readjustment holds the principle of impartial procedures where the procedures for a project are regulated, ensuring transparency (Sonnenberg, 1994). It is aimed to facilitate the people's aspiration and provide advices. Moreover, such procedures ultimately are to acquire people consensus to join the project.

Although Japan has a long tradition of successful projects in conducting land readjustment, it seems that opposition has always been an obstacle that can fail the project and resulted abandoned development project. It also seems clear to say that local governments play an important key role as the main driving force that continuously convince and persuade local landowners to participate in the projects. The high failure rate of projects appears to be a result of the reluctance to start land readjustment projects over strong objections by local landowners and the reluctance to proceed without consensus (A. Sorensen, 2007). Realizing the cause of the failure, the effort of the local government should not just quit when facing the objections from the landowners. The Japanese tends to happily join hands with the Government to promote mutual benefits through land readjustment projects and it becomes largely a thing in the past (André Sorensen, 2000).

Secondly, in the perspective of fair distribution of development benefits and cost, each landowner and leaseholder shoulder fairly land and expenses for development of urban facilities(Sonnenberg, 1994). On the other hand, the benefits resulted from the development are also fairly distributed among them. Land readjustment has the potential to be a self-financing technique for urban land and infrastructure development, and is almost certain to be cheaper than to gather all project land into a single ownership, whether on the open market or by expropriation (André Sorensen, 2000). In the process, the landowners still have the remaining land after deduction for public spaces and reserve land sold for commercial use to cover the project costs. This feature of LR that can finance itself might be an attraction for developing countries especially Indonesia where shortage of capital for urban infrastructure provision as a major constraint hinders the urban development process.

Thirdly, in the perspective of preservation of land titles, under land readjustment, land titles before a project are transferred to replots and thus land titles are preserved during a project and a previous regional community remains (Sonnenberg, 1994). The original landowners obtain their right of the remaining land after the completion of the project. This results in less land owner opposition to projects

than in the case of large-scale land expropriation and development, and is less disruptive of the existing community (André Sorensen, 2000). Thus expropriation process may take long time and be tedious to negotiate, costly to buy-out land, and ultimately may lead to strong opposition from the landowners.

Fourth, in the perspective of comprehensive urban development with extensive use, land readjustment is an urban development tool that constructs urban facilities such as roads, parks and utilities, and develops building lots in a project area, and it is also an urban development measure that is flexible in realizing objective, size, area and development grade (Sonnenberg, 1994). The shape of irregular shape parcel is readjusted and the provision of new public infrastructure to improve its better use. Consequently it may increase the land value after having regular shape and better access. Despite the reduction of new plot, such increase of land value leading to better living condition is illustrated in Appendix 1- Framework of Japan LR. In areas, in Japan, notably urban fringes where plots area scattered irregularly and small in size, the local government finds it difficult to assemble land for development since they are owned by multiple owners. This situation resembles with what exists in Jakarta. Moreover the landowners respond to such land acquisition by refusing to sell the land. In addition to that, no basic infrastructure is available. Thus the landowners have to spend some of their capital to improve their environment for remedial measures such as widening roads, build sewerages. However still it is not sufficient for the standard of living area where there is no public space within the neighbourhood. Therefore, the local government has no option but exerts every effort to keep convincing them to participate in land readjustment. It appears that this is the main reason for the importance of land readjustment in Japan (A. Sorensen, 2007). Why land readjustment instead of expropriation is the question that appears to be answered by Japan experiences since they share the same situation encountered by developing countries.

Fifth, above of all mentioned previously, is the powerful legislation. Land readjustment should be based on the priority of public interest above individual interest and the legal protection of the landowners and users is the consequence of it. As Sonnenberg (1994) noted that starting-point of this legislation is the principle of priority of common interest above individual interest. He elaborated more about the aspects of this legal protection of the rights of the right holders as follow.

a. Political control over the initial decisions about a KS project: Political level in this context means that the decisions by the government are subjected to control by a representative body of the people (local parliament). An important part of the political decision about the master plan is the decision about the boundaries of the KS area. This decision provides who has to participate in the KS project.
b. The principle of public inspection of the plans and the decisions of the authorities during the KS process: include the right of the users of the land in the KS area to make objections against these plans and decisions under these principles: 1) the list of affected right holders, 2) land valuation before & after KS, 3) replotting of individual parcels & plotting of reserve land, 4) financial arrangement of inequity in replotting.
c. Equal and fair treatment of the right holders in the KS project: treatment to right holders (landowners & leaseholders) equally in terms of equal net benefit in land value.
d. Proper compensation of disadvantages: in case of disappointing increase of land value or disproportionate damage resulted from KS.
e. The right on expropriation as an outmost stopgap: for those who refuse to participate in the KS to get complete compensation of the damage by expropriation, especially leaseholders not profiting from land value increase to get land substitute.

Regarding to the aspects above, he elaborates more what can be taken from this is that the landowners have a right to give comments and ideas about the master plan. In contrast, they also have the right for objections against either plans or decision which is accommodated by delegation of affected landowners association. The establishment such delegation enable them to undertake public inspection of the plans and the decisions. The public inspection lies under those principles mentioned on point b. The claims they made appeal of must be handled by political control of the government. In the case of there is a segment of people refuse to join the project, they have right of expropriation. Such expropriation right may form in either land substitution, for instance the case of lease holders who do not benefit from the increase of land value as a result from the project, or full proper compensation (money).

Regarding to the fore-mentioned instructive experiences from Japan LR, LR has potential to solve the problems in developing countries like Indonesia in which the landowners are assertive in protecting their private property rights. Conversely Japan land readjustment experienced with the condition where appeals of self-interest is higher than prioritizing the public interest to individual. Successful land readjustment projects may likely be achieved if the benefits are great enough and incentives are introduced in the project. The foregoing program does not meet the community's expectation as what KIP had provided in Jakarta. Therefore it seems fair to suggest that land readjustment will be easier to be applied in developing countries, notably in Indonesia with acute shortages of basic urban infrastructure and few alternative means of providing them. Ultimately, the legal protection of the landowners especially their rights of benefits gain is highly essential as they are willing to participate in LR by giving up their part of lands for *kampung* upgrading.

4. APPLICABILITY OF LAND READJUSTMENT FOR KAMPUNG UPGRADING IN JAKARTA

In literatures, it is stated that land readjustment can specifically be applied in existing or once-developed areas where infrastructure needs to be upgraded or provided (Agrawal, 1999). Accordingly, LR projects can work more successfully on a small and medium areas (UNESCAP, 1995b). These two ideas are the basis of this research to investigate the applicability of LR in *kampung* upgrading in Jakarta.

4.1. Potential of Land Readjustment

The potential of land readjustment has spread over in some of the countries in the world. German and Japan are countries making use of land readjustment in urban development process. Although Japan adopted German Urban LR, they implemented LR in the context of issues in Asian countries like the fast urbanization. Japan has transferred knowledge of its possible application in developing countries notably in Asia.

In Germany, land readjustment is mainly used in peripheral area for urban expansion and renewal. Basically it was adapted from rural land consolidation methods to urban condition. The land readjustment project is compulsory requiring no consent from the landowners and it is executed by local authorities from the stage of initiative, planning towards implementation. In some cases, however land readjustment projects can be undertaken by owners or developers with the approval of local authorities (Schnidman, 1988). Although local authorities take care of the LR process, still participation of the landowners is an important component in land readjustment. This mandatory land readjustment can be a tool to realize land use plans in general and notably to improve the property of the landowners. They can obtain the readjusted land which is more suitable for development, substitute the property and the right of the property still remains.

In Japan, land readjustment has been a vital tool to cope with the high demand on urban land. The state does not invest capital but instead putting all available resources for industrial growth while leaving the housing, sewerage, and roads provision to private sector through land readjustment. The principle of land readjustment is that the benefitting recipients pay the costs for land development including basic infrastructure provision. LR is expected to reduce the financial burden of the benefitting recipient by selling the land contribution for commercial use to fund the cost of land development. Most of Japan LRs are on the basis of voluntary approach. This means public participation is the key success of its implementation. Sorensen (2000) pointed out that the Japanese tends to happily join with the Government to promote mutual benefits through LR projects. Nonetheless Japan LR has also experienced with strong opposition from the landowners. These situations are also reflected in developing countries where assertive and self-interest landowners protecting their property rights,exist. A successful LR projects can likely be achieved in such situations when incentives are provided to attract public participation.

The foundation of LR in general is that LR is a bottom-up planning approach that requires cooperation among landowners with common sharing of costs and benefits. This cooperative relation between the community and local government works together in a planned way to urbanize the area. This active

participatory approach is urgently needed where demand on land is high but supply of land is low as it is in Jakarta. LR is one way to make land more accessible for the poor (UN-HABITAT, 2008).

There are some important potentials of LR that can be taken as instructive lesson for Indonesia notably Jakarta. Regarding to Jakarta condition where there is still a lot of haphazard development taking place in *Kampung* with no or lack of basic services, KIP, the previous program, already tackled the lack of basic services by providing minimum services. However it was not sufficient in providing basic infrastructures in short-term purpose. It requires maintenance and spending of costs in the future. Moreover when the haphazard development still continues to come, the local people eventually must spend their money for remedial measures such as widening the roads or sewerages. First potential is that LR may mobilize the community's resources for development whether it is compulsory or voluntary. The community participation is crucial to support the LR process. When communities are involved in planning process, they will initiate to mobilize the available resources. LR may encourage their initiatives for development-planning and establish the joint development with the Government. Consequently this might reduce the number of haphazard development since the community should stick to the designated plan.

Second is that LR has the potential to be self-financing through the sale of land contributions. Although the benefitting recipients must burden the cost of the development, LR may help them to minimize such burden by the sale of land contributions for commercial use. As in many developing countries notably Indonesia, shortage of funds for infrastructures is a major constraint on urban facility development. In this case, LR may provide the infrastructure at little cost to local government (municipality) and simultaneously improve the quality of living condition. The added-value is also that an increase of land value after development occurs and this might lead to betterment taxation for the municipality to collect for revenue.

Third is LR as a mass land registration method might clarify the complexity and ambiguity of land tenure rights in Indonesia e.g. unregistered customary title. A need of clarification of the land tenure is urged in LR projects. Prior to reorganizing the plots, the existing plots should be mapped to identify the existing landowners. In other words, initial LR is used to identify the affected landowners in the project area. It depicts the existing irregular plots as the basis of designing a new plan layout. It is also useful to inventorize what belongs to whom and where, also for compensation purpose at later stage of LR projects. Landowners who contribute more than they should are deserved to be compensated, or who contributes less than he should, must pay more.

4.2. The Possible Application of Land Readjustment for *Kampung* Upgrading

Recalling what is described in chapter 2 that there exist programs to improve the quality of *kampung* so called *Kampung* Improvement Program (KIP) and new housing development. The idea of KIP is improving the quality of *kampung*. It would stimulate the property owners to improve the physical structure of their houses and the status of the land ownership. The program simply focused on the provision of basic minimum infrastructure such as roads, footpath, sewerage, and public facilities (clinic and school). It managed to transform *kampung* into parts of better-living-condition urban environment. However, since it was commenced in 1969, some shortcomings became visible.

The main shortcomings, put forward in discussion, are scarcity of urban land, not include land tenure issue, and limited budget of municipality for improving the quality of *kampung*. In KIP, it is difficult to find a space to develop or improve since *kampung* is a highly dense populated area where land could be

spared for common public services such as roads, footpaths, drainage etc. KIP also does not include the land tenure issue. As it is described above, the idea of KIP is to stimulate the property owners to improve the land ownership as their neighbourhood is improved. Moreover KIP tends to be a short-term program where in the future improvements provided may decay and requires maintenances that spend costs to recover. On the other hand the municipality has limited budget annually to fund projects within its jurisdiction.

Another program called new housing development also face obstacles. It is a program to provide housing in a new area. Shortage of budget to acquire the new area and social attachment on land are some of the shortcomings obstructing its implementation. In order to acquire land for housing development, the municipality must provide more budgets. Notably the property owners in city centre tend to keep the land price high due to the strategic location close to the job market. The future development around Jakarta and surrounding tends to go to the outskirt of Jakarta. It is because of the high land price in city centre. The property owners in urban fringe realize and grab the opportunity of this future development; they respond to the high demand for land development by protecting their property right at a higher price than the market value. It shows the assertiveness of the inhabitant in responding to the development plans. Moreover the social attachment on land also influences the process of acquiring land in the urban fringe. Realizing the shortcomings of the two programs above, LR may offer a win-win solution for the property owners and the municipality. It can establish the cooperation between them in urban development. The municipality may build houses on the community's land under some conditions agreed.

Japanese LR characteristics comprise comprehensive urban development with extensive use, fair distribution of development benefits and cost, preservation of land titles, participation by landowners and leaseholders, and impartial procedures. Such characteristics from Japan LR combined with some features of German LR form the base for the possible application of LR for *kampung* upgrading. The application of LR for *kampung* upgrading is described in the perspective of each characteristic as follow.

1. Comprehensive urban development with extensive use
   Reviewing what causes the haphazard development in *kampung,* it is that the landowners are likely not well-informed about the detail plan or build spontaneously based on their own budget regardless to the detailed plan. In this case LR may reorganize the irregular plots to its designated layout based on the plan.LR can be a connecting link between building and plan. It may realize the development to fit on the plan. Thus to prevent such spontaneous haphazard development, preparatory land use plans and legally binding land use plans represent the general type of land use and general level of built development. The binding land use plan, a derivation of the preparatory land use plan, contains the legally-binding designation for urban development. It is a concrete detailed plan and a proposal from the municipality to take an anticipatory and regulative hand for urban development to prevent the establishment of the haphazard development. The society can build the type of the house as it is designated in legally-binding land use planning. This kind of plan can prevent any kinds of development undertaken by the society, notably haphazard developments. Legally binding land use plans have a function as guidance in developing a building to prevent the establishment of spontaneous and haphazard development that may take place in *kampung*.

   Pointing out the lack of urban land within a *kampung*, *kampung* is a highly dense populated area with small plots and lands that are spared for limited basic services such as footpath, drainage, sewerage. Those basic services were improved by KIP. However, it remains risky in case of disaster occurrence. Narrow road access and sewerage may not accommodate the emergency actions such as evacuation.

Therefore, reorganizing the existing building and public infrastructures is required to provide the standard living area and integrated in the urban system through LR.

This provision of public infrastructures and facilities requires a part of land contributed from the landowners. In case there is a rejection from the landowners to participate and there is an intention to sell the lands, municipality may exercise the pre-emption right in LR area. In this case the municipality is entitled to be in the first order in line to purchase the land on the basis of standardized market price. The specialty of pre-emption right, compared with compulsory purchase, is that the municipality may revoke the existing transaction and purchase the land at the time of sale based on the standardized market value, although there is a potential buyer offering higher price than that of municipality. The pre-emption right cannot be forestalled in this case. In the case of building social housing, the pre-emption right can be transferred to the third party e.g. developer. The involvement of a developer in *kampung* upgrading may introduce a share of constructed building for them as they are responsible for constructing the low-cost housing.

Moreover the provision of basic infrastructure may extend beyond the LR area. In this case the municipality may allocate the budget in extending the LR area if it is necessary for the optimal development. In order to acquire more land inside or outside the LR area, they may exercise the pre-emption right to extend the LR project area. Consequently such extensive action may increase the costs of LR in terms of infrastructure provision.

Another aspect during the LR process is that it is recommended that there is no activity related to adding value of land. There should be prohibition and a development freeze. It is aimed to minimize the dynamics in the project area that may lead to a complexity when development is executed. In the case of *kampung* upgrading, LR is executed based on the plan by authorized parties committed to the completion of the project either by local government or developer without any obstructions that may be caused by dynamics from another parties. Activities related to adding value of the land such as land transfer, subdivision, improvement may take place after the completion of the project.

In sum, in the perspective of comprehensive urban development with extensive use, for *kampung* upgrading, LR might provide land for social housing production. Thus we might call this LR as 'extensive LR', not only regularizing the shape and size of the plots but also providing houses for urban poor people in better living condition. In order to house urban poor people in the poor condition area, LR may wholly increase the land deduction of the total area or part of the total area to provide basic infrastructures and facilities such as road network, drainage, sewerage, park, school etc., and for commercial use as well. Additionally, considering the small plots and total area in *kampung*, intensification of land use is preferred to be built. Such intensification is most likely provided in the form of a multi-story building because it can house more people and it does not provide much space on the ground for low-income families. The provision of commercial area may give room for the low-income families to operate small business to supplement their incomes.

2. Fair distribution of development benefits and costs
   In the previous program, KIP tackled the lack of basic services by providing basic minimum services. However it was not sufficient in providing basic infrastructures in short-term purpose. It requires maintenance and needs to spend costs in the future. On the other hand the municipality has shortage of budget to fund the infrastructure project. In this case an alternative program is considered to be self-financing that can cope with the cost recovery matter.

The basic principle of LR is that anyone who benefit from the LR project should cover the project costs. In other words, they must share the benefits and costs equitably. LR has the potential to be self-financing. Although the benefitting recipients must burden the cost of the development, LR may help them to minimize such burden by the sale of land contributions for commercial use. As in many developing countries notably Indonesia, shortage of fund for infrastructures is a major constraint on urban facility development.LR may provide the infrastructure at little cost to local government (municipality) and simultaneously improve the quality of living condition.

This is because LR may avoid land acquisition methods such as compulsory purchase and expropriation that may require much money and result in social disruption in land development. Instead of traditional land acquisition methods, LR reduces the cost for land acquisition for development purpose which is burdened on municipality. Since the landowners contribute part of their land, a redistribution mechanism is in place to measure the compensation. The main idea of redistribution is to share the benefit gained from the land readjustment project between landowner and municipality. As the LR project is running, it is important to share the benefits and costs of the project among the parties profiting from the project. In *kampung* upgrading, this redistribution introduces the gain that the landowners might obtain to compensate their contribution in proportion of land. However the amount of the compensation for the landowners depends on the land deduction portion.

To measure the benefit share, an initial LR is carried out to identify the affected landowners for compensation purpose at later stage. However the compensation measures depend on the portion of land deduction. To optimize the use of total area in *kampung* upgrading, it is preferred to increase the land deduction portion up to whole of each plots. The use of the total size of each plot is considering the small plots in kampung that there is no space of land available because it is used completely for the building. Consequently, there is no remaining land given back to the original landowners due to the use of the total size of the plot. Thus, the financial compensation for them equals to the value of the total size of the plot. The redistribution of the remaining plots based on the total size of the plot is measured to compensate the land deducted/contributed for development. Redistribution by value is preferred to conduct since there is relatively heterogonous land value in urban area. Despite the provision of basic infrastructures and facilities, and reserve land for commercial use, the increase of land deduction aims to provide land for social housing development. As the consequence of such increase, the demolishment of the existing buildings and relocation is inevitable to take place.

In case the relocation is inevitable to occur, social impacts must be taken into consideration in the project plan. Furthermore, Agrawal (1999) emphasized the principles of The World Bank's Operation Directives (OD) 4.30 'Involuntary Resettlement' describes the Bank's policy and procedures to mitigate adverse social impacts in the Bank funded projects on people resulting in the loss of assets, incomes and businesses caused by involuntary acquisition of assets. The major policy objectives of the Bank's OD 4.30 include, among others, the following (World Bank, 1990):
(a) Involuntary resettlement should be avoided or minimized where feasible;
(b) affected persons should be able to share the project benefits and should be (i) compensated for their losses at replacement cost; (ii) assisted in move and supported during the transition period; and (iii) assisted in their efforts to improve their former living standards, income earning capacity and production levels or at least to restore them;

(c) Community participation in planning and implementation should be encouraged and existing social and cultural institutions should be supported; and
(d) The absence of legal title to land by indigenous groups, ethnic minorities, and pastoralists who may have usufruct or customary rights to the land or other resources should not be a bar to compensation.

In this case, the compensation of the demolished building and relocation must be taken into account as a part of the total LR costs. Compensation in the form of money or land and building exchange are provided by the Municipality based on the land appraisal at the beginning of the LR project. Consequently the inclusion of demolished building and relocation cost may increase the costs of the project. However, there is another way to reduce the burden of the municipality to tackle inevitable relocation by housing the community in available flats owned by Jakarta Municipality. The Municipality claims that between 1983 and 2000, 17,801 walk-up flat units have been provided under various occupations and financing schemes, usually on land from which poor illegal settlers have been evicted (Winayanti & Lang, 2004). Thus the walk-up flats can be a temporary relocation shelter for the original residents in LR area.

As a principle of allocation and financial settlement, the original landowners receive a readjusted new plot from the redistribution mass, in the same location or comparable location to the plots that have been contributed. The principle of allocation of financial settlement is related to the compensation based on the redistribution. In the case of *kampung* upgrading, the possible compensation for the landowners can be in form of money, land exchange, or another rights similar to the real property rights. The landowners in the kampung can be offered various options of rights in compensation at the completion of the project. They may get the right of the replotted land or the right of condominium in the relocation area or new structure area where multi-story building is erected in LR area.

3. Preservation of land titles
   The idea of KIP was to stimulate the property owners to improve the status of the land ownership as the basic infrastructures were provided. In Jakarta, there are fragmented ownership rights but not registered notably in *kampung* where the customary title still exists. This condition represents the complexity and ambiguity of land tenure rights. This weak land tenure claims make it difficult for residents to resist renewal or even eviction efforts. Therefore, land readjustment should be exercised at the beginning of the project to identify what exists on the ground. The existing plots before LR are also used as the basis for redesigning the area into better layout of site plan.

   LR as a mass land registration method may clarify the complexity and ambiguity of land tenure rights in Indonesia e.g. unregistered customary title. The existence of customary title may lead to land disputes since it is an unregistered title. Thus, a need of clarification of the land tenure is urged in LR projects to identify existing condition related to the affected landowners (what belong to whom and where) and the plots before LR which subsequently is used as the basis of designing a new layout. Eventually the replotted lands are transferred to the original landowners and registered in the land office at the end of the project. The advantage of LR is also that LR may solve the land disputes, if any, amicably by rearranging the plots boundary based on the factual information collected from initial LR.

4. Participation by landowners and leaseholders
   LR is a bottom-up planning involving community's participation in development. LR may drive the community's resources for development whether it is compulsory or voluntary. The community's participation is crucial to support the LR process. When the community is involved in planning process, it initiates to mobilize the available resources. LR may encourage their initiatives for development planning and establish the joint development with the Government. Consequently it may reduce the number of haphazard development since the community should stick to the designated plan.

   In the case of leaseholders related to residential, commercial or professional lease, they are entitled to get replacement land or building for each kind of lease due to the premature termination of contract as a consequence of demolition and also to be granted hardship allowance in terms of economic disadvantage. The leaseholder involvement is somehow outside the project domain. It exists in the context of agreement between the landowners and the leaseholders. As an alternative to the hardship allowance, on the basis of equity principle, they may get priority to get land or building substitute in relocation area or new structure area in form of multi-storey building units for any purposes (residential, commercial, or professional) resulted from the project with a long-term affordable installment mechanism.

5. Impartial Procedures
   Starting point of a LR process is the establishment of a partnership between local government and landowners. They are hand-in-hand to promote mutual benefits. The landowners give their view and expectations while the municipality accommodates and facilitates their request based on the decent living condition. In this case, the landowners may address their objections of the site plan design. Basically the plan is carried out by two-way discussion. The discussion may address the necessity of public infrastructures and facilities e.g. roads, sewerage, park, school. The process is transparent for the landowners and leaseholders in expressing their expectations. A successful LR can be achieved by powerful legislation. It is based on the public interest above individual interest. Therefore, the right of the landowner as they give up a part of their land for development must be protected and access to the development process should be accommodated. To provide their access to LR implementation, representatives from the landowners are selected to monitor and accommodate the landowners view, expectations, and objections on LR implementation for *kampung* upgrading. Because land readjustment is a complicated process which requires that decisions are to be made by consensus, LR usually takes several years and requires a good deal of skilled facilitation and sensitive design support (UN-HABITAT, 2008).

5. THE MODEL OF LR APPLICATION FOR *KAMPUNG* UPGRADING IN JAKARTA

From the possible applications described in chapter 4, there are several aspects that can be extracted for designing a model of LR for *kampung* upgrading in Jakarta. Three main elements are chosen as the most important parts representing the general principles of LR application for *kampung* upgrading.

5.1. Participation of landowners and leaseholders

A starting point of LR process is participation by landowners. From Japanese experience we know that LR is on the basis of voluntary approach and we may call it 'voluntary participation' in LR. From German experience, LR is a mandatory approach in urban development, but still participation of the landowners is essential to achieve the success of LR application. From both Japan and German LR practice in urban development, participation of the landowners is a valuable asset. Having the landowners in the projects, the municipality may obtain land contribution for development purposes. The municipality does not need to acquire land by exercising compulsory purchase method or expropriation that can be more costly, tedious in price negotiation, and resulting in social disruption. Therefore the local government should play a more active role in persuading and assuring the benefits for the landowners when they are willing to participate in the project. It is also reasonable to give the landowners incentives or rewards for participating in the project. The incentives can be in terms of granting tax exemption by not charging them land registration and transfer tax on the basis of equity principle. Prior to LR practice for *kampung* upgrading, partnership between landowners, municipality, and developer is established to promote mutual benefits. By this partnership, the landowners might initiate to mobilize their resources for the development by contributing part or whole of their land.

5.2. Distribution of costs and benefits

In general, costs of LR project might consist of administration, planning and construction cost. All costs on site are covered by anyone who eventually benefits from it. In principle, the cost equivalent land or reserve land is the main source of financing the LR project. However it is designated to be sold after the project completion. Thus a secondary financing source should be considered for execution cost. In Germany, where LR is mandatory, the execution costs are covered by the municipality. The costs are not a part of costs allocated from the land deduction sale, and no additional costs are charged to the landowners. Unlike Germany, although Japan LR is voluntary basis, the local government in Japan still plays an active role in supporting the project notably in giving subsidies. In this case, the local government plays an important role. It is committed and responsible for its development area. The financial support from the local government can be in the form of interest-free loans to cover the execution costs being repaid by the sale of reserve land for commercial use.

Furthermore, Needham (2007) describes the most important financial variables in LR as follow.

1. Land acquisition costs;
2. Costs of servicing and infrastructure;
3. Interest charges; and
4. Income from land disposal

He elaborates the fact when the land developer is a municipality, with the financial goal of not losing money on the land development,

- It can choose to dispose of some of the land (e.g., for social housing) at less than market value corresponding to variable 4 above;
- It can choose the mix of land uses corresponding to variable 4 above;
- It can choose intensively or extensively to build the site corresponding to variable 4 above;
- It can choose to what standard the land is to be serviced corresponding to variable 2 above; and
- It can choose how quickly to develop the site corresponding to variable 3 above.

From the description above, land acquisition costs are allocated for compulsory purchase in case there are some landowners refusing to participate in the project. To reduce the total costs of LR project, cost of servicing and infrastructure can be decreased according to the standard of basic infrastructure and facilities provisions. The municipality may anticipate the financial drawback by allocating some of the readjusted land for social housing and it also must consider the type of the social housing whether it is landed house (extensive development) or multi-story building (intensive development). Considering the small plots and area in *kampung*, it is considered to intensify the area of *kampung* by building multi-storey building. The municipality, in building multi story buildings, might involve the private developer to build and give them share of constructed building. Another way to anticipate the financial drawback is by allocating a mix of land use in LR area. Besides the residential area, there can be also commercial area sold to private company for business. If necessary in residential area, medium-cost and high-cost housing can be optional to cross-subsidize the development of low-cost housing. Yet, the provision of such residential use and commercial use depend on the area size of *kampung*.

As we know, anyone benefiting from the projects must cover the costs. Not only the landowners but also the Jakarta municipality benefit from the project. They should thus share the costs and benefits. To optimize the use of total area in *kampung* upgrading, it is preferred to increase the land deduction portion up to whole of each plots, whether it is of the total area or part of the total area. The use of the total size of each plot is considering the small plots in kampung that there is no space of land available because it is used completely for the building. Consequently, there is no remaining land given back to the original landowners due to the use of the total size of the plot. Thus, the financial compensation for them equals to the value of the total size of the plot. The redistribution calculation is introduced by German LR experience either relatively by size or value.

A simple redistribution share calculation is introduced by German Urban Land Readjustment. The land value difference between the original plot of each landowner and the replotted land (before and after LR) has to be compensated either by money or land (land exchange). In this case land valuation holds an important role in land readjustment as the standard value to compensate the proportion of the contributed/deducted land. One of the central issues of land readjustment is how to divide the net building plots to equalize the shares and burdens. In German there are two known approaches for replotting: 1) Redistribution by area; 2) Redistribution by value. Any financial adjustment is required when the landowners get a bigger or smaller redistributed plot than they deserved based on the portion of land deduction.

The calculation of the redistribution mass share based on either relative size or value of the former plots prior to the reallocation (readjustment) refers to current values at the date on which the resolution of reallocation was adopted. The first method of redistribution by area is more common in rural regions of Germany, where the land value are quite homogeneous. According to German Federal Building Code

Section 58, the land deduction by area may reach up to 30% of the private land in the case where public infrastructures are not available and 10% of the land where public infrastructures are available. That land deduction will be provided for public facilities (e. g 20% for roads, parks) and the rest (10%) can be used for the belongings for the municipality, for instance:

- To be built for commercial use and sold to finance the project
- To be built for subsidized flats for poor people

In other words, the amount of land for public spaces is not more than 30 per cent of the old plots (if it is unserviced land), and not more than 10 per cent of the old plots (if it is serviced land). However the possible portion of division on land contribution depends on the necessity of public infrastructures and facilities in the LR area.

The second redistribution method (land value readjustment by value) is preferred in urban regions, where the land values are fairly heterogeneous. The more equitable land value based on the quality (location, use, condition) can be achieved better in urban area according to redistribution by value. The basic principle of redistribution by value is that the landowner is entitled to get a new plot which is at least the same value as the former plot. More detail example of redistribution method by value is provided in sub-chapter 5.4.

The evaluation of the plots before and after land readjustment project is very important for successful land readjustment in Germany. They have a specific land evaluation board in each city and districts that appraise land value and make an evaluation report as a basis to evaluate the old and new plots of land readjustment project. The input land (old) is evaluated as unserviced/potential building plot and the output land (new) as building land (plot). Therefore, land value betterments caused by land readjustment have to be compensated by money or by land. The landowners keep the land value betterments caused by planning (land use plan and detailed district plan). The land value betterment by urban development uses to be shared among municipality and landowner.

This compensation measurement is a crucial matter because it deals with the equity principle and it highly might influence the community decision to participate in the project or not. Therefore, compensation should be determined in a just manner and on a proper calculation based on the well-managed land market value. Otherwise, the landowners may take legal action and it results the increase of costs and in the delay of time in development execution. As for the German experience, the land market is well-managed, and when the planning is in practice, the land value will increase. The increase of land value due to planning is used as a basis of compensation of replotted land redistributed to the landowners after the project completion. The landowners absorb the benefit resulted from the project in proportion to the land.

In Indonesia, the municipality is obliged to construct infrastructures network in development area. Consequently it reduces the burden of LR cost itself. There are some approaches to reduce the project costs. Turk (2008) pointed out two approaches. First is to decrease amounts and quality of services and infrastructure in the LR project area. Second is to not include the construction of infrastructure. In Indonesia, the construction is the obligation of municipality in their annual budget. This can be advantageous in the context of decreasing LR costs. However it also can be disadvantageous because it may delay the construction of basic infrastructure and facilities in LR area due to bureaucracy (late disbursement of fund). Moreover the late disbursement might also cause the delay in low-cost social housing production since no road access is in place.

In the case of *kampung* upgrading, there are several things to take into consideration for designing a model of LR application for *Kampung* Upgrading. Regarding to *kampung* condition itself, the area comprises small plots in highly dense populated area. This condition urges to look into the maximum use of the land when the plots are partially or wholly regularized. Considering the small plot buildings and the optimal use of land after LR, the demolishment of old buildings is possible to take place and temporary relocation of residents as its consequence. In this case, the compensation of the demolished building and relocation must be taken into account as a part of the LR costs. The landowners' compensation is on the basis of the demolished building and redistributed land. This compensation is the basis of conversion their contribution in form of multi-story building units. Compensation in form of money or land and building exchange are provided by the Municipality based on the land appraisal at the beginning of the LR project. In case there is no relocation shelter available, the municipality might allocate their budget in advance for social housing development in another location.

5.3. Social housing production

In *kampung*, highly dense population exist where the housing condition itself lacks standard basic services. The condition can be represented as small plots with footpaths, bad sanitation system, mostly no hygienic water available, and risky for disaster. In case a fire occurs, it may spread quickly to neighbouring houses and worsen the risk of fire. Limited access like footpath makes it difficult for the fire truck to extinguish the fire. Thus a new living condition is necessary to be developed, with better basic infrastructures and facilities.

The financial aspect of building social housing from LR project is important to take into account because ultimately social housing in the form of multi-story building is provided as new shelters for *kampung* residents in better living condition. LR for *kampung* upgrading involves part of community's land to provide basic infrastructures and facilities, reserve land, and land for social housing. From the description in sub-chapter 5.2 above, and to ensure the low-cost social housing development, several possible approaches are likely to be as follow.

1. By increasing land deduction portion. Considering the small plots existing in *kampung,* the provision of basic infrastructures and facilities, and social housing production, the increase of land deduction up to the total size of each plots is reasonable; Subsequently, a consideration is put whether to use the whole area or part of the whole area of kampung;
2. By selling the reserve land for commercial use to the developer building low-cost social housing at reasonable price to cross-subsidize the landowners and in return at the time of completion, the developer sells the building block units at reasonable price;
3. By allocating the profit margin obtained from the difference land value between the value of potential building development plot (due to planning) and building plot (due to LR for urban development) for low-cost housing production;
4. By involving the developer to purchase some of the lands before the project as the landowner-participant in the project and/or profit-sharing of constructed building with the developer to build low-cost housing.
5. By mixing the use of land for residential and commercial use. In residential use, to introduce more profit and to cross-subsidize for low-cost housing, medium and high cost housing are optional to be built. This is aimed to ensure the low-cost housing production. In commercial use, a building for business purpose can be provided. Those options for residential and commercial use can be realized if remaining land is available for such purposes.

In principle, the municipality compensates the benefit of shares to the landowners by valuing the landowners' plots on the basis of planning (start of LR project). On that stage, the land value is improved due to the planning practice (start of LR project). The landowners absorb the value difference from unplanned value to planned value of the plots. Besides the compensation from the redistributed land due to planning, the landowners also get the compensation due to the demolished building. Afterwards, the development by LR takes place and produces improved land (building plot). On the other hand, the municipality might absorb the profit margin, from the land value difference resulted from planning stage (start of LR) to building plot, to finance the social housing development (see figure 5-1). Thus, the land value of the landowners' plots based on the planning is a basis of redistribution by value. Considering the small plots and area in *kampung* for optimal use, the low-cost housing built is in form of building blocks (multi-story building).

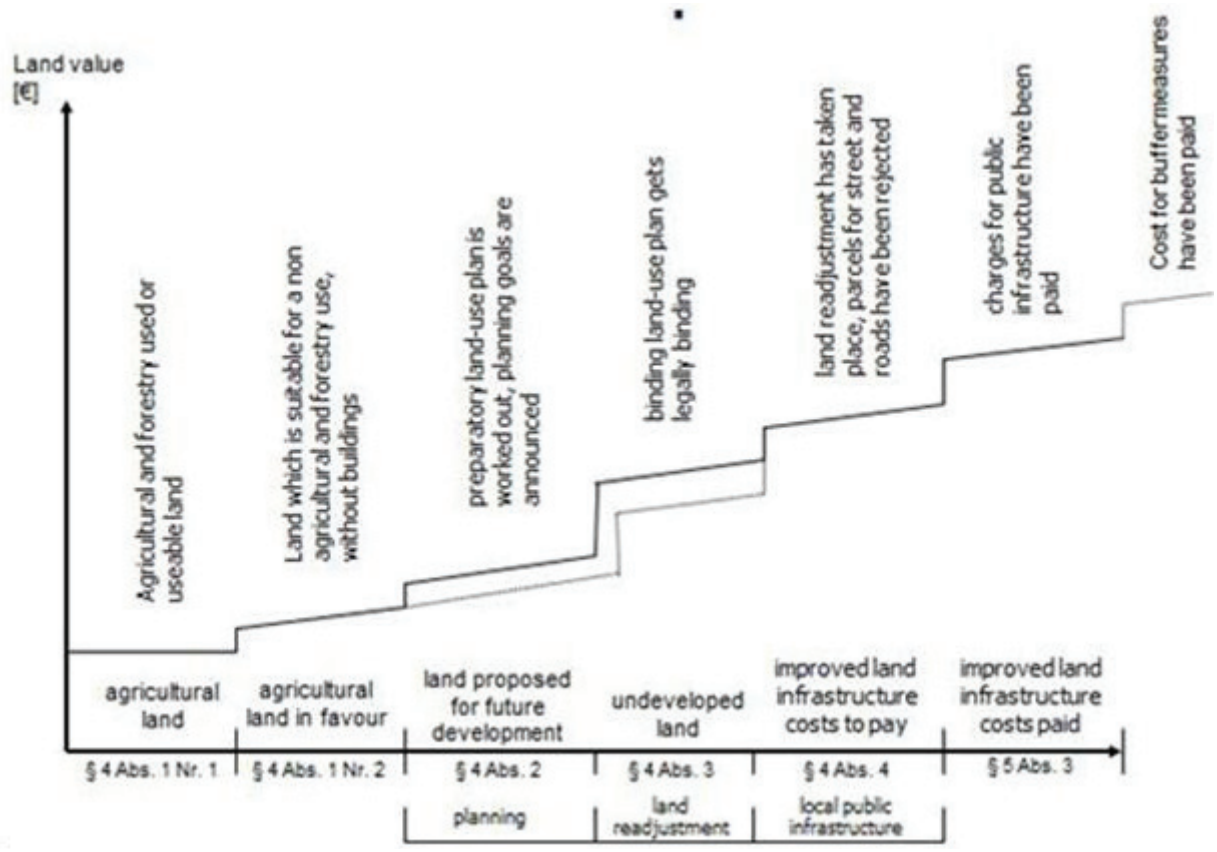


Figure 5-1: State and Development of Land
(Source: Univ-Prof. Dr.-Ing Holger Magel, 2002, Lehrstuhl für Bodenordnung und Landentwicklung ,TUM)

The compensation of the landowners they get from redistribution by value of the total size of the plot and the demolished building is converted to the value of the multi-story units. If the compensation value is higher than the unit value, the landowners might obtain a financial extra. But if it is less, they should pay extra money to own the units. A mechanism to own the multi-story building units is facilitated by a financial institution (e.g. local bank) with long-term and low interest affordable instalment mechanisms.

5.4. Examples redistribution by value

For clear understanding of landowner's participation, distribution of costs and benefits, and social housing production, we provide a simple calculation based on the land contribution from the landowners and redistribution of the readjusted plot that is converted to a value used for social housing unit.

Before LR commences, the landowners initiate to mobilize their resources to participate in the project. They contribute part of their land for development. The land contribution is allocated for public infrastructures and facilities, reserve land to be sold for commercial use, and social housing production in form of multi-storey building. Distribution costs and benefits are shared among the landowners and municipality. The redistributed plot is measured as compensation for the landowners. Redistribution method comprises redistribution by size and value. In urban area, redistribution by value is preferable due to the heterogeneous value existing. Thus this redistribution method is more equitable for the landowners.

Redistribution by size:
Mr. A has a plot of 100 m². The municipality is allowed to take up to 30% that means 30 m² to be contributed to the public areas. So Mr. A receives a building plot with 70 m² without any additional monetary compensation. If the building plot redistributed is 80 m² to Mr. A, he has to pay an additional monetary compensation for the area he got more than he deserved. That means he has to pay the actual market value for the additional 10 m².

Redistribution by value:
Mr. A has a plot of 100 m² with the market value of € 50/ m² equals to total value of € 5,000. Value at the time of resolution of LR is € 200/ m² and equals to value of € 20,000 (potential building plot due to planning). Profit of Mr. A = € 20,000 - € 5,000 = € 15,000. Suppose the new plot of Mr. A: 70 m² with the market value of € 300/ m² at the end of LR (building plot due to LR project) equals to value of € 21,000. So, Mr. A must pay the additional money to municipality as much as € 21,000 - € 20,000 = € 1,000. If the landowners get his land back as of 50 m² with the land value at the end of the project equals to € 15,000, so he gets € 20,000 - € 15,000 = € 5,000 additional financial compensation. The basic principle of this calculation by relative value is that the landowner gets the benefit from the increase of value at the beginning of LR project (potential building plot due to planning) and municipality absorbs the increase of value from planning to the completion of LR project- difference from potential building plot and building plot). For more clear view, see table 5-1.

Mr. A	**Plot size (m²)**		**Land contribution (m²)**	**Value per m²**			**Land value (€)**	**Financial compensation (€)**	**Remarks**
	original	redistributed		present	Planning (startof LR)	End of LR			
Unserviced plot	100			50			5,000		Profit marginlandowner: 15,000
Potential buildingplot	100				200		20,000		
Buildingplot		70	30			300	21,000	1,000	Formunicipality
Buildingplot		50	50			300	15,000	-5,000	Forlandowner
Buildingplot		0	100			200	20,000	-20,000	Forlandowner

Table 5-1: Redistribution by value

Those financial compensations will be used as input value for landowner to own a single unit of multi-storey building produced at the end of LR project. This research does not study the calculation of multi-storey building costs. In general, it is derived from the costs of construction per meter cubic and the numbers of units. In sum, considering the small plots in kampung, LR for kampung upgrading is preferred to use the total size of each plot (wholly deducted). Thus, the financial compensation for the landowners equals to the value of the total size of each plots.

5.5. Conceptual Model of LR Application for *Kampung* Upgrading

LR, in the context of optimal use, is a way to merge pieces of lands into one large site for development. The small plots in *kampung* do not make the land utilization effective especially if no sufficient access is available like road, drainages for disaster risk management e.g. fire, flood. For *kampung* upgrading, LR may not be able to produce housing needs for certain number of units per year, but it can be used in some ways to provide land and housing for urban poor notably where the low-income group in *kampung* and the upgrading take place on the same site. In inner city where many *kampung*s exist and small dense plots are scattered irregularly, a conceptual model of LR application for *kampung* upgrading is illustrated in figure 5-2.

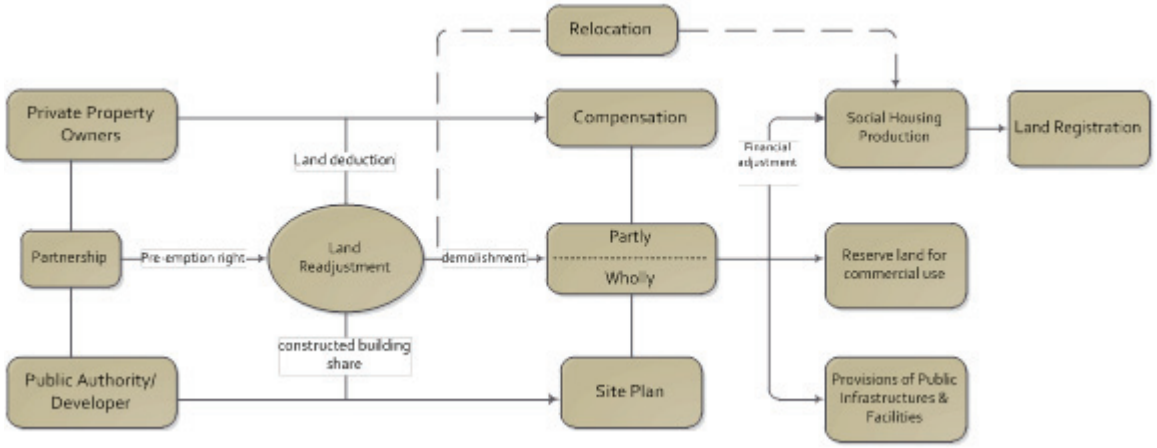


Figure 5-2: Conceptual Model of LR for Kampung Upgrading

Prior to the establishment of partnership, the landowners and leaseholders settle their participation in LR project. In case there is a group of landowners that refuse to join in the project, pre-emption rights can be exercised to acquire land instead of compulsory purchase. It is undertaken to prevent the over-valuing land price by the landowners. The landowners may hold out their land when they realize that their lands are the last ones to acquire. After the participation of them is settled, it comes to the establishment of partnership between private property owners and public authority/developer. They promote mutual benefit from the project. As a result, a board of LR project that has representatives from the landowners and leaseholders is formed to facilitate their views and expectations and as a platform for discussion among them.

In case there is still a party that does not agree about the LR project, the pre-emption right can be exercised again. If not, expropriation is undertaken as a last resort for land acquisition. This right can be used as well to extend the project area to acquire more lands in a surrounding area and to secure the plan for land exchange. Prior to LR resolution or start, a land valuation takes place to determine the

current land value before LR. This value is used as an input for compensation at later stage of redistribution. As LR commences, initial LR is conducted to identify the affected landowners and leaseholders for compensation purposes and map the existing area as the basis for redesigning a new layout.

As mentioned in sub-chapter 5.3, it is reasonable and preferred to wholly increase the land deduction portion of total area (wholly) or part of the total area (partly) to optimize the use of the small plots in *kampung* area. To optimize the use of total area in *kampung* upgrading, it is preferred to increase the land deduction portion up to whole of each plots, whether it is of the total area or part of the total area. The use of the total size of each plot is considering the small plots in kampung that there is no space of land available because it is used completely for the building. Consequently, there is no remaining land given back to the original landowners due to the use of the total size of the plot. Thus, the financial compensation for them equals to the value of the total size of the plot.

To intensify the use of one-large area after merging, multi-story building is built. As a consequence, demolishment of existing buildings and relocation may occur. It can give impact to the increase of LR costs. The property owners are entitled to get compensation for the demolished building besides the land itself. In the case of the lease holders for residential and commercial/professional use, whereas they still have valid contracts. They are entitled to get replacement spaces relating to each purpose, and Jakarta municipality is obliged to provide such replacement spaces before the demolition. In addition to that, they are entitled as well for hardship allowance in the sense of economic disadvantages, so as an alternative of it, the municipality might prioritize them to own units of low-cost housing with long-term instalment.

On the other hand, the developer in this case can be Jakarta municipality or private developers or municipality incorporate with the private developers in joint development for profit sharing. In the case of Jakarta municipality as the developer, it may invest capital in advance to finance the social housing development. Once it is complete, it might sell the units of multi-storey building at a price at the end of LR project. So, they absorb the profit margin between the start of LR (potential building plot) and the end of LR (building plot). In the case of incorporation with private developer, the private developer can be given a share of certain percentage of constructed building or it is included as a participant if it buys out some of the lands in LR area. However this share should be discussed between the municipality and the developer in a just and transparent manner to avoid excessive profit by developer. The remaining land belongs to the municipality to be distributed to the landowners based on their share in form of replotted land value and with long-term affordable instalment system. The landowners, leaseholders, Jakarta municipality, and developers work together in designing the new layout in the form of a site plan.

Whether it is the whole area (wholly) or part of the whole area (partly) used, land clearance takes place by demolishing the buildings. The plots are allocated for public infrastructures and facilities and also for the building blocks designated for residential area There also can be a mix of residential (not only low cost housing but also if necessary middle and high cost housing) and commercial area, and basic infrastructures provision in the new community. The provision of commercial use and middle and high cost housing in LR project is a kind of cross-subsidy scheme for low-cost housing. Moreover if there is a need to acquire land to extend the development area, LR may involve several surrounding settlements or linked settlements in a larger scale, covered by a binding land use plan as in the case of Germany. In the area covered by a binding land use plan, pre-emption right absolutely will work to secure the plan.

In the case of part of the whole area (partly), LR may readjust the plots by merging partly small plots of the total area after clearance and spare for the commercial use and basic infrastructures provision, and social housing production. In the case of the whole area (wholly), LR merges all small plots into a single large plot and readjusts the designated use of the area based on the site plan. The site plan addresses the use of residential and commercial area, and the provision of public infrastructure and facilities. In both cases, the affected landowners and leaseholders are relocated in the available walk-up flats. The housing of the residents in the available walk-up flats is aimed to reduce the cost of the relocation for temporary shelter.

Once the development is complete, the original landowners and leaseholders may have the option whether they want to stay in the walk-up flats owned by the municipality or go back to the LR project area or get land exchanges outside the LR area. However, those options require financial adjustment. Specifically financial adjustment of belonging the low-cost housing is based on the compensation in proportion to the replotted land. Ultimately the new property rights are produced and registered in land office.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1. Conclusions

The conclusions are discussed orderly according to the research sub-objectives and sub-question. The overall discussion is derived from it.

Sub-objective 1-To analyze the existing informal development problems in Jakarta:
1. What is the current situation of *kampung* in Jakarta?

Most *kampung*s exist on customary land in which the owners possess the land with property tax receipts, notarized purchase receipts and letters from district and sub-district head. These documents show that they hold what is termed as "possessory title"- adverse possession, an owner occupying and using land for years. These *kampung*s built and developed incrementally by their inhabitants can be seen as the building blocks. They can be considered as an agglomeration of urbanization growth that alters from rural village into urban villages with minimum even sub-standard facilities and services. Most *kampung* settlers are the lower and lowest income groups with only limited resources to build their houses and organize their neighbourhoods.

2. What is the government policy related to informal settlement and its implementation?

The government's effort to suppress the slum area is by making several regulations that are:
1. Regulation No. 4, 1992 in regard to housing and residence.
2. President Instruction No.5, 1990, about the manual of execution of regeneration of slum area across the state land.
3. The letter from Minister of Housing No.4/SE/M/I/93, 1993, stating that a slum area is a staying and trading place/environment that does not meet the standard of living, technical requirement such as social infrastructure, health, safety and enjoyment as well as with ecological and legal administrative requirement.

According to the above regulations, the government under City Housing Agency (*Perum Perumnas*) provides low-cost housing and gives subsidies for its development. Yet, it was not sufficient. Regarding to the insufficiency of housing stock, the central and local government issued specific permits so called 'location permits' for developers to acquire land for housing and urban development. A new housing development was aimed at providing housing in the outskirts of Jakarta, Bekasi and Tangerang. Under this policy, it was assumed that developers would build housing in the proportion of 1:3:6, meaning that in any particular site the developers were obliged to build three units of middle class housing and six units of low-income housing for every unit of exclusive housing.

Various policies and strategies have been developed by the government to address housing problems. The latest and most prominent one is a policy offering the poor alternatives to formal housing known as *Kampung* Improvement Programs (KIP). KIP focused on providing basic urban services, such as roads and footpaths, water, drainage and sanitation, as well as health and education facilities. The improvement involved little disturbances to the existing infrastructures. The program did not offer direct housing assistance, but improved access, greater flood control and increased economic activity within the *kampung*s, and it has stimulated home improvement.

3. What are the shortcomings of previous programs?

Low-cost housing, intended for the low-income group, does not remain in the hands of the poor since gentrification appears where the houses are sold to the unintended group which is the higher income group. In 2007 a massive public housing program was commenced. However, the price of land in the city and land conflicts will certainly contribute to slow down the implementation of this program. The new housing development in outskirt of Jakarta that builds three units of middle class housing and six units of low-income housing for every unit of exclusive housing, did not work properly since no sanction is enforced for the developers violating this policy. The program has become increasingly difficult to apply since this approach requires acquisition of land for relocation of affected communities, especially in the city centre where the land value is getting higher when it is closer to the city centre, and job market. Thus, it is highly difficult to acquire land for resettlement. In addition to that, strong social tradition of attachment to land ownership and social and community ties may negate the resettlement from their present locations.

KIP has its limitations due to the scarcity of urban land. *Kampung* area is spared for common public services such as roads and footpaths in the over-crowded neighbourhoods. KIP initially started with the upgrading of physical infrastructure and did not include land tenure issues. KIP tends to be a short-term program where in the future improvements that had been provided may decay and requires maintenances. It highly depends on the government funds and neglects the cost recovery issues. KIP has been criticized for not becoming involved in local communities in any real sense. Even though the government turned this program into comprehensive KIP that base on community participation but in practice this still does not exist. This program, however, still heavily top-down approach, gives little room for genuine community participation.

Sub-objective 2-To explore land readjustment (LR) applications (in Germany and Japan):
4. Is LR an effective urban development tool?

Yes, LR is an effective comprehensive urban development tool. LR as a multi-purpose technique in urban development, including land assembly for project sites, government land acquisition for public purposes, construction of network infrastructure, official plan implementation, equitable sharing of costs and benefits, land title registration, and timely land development

5. How is LR implemented for urban development?

Basically, fragmented land with irregular shapes and sizes exists in Jakarta. This condition does not conform to the areas designated for development. By changing the pattern of these irregular plots, the land can be improved efficiently. Besides the re-arrangement of the plots, the provision of infrastructure like roads is also resulted from the land contributed by landowners. The new plot is smaller but more regular in shape and size, more accessible, and more marketable.

6. Does land readjustment preserve the tenure security?

Yes, LR realizes the continuation of landownership. Before LR, the existing situation is captured to identify the reality on the ground, then after LR the new plots are given back in smaller size but converted into serviced plot and they are registered in land office to issue the land title.

7. How does LR benefit the stakeholders (landowners, government, and private developer)?

Land readjustment (LR) as a multi-purpose technique can provide a number of benefits in urban development, including land assembly for project sites, government land acquisition for public purposes, construction of network infrastructure, official plan implementation, equitable sharing of costs and benefits, land title registration, and timely land development. The benefits of LR projects in sense of landowners are the considerable increase in value after the LR process despite a reduction in size, the conversion of lands into serviced urban plots in regular shape and size, the ease of marketability, and the continuation of ownership after LR. The attraction for planning authorities (government and private developer) is that the projects provide land for public facilities, build needed urban infrastructure and can be largely self-financing. In addition to the government benefit, LR may lead to betterment taxation for the municipality to collect for revenue

8. What conditions that may prevent the success of LR application?

Whether LR is voluntary or mandatory, opposition has been an obstacle that can fail the project and resulted abandoned development project. It also seems clear to say that local governments play an important key role as the main driving force that continuously convince and persuade local landowners to participate in the projects. The high failure rate of projects appears to be a result of the reluctance to start land readjustment projects over strong objections by local landowners and the reluctance to proceed without consensus. Realizing the cause of the failure, the effort of the local government should not just quit when facing the objections from the landowners. They must have commitment to encourage community to participate in the project..

Sub-objective 3-To investigate the applicability of land readjustment (LR) in Jakarta:
9. What are the potential of LR for urban development?

First potential is that LR may mobilize the community's resources for development whether it is compulsory or voluntary. When community is involved in planning process, they will initiate to mobilize the available resources. LR may encourage their initiatives for development planning and establish the joint development with the government.

Second is that LR has potential to be self-financing through the sale of land contributions. Although the benefitting recipients must burden the cost of the development, LR might help them to minimize such burden by the sale of land contribution for commercial use. A shortage of funds for infrastructures is a major constraint for the urban facility development in Indonesia. In this case, LR might provide the infrastructure at little cost to local government (municipality) and simultaneously improve the quality of living condition. The added-value is also that the increase of land value after development, may lead to betterment taxation for the municipality to collect for revenue.

Third is LR as a mass land registration method may clarify the complexity and ambiguity of land tenure. Prior to reorganizing the plots, the existing plots should be mapped to identify the existing landowners. In other words, initial LR is used to identify the affected landowners in the project area. It depicts the existing irregular plots as the basis of designing a new plan layout. It is also useful to inventorize what belongs to whom and where, and also for compensation purpose at later stage of LR projects.

10. What are the lessons learnt from Japan and German LR?

The most relevant lessons learnt from German in respect to the shortcomings of KIP are firstly, pre-emption right- a right to reserve a land for development. It may secure the development plan in the case of future land development. When transaction already exists, this right may revoke the contract to acquire a particular land. Although there is a potential buyer interested to buy a land, the seller must offer first municipality. Secondly, the redistribution measure, notably redistribution by value. It has a principle that the landowners deserve to get benefit that equals to its whole plot value despite the reduction of size. A simple calculation is provided in sub-chapter 5.4 for clear understanding.

Lessons learnt from Japanese LR experiences are that LR has characteristics of the comprehensive urban development with extensive use, fair distribution of development benefits and cost, preservation of land titles, participation by landowners and leaseholders, and impartial procedures. Such characteristics underlie the application of LR for *kampung* upgrading. Further description about lessons learnt is provided in sub-chapter 3.4.

11. How can the lessons learnt be applied in Jakarta, in respect to the shortcomings of KIP?

LR might mobilize the community's resources for development. LR might encourage their initiatives for development planning and establish the joint development with the government. Having them in the project may solve lack of urban land for *kampung* upgrading in optimal way.

LR has potential to be self-financing through the sale of land contributions. In this case, LR may provide the infrastructure at little cost to local government (municipality) and simultaneously improve the quality of living condition. Extent of this self-financing is formulated in conceptual model chapter to finance the social housing in form of multi-storey building.

LR as a mass land registration method may clarify the complexity and ambiguity of land tenure existing in *kampung*. Initial LR is aimed to identify the existing condition of parcels and the landownership status. Then the result is used as the basis to re-design the area to intensify the use of land and produce a social housing for the affected people (landowners and leaseholders).

The possible applications derived from the lessons learnt are described further in sub-chapter 4.2 and a conceptual model of LR application for kampung upgrading, derived from the possible applications is provided in sub-chapter 5.5.

6.2. Overall Conclusion

LR has the capability of land assembly, self-finance, the protection of social capital, timely land development to develop an area, notably small and medium area (district level) as it is in *kampung* where there is a need to upgrade or provide basic infrastructures to be integrated to the existing urban infrastructures.

The LR application in Jakarta might solve the lack of urban supply by involving the fragmented landowner in development since they obtain the serviced urban plots and increased land value despite the size deduction. Moreover, the serviced urban plot leads to the optimal use of land and ease of marketability.

LR, in the case of *kampung* upgrading, is a tool for land acquisition, development plan realization, infrastructure construction, self-finance land development, timely development, and land supply for low-cost housing. LR ultimately might solve problems of lack of infrastructures and serviced urban plots and inability of low income group to have standard housing needs in urban area.

Considering the complexity of urban problems in Jakarta, LR projects should be reasonably planned and implemented within a certain duration which is not as long as Japan LR ranging from 5-10 years. The long-time of completion may affect to the social insecurity of the project. Within the reasonable time based on the proper plan and schedule, it is expected that the beneficiaries may benefit and take advantages from the project as they feel secure after the completion of the project. In respect to the shortcomings of KIP, Land Readjustment might solve the scarcity of urban land by involving community to contribute their lands. LR has also a potential to self-financing by selling the reserve land for commercial use. This is the crucial issue in land development where cost recovery in any development must be taken into account.

In addition to that, the development of middle or high cost housing may ensure the profit gain to finance the low cost housing. Thus, it is a kind of cross-subsidy mechanism. Furthermore, for *kampung* upgrading, an extensive LR may provide the social housing. The municipality might absorb the profit margin from the increase of land value from beginning to the end of the project. This can be achieved if the land market system is well-organized. For optimal use, regarding to the small plots in *kampung*, it is preferred to increase the land contribution and design mix of land use in the project area for development of social housing. Once the development of social housing is complete, the original landowners and leaseholders may get options to stay in relocation area or move back to the new structure area with multi-story building with basic infrastructures and facilities available. Ultimately LR may preserve the continuation of the land tenure by issuing land title for the multi-story units.

However, successful LR projects depend on the strong regulation. The existing regulation of LR implementation in Indonesia is mandated in the regulation of BPN chairman Number 4 Year of 1991. Such regulation, in perspective of Indonesian legal structure, is hierarch ally not binding the local government robustly. Thus, it should be improved into a level of regulation of government regulation or a specific act to enhance LR implementation more understandable and robust, and also binding to local government as the main executor.

Last but not least, LR is feasible for *kampung* upgrading in respect to the shortcomings of the previous program that LR may tackle. LR may not be able to produce housing needs for certain number of units per year, but it can be used in some ways to provide land and housing for urban poor notably where the low-income group in *kampung* and the upgrading take place on the same site.

6.3. Recommendations

This research studies –conceptually- the feasibility of LR application for *kampung* upgrading. For further research, to measure the extent of its applicability, there is a need of a case study area from German LR to enhance the research result and extract the main points to simulate its application in the case of a *kampung* area in Jakarta or any certain area.

The simulation might introduce the mapping before and after LR with the calculation of distribution of costs and benefits in terms of land value. It is recommended to have a simulation in further research to measure the extent of LR applicability for *kampung* upgrading. Redistributed plot by value is an input value for conversion of social housing units. In simulation, those comprehensive formulations and calculation in numbers make the application real on the ground and added by a formulation to finance the social housing from the profit margin between the value at the start and end of LR.

LIST OF REFERENCES

Adams, D., Disberry, A., Hutchison, N., & Munjoma, T. (2001). Ownership constraints to brownfield redevelopment. *Environment and Planning A, 33*(3), 453-477.

Agrawal, P. (1999). Urban land consolidation: a review of policy and procedures in Indonesia and other Asian countries. [10.1023/A:1007150828772]. *GeoJournal, 49*(3), 311-322.

Archer, R. W. (1987). The Possible Use of Urban Land Pooling/Readjustment for the Planned Development of Bangkok. *Third World Planning Review, 9*(3), 235.

Archer, R. W. (1994). Urban land consolidation for metropolitan Jakarta expansion, 1990-2010. [doi: DOI: 10.1016/0197-3975(94)90016-7]. *Habitat International, 18*(4), 37-52.

Batubara, M., Tanimura, H., Asikhia, M. O., & Toshimori, A. (2002). An Application of the AHP to Urban Residential Upgrading in Jakarta. *Journal of Asian Architecture and Building Engineering, 1*(1), 253-259.

Bustillos, L. A., Santosa, H. R., & Osman, A. (2009). *Proceedings of the CIB W110 Conference*. Paper presented at the Informal Settlements and Affordable Housing Conference 27 September 2009, Santiago, Chile.

Davy, B. (2007). Mandatory Happines?Land Readjustment and Property in Germany. In B. Needham, Hong, Yu-hung (Ed.), *Analyzing land readjustment: economics, law, and collective actions*. Cambridge, Massachusets: Lincoln Institute of Land Policy.

Fekade, W. (2000). Deficits of formal urban land management and informal responses under rapid urban growth, an international perspective. [doi: DOI: 10.1016/S0197-3975(99)00034-X]. *Habitat International, 24*(2), 127-150.

Firman, T. (2004). Major issues in Indonesia's urban land development. [doi: DOI: 10.1016/j.landusepol.2003.04.002]. *Land Use Policy, 21*(4), 347-355.

Japan International Cooperation Agency. (2007). Land Readjustment Measure. Unpublished Course.

Japan Ministry of Construction, L. R. D. (1997). from http://www.mlit.go.jp/crd/city/sigaiti/kukaku-e/default.html

Jellinek, L. (1991). *The Wheel of Fortune: History of a poor community in Jakarta*. Sydney: Allen & Unwin.

Krausse, G. H. (1975). *The Kampongs of Jakarta, Indonesia: a study of spatial patterns in urban poverty*. Unpublished Ph. D. Thesis, University of Pittsburgh.

Larsson, G. (1997). Land readjustment: A tool for urban development. [doi: DOI: 10.1016/S0197-3975(96)00059-8]. *Habitat International, 21*(2), 141-152.

Li, L. H., & Li, X. (2007). Land readjustment: An innovative urban experiment in China. *Urban Studies, 44*(1), 81-98.

Massachusetts Institute of Technology. (2010a). What is urban upgrading? , from http://web.mit.edu/urbanupgrading/upgrading/whatis/index.html

Masser, I. (1987). Land Readjustment: An Overview. *Third World Planning Review, 9*(3), 205.

Media Indonesia. (2010, June 7). Luas Kawasan Kumuh Meningkat. *Media Indonesia*. Retrieved from http://www.mediaindonesia.com/read/2010/06/06/147581/4/2/Luas-Kawasan-Kumuh-Meningkat

Muller-Jokel, R. (2002). *Land evaluation in urban development process in Germany*. Paper presented at the The FIG XXII International Congress, Washington, DC, USA, April 19-26.

Muller-Jokel, R. (2004). *Land Readjustment – A Win-Win-Strategy for Sustainable Urban Development*. Paper presented at the The FIG Working Week 2004, Athens, Greece May 22-27.

Needham, B., & Hong, Y.-H. (2007). *Analyzing land readjustment : economics, law, and collective action*: Cambridge : Lincoln Institute of Land Policy.

Pemda DKI. (2010). Retrieved August 18, 2010, from http://www.jakarta.go.id/jakv1/item/halaman/0/0/2675/1/1/2/34/3/1/4/34/5/48/nid/2675%20-%20103.9kb

Schnidman, F. (1988). Land Readjustment. *Urban Land*.

Setiawan, B. (1998). *Local dynamics in informal settlement development : a case study of Yogyakarta, Indonesia*. Unpublished Dissertation, University of British Columbia.

Silas, J. (1992). Government-community partnerships in kampung improvement programmes in Surabaya. *Environment and Urbanization, 4*(2), 33-41.

Sonnenberg, J. K. B. (1994). *Urban Land Readjustment by "Kukaku Seiri" and improved legal protection*. Paper presented at the FIG XX International Congress.

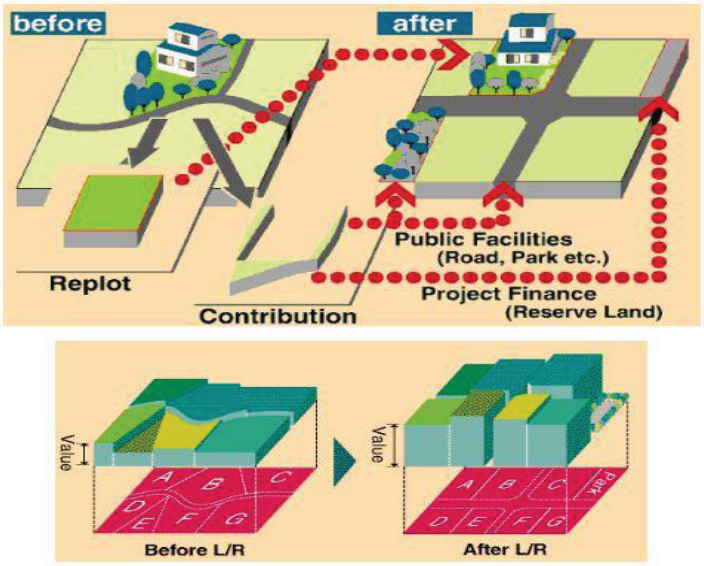
Sorensen, A. (1999). Land readjustment, urban planning and urban sprawl in the Tokyo Metropolitan Area. *Urban Studies, 36*(13), 2333-2360.
Sorensen, A. (2000). Conflict, consensus or consent: implications of Japanese land readjustment practice for developing countries. [doi: DOI: 10.1016/S0197-3975(99)00029-6]. *Habitat International, 24*(1), 51-73.
Sorensen, A. (2007). Consensus, Persuasion, and Opposition: Organizing Land Readjustment in Japan. In B. Needham, Hong, Yu-hung (Ed.), *Analyzing land readjustment: economics, law, and collective actions*. Cambridge, Massachusets: Lincoln Institute of Land Policy.
Steinberg, F. (2007). Jakarta: Environmental problems and sustainability. [doi: DOI: 10.1016/j.habitatint.2007.06.002]. *Habitat International, 31*(3-4), 354-365.
Turk, S. S. (2008). An examination for efficient applicability of the land readjustment method at the international context. *Journal of Planning Literature, 22*(3), 229-242.
Turk, S. S., & Korthals Altes, W. K. (2010). How suitable is LR for renewal of inner city areas? An analysis for Turkey. [doi: DOI: 10.1016/j.cities.2010.03.010]. *Cities, In Press, Corrected Proof*.
UN-HABITAT. (2002). *Cities Without Slums*. Paper presented at the World Urban Forum.
UN-HABITAT. (2003). *The Challenge of Slums*. London.
UN-HABITAT. (2006). *The world's first slum upgrading programme*. Paper presented at the World Urban Forum III: An International UN-Habitat Event on Urban SUstainability.
UN-HABITAT. (2008). Land: a crucial element in housing the urban poor *Housing the poor in Asian cities, Quick Guide 3*. Nairobi, Kenya.
UNESCAP. (1995a). Municipal Land Management in Asia: A Comparative Study. Retrieved May 28 2010, 2010, from http://www.unescap.org/huset/m_land/chapter10a.htm
UNESCAP. (1995b). Urban land policies for the uninitiatied. Retrieved September 21, 2010, from http://www.unescap.org/huset/land_policies/index.htm#_1_1
Urban Development Timeline. (2000). Indonesia's Kampung Improvement Program. Retrieved September 18, 2010, from http://www.urbantimeline.org/node/905
Werlin, H. (1999). The Slum Upgrading Myth. *Urban Studies, 36*.
Winayanti, L., & Lang, H. C. (2004). Provision of urban services in an informal settlement: a case study of Kampung Penas Tanggul, Jakarta. [doi: DOI: 10.1016/S0197-3975(02)00072-3]. *Habitat International, 28*(1), 41-65.
World Bank. (1990). *Operational Directives 4.30: Involuntary Resttlement*. Washington DC.
WORLD BANK. (1995). *Indonesia Impact Evaluation Report*

APPENDICES

Appendix 1: Framework of Japan Land Readjustment

Appendix 2: Characteristics of Japan Land Readjustment

Appendix 1: Framework of Japan Land Readjustment



Land readjustment (LR) is one of the measures for urban area development. It is implemented through "replotting". The conceptual framework of a LR project is shown below, involving a number of unique concepts such as "replotting", "contribution", etc. Since landowners and leaseholders equitably contribute a portion of their land in a LR project, a replot (building lot after LR) becomes smaller than the lot before LR. However, urban infrastructure developed under the LR project increases land values with an enhancement of efficient/effective utilization of building lots. This is called an "increase in land use value" between original building lots and replotted lots (replot) that can be seen in the figure.(Source:(Japan Ministry of Construction, 1997))

Appendix 2: Characteristics of Japan Land Readjustment

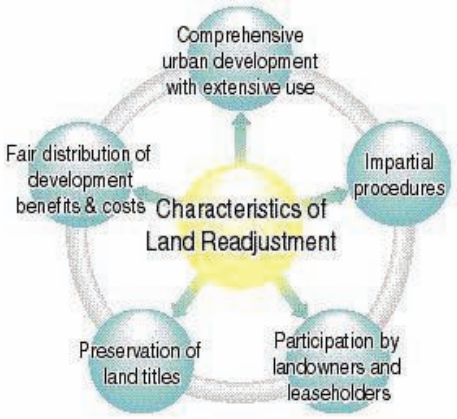
Characteristics of land readjustment in comparison with the land acquisition method and others are as follows:

1. Comprehensive urban development with extensive use

Land readjustment is an urban development measure that constructs urban facilities such as roads, parks and utilities, and develops building lots in a project area. And land readjustment is also an urban development measure that is flexible in objective, size, area and development grade.

2. Fair distribution of development benefits and cost

Each landowner and leaseholder shoulder fairly land and expenses for development of urban facilities. On the other hand, the benefits accruing from the development are also fairly distributed among them. Land readjustment project is oriented to self-financing.



3. Preservation of land titles

Under land readjustment, land titles before a project are transferred to replots. Therefore, land titles are preserved during a project and a previous regional community remains.

4. Participation by landowners and leaseholders

Landowners and leaseholders can participate in a project. Land readjustment is a democratic measure to reflect their views in the project.

5. Impartial procedures

The procedures for a project are regulated, ensuring transparency. In the case of implementation by local government, an advisory council of representatives of landowners and leaseholders follows the procedures. In the case of implementation by cooperative, general meetings of landholders and leaseholders are organized.

(Source: (Japan Ministry of Construction, 1997))