IMPROVEMENT OF LAND PRIVATIZATION PROCESS, BASED ON PERFORMANCE ANALYSIS:

A CASE STUDY IN ULAANBAATAR, MONGOLIA

BOLORMAA NYAMDORJ

March, 2011

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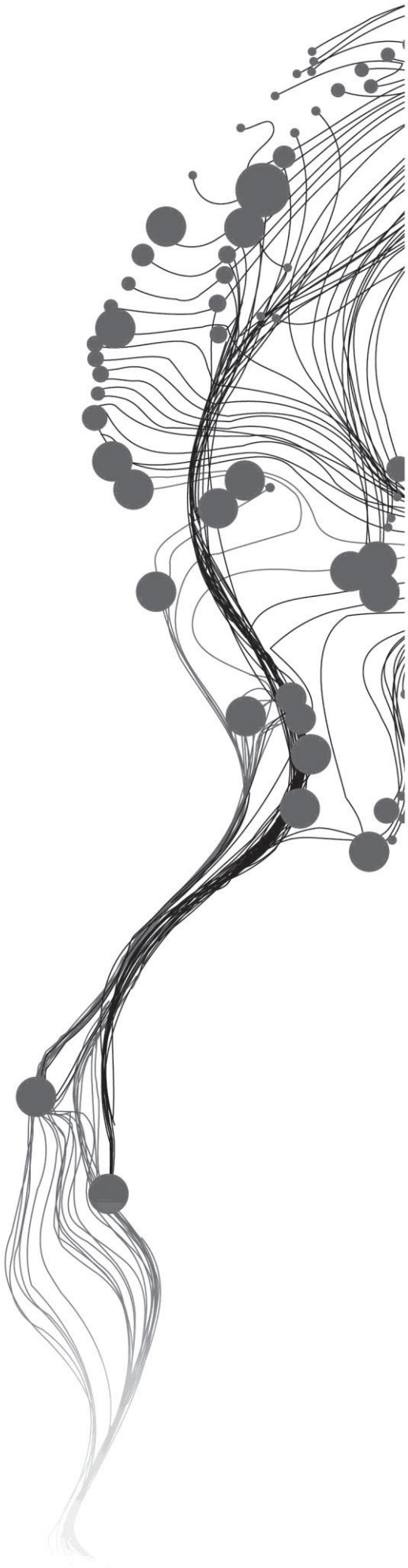

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Enschede, The Netherlands, March, 2011

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.
Specialization: Land Administration

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ABSTRACT

In 2002, the Mongolian government introduced a Land Privatization Law with the purpose of the land privatization is to provide people with private ownership of land. Consequently people can benefit from the ownership of land using land as collateral. However, the existing land privatization procedure remains problematic and there is still lack of information supply and weak coordination between organizations.

This study aims to improve the existing land privatization process based on the user requirements. The user requirements are extracted from performance indicators. This research conducts both qualitative and quantitative analysis using interviews, primary and secondary questionnaires and documentary analysis. The existing land privatization process is analysed in terms of performance indicators: timeliness, cost and customer satisfaction. The research provides a case study in Ulaanbaatar, Mongolia.

Seven user requirement elements are extracted from data analysis and those are classified into the aspect of procedure, organization, and technology. Such elements of user requirement are removing and merging unnecessary steps, one stop shopping, improve coordination between organizations, provide relevant information, customer oriented service, access to information, and data sharing.

As a result, the proposed model is designed based on the user requirements to improve the existing process. The model comprises two processes- selection of new lands and demarcation, and registration of immovable property rights. To ensure whether the proposed model meets user requirements or not, validation is required for further research.

Key words: land privatization, performance indicators

ACKNOWLEDGEMENTS

Firstly, I would like to express my gratitude to the Netherland Fellowship Programme and ITC for giving me wonderful opportunity to study.

I am very grateful to my first supervisor Prof. Paul van der Molen and second supervisor Dr. Javier Morales, for their valuable suggestions, comments and encouragement. I also want to thank the course director Mr. Ir. Kees Bronsveld and the course secretariat Ms. Jacqueline Mol for their support during the study. I am really thankful the critical questions and suggestions of Prof. Jaap Zevenbergen during the proposal and mid-term defence.

Furthermore, I am greatly thankful to all good people from Ulaanbaatar, who willingly participated and supported my field work. My special thank to Naranchimeg Bagdai for her support during the study and field work.

I would specially thank all of my LA-11 friends, especially Andri, Melania, Sandra and Turi who gave me very nice company and helped me in study.

Finally, I am very much thankful to my family for all the patience and sacrifice that made my studies possible.

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LIST OF ABBREVIATIONS

UB	Ulaanbaatar
ALAGaC	Administration of Land Affairs, Geodesy and Cartography
ASRT	Administration of State Registration of Titles
LO	Land Office
DLO	District Land Office
LP	Land Privatization
LPP	Land Privatization Process
UML	Unified Modelling Language

1. INTRODUCTION

1.1. Background

Due to climate and natural circumstances in Mongolia the livelihood of the inhabitants is pastoral-nomadic. Mongolia has a population of 2.8 million people and around 1 million of them live in the capital city which is Ulaanbaatar. In Ulaanbaatar (UB city) the population is increasing day by day and at the same time land scarcity is becoming a serious issue.

Since the mid of 20th century until the 1990 all Mongolian land belongs to the State. The New Constitution of Mongolia, approved in 1992, stated that land is subject to privatization to only Mongolian citizens, which is considered as the legal background of further Mongolia's land privatization legislation. The Mongolian Government considers that land law reform, especially private land ownership would bring a better economic development. A new Land Law was introduced to the Mongolians in 2002, with the purpose of expanding rights for possession of land. Also a Land Privatization Law was introduced in 2002, with the purpose to govern the allocation of land to citizens-families (hereinafter, "citizens") in the form of ownership rights and other related relations issues. The main purpose of the Mongolian land privatization is to provide people with private ownership of land. Consequently people can benefit from the ownership of land using land as collateral. It was assumed by the Mongolian government that privately owned land would be used more effectively and that it will accelerate putting land into economic process. This in turn would contribute to the improvement of livelihood of the people in general and eventually of the growth of the national economy. However, in Mongolia the implementation of land privatization law is still problematic, due to a slow and ineffective process which was demonstrated in a pilot study in Mongolia (Bagdai., van der Veen., van der Molen., & Tuladhar., 2009) the current land privatization process is incomplete and slow, is not transparent, there is lack of coordination between land related organizations and there is a lot of duplication of data and processes.

1.2. Research Problem

Academic and empirical data indicates that the current land privatization process in Mongolia is complex and non-transparent and, not capable to support new legal processes such as land transaction. . Sh.Batsukh (2005) stated that the number of private owners is increasing in all levels, but its economic circulation or use is not efficient and hence privatization has not succeeded to the level that government expected.

In May 2008, the government extended the duration of the land privatization process up to 5 years with a remarkable change that now every individual Mongolian citizens (instead of families) can own a piece of land, which makes the challenge even bigger. The problems in Mongolia are not unique. The implementation of land privatization law is still slow and ineffective in many transition countries (Bagdai & Tsolmon, 2009). Although, the government extended duration of time and give chance for every citizens, existing land privatization procedure remains problematic and there is still lack of information supply and weak coordination between organizations.

J.Narantsatsralt (2007) stated that during implementation of land reform policy in Mongolia "*the main problems are related with such factors as land was entirely under the state; social mentality was not set for making efficient use of land; lack of understanding related with economic benefits of land; absence of land information system; lack of systematic knowledge on land cadastre among professionals as well as all levels of decision makers. Moreover, the process consumed a lot of time because ministries and public organizations could not define integrated strategy for implementing land reforms*".

In "Allocation of Land to Mongolian citizens for ownership" the law defines that the governor, authorized to permit the citizen's request for a land possession license, shall review and settle the issue within 3 months, after the request is submitted (art. 20.6) and in "State registration rights to immovable property and other rights" the law defines that the Authority of the State Central Administrative Authority, in charge of state registration of property rights, shall settle the issue within 14 days after the request is submitted (art.15.1). But in fact, citizens spend 6 months or more to get their ownership title. Some citizens manage to get their title within 3 months, if they have friends or can pay back door-bribes to land agency staff. Sh.Batsukh (2007) mentions that, in Mongolia, citizens and enterprises have to go through 23 procedures, taking from 3 months to 5 years of time, to get titles for land possession, use and ownership. The process is also delayed due to decisions that have to be made by the governors.

The UB City and District Land Offices online survey shows that land privatization process is going slowly and that the coordination between land related organizations is weak.(Appendix 1) The survey involved 92 person and 45.5 % answered that they could not get any answer at all, in respond to the question "*How long did you wait to get the decision request*?" . In addition, 72% answered about insufficient coordination between those organizations. In the web site comments, most citizens complain about land privatization process that is going slowly, that the organizations service is not transparent and that they cannot get information from land offices.

According to the researcher R.Gankhuyag (2005) who has carried out some survey on the implementation of land reform, the progress of land privatization campaign is delayed because of non performance of registration and cadastre of the land. In addition he concluded that the land privatization campaign is slower in rural and urban areas. About 50 percent of 614 participants answered that they were planning to submit their requests to own, possess and/or use the land officially, to the question "Why they do not possess the land whilst the land privatization term is almost expired?" In addition 15 percent of them answered that there are poor initiatives by local administration, high bureaucracy, delay and poor land distribution in rural areas and 15 percent of them answered that it was because of their poor economic capability. On the other hand there is no specific guideline or strategy for citizens to implement the land privatization law effectively. People say, there are plenty of obstacles making the reform a slow process, like completion of all necessary and unnecessary papers and documents, standing in queue, etc. (R.Gankhuyag, 2005)concludes that there is a need to amend the law so that too many unnecessary procedures are eliminated and a one stop service can be introduced.

Hernando de Soto (2010) mentioned "*Importantly, the registration process should be cheaper than illegal registration and should save the time*" in his presentation in Mongolia on February 22, 2010.

This research therefore will propose more efficient and effective land privatization process, based on performance analysis. It focuses on the process of citizens who apply for a new allocated plot under LPP that consist of:

- Selection of new lands for the next year's allocation land plans;
- Demarcation which is give as information to citizens about new allocation area and time for submit application; and
- Registration of immovable property rights; apply for the decision certificate and the title

1.3. Research objective and questions

The research objective is to improve the current land privatization process (LPP), based on performance analysis in Ulaanbaatar city, Mongolia. The initial sub-objectives are as follow.

1. **To analyze the existing land privatization process**
   a. What is the current land privatization process?
   b. What are shortcomings of the existing process?
2. **To conduct the performance analysis for efficient and effective on LPP**
   a. What is the Performance measurement in general for Land Administration?
   b. How to measure the current LPP in terms of time?
   c. How to measure the current LPP in terms of customer satisfaction?
   d. How to measure the current LPP in terms of cost?
3. **To develop a new LPP Model**
   a. How to model the new LPP, based on the user requirement?
4. **To assess the new LPP Model**
   a. Is the new LPP Model efficient and effective in terms of time?
   b. Is the new LPP Model efficient and effective in terms of customer satisfaction?
   c. Is the new LPP Model efficient and effective in terms of cost?

During the process, we come across with a barrier related to the use of the software. The use of the software is aimed to assess the new model by validating the procedures within the new model. ITC could not make the relevant software available and operational. Therefore in coordination with supervisors, several changes are made to meet the completion of the research. The new sub-objectives are modified as follow.

To achieve the research objective the following sub objectives and sub questions arise:

1. **To describe the existing land privatization process**
   c. What is the current land privatization process?
   d. What are shortcomings of the existing process?
2. **To analyze the performance of the existing LPP**
   e. What are the performance indicators for Land Administration?
   f. How does the current LPP work in terms of time?
   g. How does the current LPP work in terms of cost?
   h. How does the current LPP work in terms of customer satisfaction?
3. **To improve the existing LPP Model**
   b. What are the user requirements derived from performance analysis of time, cost and customer satisfaction?
   c. How can the existing LPP be improved?

1.4. Conceptual framework

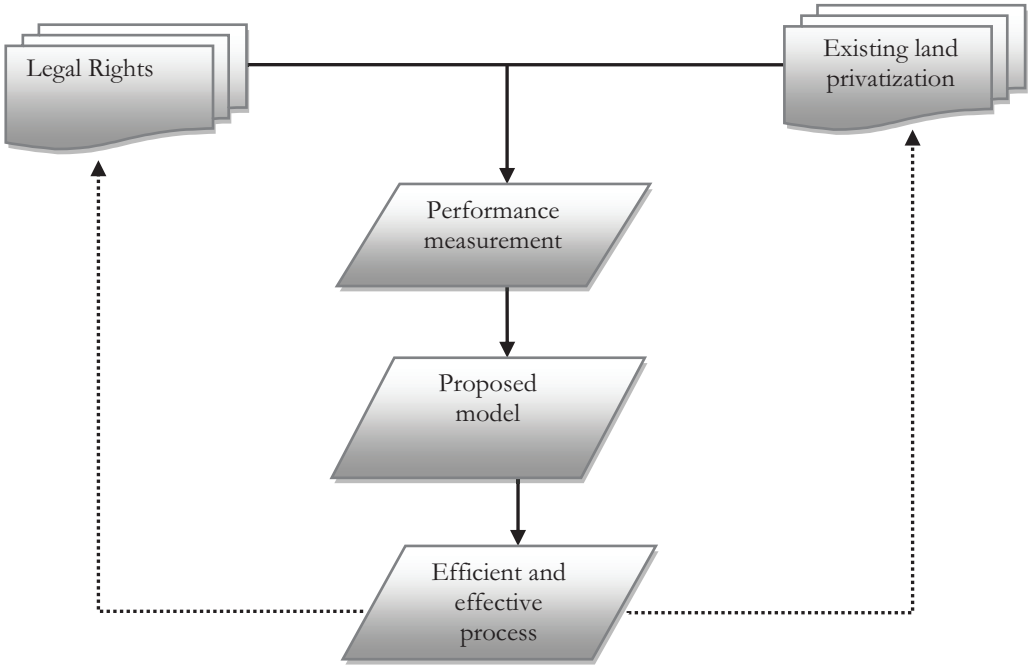


Figure 1: Conceptual framework

1.5. Research Methodology

1.5.1. Introduction

This subchapter describes the method used, activities carried out, and data required to test the validity of the suggested land privatization process model. First, the theoretical feasibility of the model will be investigated based on the existing land privatization process. Then a case study of Ulaanbaatar, Mongolia will used to perceive the empirical applicability of the model. At last, the result of the theoretical background and empirical findings will be integrated and analysed against the objectives. The overall research flow is shown below in Figure 2.

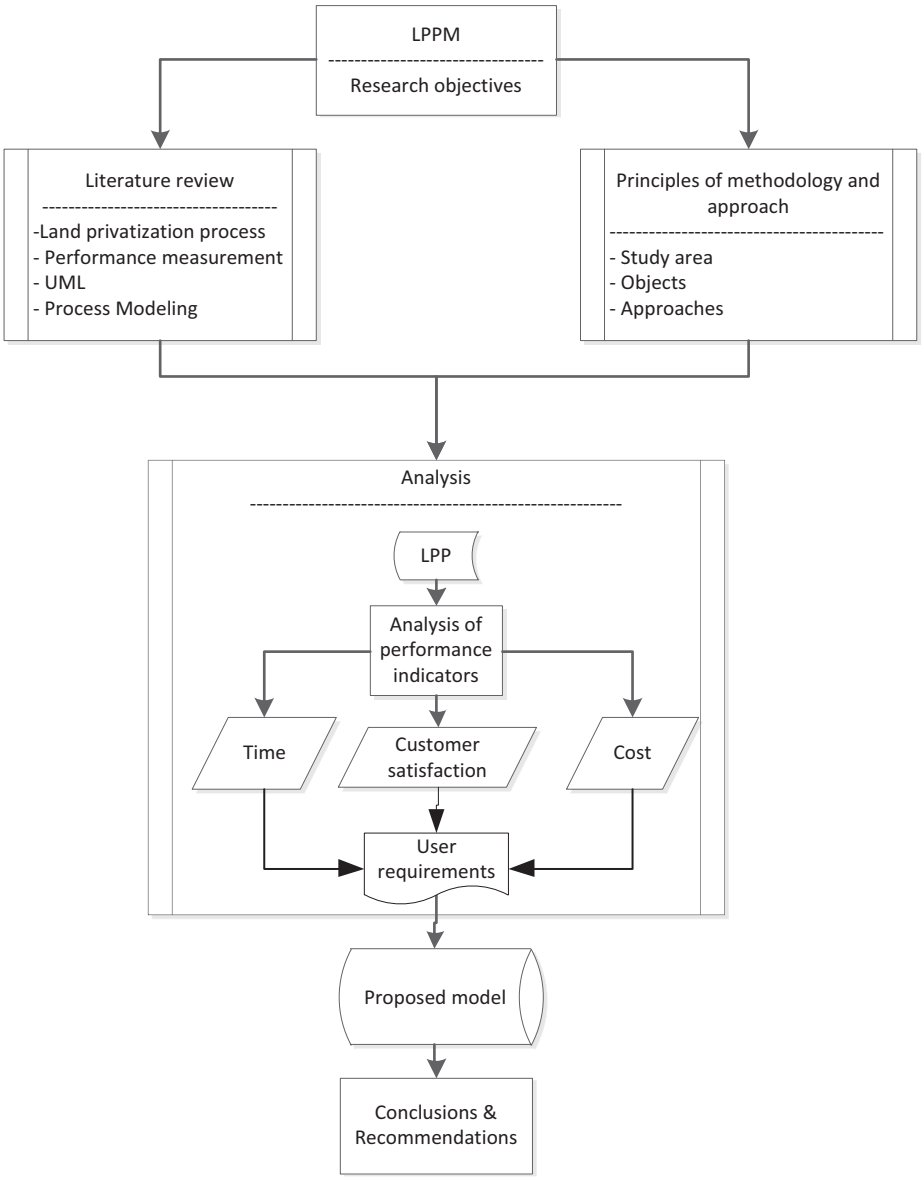


Figure 2: Research Methodology

1.6. Study area

A **case study** is a research methodology common in social science. In this research I use a so called single case study. According to (Yin, 2003) a single case study is a rational for representing a unique case.

The case study was conducted in Ulaanbaatar, Mongolia from September 11- 3 October, 2010. There are a UB city land office, 9 District land offices, 21 Aimag land offices and 329 Soum land managers in Mongolia. Among them, the capital city is selected as study area in this research. The majority of Mongolia's population live in the capital city UB, therefore the land privatization process is more active in UB city. The map of Mongolia shows the study area in Figure 3.

Figure 3: Map of Mongolia showing study area

1.7. Thesis structure

The thesis will consist of 6 chapters. Preliminarily, the headings of the chapters are as follows:

Chapter 1: Introduction
This chapter includes introduction, a general background about the case studies, research justification and identification of research problems. It also includes the main research objective, sub objectives, research questions developed based on sub objectives and methodology of the research.
Chapter 2: Literature Reviews
This chapter presents related literature reviews about the keys theories and concepts of land privatization process, performance measurement on land privatization process and efficient and effective land privatization process.
Chapter 3: Fieldwork
This chapter presents the current land privatization process in Ulaanbaatar.
Chapter 4: Finding and Discussion
This chapter presents the result of the case study analysis and will introduce proposed land privatization process model.
Chapter 5: Redesigning model
This chapter presents the new process and organizational model. After all assess the new model.
Chapter 6: Conclusions and Recommendations
This chapter discusses the conclusions of the case study and what lessons learnt in the thesis.

2. LAND REFORM AND LAND PRIVATIZATION

2.1. Land Reform & Land privatization

Bryden and Geisler (2007) define "*Land reform is one of the classical instances of attempts to correct market failures by institutional reform enacted by or induced by the public powers. Land reform means systematic change in property distribution, farm size, and land tenure conditions*". Generally land reform depends on political decisions and supports(Dale & Kjellson, 2007). Ghatak and Roy, (2007) argued that land reform usually refers to rearrangement of land. Mostly, it includes regulation of ownership, operation, leasing, sales, and inheritance of land. Dale & Kjellson (2007) also stated that the land reform term include all forms of land allocation to individuals .The eventual aim of land reform is to improve disadvantaged people's livelihood(Sikor & Müller, 2009). Furthermore in order to create more suitable condition for using the land, land reform includes large land consolidation programs and the formalization of current de facto rights to land(Dale & Kjellson, 2007).

The concept of land reform has changed and got a wider meaning over time. Until 1970's importance of land reform was redistribution of land, but in recent days meaning is more on tenure reform (Manji, 2006) and the term refers to privatisation of publicly owned land, land registration, land consolidation, tenancy improvement, and land taxation in addition to redistribution (Sikor & Müller, 2009).
"Efficient land-use depends on government control of land allocation strictly according to the land-use principles" (Zhang, 1997).

Land privatization is a type of land reform (May & Lahiff, 2007). In general privatization is the transfer of any shares by the state to private owner (Estrin, 1997). Therefore the meaning of land privatization is the transfer ownership right from the state to the private. According to (Dale & Kjellson, 2007) "*Privatization is most often used to describe the redistribution of rights to land, i.e. the transfer ownership from the state to private individuals, but also from large private entities such as big farms*".Additionally, (May & Lahiff, 2007) claim that , the main purpose of the land privatization is to provide people with private ownership and consequently from there, people can benefit land as collateral. Furthermore they explained that the land privatization itself can accelerate the economy of that country. This, in return, will contribute to the improvement of livelihood of the people and eventually growth in the economy. But in fact land privatization has also some disadvantages. Michael Hudson(1995) argues that land privatization leads to fugitive ownership and monopolization. Eventually, they also lead to fiscal crises as wealthy landholders managed to avoid taxes by shifting these onto the rest of the population. In this regard, (Dale & Kjellson, 2007) mentioned that "*some countries, e.g. in south-east Asia have been trying to implement one land reform after the other with limited success. The reason can often be referred to lack of political will*".

Therefore, land privatization process should serve for citizens and the government and citizens get benefits from the result (Bagdai & Tsolmon, 2009).

Land privatization has been initiated in many transition countries, to provide individual landownership rights to citizens, in order to improve access to land, which also facilitates socio economic development of the country (Bagdai., et al., 2009).

Here some examples illustrated to gain land reform experiences in other countries such as China, Russia, Vietnam and Mongolia. Those countries land privatization experience is similar with Mongolian situation based on political reason and main characteristics of land privatization (Bagdai & Tsolmon, 2009).

In China

Ding (2003) stated that "*China has launched a series of land policy reforms to improve land-use efficiency, to rationalize land allocation, to enhance land management, and to coordinate urban and rural development*". In China since 1949, the land reform approach starts in terms of land policy such as redistribution, cooperatives and household responsibility system(Bagdai & Tsolmon, 2009). Zang(1997) mentioned that the emergence of a market economy has brought land-use reform in China. According to the 1991 regulation, there are two kinds of land transactions such as the sale of land use rights and the transfer of land use rights(Ding, 2003). Furthermore (Ding, 2003) assessed that Chinese land reform have contributed to developing land markets, increased government income and provision public goods, and improved the justification of land use. Additionally (Zhang, 1997) claim that "Land-use reform is successful in creating a market in land-use rights in China".

In Russia

Meisner (2007) mentioned "*Although the Russian Federation started its land reform already in 1990 with the Law "On Land Reform", many issues remained cloudy*". Starting from 2000, the process of land reform became effective and objective of this process became visible.

The Russian Constitution allowed to citizens ownership rights on real property and the civil code detailed such rights and the application of rights.

The Russian land reform include following:

- The establishment of private rights and right of third parties as mortgages and servitude
- The privatization and transfer of real estate to private ownership
- The use of real estate as collateral for mortgage based on financing
- The creation of the legal framework and related government programs
- The establishment of institutions entrusted with the complex implementation of the before mentioned reforms

Lerman and Shagaida (2007) states that in Russia the registration procedures are complicated, costly and time consuming and lack of market information. Because of those reasons citizens avoid from land registration. Furthermore they explained that the land allocation and registration process must be a simple and transparent process and it requires a good coordination between the stakeholders.

In Vietnam

In 1986, state of Vietnam decided to bring in a fundamental change in the land policies. Under the land reform, cooperative land was allocated to the members free of charge and with equity among the members for all type of land. Land Reform in Vietnam looked into three different phases: a) collectivization of agricultural land, b) product contract system and c) household allocation(Vo & Trung, 2007).

All agricultural land is belongs to the government in Vietnam(Bhatta, 2010). In 1993, the second land law was approved and in 2003, the third land law was approved. The third law has given frame for a suitable land administration system that supports the industrialisation and modernisation process where hunger elimination and poverty reduction is one of the supports for the sustainability of development.

Land users were legally recognized as having five rights such as rights to exchange, lease, transfer, inherit, mortgage use rights; farmers had rights to transfer.
The Vietnam case, the agriculture land reform has been implementing successful, because farmers have a good right and encourages, and exchange once exchange is being facilitated by functioning market oriented institutions (Jia & Fock, 2007).

In Mongolia
Taking the issue of proper use and protection of mineral resources in relation to the uniqueness of Mongolia, population density, land sufficiency and regional development policy play vital impact on the country's socio-economic sustainable development. Thus, the land renovation reform has been one of the leading policies of Mongolian Government. In the framework of the land reform policy the reviewed law on land was passed on 7 June 2002 and law on the land ownership was adopted on 27 June 2002 respectively. The objective of these laws is to regulate the dealings of land possession, use and ownership to the citizen, economic entities as well as other issues arising from these. Enkhbold,M(2007) presented "*According to the new constitution the concept of Mongolian Government has raised the issue of "Acceleration of Land Reform" as one of leading objectives and it is giving a great significance to land privatization, creation of legal framework for effective land tenure as well as putting land into economic processes*". Main problems encountered during implementation of land reform policy in Mongolia are related to the following factors as land was completely under the state; social mentality was not set for making efficient use of land; lack of understanding related with economic benefits of land; lack of land information system; lack of systematic knowledge on land cadastre among professionals as well as all levels of decision makers. Moreover, the land reform process consumed a lot of time because ministries and public organizations could not define integrated strategy for implementing land reforms(Chinzorig & Batsukh, 2007).

Although, land reforms/land privatization have been carried out in many places, with varying degrees of success, but there is no uniform standard solution. The land reform must implement based on history, tradition and situation of countries(Dale & Kjellson, 2007).

Literature review shows that many developing countries completed their land reforms, but were still lacking in terms of efficiency and effectiveness in order to provide better services to citizens. In this regard, Deininger (2003) states that one of the success factors of land reform connected with increase tenure security and implementation process, should be carried out in transparent way such as access to information.

2.2. Performance measurement

This research will look at the question how to improve the existing land privatization process based on performance analysis. Therefore this subsection sought to do some literature review on the concept of performance measurement and how it can be described and used in the context of an efficient and effective land privatization process.

In generally, performance is an accomplishment of a given task measured against defined or fixed standards of accuracy, completeness, cost and speed.

Performance analysis is analysis of gathering formal and informal data. It helps to customers and sponsors define and achieve their goals(Rosset, 2009).

"*Performance contributes to the effective administration of organizations by facilitating planning and control*" (D. Chimhamhiwa, van der Molen, Mutanga, & Rugege, 2009). To know and improve a system one can analyze its business process. While several evaluation studies on performance measurement have been conducted, none of them focused on measuring performance for land privatization process. In business and in management, operating in efficient and in effective ways is a key to good performance and to successfully reaching the goals set for the business (Markgraf, 2004).

"*To align a business process with enterprise performances, the authors propose a two-stage process analysis for process (re)design that combines the process-based performance measurement framework (PPMF) and business process simulation (BPS)*"(Han, Kang, & Song, 2009). The proposed two-stage process analysis was used by company staff (involved in the process innovation projects) to determine the process with the best influence on a specific strategic level key indicators when selected at the macro process analysis stage by using PPMF. Moreover, the authors argued that therefore, the performance of current process is to be reviewed and a to-be process newly designed. The performance of the new process is predicted by using process simulation at the micro process analysis stage. By using the proposed, two-stage process analysis, company staff involved in the process innovation projects can determine the processes with the greatest influence on enterprise strategy, and can systematically evaluate the performance prediction of the newly designed processes. Company S which is the biggest ship builder company in Korea was used as case study to show the applicability of the proposed two-stage process analysis (Han, et al., 2009).

Additionally (D. Chimhamhiwa, et al., 2009) claim that, extensive studies on performance measurement system designed for cross-organizational business processes in land administration are scarce. Thus the authors suggested a conceptual model for measuring and monitoring end to end performance of land administration systems, based on cross-organizational business processes(CBP).The model is build on six measurement areas with the purpose of balancing between measures of CBP's external success (Customer satisfaction and society) and internal performance (quality, cost, time and technological innovation). Technological innovation and quality are suggested to provide an early sign of potential achievement (enablers of results) while time and cost are confirmation on what has been achieved in the precedent (results).

(Neely, Mills, Platts, Gregory, & Richards, 1996) suggested that conventional "*performance measures have been seen as a means of quantifying the efficiency and effectiveness of action*". Therefore the authors have presented a framework- performance measure record sheet, which is capable to design and audit performance measures. The framework was based on recommendations made by the literature and then tested through series of action research studies. The authors verified the practical validity and utility of framework. The framework was necessary since it facilitates the design of performance measures and encourages the designers of such measures to reflect on the behavioural implications of the measures in a particular situation. Furthermore it also shows that this framework could be used in education to discover what comprises a well-designed measure.

Moreover, measuring and analyzing organizational performance plays an important role in turning the organization goals into to reality. Popova & Sharpanskykh (2010) further argued that it is important for the company to decide on the relevant indicators, how they are related to the formulated company goals and how they depend on the performed activities. In order to use this knowledge in a contemporary framework for organization modelling it is essential to formalize the concept of a performance indicator together with its characteristic, relationships to other performance indicators and relation to other

concepts such as goals, process and roles. This will not only aid to design and analysis of organizations and the evaluation of their performance but, it will also facilitate reuse, exchange and alignment of knowledge and activities between organizations. Therefore these authors introduce a framework for modelling performance indicators and the relationships between them which comprises a part of a broad framework for organization modelling and analysis. The proposed framework was applied to for modelling and analyzing an organization from security domain as case study.

According to (Haque, Pawar, & Barson, 2003) "*literature and industry surveys analysis of the New Product Development (NPD) process with a Concurrent Engineering (CE) context requires attention to detail particularly organizational factors within a hierarchical process based framework*". Existing research lacked attention to the complete levels of the product development organization and in general ignored the process or system view point. Therefore the authors decide to develop a methodology with supporting tools using an integration of the much lacking systems, process and behavioural perspective, to address the weakness found in the existing analytic tools found in CE domain and also in the organizational sciences domain which were not conductive to analysis of CE issues. This was achieved through the provision of quantitative analyses combined with qualitative descriptions (using process mapping and interviewing) of different scenarios.

The way and means of correctly measuring organizational performance, is perceived as being a gradually more important field of both organizations and academics equally. Folan & Browne (2005) argued that Performance Measurement (PM) is developing at a substantial rate to combat new organizational realities, due to the fight for industrial dominance:, the concept of performance, as it is measured and evaluated, is bringing a change in modern business organizations. Hence the authors suggested a contribution towards the clarification vision of PM as espoused by confusing. The various nature of the evaluation that follows is indicative of the richness of the PM literature, which for clarification purposes has been divided into a number of scenarios so that the evolution and development of PM can be comprehended..

There is growing appreciation in the United States that for all levels of government, effective, performance –oriented plan management are needed. Therefore the authors claim to describe a performance measurement system, review of the uses of such system in any organization and particularly in development management, describe likely users and discuss how performance measurement system could be implemented in international development organizations. The authors further claim that to attain the benefits of performance measurement, a performance measurement plan requires the following aspects: real managerial accountability, including real decision-making authority, the human and financial resources needed to support decisions and plans, and an adequate degree of control over relative factors that affect success. The authors further stated that performance measures are more likely to be useable if they are associated directly to country mission goals and objectives as well as the particular management results expected at each level for USAID this is where the strategic program planning process is focused. Interview with representative of more than 20 international development agencies and government offices as well as reviewing evaluation research literature and agency reports and articles RIT examined performance indicators established by these agencies and analyse how the indicators were being used to manage and evaluate the programs were the method used to obtain empirical data (Cook, Vansant, Stewart, & Adrian, 1995).

There is an evident tendency of traditional business either to migrating to e-business or to expanding to into integrated e-business. Regular change in the environment means frequently to develop new strategies, new products, new processes and new technology to adapt to. Thus Bremser & Chung (2005) proposed a framework for developing performance measurement metrics for e-business. This e-business metrics was developed using insights from taxonomies of the e-business model, the IT literature and the performance

measurement literature. The authors claim that the developed framework provides a basic structure for firms relevant to developing a performance measurement metrics, useful in strategy implementation of e-business initiatives. The authors believe that their framework has relevance to firms using the balance score card and performance prism or another performance measurement model.

The re-engineering of its business processes must allow an organization to obtain remarkable performance improvements, while also emphasizing the focus on the customer. It is generally estimated that in order to get a better performance of a process, it must be measured, therefore the authors proposed the Quality Function Deployed (QFD) based performance measurement tool that can be used in business process re-engineering. Jagdev, Bradley, & Molloy (1997) claim that this tool can be used to discover the performance measures that intimately reflect the concerns of the customer and to ensure that these performance measures are used in the re-engineered business process. They further claim that QFD tool can also be used to identify unnecessary and missing performance measurements, as well as to identify possible conflicts among performance measures and targets for each performance measurement. The methodology used includes "*the building of a QFD chart, identify customer requirement, identify existing performance measures, identify re-engineering issues and finally re-engineer the process*" (Jagdev, et al., 1997).

As the business marketplace becomes more globalized, enterprises are keener to raise their competitiveness. The level of performance merit that an enterprise can reach greatly depends on the business process flow that the enterprise adopts: where the more efficient and effective the business process flow, the greater the level of performance quality the enterprise can achieve. Most conventional business process analyses focus on qualitative methodologies, but these lack concrete measurement for supporting the business process enhancement. Therefore, the authors proposed a quantitative approach, using an activity model. This model involves the exploiting of an adjoining matrix to empirically identify inefficient and ineffective activity looping, after which the business process flow can then be improved. Furthermore, the authors claim that a case study of a purchasing business process of a household appliance manufacturing enterprise that involves 20 purchasing activities, is used to illustrate the effect of the proposed activity model analysis. "*A time series ARIMA model is then used to measure and compare its simulation results*"(Lam, Ip, & Lau, 2009).

Services in land administration are mostly delivered through business processes that run across multiple organizations and land privatization processes are no exception. Therefore, in the context of this subchapter, performance measurement can be defined as a process whereby government and other organizations measure and create criteria for determining the success of their activities or services, based on organizational goals.

However, the researches show that performance measurement has been used for many sectors and has often been tried within the context of the land administration, yet none of the researches did performance analysis on land privatization process. Therefore this research seeks to use performance analysis to improve the land privatization process within the context of LA system, in Mongolia.

2.3. Selecting performance indicators

Performance indicators help the organization to evaluate how successful it is, typically in terms of making progress towards its long-term goals. Nenadal (2008) noted that process performance measurement is defined as the monitoring of agreed performance indicators to identify whether a process meets planned targets. Thus, the choice of indicators is influenced by measurement purpose.

In the land administration business process, there are 6 indicators being used to measure namely; time, cost, quality, technical innovations, customer satisfaction and society (Dorman Chimhamhiwa, 2010). A successful land administration system is measured by its capacity to manage land efficiently, effectively and at low cost (Ian Williamson, 2010). In order to implement the law in an efficient and effective way, the government requires to making a strong attention to improve access to information, participation and to combat corruption (Bagdai & Tsolmon, 2009).

In this study, effectiveness of the process measure by cost and customer satisfaction. Effectiveness in the land administration depends on the capacity building , the general social-political conditions and political stability (Zakout, Wehrmann, & Törhönen, 2006). Chimhamhiwa (2010) stated that "*effective refers to extent to which customer requirements are met, while efficiency measures how economically the organization's resources are utilized*". "Effective" means that a business process must meet the needs and expectations of the customer.

The efficiency of a process will be measured by timeliness. "Efficiency" is the procedures to register property transactions should be short and simple. The fewer steps there are, the less opportunity for informal payments(Zakout, et al., 2006). If land privatization process has a fewer number of steps, low cost and access to information, it will lead to customer satisfaction.

The pilot study of (Bagdai.N, 2008)revealed that time and cost are key indicators to assess a level of efficiency and effectiveness with respect to the land privatization process in Mongolia. Therefore in this research we are going to analyse based on timeliness, cost and customer satisfaction for analysing the existing land privatization process and those three indicators will make the foundation of a new redesigned land privatization process in Mongolia.

The indicators will be applied for all the activities within the land privatization process.

Concepts	Terms	Indicators	Parameters
Efficient	✓ Simple process ✓ Few steps	Timeliness	✓ Number of steps ✓ How much time spend for the process
Effective	✓ Customer requirement	Customer satisfaction Cost	✓ Customer complain ✓ How much spend for the process

Table 1: Concept of efficient and effective

2.4. Process modelling

Conradi and Jaccheri(1999) mention that process modelling is a very diverse and complex area and the requirements for the support of modeling and execution are both technical (e.g. for expressiveness, abstraction, and multiple perspectives) and non-technical (e.g. for commercial support). A process modelling approach is used in business process modelling. Moreover, business process model is the center of conducting business or improving how the business is operated and help the business analysts and managers, who are looking for improved process efficiency and quality(Eriksson & Magnus Penker, 2000). Arguilar-Saven(2004) argued that "*a business process is the combination of a set of activities within an enterprise with a structure describing their logical order and dependence whose objective is to produce a desired result*".

The main reason for designing a new business process is to provide better services to users and to improve the organizational process. While designing the processes, one should be concerned about the user requirements. The user-oriented design emphasizes dealing with the user's requirement at each stage of the design process.

Dumas & ter Hofstede (2001) stated that Unified Modeling Language(UML) have been proposed to support business modelling. By using the UML, can more clearly identify and visualize the important concepts of the processes, goals, resources, and rules of a business system.

2.4.1. Unified Modelling Language

The Unified Modelling Language was developed in 1995 by G. Booch, I. Jacobson, and J. Rumbaugh at Rational Corporation. The UML is a modelling standard language .The UML used is for specifying, visualizing, constructing, and documenting the workflows and process and information system in an organization, as well as for business modelling and the user analysis, system analysis, system design and system implementation(Eriksson, Penker, Lyons, & Fado, 2004). The main task of the UML is to create a simple, well documented and easy to understand software model for the people.

"*By sharing a common notation across system and business boundaries, the business analysts and system analysts can better communicate their needs, being able to build a system that solves the customer's problems*"(Wilcox & Gurau, 2003).

According to to (Herbsleb et al., 1995) the primary goals in the design of the UML were:

- ✓ Provide users with a ready to use
- ✓ Provide users with a ready-to-use, expressive visual modeling language so they can develop and exchange meaningful models.
- ✓ Provide extensibility and specialization mechanisms to extend the core concepts.
- ✓ Be independent of particular programming languages and development processes.
- ✓ Provide a formal basis for understanding the modeling language.
- ✓ Encourage the growth of the OO tools market.
- ✓ Support higher-level development concepts such as collaborations, frameworks, patterns and components.
- ✓ Integrate best practices.

"UML is a widely used de facto standard object oriented visual modeling language" (Kim, Weston, Hodgson, & Lee, 2003).

UML is made up of nine diagrams that can be used to model a system at different points of time in the software life cycle of a system. Therefore, in UML there are three main modeling perspectives, namely: static models, dynamic models and implementation models. UML diagrams that fall under each of these categories are:

- Static
  - ✓ Use case diagram
  - ✓ Class diagram
- Dynamic
  - ✓ Objective diagram
  - ✓ State diagram
  - ✓ Activity diagram
  - ✓ Sequence diagram

- ✓ Collaboration diagram

- Implementation
  - ✓ Component diagram
  - ✓ Deployment diagram

Hence, in this research going to use activity diagram, a brief description about activity diagram is given below subchapter.

2.4.2. Activity Diagrams

In UML, activity diagrams are planned to model computational and organizational processes (i.e. workflows) (Dumas & ter Hofstede, 2001). Activity diagrams describe the workflow behaviour of a system and used to display the sequence of activities. Activity diagram shows that different workflows in the system are constructed, how they start and describe the possible many decision paths that can be taken from start to finish. It also demonstrates the where parallel processing may occur in the execution of some activities. The main reason to use activity diagram is to model the workflow behind the system being designed. Activity diagrams are therefore useful for business process modelling (Kim, et al., 2003). Furthermore, it can provide a graphical way about, what is going on inside a use case, what happens in a workflow and what activities can be done in parallel, and whether there are alternative paths through a workflow. The activity diagram also can define who is responsible for doing what in the business. Swimlanes describes which actors participate in the realization of a workflow.

However, the UML diagrams are commonly used in designing of land registration processes and none of them are used so far in land privatization processes.

3. LAND PRIVATIZATION IN MONGOLIA

3.1. Introduction

The aim of this chapter is to a give general overview of the land privatization process in Mongolia. Various criteria are applied to evaluate the process.

Land sources are limited, but human needs are unlimited. Around 1 million citizens live in Ulaanbaatar and the capital city has the total territory of 470 thousand hectares. Of this, only 5.9% of land for city, village and other settlement purposes, 1% for road and utility, 16% for forest, 1% for water resources, 60% for arable and agricultural land and 16% for state protected area respectively (Tumurkhuyag, 2007).

According to Mongolian Land law every family had a right to privatize up to 0.07 ha land and since 2008, every citizen can privatize a piece of land for family purpose once free of charge.

In Ulaanbaatar, by reason of limited land and high density of population, the land price is much higher than in other cities. While the land value is increasing a lot, everyone struggles for obtaining a piece of land. The land price is depends on location, infrastructure, and possibilities to connect with main utility networks, distance and size, slopes, land condition, quality, access to social and cultural services, possibilities to get natural lights, micro climate, smoke, probability to be affected by air pollution, organizations in the neighbourhood, household conditions and other things(Tumurkhuyag, 2007).

The majority of Mongolia's population live in Ulaanbaatar city (UB). Therefore land privatization process more active in UB city than elsewhere.

Thus this research is looking at land privatization process in the capital city of Mongolia.

3.2. Existing land privatization process

"*Land is not only the vital environment for living but also an important means for national economic growth, maintaining social balance, supporting employment, and reducing poverty and the strengthening of democracy. Therefore, high importance is given to ensure titles for land possession, use and ownership all around the world*"(Sh Batsukh, 2007).

Land reform activities were intensified during the first half of 2000, and the beginning of 2003 land privatization started in Mongolia. A new Land Law was introduced to the Mongolians in 2002. The objective of the law is to regulate the dealings of land possession, use and ownership to the citizen, economic entities as well as other issues arising from these.

According to statistic of land privatized to citizens for family needs, in 2009, only 8.38% out of estimated number of citizens got a governor decision on private land in national level (Table 2). At the city level, only 7.5%,- At a local level, only 8.98% of the total estimated citizens got a governor decision 2009. In total 2645546 citizens applied to acquire privatized land for family purpose, but statistics on 2009 show that only 19001 citizens got the governor decision. In Figure 4 illustrates seven years statistic on implementation of Land Privatization Law.

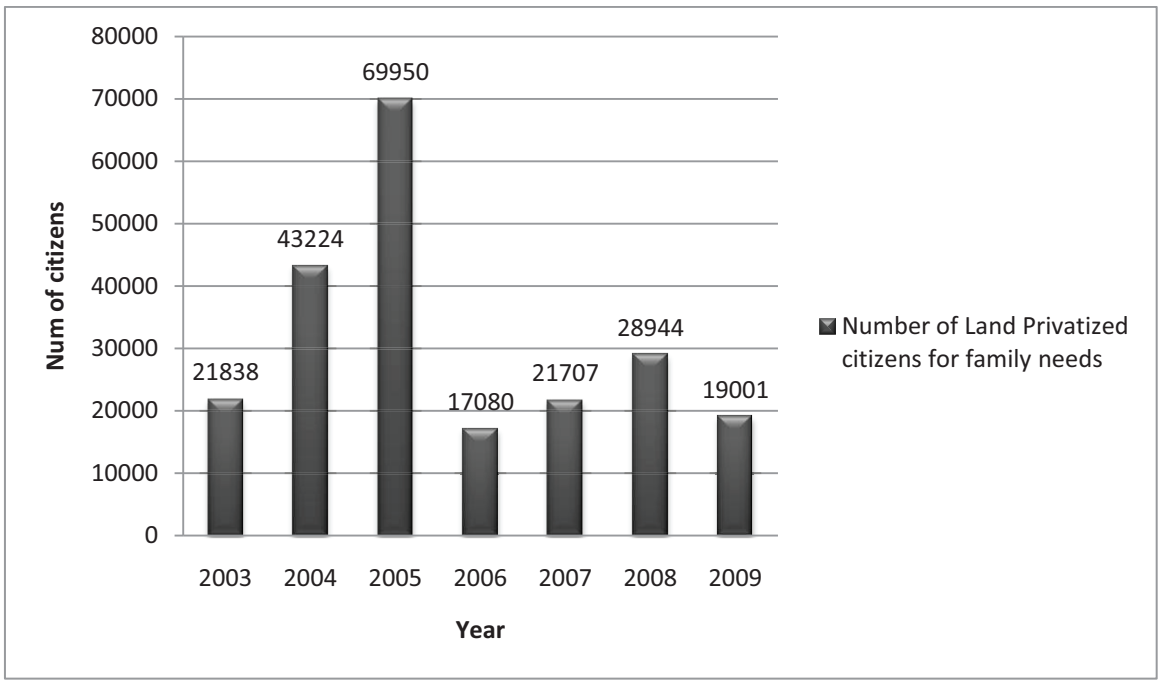


Figure 4: Number of the land privatized citizens for family needs

N	Level	Estimated numb	Numb of land privatized citizen till 2009	Privatized area /ha/	Percentage of land privatized citizens
1	Local level	1 578 074	141 640	20 439.17	8.98
2	Ub city level	1 067 472	80 104	4 367.52	7.50
3	National level	2 645 546	22 1 744	24 806.69	8.38

Table 2: Number of land privatized citizens for family needs

The current system does not have sufficient publicity and information available on procedures and land privatization activities to make people understand the importance of land ownership right.

The Mongolian existing land privatization process has three main steps as follow.

- Selection of new lands for the next year's allocation land plans (Figure 5),
- Demarcation which is give as information to citizens about new allocation area and boundar survey (Figure 6),
- Registration of immovable property rights; apply for the decision certificate and the title (Figure 7).

In Figure 5 illustrates the *Selection of new lands process*. When District LO select for a new allocation area for citizens, it plans based on available and suitable area but does not concern citizen's wishes. In fact, usually, customers are not happy with this selection, because mostly the selected area is located far from the city and does not have infrastructure. Also citizens do not have enough information about the next year, which area is going to be allocated and when they can apply for this.

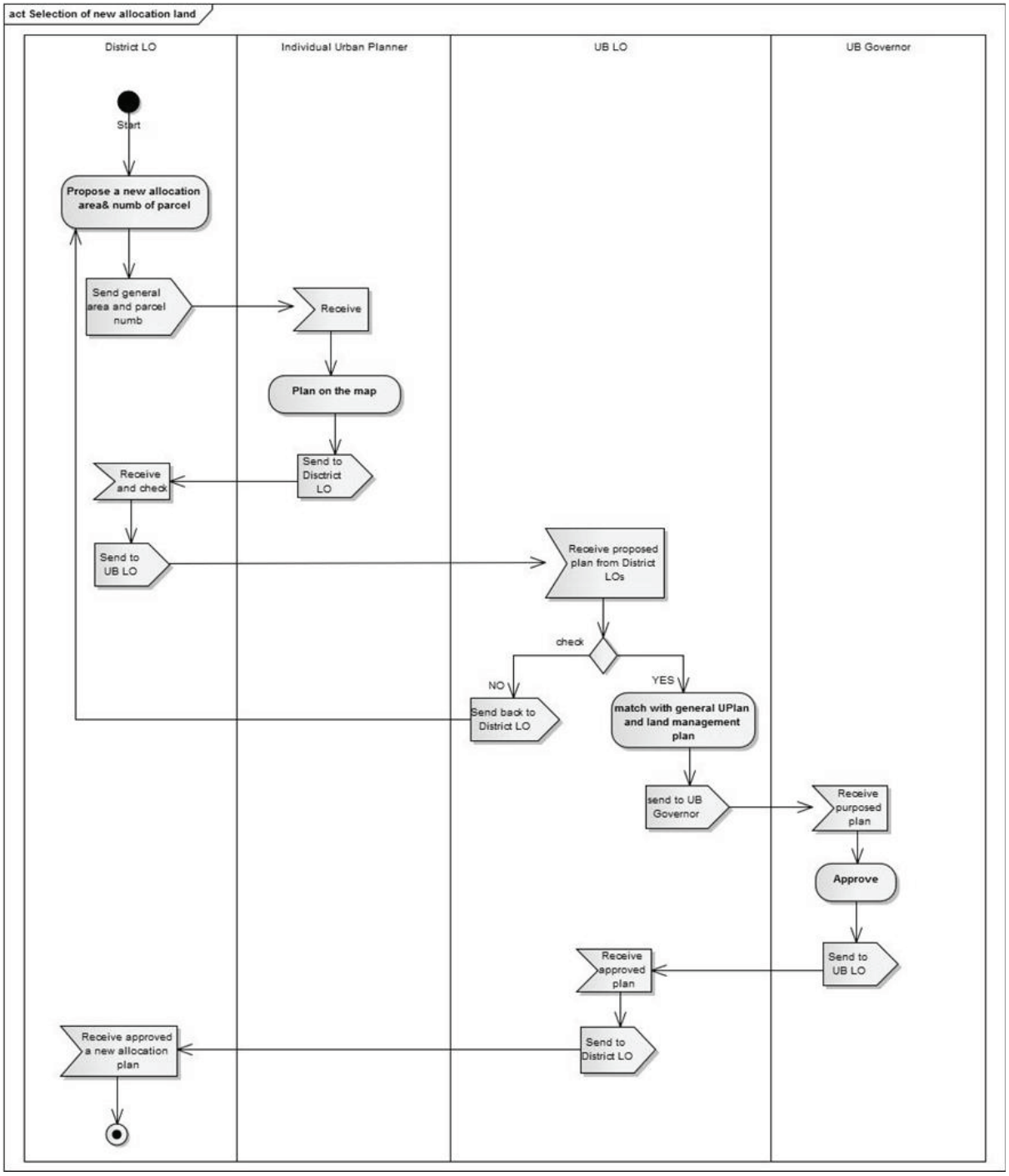


Figure 5: Process of Selection of new allocation land, Activity diagram

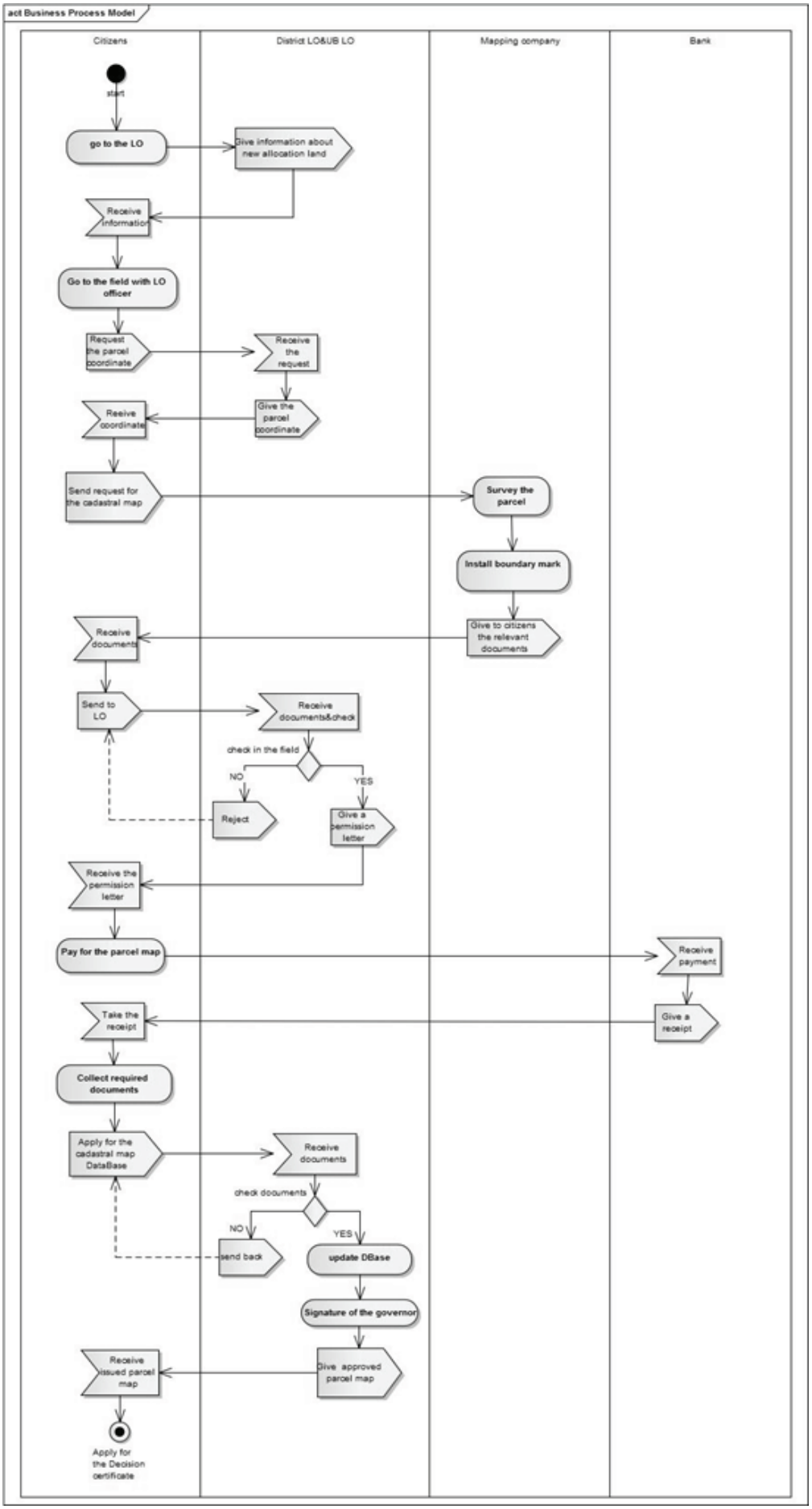


Figure 6: Process of Demarcation

In Figure 6 shows the *demarcation process*. The major problem is here, is that after LO receives the next year new allocation plan it does not give the information openly to the citizens. It leads the land allocation process non transparent.

According to the Allocation of Land to Mongolian citizens for ownership (art.20) and Mongolian Lan" law (art.32), when property owners intend to initially register the title land allocated to them, they must provide the cadastral map as one of the land registration requirements. In order to obtain the cadastral map, land surveyors should survey this land and update it in cadastral database. Once the land parcel is updated, the private owners will get the approved cadastral map from the land office. Such procedures are regulated in the Decree of ALAGaC Chairman No. 38 illustrated in Figure 6.

When application has been accepted at district level, by registering the application in an application registration book, it is passed to the UB city land privatisation division, which - in turn- submits the application to the UB city Governor. After recieving the application the governor office will approve whether the plot of land together with others , will be privatised. The decree is passed to the UB city database division, which enters the information into the database.The decree also is passed to the Land privatisation division which issues the decision certificate that is passed to the District land office (DLO) and then to the citizen. Once having the decision certificate, citizen has to apply for ownership certificate (Title) to the ASRT to register their rights.The process is illustrated in the Activity Diagram in Figure 7. *Note that the registration of land possession is not the same as registration of land ownership.*
In order to get the governor decision the citizens have to apply to the land office and are required to submit the following documents:

- Filled application
- Municipality letter
- Possession right certificate
- Copy of ID card /approve notary/
- Cadastral map /2 copy/
- The receipt of land tax
- The receipt for cadastral map
- The receipt for the administration fee

For the land ownership title the citizens have to apply to ASRT and required following documents:

- Filled application
- Municipality letter
- The governor decision certificate /the original copy/
- Copy of Certification on land quality and characteristic
- Cadastral map
- Copy of ID card and birth certificate /approve by notary/
- The receipt for the administration fee

In Table 3 shows that in total how much money and time is spend for land privatization process. The official process price is around 45 euro and 113 days. (*Note: the currency rate from http://www.oanda.com/currency/converter/; date: 20/Dec/2010*)

	The services	Cost /tugrug/	Time	Organization
1	Cadastral map surveying	50 000	3 days	Surveying company
2	Take municipality letter	100	1 day	Municipality
3	Print out cadastral map	2500	1 day	UB city Land office, Bank
4	Take the application form from District LO	300	1 day	District Land office, Bank
5	Certify documents	10 000	1 day	Notary
6	UB city LO checks application	-	1 day	UB city Land office
7	UB city governor decision	-	90 days	UB city governor
8	Take the decision certificate	-	1 day	District Land office
9	Register at ASRT	10 000	14 days	ASRT
Total		**72 800**	**113 day**	

Table 3: Type of services in land privatization process

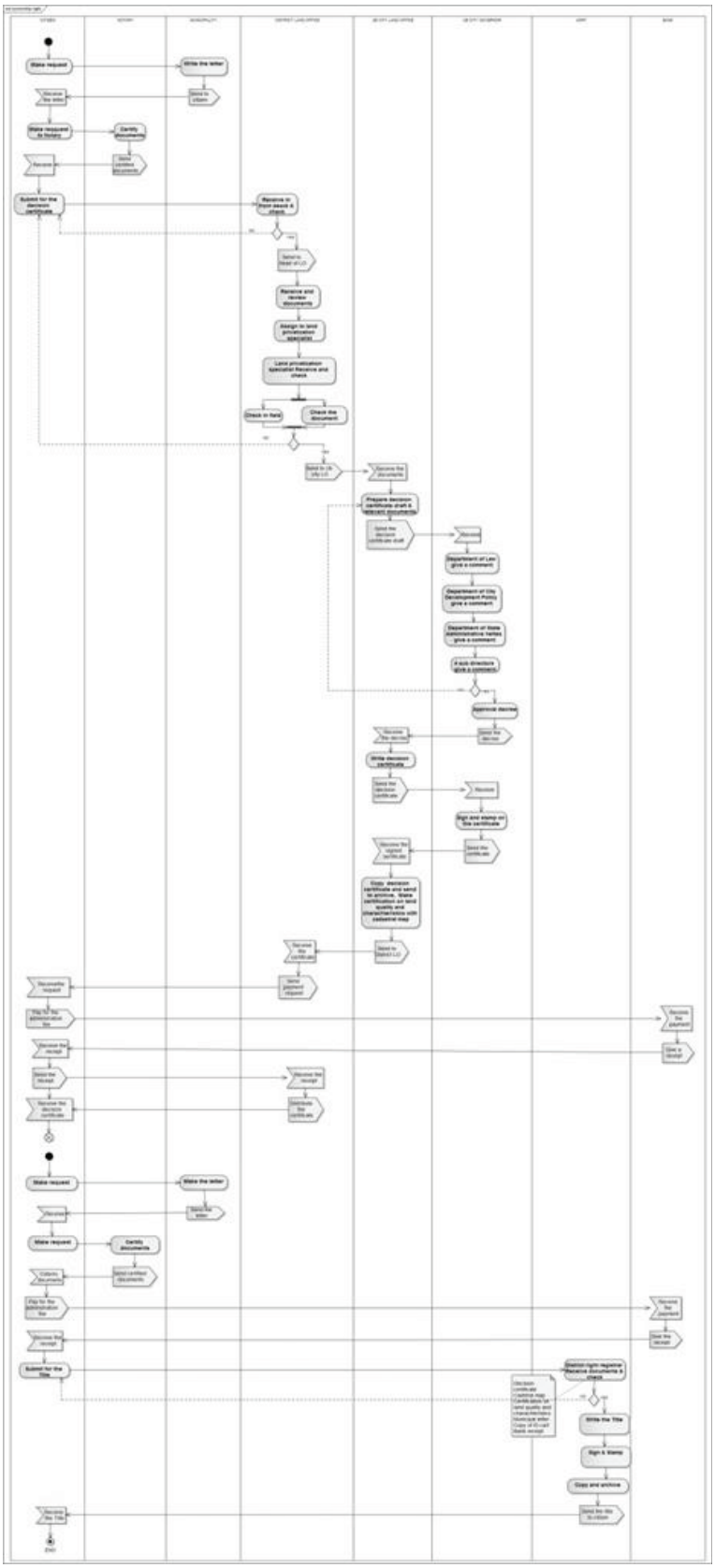


Figure 7: Activity diagram Registration of Immovable property rights (in UB 2009)

3.2.1. Organizational issue

The key element of land reform is land privatization. Therefore, Mongolian Government considers that land law reform, especially the introduction of private land ownership would bring better economic development.

(Zevenbergen, 2002) pointed that "*When the technical and legal aspects are well taken care of, bad organizational aspects will still be a great problem*." Mongolian land related institutional changes were negatively affecting the land privatization process. In connection with the intensification of the land reform, the Administration of Land Affairs, Geodesy and Cartography (ALAGaC) of Mongolia was established by merging three different governmental agencies that belonged to three different organizations, namely i) Land Management Authority, ii) State Administration of Geodesy and Cartography, and iii) Real Property Registration Agency. Since its establishment in January 2003, the agency has gone through two major organizational changes. In 2006 the Real Property Registration part was separated, and became Administration of State Registration of Titles (ASRT) under the Ministry of Justice. In December 2008, the Government made decision to merge ALAGaC with the agency in charge of Construction matters. The new structure of ALAGaC is described in Figure 8.

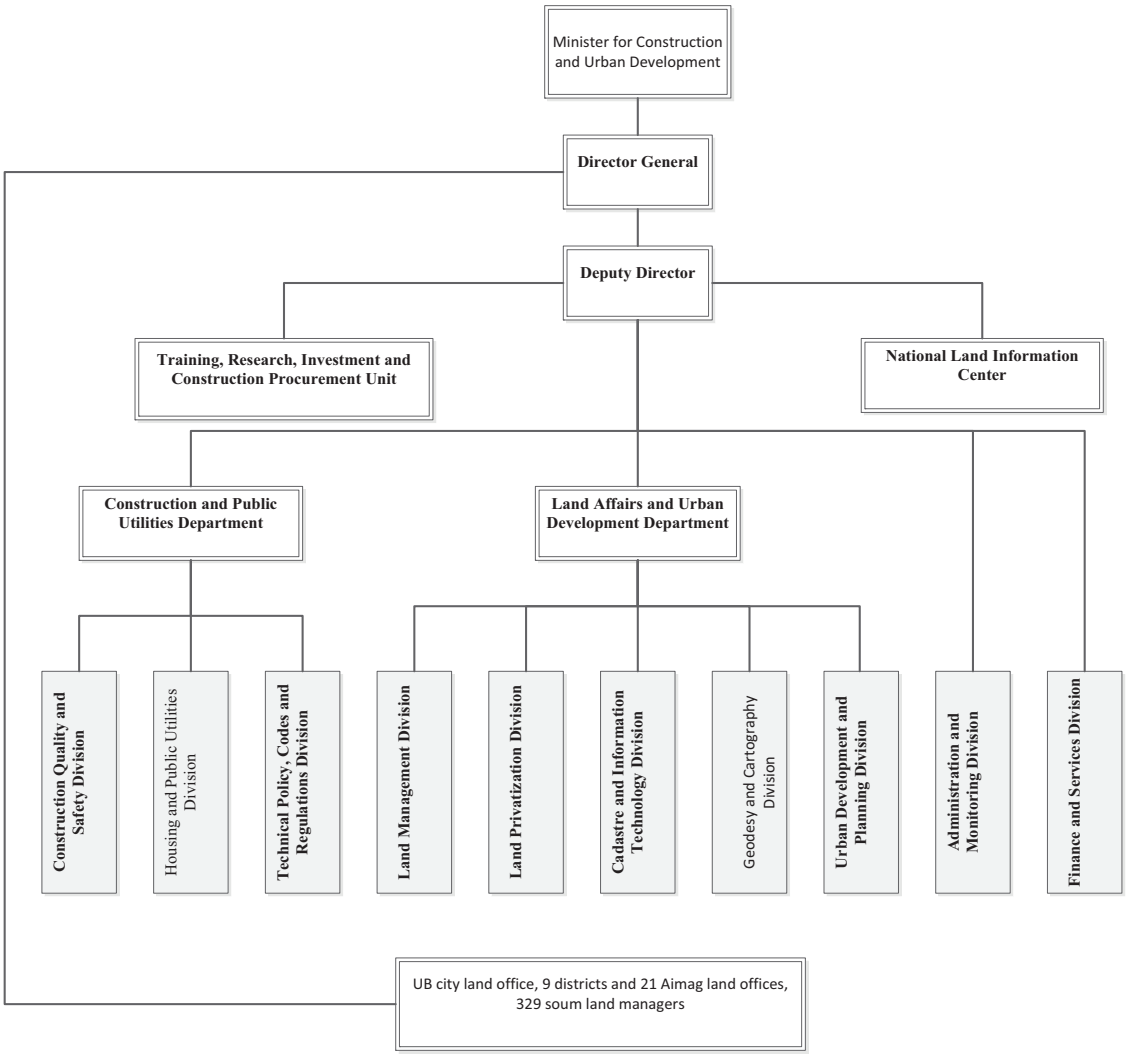


Figure 8: The new structure of ALAGaC

Nowadays in Mongolia, in total nine organizations are involved in the land privatization process. Such as ALAGaC, District LO, UB city LO, ASRT, Notary, Bank, Surveyor, UB city Governor and Urban Planner. Figure 9 shows the key players in land privatization process.

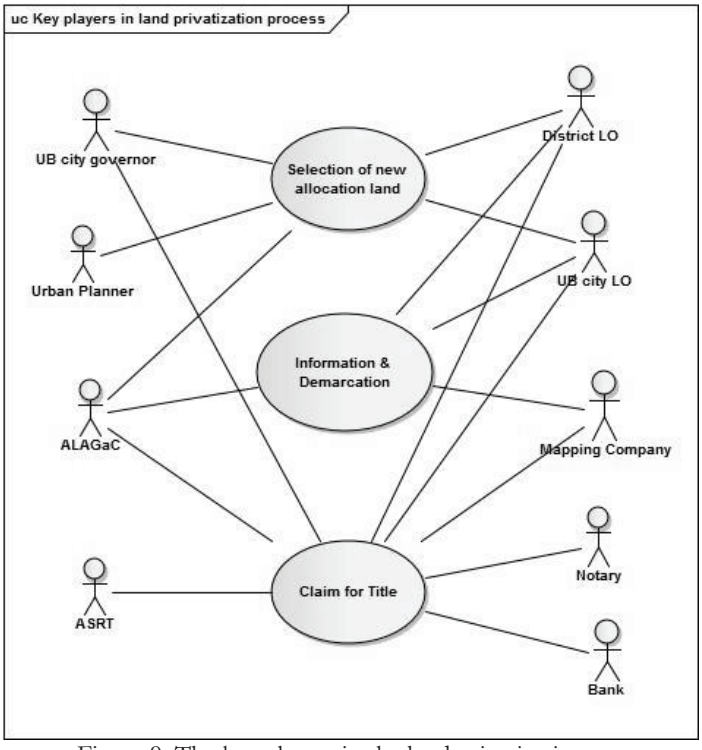


Figure 9: The key players in the land privatization process.

Data sharing

In Mongolia the existing digital cadastral database established within ADB loan project, will be base for the National Land Information System (NLIS) in the future. Under the supervision of Cadastral and Information Technology division, ALAGaC maintains cadastral database server and 9 District LO and UB city LO have access to the server. But other organizations do not have access to the cadastral database, for instance: ASRT, banks, civil registration and notaries. Lack of data sharing between organizations, might lead to slow processes and affects the data quality.

3.2.2. Access to information

Access to information is vital to the achievement of the implementation of a land privatization law(Deininger, 2003). The benefits from open access to information might lead to shorter waiting time and greater transparency of the process. "*Due to lack of information related to land allocation and planning, citizens cannot get the desired land or make investment in land because of the unclear situation*" (Sh Batsukh, 2007).

4. DATA COLLECTION

4.1. Introduction

Both primary data and secondary data is collected in this research.

The primary data helps to understand the existing situation of land privatization and the perception of the respondents about it. In total 26 questionnaires were collected from the citizens who have ownership title and 10 interviews were collected from citizen who had applied and who haven't applied yet. Some information and statistic data had collected from ALAGaC , UB city LO and ASRT.

The secondary data provides relevant statistic data and up to date information. The information collected from secondary data is from N.Bagdai who is doing PhD about uncertainty land privatization process in Mongolia.

4.2. Collection of primary data

In this research, interview and questionnaire are applied to collect primary data. The process of interview and questioner is described below:

Interview

The information collected from interviews is used to answer research questions 1 and 2 and taken as input to answer the rest of the questions.

Interviews were open and unstructured and with head of Chingeltei DLO, the land privatization specialist of Baganuur DLO and 10 citizens. From the officer's interview to get information about the procedure of existing land privatization process, organizational structure, who are the key players in this process, and one application takes how long time and how much cost. From the citizens interview to get know information about their perception about current land privatization process, in which step have difficulty, for the process spend how much time and how much money and their view about time and cost.

Questionnaire

Questionnaire is the main sources of primary data collection on this study. The result of questionnaires is used for the new process modelling.

Questionnaires are collected from 35 citizens and sample was random. Among 35 responses only 26 of them had valid answer. 9 respondents are did not answer completely for the questions. Therefore, used for analyse are 26 questionnaire.

4.3. Collection of secondary data

Secondary data collections are from the literature, web sites and research result of N.Bagdai. The literature includes official reports, archival records, land law and regulations and other relevant official documents. Other general literature such as books, journals, articles, conference papers and thesis related to land

administration; land privatization and performance measurement which is available in digital library was used. Also in this research used collected questionnaire from N.Bagdai. The data source obtained from organization is summarized below:

Source	Data
ALAGaC /Land Privatization Division/	Land privatization report in 2009
ASRT	Land privatization statistics
UB city LO	Land privatization statistics
N.Bagdai	Questionnaire

Table 4: Collected secondary data source

5. DATA ANALYSIS

5.1. Introduction

In the (section 1.5) describes the research approach, data collection techniques and the study area of this research. As indicated in the (section 1.5), this research approach is based on the primary data and secondary data collection that is done qualitatively and quantitatively. This chapter includes the result of collected data.

In Mongolia the land privatization process is not clear for citizens because steps and procedures are different depending on the purpose (Bagdai., et al., 2009). From the interview with the citizens find out there are two different procedures within the land privatization for citizens. One process is for the citizens who have possession right already and intend to upgrade that possession to ownership right and the other one is for those who intend to apply for a new plot.

It is stated in the literature that in Mongolia the land privatization process is going slowly: the process takes long time. But based on the field work, we conclude that once the application is accepted in the Land Office, the citizens can get the decision certificate on time, especially for those who already hold a piece of land under possession right.

The problem exists for the citizens who are applying for a new allocation land. It is because in the first place the citizens do not get information about where the new allocation area is and in the second place the new allocation area is mostly located far from the city where there is no infrastructure. Because of those reasons, citizens are not satisfied and spend much time to get a piece of land. As a consequence, they prefer to spend more money for informal payment to take care of the application. Thus, the questionnaires are collected from the landowners who had applied for a new allocation land.

5.2. Land privatization process in terms of time

In Allocation of Land to Mongolian citizens for ownership the law defines that the governor authorized to permit the citizen's request for a land possession license, shall review and settle the issue within 3 months after the request is submitted (art. 20.6)

SPSS program was used for analysis of primary and secondary questionnaires. In total, 26 landowners responded for the questionnaire in a valid way. The rest of the answers were not filled complete. According to the respondents, in order to get the decision certificate 12 landowners were going through the process all by themselves and 14 landowners were going through the process by a third person (a hired person).

How did you get your decision certificate from LO?

		Frequency	Percent	Valid Percent
Valid	by myself	12	46.2	46.2
	by third person	14	53.8	53.8
	Total	26	100.0	100.0

How did you get your decision certificate from LO?

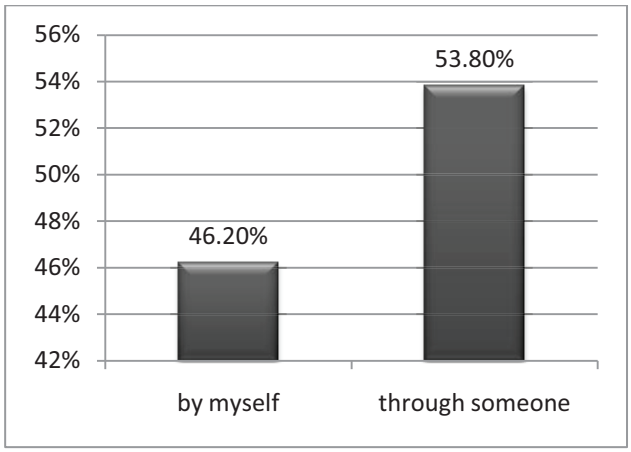


Figure 10: The process for the decision certificate

The majority of the respondents (42.9%) answered that they do not have time, 35.7% of the respondents did try themselves but couldn't succeed and 21.4% of them didn't have information, for the question "Why, if you got certificate through third person?".

Why, If you have done it with third person?

	Frequency	Percentage	Valid Percentage
Do not have enough information	3	21.4	21.4
Do not have time	6	42.9	42.9
couldn't succeed myself	5	35.7	35.7
Total	14	100.0	100.0

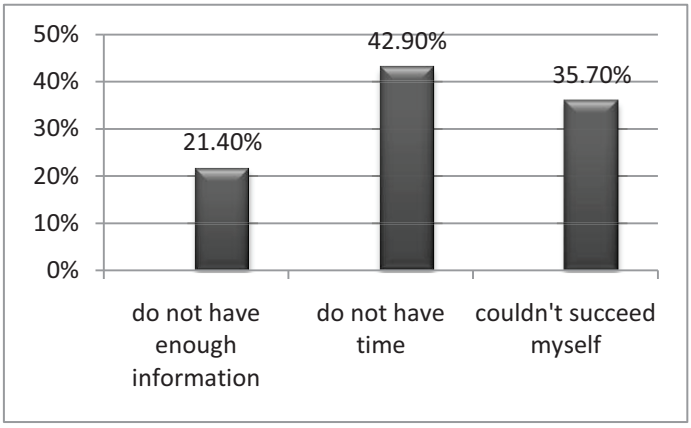


Figure 11: Reason for the applying through third person

According to the secondary data most of the customers (54.5%) answered that they got the land privatization information through friends, 16.7% of them from Radio and TV, 16.3% of them from information desk at land office, 11.2% of the respondents from internet and 1.3% of them from

newspaper and printed information.(Figure 12). From the result we can conclude that however the government publishes relevant information but it is not enough.

How did you get information about land privatization?

	Frequency	Percent	Valid Percent	Cumulative Percent
Information desk at land office	38	16.3	16.3	16.3
Radio&TV	39	16.7	16.7	33.0
Internet	26	11.2	11.2	44.2
Through friends	127	54.5	54.5	98.7
Printed info	3	1.3	1.3	100.0
Total	233	100.0	100.0	

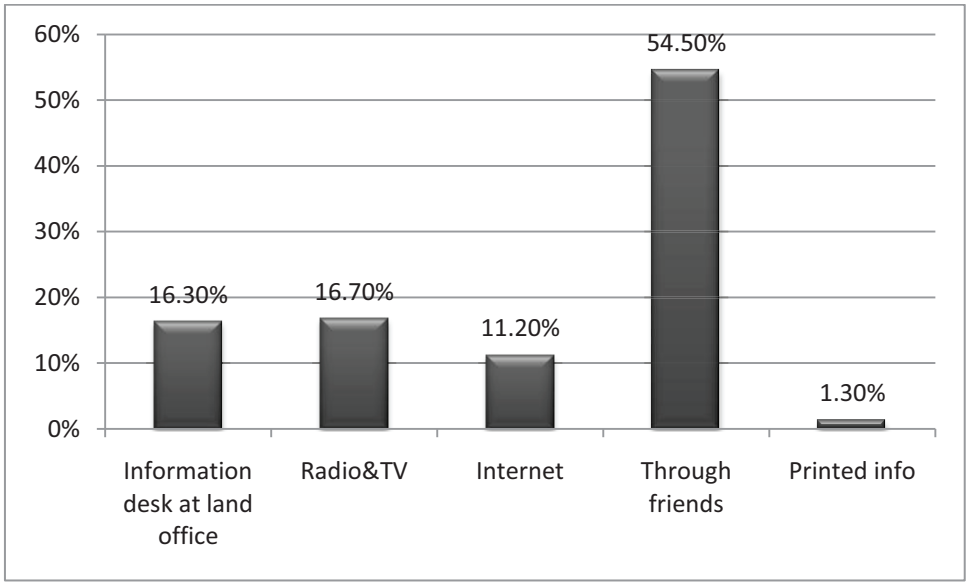


Figure 12: Information source

According to the secondary data out of 170 respondents, the majority of the respondents (107 are answered it is hard to get information from land office, 45 of them very difficult, 18 of the respondents are answered neutral and none of the respondents are answered it is easy to get information from land office(Figure 13).

How difficult is it to get information from land offices?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very difficult	45	19.3	26.5	26.5
	difficult	107	45.9	62.9	89.4
	Neutral	18	7.7	10.6	100.0
	Easy	0	0	0	
	Very easy	0	0	0	
	Total	170	73.0	100.0	
Missing	System	63	27.0		
Total		233	100.0		

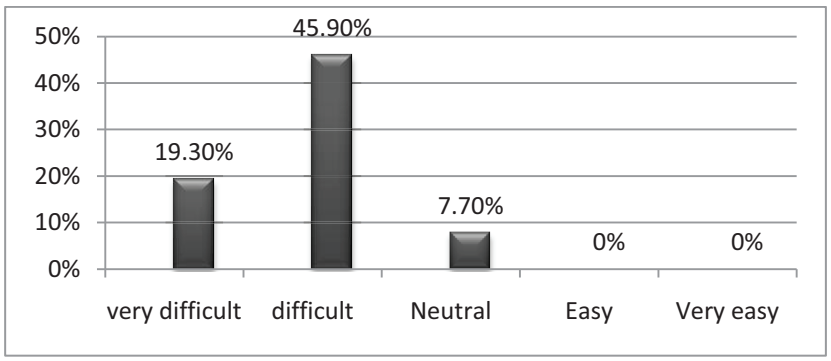


Figure 13: Access to information

In figure 14 is shown the respondents' spent time in order to get their landowner decision certificate from land office. Most of the respondents (75%), who had answered going through the process themselves could get the decision certificate within 90 days, 25% of them spent more than 90 days.

Spent time for the decision Certificate

Days	Frequency	Percent	Valid Percent	Cumulative Percent
0-30	1	8.3	8.3	8.3
31-60	5	41.7	41.7	50.0
61-90	3	25.0	25.0	75.0
>91	3	25.0	25.0	100.0
Total	*12*	*100.0*	*100.0*	

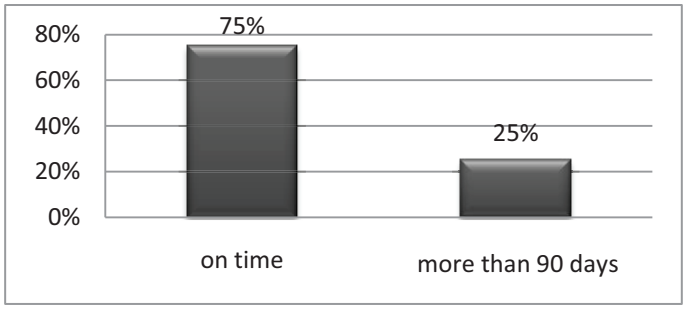


Figure 14: Spent time for the decision certificate (by myself)

But in Figure 15 is presented that 58.3% of the respondents spent more than 90 days for the land privatization process. 41.7% of the respondents answered they spent less than 90 days for the whole process.

Total_days

Days	Frequency	Percent	Valid Percent	Cumulative Percent
0-30	1	8.3	8.3	8.3
31-60	1	8.3	8.3	16.7
61-90	3	25.0	25.0	41.7
>91	7	58.3	58.3	100.0
Total	12	100.0	100.0	

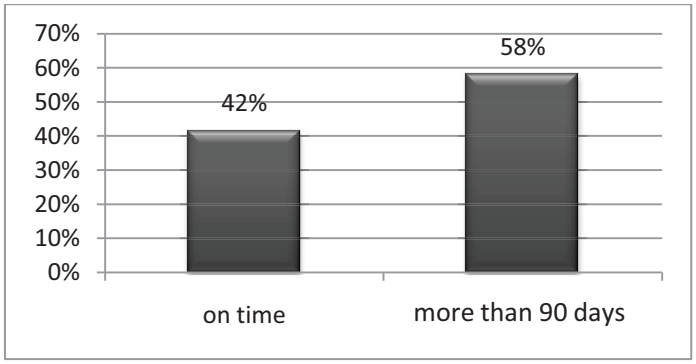


Figure 15: Total spent time for the process (through third person)

According to the respondents who had paid for someone for the process of the decision certificate, most of them (71.4%) got the decision certificate less than 90 days, 28.6% of the respondents spent more than 90 days.

Spent time for the decision Certificate

Days		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	30-60	3	21.4	21.4	21.4
	61-90	7	50.0	50.0	71.4
	>91	4	28.6	28.6	100.0
	Total	14	100.0	100.0	

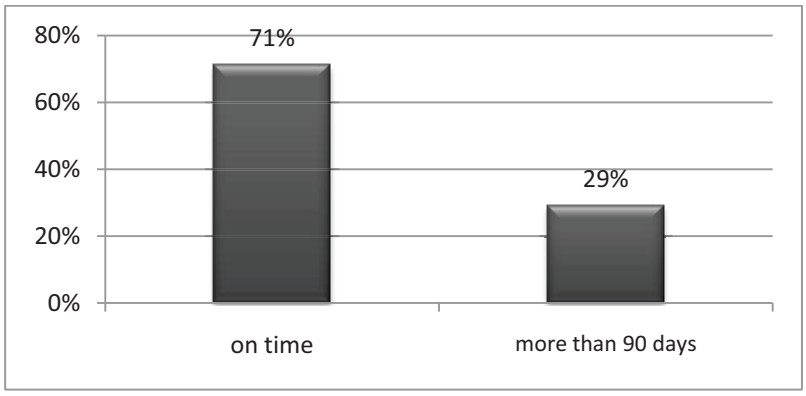


Figure 16: Spent time for the decision certificate (through third person)

Figure 17 shows the respondents who had paid for third person spent time for the land privatization process. More than two third of the respondents spent more than 90 days and the remaining of the respondents spent less than 90 days for the whole process.

Total_days

Days		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	61-90	5	35.7	35.7	35.7
	>91	9	64.3	64.3	100.0
	Total	14	100.0	100.0	

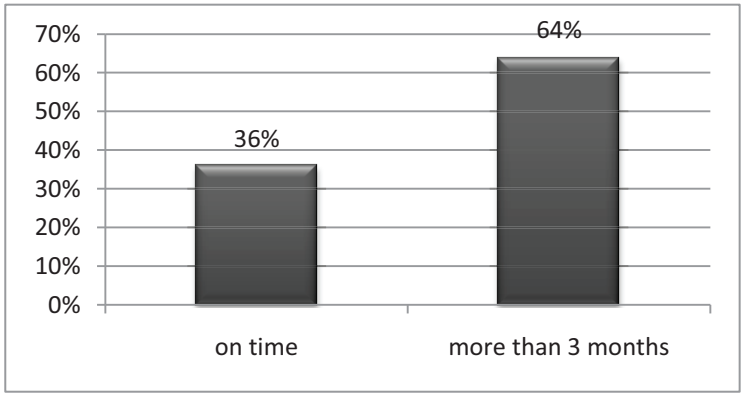


Figure 17: Total spent time for the process (through third person)

According to the secondary data the most (21) of the landowners got decision certificate on time through someone. 9 of them could have success through friends or relatives who work at the land office. Through normal procedures 9 of them got decision certificate on time and 4 of the respondents got the decision certificate on time through guidelines provided by land office (Figure 18).

if successful, what do you think the reason for your success in land claiming? * Q15_How_long_did_you_wait Crosstabulation

Count

		Q15_How_long_did_you_wait (month)					Total
		1-3	4-6	7-9	10-12	>48	
if successful, what do you think the reason for your success in land claiming?	Through normal procedures	3	0	4	2	0	9
	Through guidelines provided by land office	0	0	3	0	1	4
	Through help from friends	11	9	1	0	0	21
	Through friends or relatives who work at the land office	7	2	0	0	0	9
Total		21	11	8	2	1	**43**

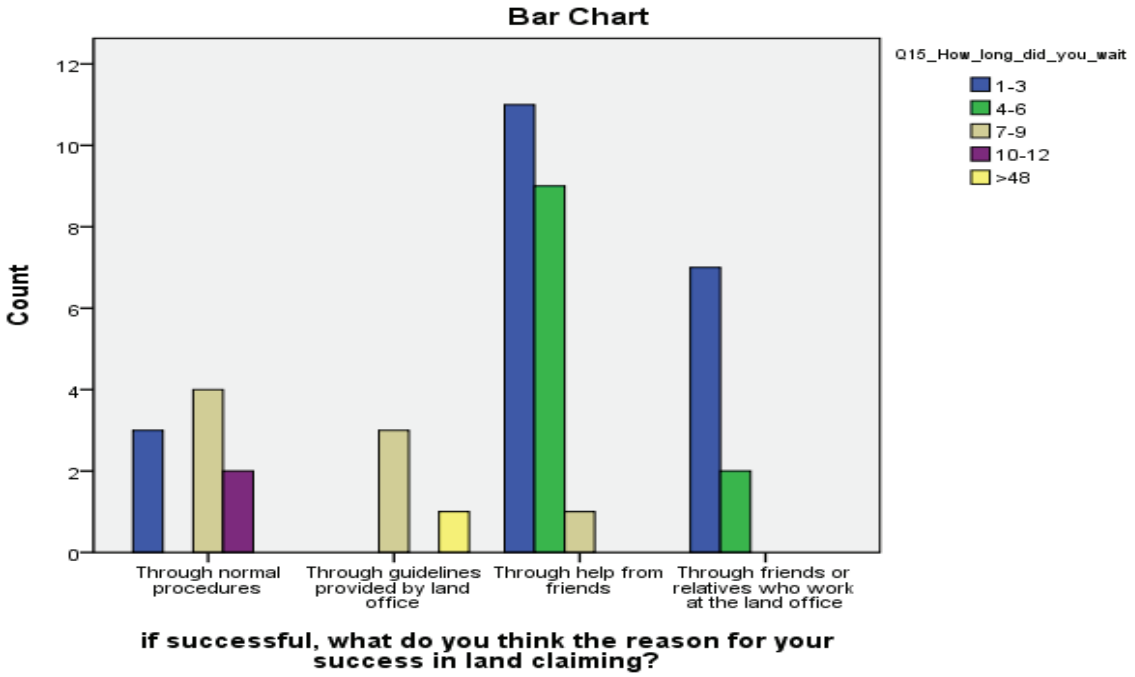


Figure 18: Total spent time for the process (from the secondary data)

Since 2002 at national level, 221744 citizens got a governor decision for family purpose and out of those only 114384 citizens (51.6%) registered as an immovable property right till end of 2009. At city level, total 80 943 citizens applied for the decision certificate in 2009 and 78 943 citizens got a governor decision. In 2009, 1857 citizens who do not have possess land, applied for the decision certificate and only 99 citizens (5%) were successful in land claiming (Figure 19).

City name	**Total: Number of citizens applied for the decision certificate**	Who has possession right	For the new allocation land (1)	**Total: Got the governor decision**	Who has possession right	For the new allocation land (2)
Ulaanbaatar	**80'943**	79'086	1857	**78'943**	78'844	99

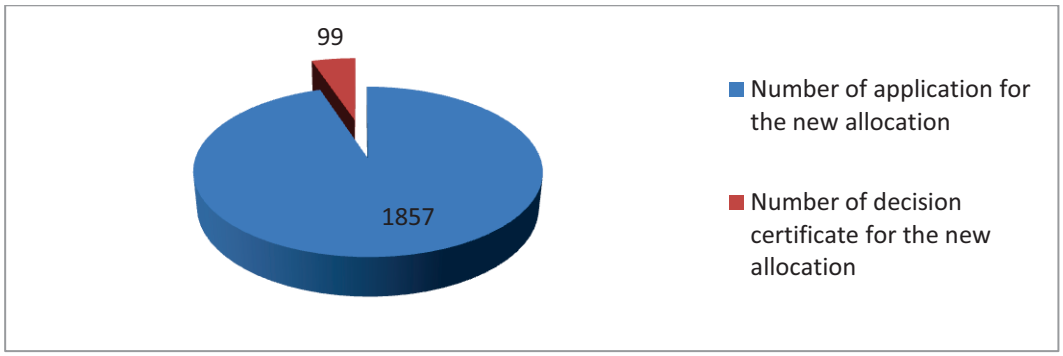


Figure 19: Number of citizen success in land claim

From the secondary data analysis has been found that the most of the citizens feel not happy with time to spend for the process. 67.6% of them answered they spent too long time (Figure 20). None of the respondent feels that their spent time for the process was short. *Note: Perception scale is one to five and one is the represent "too long" and five is represent "very short".*

We would like to know your observation with respect to time you spent for claiming land.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	115	49.4	67.6	67.6
	2	28	12.0	16.5	84.1
	3	23	9.9	13.5	97.6
	4	4	1.7	2.4	100.0
	5	0	0	0	
	Total	170	73.0	100.0	
Missing	System	63	27.0		
Total		233	100.0		

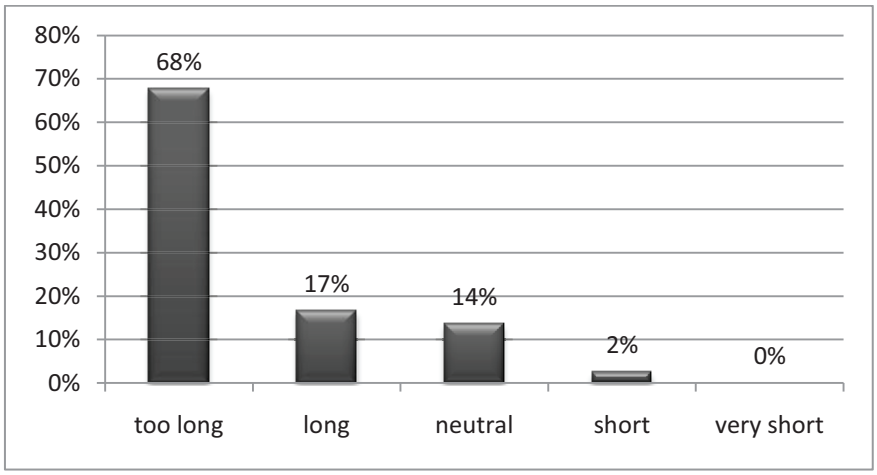


Figure 20: Respondents perception about spend time for the process

From the analysis in terms of time, we conclude that most citizens spend more than 3 months for the whole process. However, when LO accepts the application, it does not take longer than the official time (3 months) for the registration process.

It implies that most citizens spend longer time before submit the application. The citizens tend to get preferable land such as with infrastructure available. In order to get such land, they make any efforts and sometimes it ends up with rejection from LO of such demands. This condition takes time to finalise.

Once the selection of the new area is settled, the government does not publish the new allocation area. So, the citizens are not well-informed about the new selection area. Consequently, this condition makes the LPP going slow.

Another aspect is relating to specification of the new allocation area. Since there is no area with infrastructure available anymore, the government allocates a new allocation area that no infrastructure is available and is far from the city. This condition causes the reluctance of the citizens to apply for new land in such area because most of the citizens prefer to have a serviced land, with infrastructure available

From the interview with the citizens, we find out that there is a limitation of the application numbers submitted for registration. It is because LO try to complete the collected applications on time. On the other hand, the citizens are in line to submit their application. This condition might cause a longer waiting time for the citizens. This reflects a weak application management in LO. In addition to that, the completion of certain numbers of application should inform the queuing customers when they should submit their applications.

The last step, the registration process, is time consuming. It is caused by lack of coordination between ALAGaC and ASRT. There is no data sharing between them. If one application is not complete, the citizen must fulfil the application by going back to relevant organization. Additionally (Sh Batsukh, 2007) mentioned that in some cases of the land privatization process, a delay can be caused by decision of the governors to approve the decision certificate. In this case he decision certificate is used as a basis for issuing a land title. Consequently, this condition might to lead to the time consuming process.

Therefore, in order to reduce the long time of the whole process, the government should publish the information about the new allocation area and there should not be a limitation for receiving the applications. Thus, digital data sharing might bridge the coordination of those two organizations. Subsequently, it might improve their performances.

5.3. Land privatization process in terms of cost

In Figure 21 shows how much the respondents spent for the land privatization process. It includs administrative fee and other costs such as for the cadastral map, taxi, fuel, dinner with a land office officers, etc. In order to get the dicision certificate, a majority of the respondents (83.3%) spent 45-73 euro and,16.75% of the responents spent 74-100 euro for the land privatization process.

Total_spent_money_inEuro

Euro		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	45-73	10	83.3	83.3	83.3
	74-100	2	16.7	16.7	100.0
	Total	12	100.0	100.0	

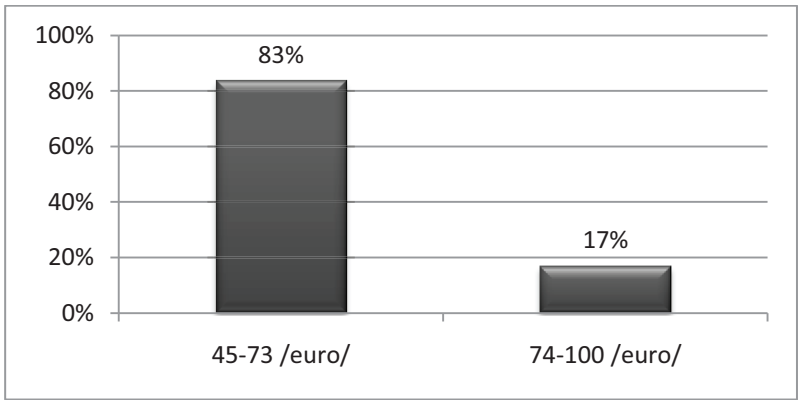


Figure 21: How much spend for the process?

According to the respondents who earlier answered that they got the decision certificate through hiring a third person, the result is relatively quite different from who went through the process themselves. Most of the respondents (42.9%) spent 100-200 euro, 14.3% of the respondents spent 500-1000 euro and, 2000-4000 euro for the land privatization process. 7.1% of them answered they spent 1000-2000 and even more than 5000 euro.

How much money did you spend for the decision Certificate?

Euro		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	100-200	6	42.9	42.9	42.9
	500-1000	2	14.3	14.3	57.1
	1000-2000	1	7.1	7.1	64.3
	2000-3000	2	14.3	14.3	78.6
	3000-4000	2	14.3	14.3	92.9
	>5000	1	7.1	7.1	100.0
	Total	14	100.0	100.0	

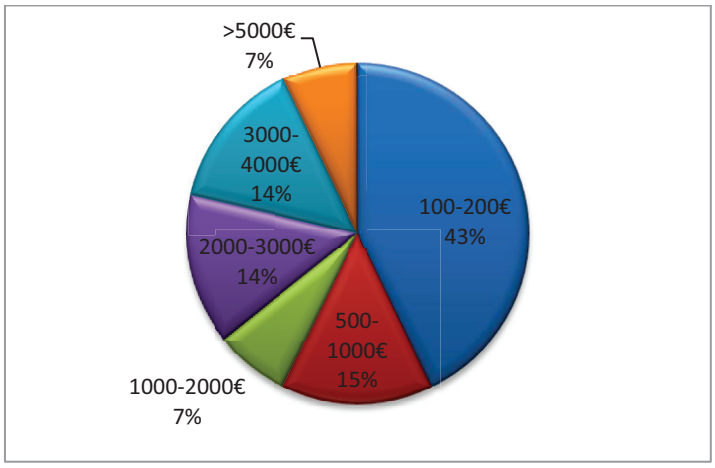


Figure 22: Spent money for the process

From the secondary data analysis about customer perception about their spent cost for the process shown in Figure 23. 64.7% of the respondents feel the costs are high. 30.6% of the respondents answered not so high and 4.7% of them answered the costs are low. None of them answered it is very low (Figure 21). *Note: Perception scale is one to five and one is the represent "very high" and five is represent "very low".*

We would like to know your observation with respect to cost you spent for claiming land.

Scale		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	43	18.5	25.3	25.3
	2	67	28.8	39.4	64.7
	3	52	22.3	30.6	95.3
	4	8	3.4	4.7	100.0
	5	0	0	0	
	Total	170	73.0	100.0	
Missing	System	63	27.0		
Total		233	100.0		

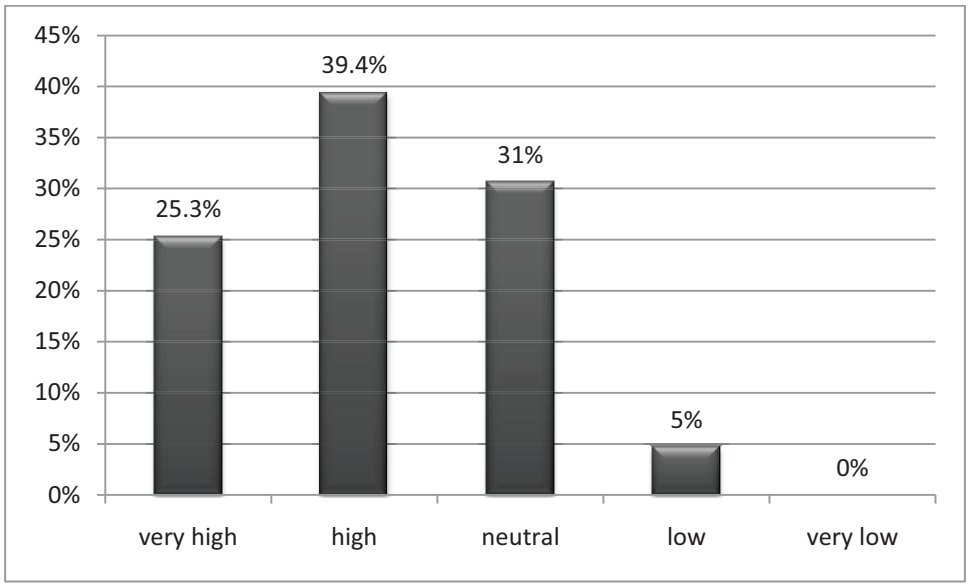


Figure 23: Respondents perception about spent cost for the process

According to the survey of National Statistical Office of Mongolia (NSOM), in 2007, in Mongolian monthly average income was 284981 tugrug (171 euro) (NSOM, 2007).

From the data analysis result, we find that the citizens spend around 45 euro for the official process and compare with Mongolian monthly average income LPP, the cost is affordable for the citizens. But for the citizens who spend extra money for informal payment, the cost is quite expensive. Some citizens tend to pay extra money in order to get the decision certificate in short time and to get preferable parcel.

5.4. Land privatization process in terms of customer satisfaction

Customer satisfaction is an abstract concept. Customer satisfaction is a measure of how products and services completed by an organization meet or exceed customer expectation. Moreover, measuring customer satisfaction gives an indication of how successful the organization is at providing services to the customers. The usual measures of customer satisfaction involve a survey.

In this study, customer satisfaction is measured by landowners' perception. The landowners were asked to give their opinion on land office service. In Figure 24 is shown the landowners perception for land office service. According to the respondents 76.9% of them are not satisfied, 19.3% of the respondents are fairly satisfy and only 3.8% of them answered satisfied for the land office service.

How much do you satisfy for the LO service?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	20	76.9	76.9	76.9
	Fairly satisfy	5	19.3	19.3	96.2
	Satisfy	1	3.8	3.8	100.0
	Total	26	100.0	100.0	

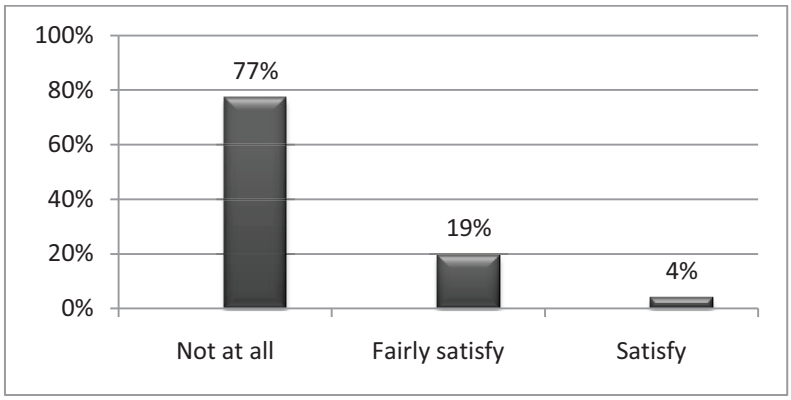


Figure 24: The customer perception for the land office service

According to the secondary data out of 170 respondents, the majority of the respondents were not satisfied about the land office service. In Figure 25 is shown opinions of the respondents about the customers are how much satisfied for the service provided by the land office. They have described that the service is not effective, communications of land officers with citizens are poor and that there is a lack of communication amongst the land related organizations. *Note: Satisfaction scale: 1-Very dissatisfy, 5-Very satisfy.*

Process provided by land offices

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	88	37.8	51.8	51.8
	2	62	26.6	36.5	88.2
	3	13	5.6	7.6	95.9
	4	7	3.0	4.1	100.0
	5	0	0	0	
	Total	170	73.0	100.0	
Missing	System	63	27.0		
Total		233	100.0		

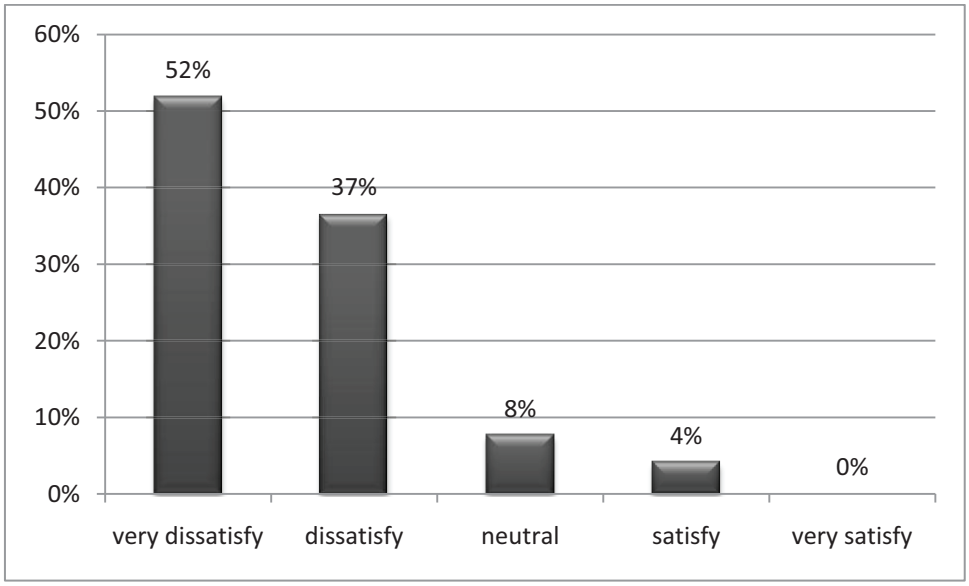


Figure 25: Response about organizational service

In Figure 26 is shown opinions of the respondents how they feel about their spent time for the decision certificate. According to the respondents 41.7% of them answered they spent long time in order to get the decision certificate, 33.3% of them very long, 16.7% of them it wasn't long and 8.3% of the respondents feel it was short.

How do you feel about your spent time for the decision certificate?

	Frequency	Percent	Valid Percent	Cumulative Percent
Very long	4	33.3	33.3	33.3
long	5	41.7	41.7	75.0
Fine	2	16.7	16.7	91.7
Short	1	8.3	8.3	100.0
Total	12	100.0	100.0	

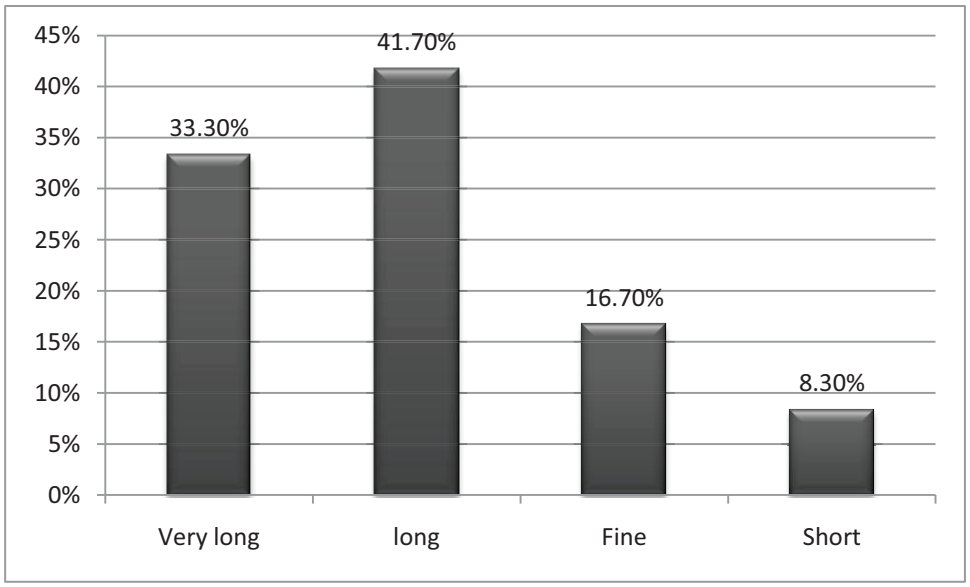


Figure 26: The customer satisfaction for spent time

According to the analysis the citizens are not satisfied for the provided by LO service. From the interview with citizens, we found out the citizens are not satisfied because of going many times between organizations, it is so time consuming and the long waiting time before submit the application. They are also mentioned that communications of the land officers with citizens are poor, they do not come to work in time, their serving days with citizens is 3 days of the week and it makes long queues and sometimes people cannot get service.

Hence, LO should concern to implement one stop shopping and customer oriented service. In additionally, access to information is might lead to increase customer satisfaction.

6. DISCUSSION AND PROPOSED MODEL

6.1. Introduction

The user requirements are formulated and the proposed process is designed in this chapter. In section 6.2 the user requirements are discussed based on the data analysis. The proposed land privatization process is presented in section 6.3

6.2. Discussion on the user requirements

Based on the data analysis above in chapter 5, the user requirements for the new land privatization process are simplified in table 5. In order to implement an efficient and effective land privatization process, the performance indicators which are cost, time, and customer satisfaction are included in the below mentioned three aspects.

Aspects	User requirement elements
Procedure	- Removing and merging unnecessary steps - One stop shopping/Kiosk
Organizational issue	- Improve coordination between organizations - Provide the information about procedure, cost, duration of time and the regulations and a new allocation area - Customer oriented service
Technology	- Access to information /allow the citizens to control of their application procedure/ - Digital data sharing

Table 5: The user requirements

Extracted from data analysis, user requirements depict the customer expectations from the existing procedure of LPP. They clearly represent the instructive inputs for the existing LPP in terms of cost, time, and customer satisfaction.

Removing and merging unnecessary steps, improve coordination between organizations, one stop shopping, and data sharing is needs for the accelerated process (time). The one of the user requirement is to provide relevant information, it is might lead to more transparent process. Customer oriented service and access to information is increase customer satisfaction.

The user requirements are considered when redesigning the land privatization process.

6.2.1. Procedure

6.2.1.1. Removing and merging unnecessary steps

The simplicity of a procedure is one of the user requirements. If the process is too long, it makes the service complex and customers tired of this. The procedure to register property transactions should be short and simple. (2006) argued that “the procedure to register property transaction should be short and

simple in order to make the process efficient". If a land privatization process has a fewer number of steps, low cost and access to information, it will lead to customer satisfaction.

The existing land privatization process has many steps and landowners are not satisfied with the procedure which is time consuming and complex (Section 5.4). Therefore, it is necessary to remove unnecessary steps and duplication steps should merged by redesigning the process of "the decision to issue a certificate and a title".

6.2.1.2. One stop shopping/Kiosk

The customer demand is to get the relevant information from one place. Molen (1998) stated that "citizens do not understand why they have to drop in innumerable governmental desks, before they can go ahead f.e., building of a house. They want: one stop shopping".

By implementing one stop shop, citizens can get their answer from a single place. They do not need to visit to many organizations in order to get information. In Mongolia, the customers currently have to visit at least 4 organizations such as ALAGaC, ASRT, District LO and UB city LO. Of course it takes more time and spends much money of the customers.

If the land offices develop an online service such as kiosk and one stop shopping, it might increase the customer satisfaction and reduce time and cost.

6.2.2. Organizational issue

6.2.2.1. Improvement of coordination between organization

One of the user requirement identified from the analysis, is improvement of coordination between organizations. The United Nations Economic Commission for Europe (2005) described that existence of different short term priorities in each ministry and organization, lack of information technology and deficiencies in the national spatial data infrastructure, unclear responsibilities for coordination and competition between different ministries and organizations, may leads to weak land administration systems and too much overlap in the activities of land administration. Furthermore, those reasons lead to inefficient systems and create extra cost and delays in implementing projects, adversely affecting the land market and inconveniencing customers.

However, "in theory, public agencies are able to combine data from different sources, share spatial information, develop a spatial information market policy for cost recovery, improve cooperation with potential users and the private sector, and develop the 'e-market' and related value-added services". But in fact, this is not so easy because of lack of strong cooperation and coordination between organizations (United Nations Economic Commission for Europe, 2005).

In Mongolia the existing land privatization process relates to the responsibility of ministries and organizations such as: Ministry of Construction and Urban development, Ministry of Justice, ALAGaC, ASRT, Notary, Bank, Surveyor, UB city Governor and Urban Planner, and among them ALAGaC and ASRT are the main key players on the land privatization process. But today there is no link between these two organizations, thus the customers suffer by undergoing the same processes twice. By improving coordination between organization citizens do not need to go to many organizations.

6.2.2.2. Provide relevant information

"*Information is an essential piece of the reform work, as it is necessary that all involved are made aware of benefits, requirements, procedures, etc.*"(Dale & Kjellson, 2007). Providing relevant information can accelerate the process.

The existing system has the lack of advertisement on the implementation of land privatization law. There is no sufficient publicity and information available about the procedure of land privatization (Section 5.2). Therefore, the professional organizations should provide relevant information through TV, radio, web portal, newspaper, and customer service center.

6.2.2.3. Customer oriented service

A land administration system should be customer-focused with users having complete confidence in the system. Customer satisfaction should be monitored;(United Nations Economic Commission for Europe, 2005) by implementing customer oriented services on the land administration systems, consequently the customer would be satisfied more.

In Mongolia, the current land related organizations do not provide good services to the public. The customers have reported that the service is not effective and that communications of land officers with citizens are not good.

6.2.3. Technology

6.2.3.1. Access to information

The land privatization process should be transparent and from the land office should be provided information to the citizens. Access to information is vital to the achievement of implementation of a land privatization law (Deininger, 2003). According to the questionnaire and interview with citizens and officers it is shown that the existing system does not provide cadastral and personal information so far (Section 5.2). Consequently, the citizens have to visit the land office in person in order to get such information. It is useful, if access to land-related data is to be provided through the Internet (United Nations Economic Commission for Europe, 2005).

Bagdai and Tsolmon (2009) argued that "*land administration can be a vital issue to implement land privatization to serve people better by improving access to information and participation involvement*".

Therefore, the government should allow citizens to access their property information and to give a chance to control their application procedure. By giving chance to citizens to access information, they can control their application procedure; it might increase the customer satisfaction.

6.2.3.2. Data sharing

Subedi (2009) mentioned using digital data transfer, makes the process easy and fast. Furthermore, the possibility to transfer data in digital format increases the protection of valuable data, reduse the risk of data manipulation and makes the delivery of services possible from anywhere.

In the Mongolian existing system, ALAGaC and ASRT are using different databases and the data transfer between those organizations is still in paper form. Because ASRT does not have access to information to National Land Information System (NLIS), thus, the cadastral map information and documents are transferred by the citizens. Consequently, it may cause loose of data and it has bad effects on the data quality as well.

6.3. The proposed process

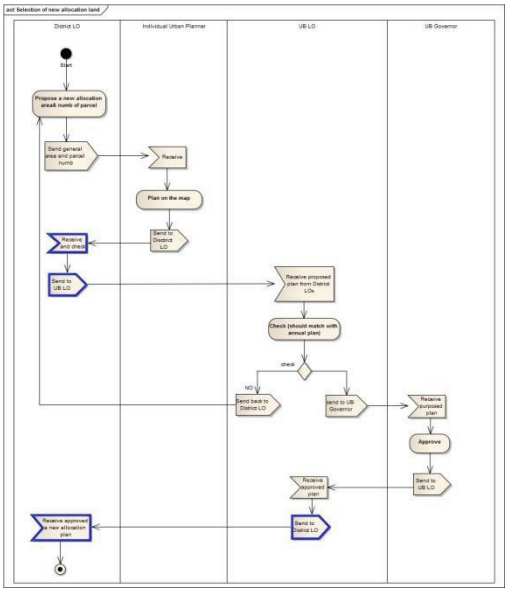
The main objective of this study is to improve the current LPP, based on performance analysis. The existing LPP for the citizens who have possession right already and those who apply for a new land for the first time, are different. The process has three main steps:

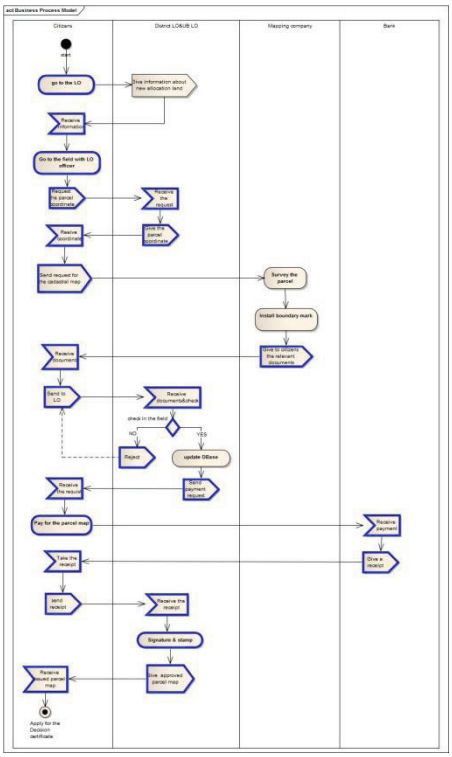
- Selection of new lands
- Demarcation
- Registration of immovable property rights

The proposed process is designed based on the data analysis. While designing the processes, we should concern about the user requirements. The user-oriented design emphasizes on the user requirement at each step of the design process. In the proposed process we merge the selection of new lands and demarcation process. The last process, registration of immovable property rights redesigned, some duplicated steps are merged by using digital data sharing between LO and ASRT.

6.3.1. Process for selection of new lands and demarcation

The proposed process is designed to improve the current LPP in general and to provide based on the user requirement which is one stop shopping, customer service, provide relevant information and remove and merge unnecessary steps.The proposed process is illustrated in figure 28.





Remarks:
Blue box – removed steps

Figure 27: Activity diagram for the current process of selection of new lands and demarcation
(See the clear format in appendix 2 and 3)

The proposed activity described below:

Proposed activity 1:

The main problem for selection of new allocation land is that the government does not reflect customer demand and needs when planning the new allocation area. In the past, the government had allocated a new area with infrastructures. Citizens tend to apply for a new land in such area because the land price in developed areas is higher than in undeveloped areas, even the land value increases over years. At present, the land supply with infrastructures is decreasing. Most lands have been occupied by citizens through the past LP. Since such area is limited, the government shifts the plan into a new allocation area with no infrastructure so as it results the reluctance of customers to apply for a new land. Consequently, it makes the process of LPP slow. While land value is highly increasing, it is obvious that most of the people have more interest to acquire a privatized piece of land in a developed area which is connected to infrastructure networks. To circulate land to the economic circuit infrastructure development is very important. In many countries experiences show that if land use planning is done with public participation, then its implementation become more effective (Sh Batsukh, 2007).

Therefore, the government should provide favorable living conditions in terms of infrastructure provision for citizens in new allocation areas.

The professional organizations should concern about citizens interest when planning the next year land allocation plan. Based on the element of implement customer oriented service, an activity called collect customer demands on new allocation area is added in the proposed process. By implementing customer service centre, the LO collect the citizen's mostly interested area and then reflect the citizen's wish for a new allocation area plan. LO should take into consideration of the customer demand in selection of a new allocation area. Then it would increase the interest of the citizens to apply a new land and as a result it

might accelerate the LPP. As a consequence, by taking the customer demand into account, it might increase the customer satisfaction.

Proposed activity 2:
The next proposed activity is to identify the boundary and survey in selection of new allocation lands process. This activity covering 7 activities from demarcation process are citizen go to field with LO officers, send request the parcel coordinate from LO, LO receive the request, give the interested parcel coordinate, the citizen receive the coordinate and send request to mapping company. In grounded situation, when LO upload cadastral map into database, the parcel is overlapping with neighbouring parcels. It is because of boundary survey undertaken by different private mapping companies. As consequence of overlapping map, citizens and mapping company have to repeat all those 7 activities.

Based on the element of remove and merge unnecessary steps under user requirements, there should be "one-roof-service" from LO in survey and mapping matters. Undertaken by single hand, LO, survey and mapping might reduce the number of steps. From the perspective of data accuracy, LO has responsibility for conducting survey and mapping. Thus they survey and map the boundaries to meet the data accuracy standard so that no encroachment of such standard might exist. Basically any kind of manipulation of data can be avoided if LO conduct the survey and mapping process. If land privatization process has a fewer number of steps, low cost and access to information, it would lead to customer satisfaction and accelerate the process.

Proposed activity 3:
"Due to lack of information related to land allocation and planning, citizens cannot get the desired land or make investment in land because of the unclear situation" (Sh Batsukh, 2007). Moreover (Bagdai., et al., 2009) argued that, there is no information available to landowners, where the possibilities are for owning a piece of land. Regarding to its process, lack of information about the new area remains in place. The citizens are not well informed. Thus, the government should provide relevant information once they already select a new area for LP. In the proposed model added provide relevant information activity based on the user requirement. By implementing one stop shop, citizens do not need to visit to many organizations in order to get information and it might reduce time and citizens would satisfy for the transparent process.

In the current land privatization process, some citizens applying for new allocation land prefer to pay informal payment in order to make the process fast and to get the preferable location land. In order to avoid non-transparent, long and complicated process, the professional organizations should publish all relevant information related to land privatization process to citizens by implementing one stop shopping.

Based on an element of one stop shopping, provide relevant information, and customer oriented service under the user requirements, the government should publish the selection of new area in public media such as national newspapers, television and radio broadcast, and by online information (website). In addition to that, comprehensive requirements and expenses regarding to land privatization are provided as well. Therefore, a new activity, provide relevant information to the customer, is added to the proposed model in order to improve the existing LPP.

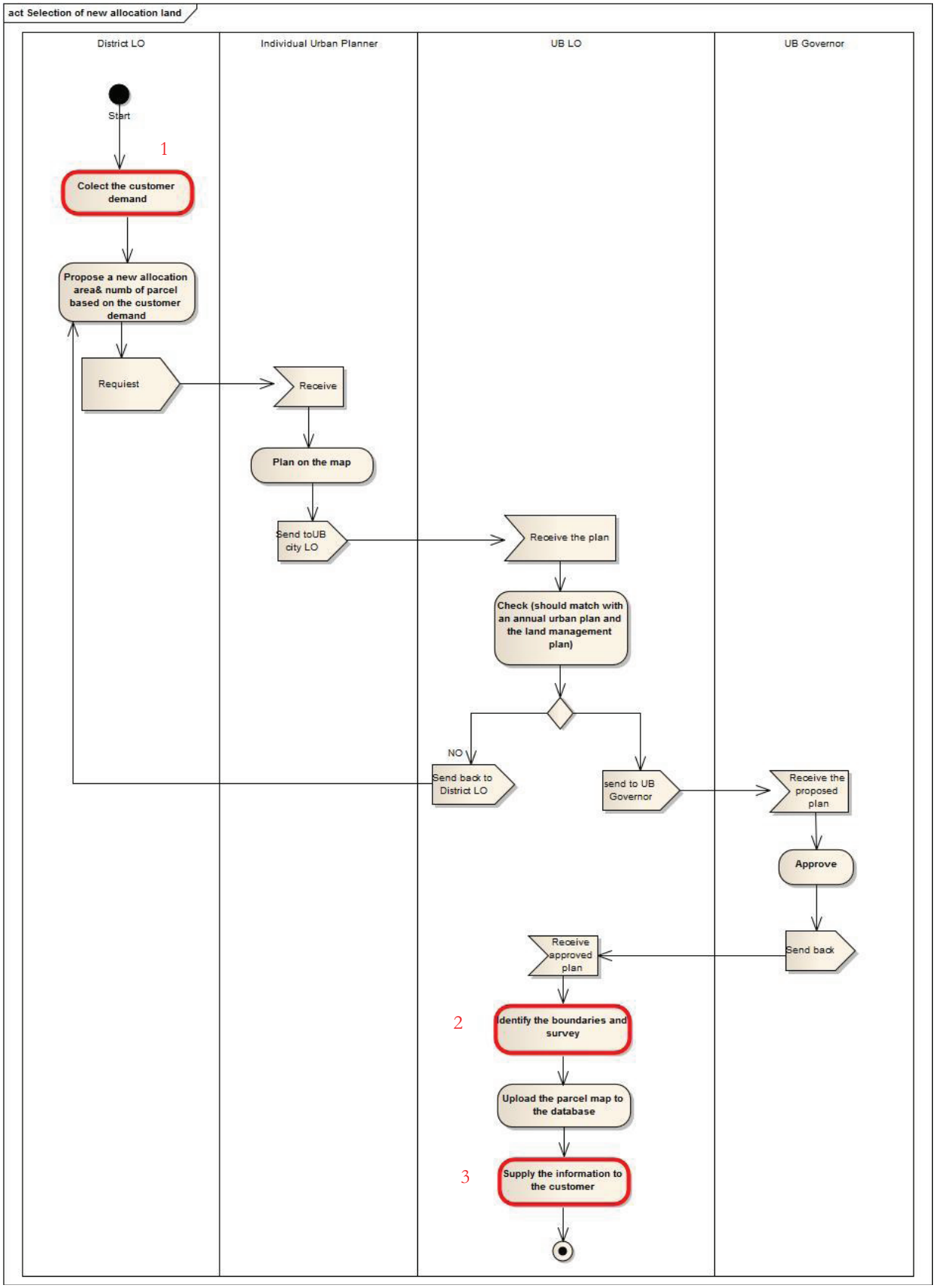


Figure 28: Activity diagram for the proposed selection of new lands and demarcation process

6.3.2. Process of registration of immovable property rights

The simplicity of a procedure is one of the user requirement. (Zakout, et al., 2006) argued that "the procedure to register property transactions should be short and simple in order to make the process efficient".

The existing land privatization process has many steps. Unnecessary steps should be removed and duplicated steps should be merged by redesigning the process of registration of immovable property rights. Therefore, the proposed process designed based on the user requirement which is removing and merging unnecessary steps, improve coordination between organization and access to information.

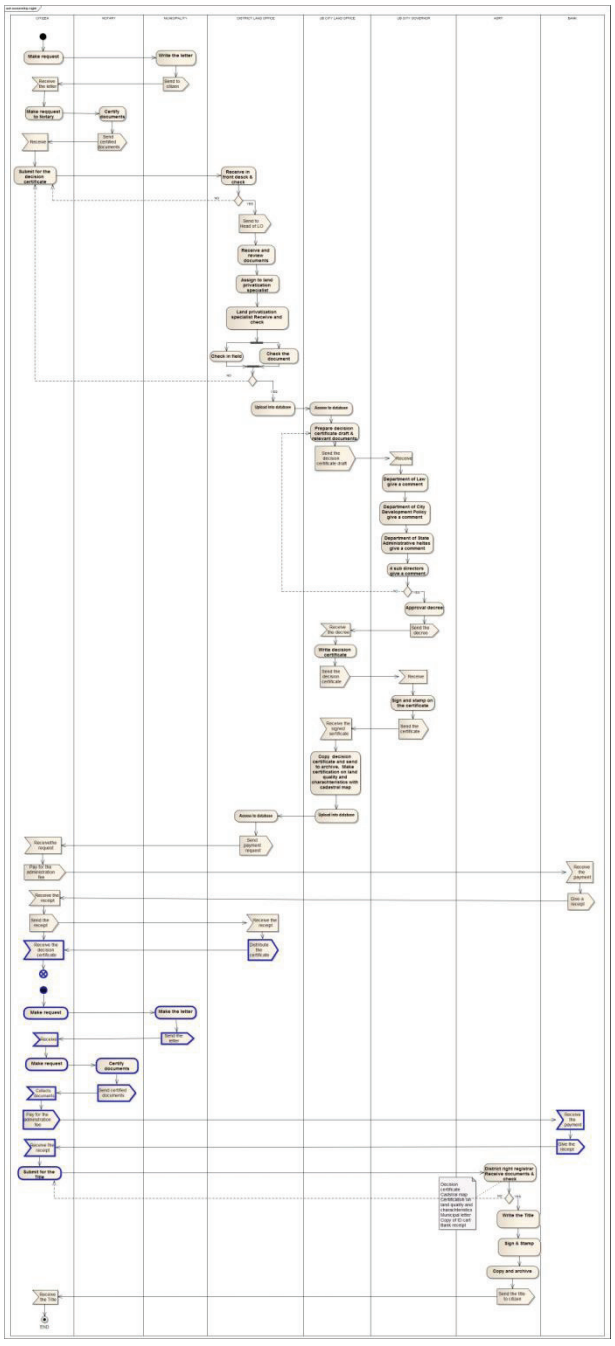
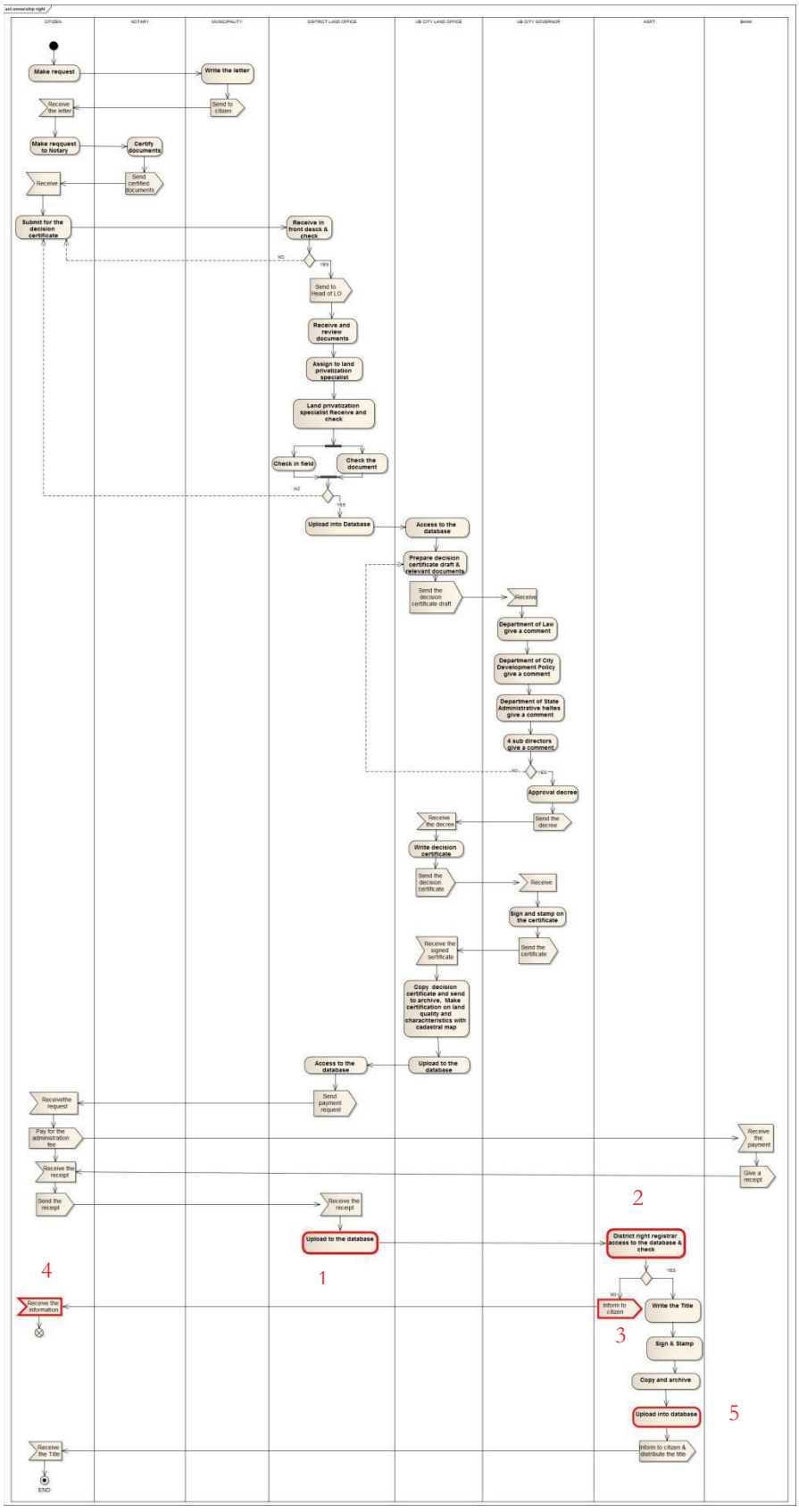


Figure 29: Activity diagram for the current registration of immovable right process
(See the clear format in appendix 4)



Remarks:
Red box – added steps

Figure 30: Activity diagram for the proposed registration of immovable right process
(See the clear format in appendix 5)

Proposed activity 1 and 2:
Upload into the database and access to the database activities are regarding to the digital data sharing between LO and ASRT. It is aim to replace conventional data sharing which is the paper based. As consequence of these new activities it may require IT infrastructure development.
By improving coordination and using the digital sharing between LO and ASRT, the citizens do not need to go twice.

Based on an element of removing and merging unnecessary steps, digital data sharing, and improve coordination between organizations under the user requirements, the proposed model designed as after the decision certificate ready district LO send to ASRT by using the digital data sharing. Thus, removed some steps related with preparation for the submission from the existing process.

In this proposed process by using data sharing coordination between organizations would improve and some duplication steps are removed. Digital data sharing makes the land privatization process easy and fast.

In the database record following information:

- Filled application
- Municipality letter
- Possession right certificate
- The governor decision certificate
- Copy of ID card
- Cadastral map
- The receipt of land tax
- The receipt for cadastral map
- The receipt for the administration fee

Proposed activity 3 and 4:
The existing system does not have the activity inform to the citizen about decision. Citizens can come to know the result of the process, only when they come to office. If the decision certificate or title not issued yet, they have to come back later on again and again. Nowadays most of the people use mobile phone therefore, can inform to the citizen trough mobile phone about the decision. The citizen might be satisfied for this activity and it saves time for the citizen. Thus, in this process added the activity which is to inform to the citizen about the result.

Based on an element of access to information under the user requirements, the government allow to citizens to access their property information and to give a chance to control their application procedure, they can control their application procedure, it might increase customer satisfaction.

Proposed activity 5:
Based on element of data sharing under the user requirements, after the title issued, ASRT should update the database. Thus, the information will be recorded for each application in the database.

7. CONCLUSIONS AND RECOMMENDATIONS

7.1. Introduction

Main objective is this study is to improve the existing land privatization process, based on performance analysis in Ulaanbaatar, Mongolia. For the successful achievement of this research, it has three sub-objectives and eight questions. Conclusions drawn from the study for each sub objective are presented below.

7.2. Conclutions

Sub-objective 1: To describe the existing land privatization process.
Question 1: What is the current land privatization process?

According to the Mongolian Land Law, since May, 2003 for each Mongolian family privatize land once free of charge for family purpose. Lately in May, 2008, the Mongolian government extended duration of the land privatization process up to 5 years with a significant change that now every Mongolian citizens can own up to 0.07 ha land.

In the current land privatization process, there are two different procedures depend on the purpose. One process is for the citizens who have possession right already and intend to upgrade that possession to ownership right and the other one is for those who intend to apply for a new plot.

Question 2: What are shortcomings of the existing process?

Although, the government extended duration of time and give chance for every citizens, the existing land privatization procedure remains problematic and there is still lack of information supply and weak coordination between organizations. In Mongolia land privatization process going slow. From the official statistic, in 2009 only 221 thousand citizens privatize their land, it is only 8.38% out of estimated number of citizens. Statistic is shown in table 2. The citizens do not apply for the ownership right. It is because there is lack of relevant information, coordination between organizations weak, complicated procedure, and the new allocation area is mostly located far from the city where there is no infrastructure. Another reason for slow land privatization process is UB city land resources almost finish.

Sub-objective 2: To analyze the performance of the existing LPP
Question 1: What are the performance indicators for Land Administration?

In generally, performance is an accomplishment of a given task measured against defined or fixed standards of accuracy, completeness, cost and speed. In the land administration business process improvement being used several performance indicators: cost, time, quality, technological innovations, customer satisfaction, and society. This research uses performance indicators: cost, time and customer satisfaction. Selection of performance indicators described in section 2.3.

Question 2: How does the current LPP work in terms of time?

In Allocation of Land to Mongolian citizens for ownership, the law defines that the governor is authorized to permit the citizen's request for a land possession license, shall review and settle the issue within 3 months after the request is submitted. According to the fieldwork result, in the current system, once the application is accepted in the Land Office, the citizens can get the decision certificate on time, especially for those who already hold a piece of land under possession right. But the citizens who apply for new allocation lands spend much time before submitting the application to LO. It is because there is a limitation of the application numbers submitted for registration and lack of information about the new allocation area. This is discussed in section 5.2 in detail.

Question 3: How does the current LPP work in terms of cost?

The citizens spend approximately 45 euro for current LPP. It is not so high compared to Mongolian monthly average income that equals to 171 euro. Some citizens tend to pay extra money in order to get the decision certificate in short time and to get preferable parcel. This is described in detail in section 5.3.

Question 4: How does the current LPP work in terms of customer satisfaction?

In the existing LPP, the citizens are not satisfied for the LO service. It is because of lack of coordination between ALAGaC and ASRT, and lack of information. Moreover, they prefer to get a piece of land in serviced area where infrastructures exist already. This is described in detail in section 5.4.

Sub-objective 3: To improve the existing LPP Model
Question 1: What are the user requirements derived from performance analysis of time, cost and customer satisfaction?

This research defines seven elements of user requirements based on performance analysis, namely: **a**) removing and merging unnecessary steps, **b**) one stop shopping, **c**) improve coordination between organizations, **d**) provide relevant information, **e**) customer oriented service, **f)** access to information, and **g**) digital data sharing.

The current LPP is time consuming. The reason is that there is lack of coordination between involved organizations, the process has many steps, the government does not publish information about the new allocation area and procedure, and the organizations do not use digital data sharing. The user requirements, which are removing and merging unnecessary steps, improve coordination between organizations, provide relevant information, one stop shopping, and digital data sharing, are derived from those mentioned reason.

However, the current LPP is not much costly. Some citizens tend to pay extra money in order to get a preferable land, and to get land title in short time. The user requirements, which are improve coordination between organizations, provide relevant information, one stop shopping, digital data sharing, and removing and merging unnecessary steps, are derived from the time consuming process.

In the current LPP, there is lack of coordination between organizations, lack of information, non-transparent process, thus the customers suffer by going many times between organizations. The user

requirements, which are provide relevant information, improve coordination between organizations, customer service, and access to information, are derived from those the current problem in terms of customer satisfaction.

Question 2: How can the existing LPP be improved?

Based on defined user requirements, the existing process is improved in terms of time, cost and customer satisfaction.

The existing LPP has three main steps and in the proposed model, and then we merge into two steps: selection of new lands and demarcation, and registration of immovable property rights.

In the proposed selection of new lands and demarcation step, we removed several activities and added 3 activities in order to accelerate the process, improve the customer participation and avoid from any kind of data manipulation. This is discussed in detail in section 6.3.1.

The next proposed model which is registration of immovable property rights, in this process, we remove and merge some activities. It is because in order to accelerate the process, ASRT and ALAGaC should use digital sharing and in order to increase customer satisfaction that enable the citizens to access their parcel information. This is discussed in detail in section 6.3.2.

In the existing process, the citizens pay extra money in order to get the decision certificate easier and faster, and to get a preferable parcel. Therefore, by realizing the faster and transparent process for improvement, it is expected that there will be no informal payment that may burden them, even though they do not mind. Consequently, such improvement may increase the customer satisfaction.

7.3. Recommendation

This research focuses on improving the land privatization process based on the user requirements extracted from performance analysis. The largest part of study is to find out and analyse the user requirements and then improve the existing process. Within the limited period of time, the following tasks are not accomplished and thus some recommendations arise for further research:

- One of the sub-objective was to validate the proposed model. In order to ensure whether the proposed model meets user requirements or not, validation is required in this research. The JBoss JBPM graphical process designer is art of the JBoss IDE plug-ins to the Eclipse platform and it can be used for authoring business process.

  The proposed workflow process is designed based on the user requirements using Eclipse platform. In appendix 6, the proposed workflow diagram is described. It should have validated by using JBoss open source application server. The framework for validation of the proposed model is shown in figure 31. But during the deployment of Jboss server, we come across with a barrier. Therefore, this issue is recommended for further research.

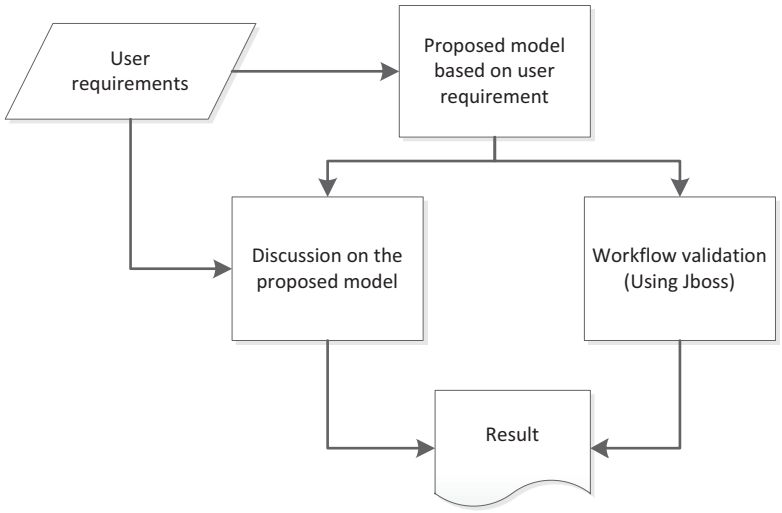


Figure 31: Conceptual framework for validation of the proposed model

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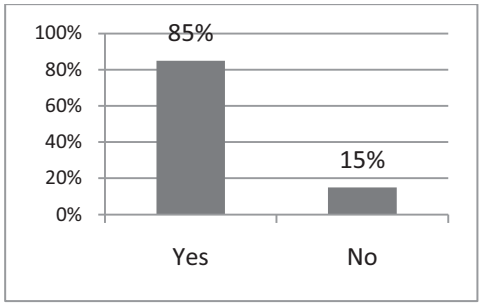
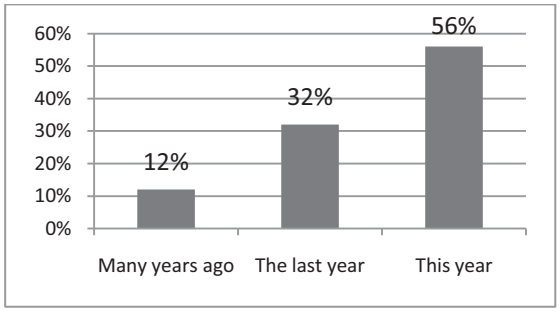
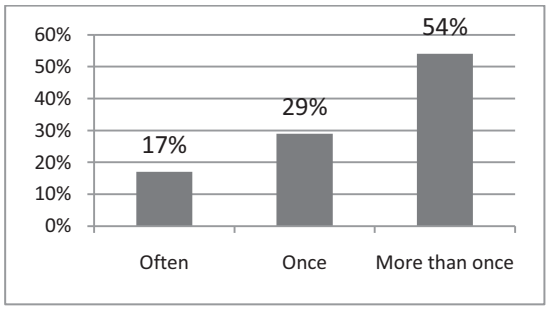
1. Have you ever got the service from UB City and District Land Office?



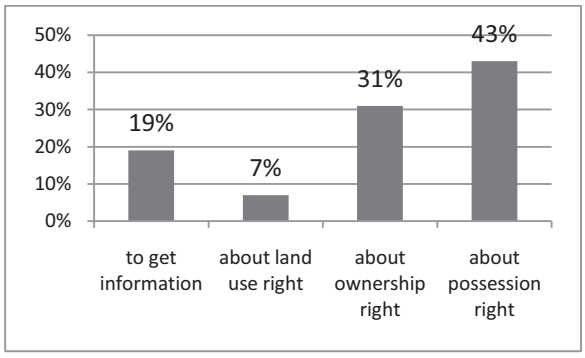
2. If yes, when?



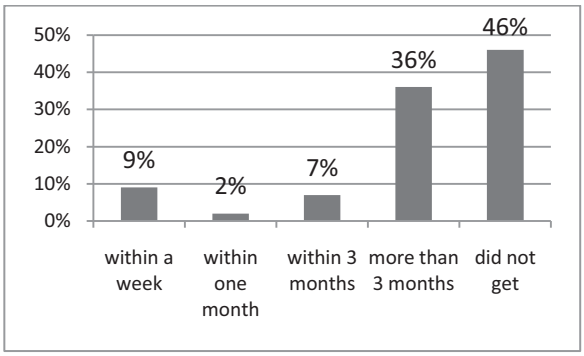
3. How often do you to get service from Land Offices?



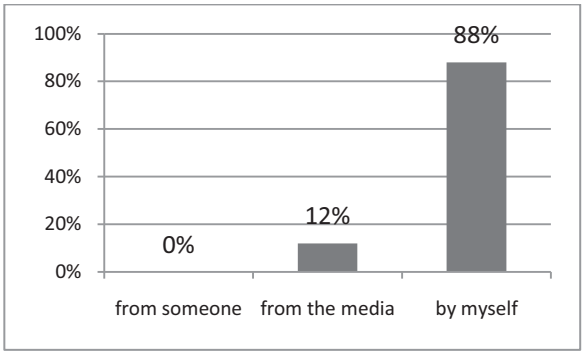
4. What kind of service did you get?



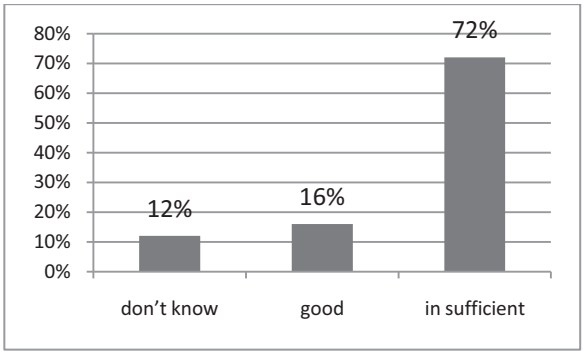
5. How long did you wait to get your answer?



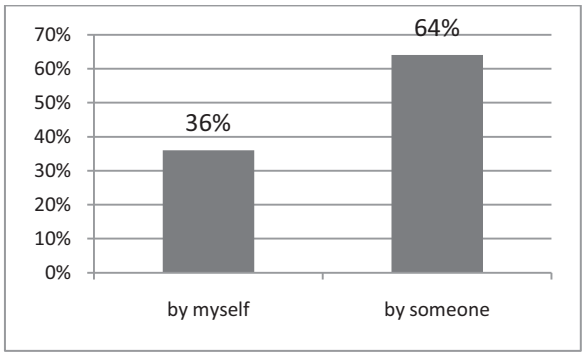
6. Do you think that in land office exists bureaucracy? How do you know?



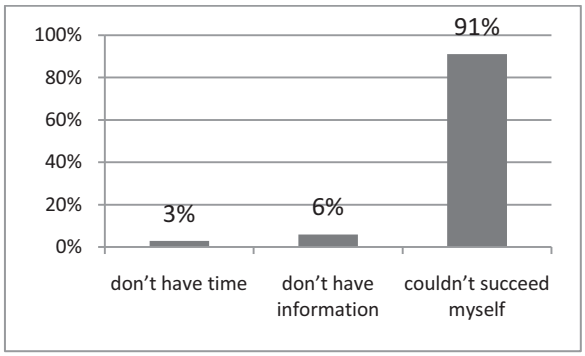
7. What do you think about the coordination between UB city and District Land Offices?



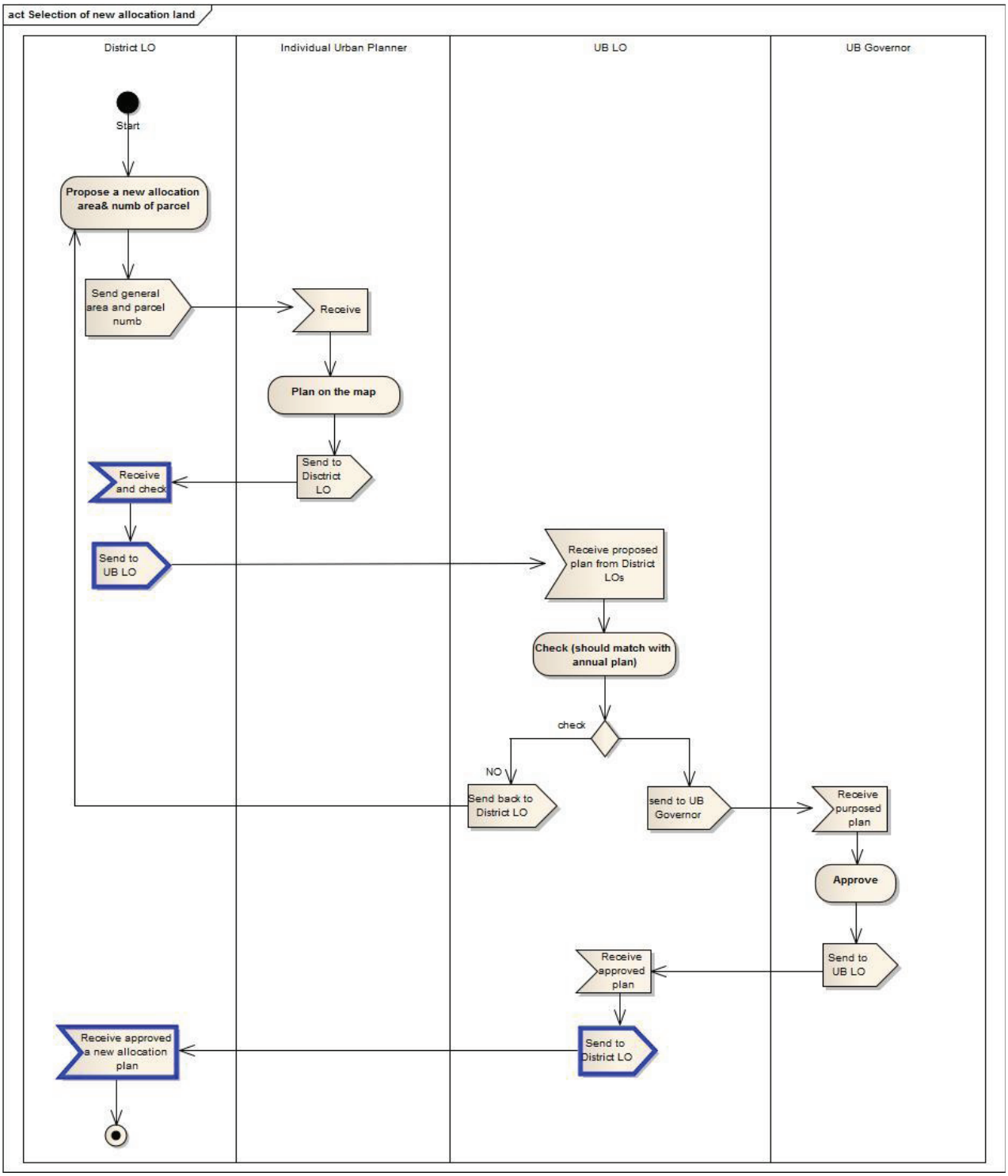
8. How did you done your request from Land Offices?



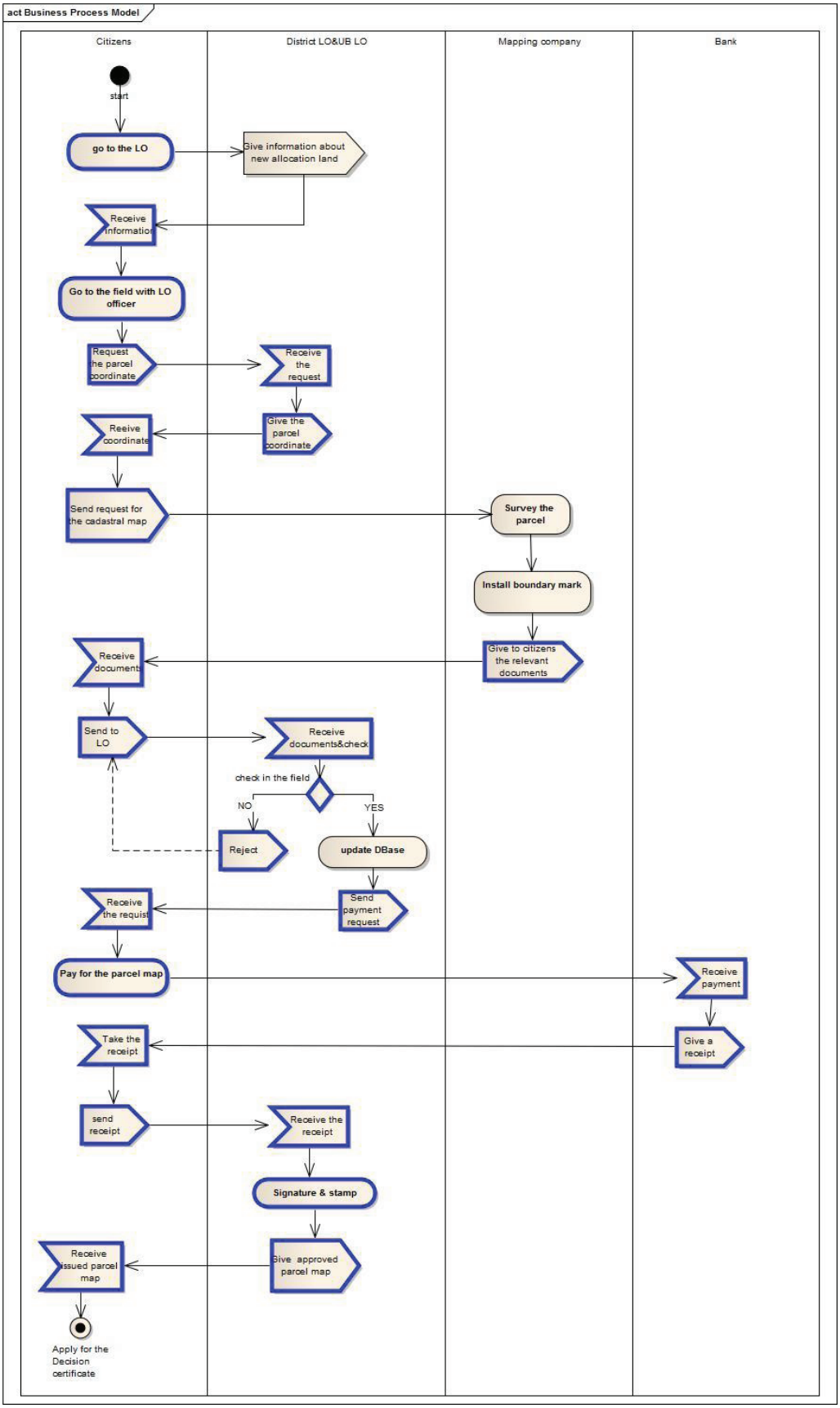
9. Why, If you have done by someone?



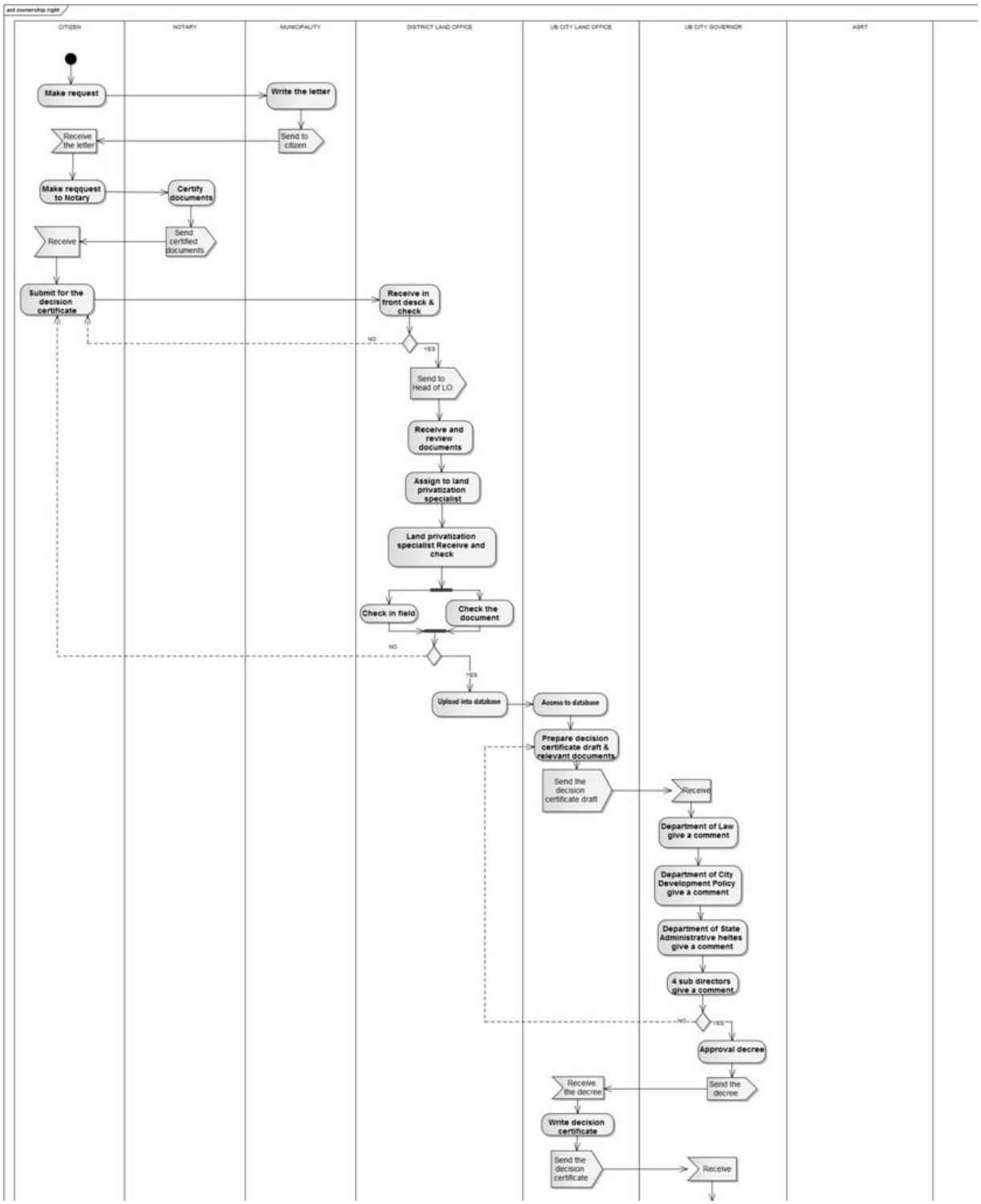
(source from UB City Land office web site http://gazar.ub.gov.mn/index.php?option=com_pollxt&Itemid=109)

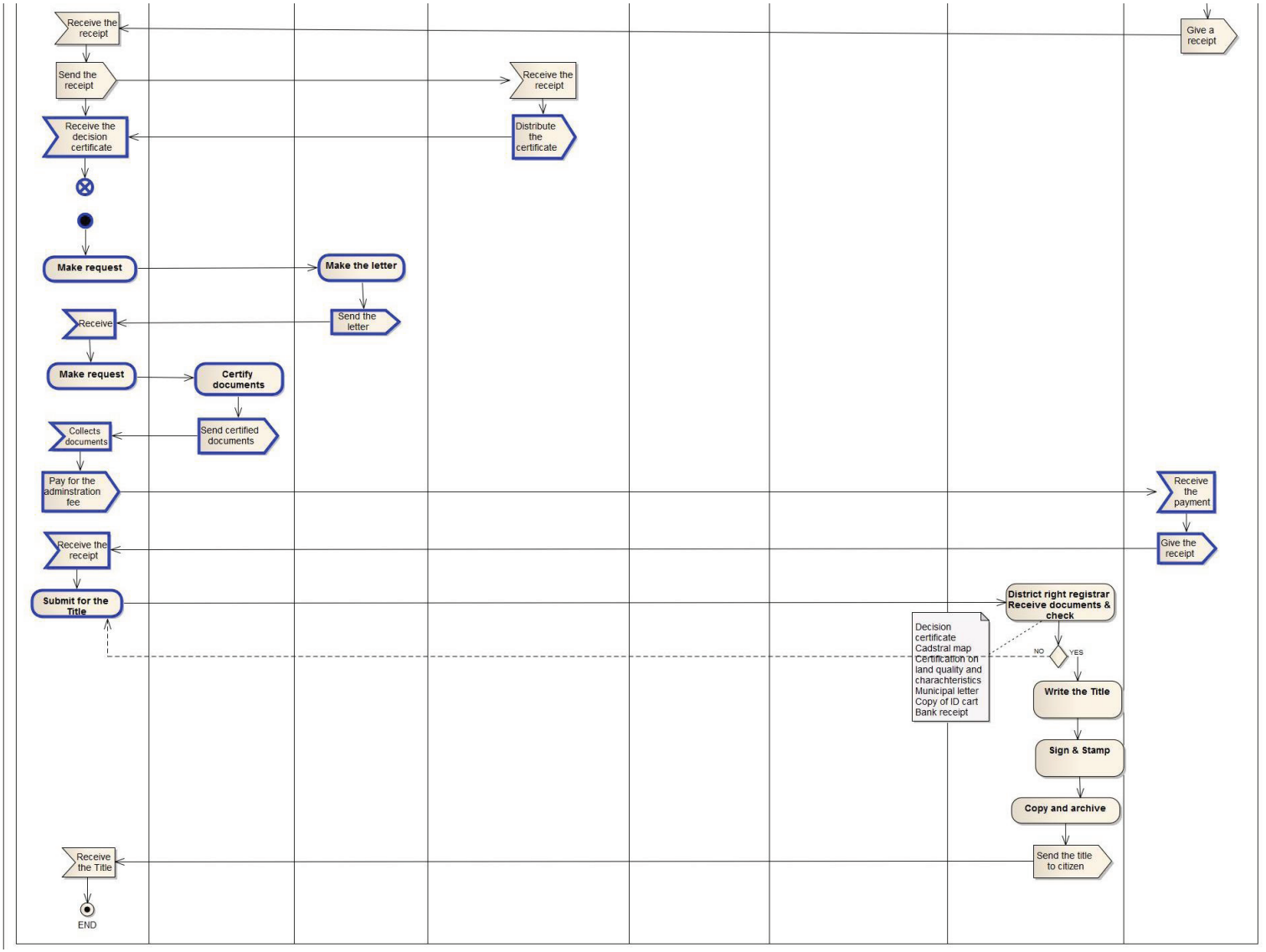


Activity diagram; the existing process of selection of new lands

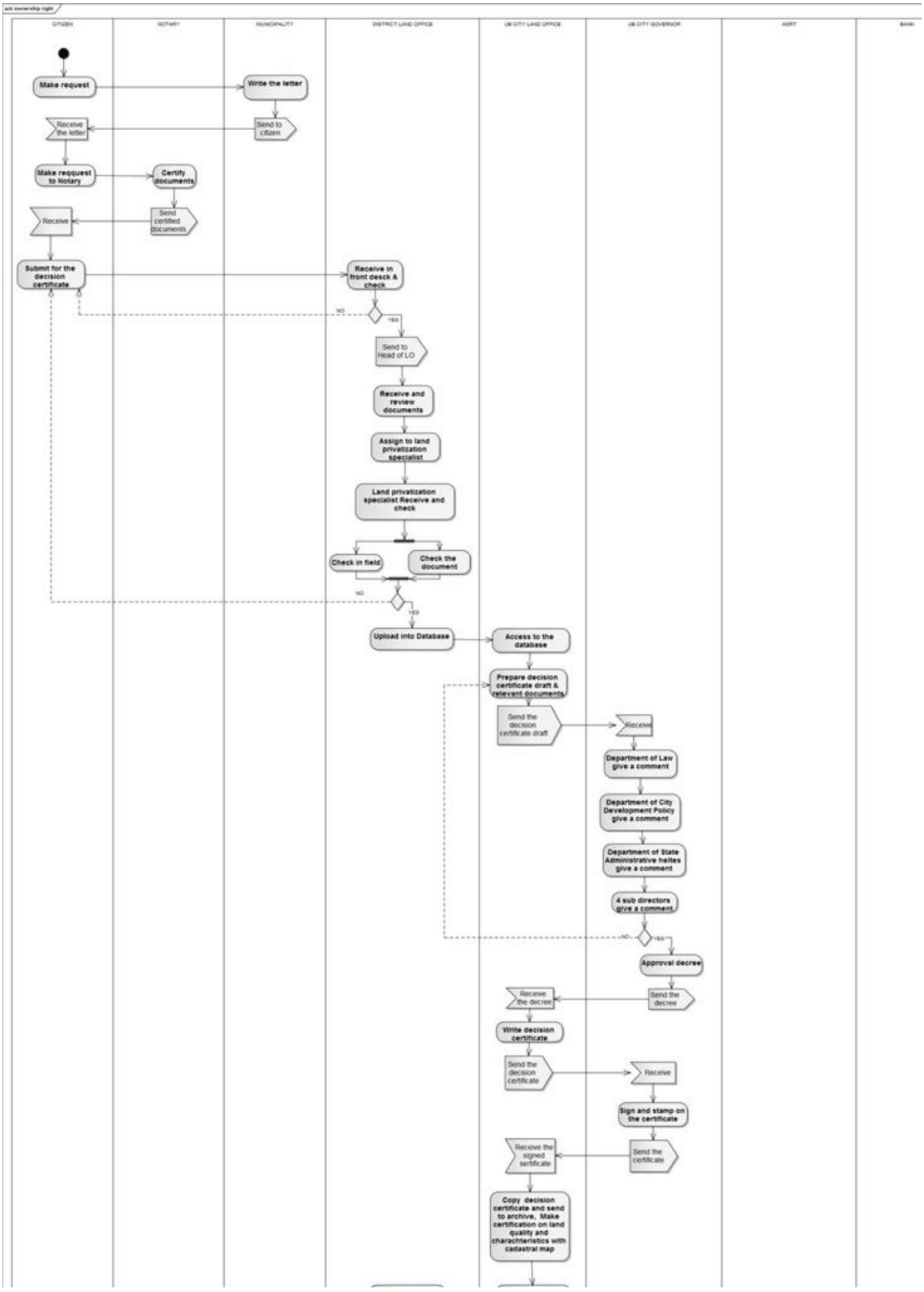


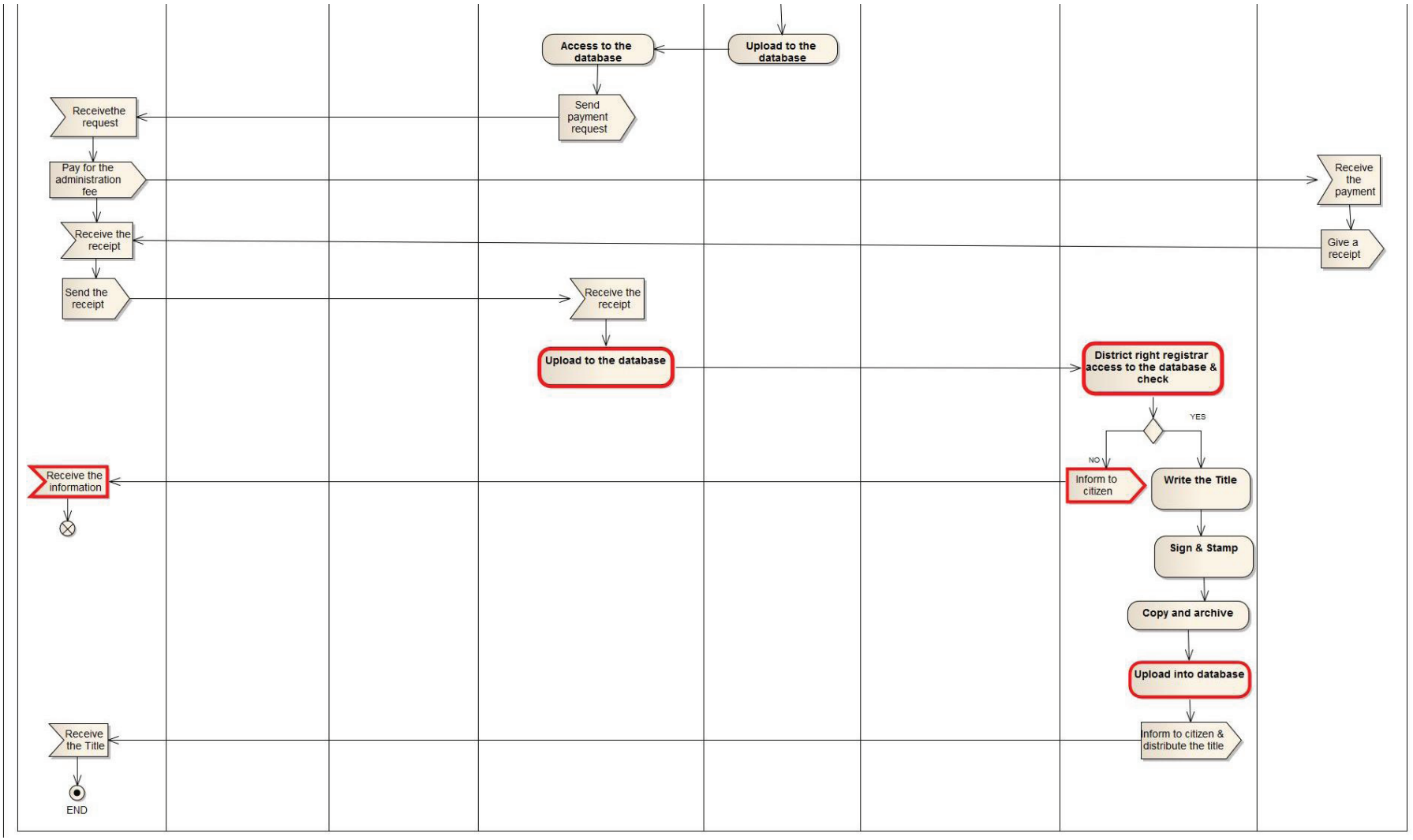
Activity diagram; the existing process of demarcation


act ownership right
CITIZEN
NOTARY
MUNICIPALITY
DISTRICT LAND OFFICE
UB CITY LAND OFFICE
UB CITY GOVERNOR
ABRT
Make request
Write the letter
Send to citizen
Receive the letter
Make reqquest to Notary
Certify documents
Send certified documents
Receive
Submit for the decision certificate
Receive in front desck & check
NO
YES
Send to Head of LO
Receive and review documents
Assign to land privatization specialist
Land privatization specialist Receive and check
Check in field
Check the document
NO
YES
Upload into database
Access to database
Prepare decision certificate draft & relevant documents
Send the decision certificate draft
Receive
Department of Law give a comment
Department of City Development Policy give a comment
Department of State Administrative heltes give a comment
4 sub directors give a comment
NO
YES
Approval decree
Send the decree
Receive the decree
Write decision certificate
Send the decision certificate
Receive

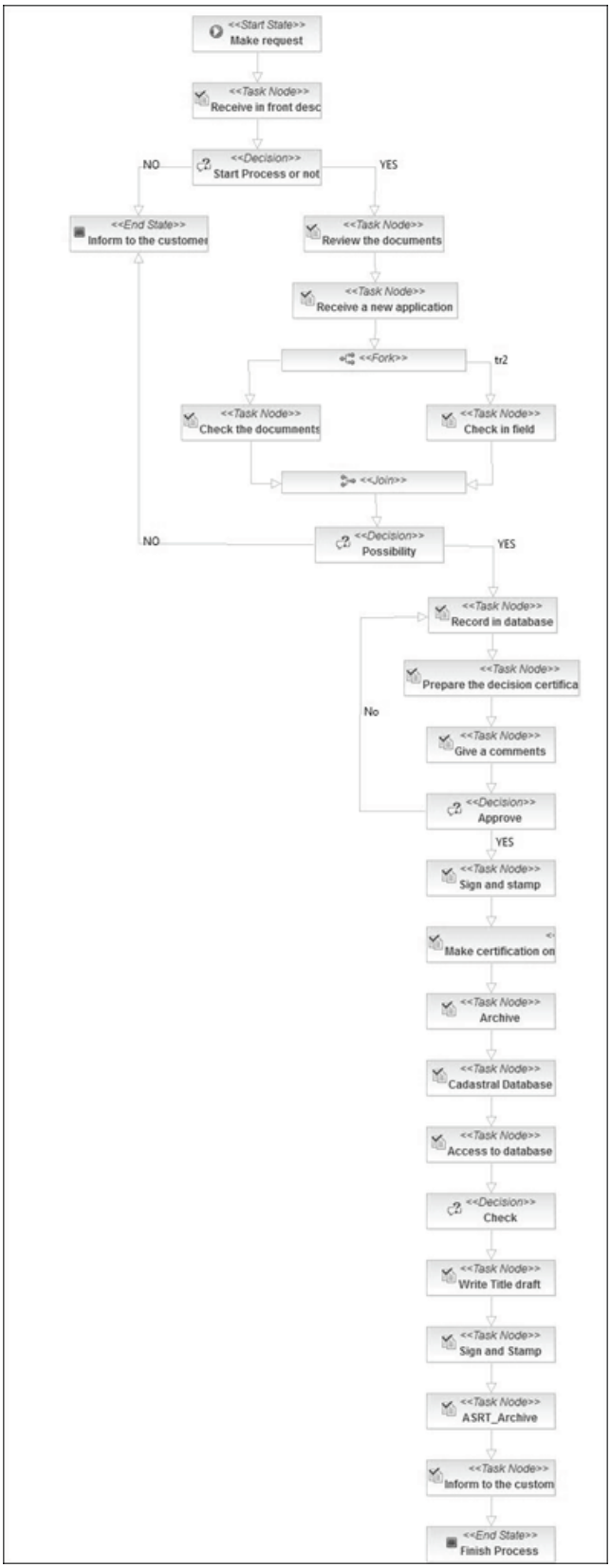


Activity diagram; the existing process of registration of immovable property rights

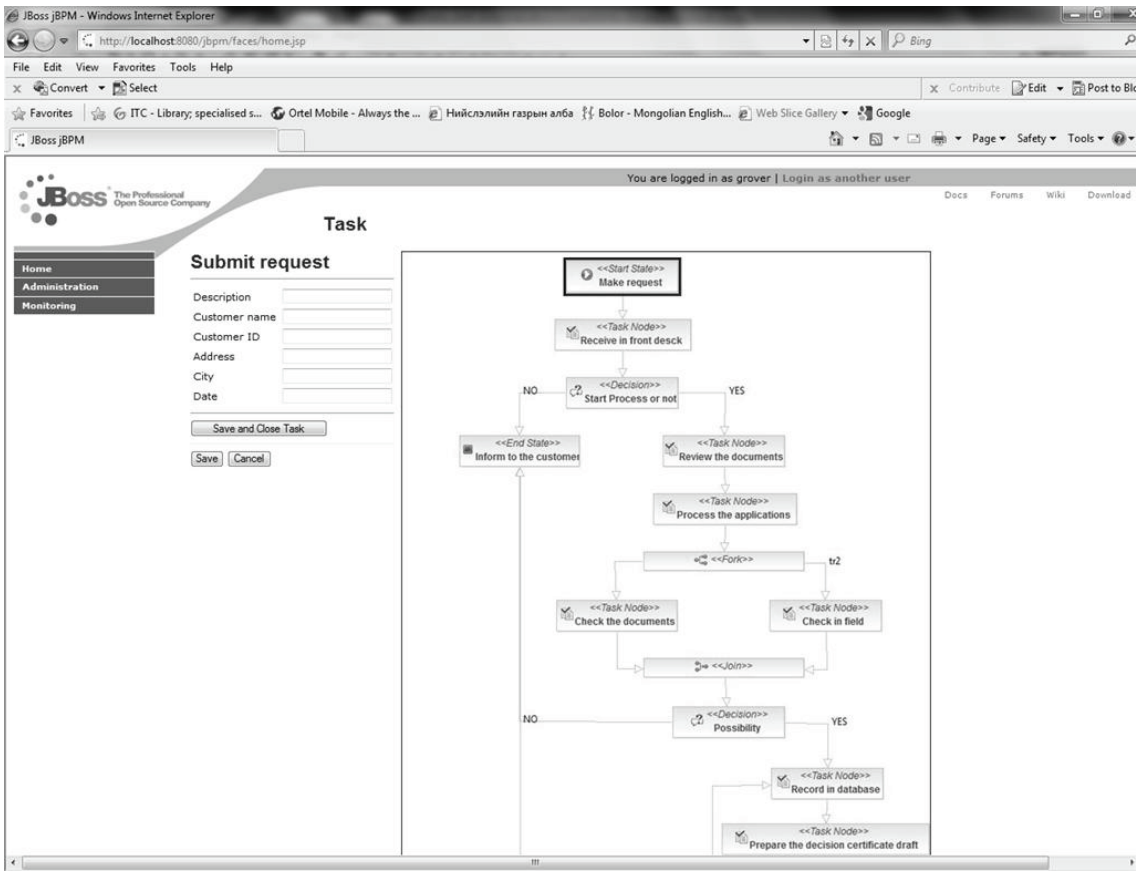

CITIZEN
NOTARY
MUNICIPALITY
DISTRICT LAND OFFICE
UB CITY LAND OFFICE
UB CITY GOVERNOR
ABRT
BANK
Make request
Write the letter
Receive the letter
Send to citizen
Make reqquest to Notary
Certify documents
Receive
Send certified documents
Submit for the decision certificate
Receive in front desck & check
NO
YES
Send to Head of LO
Receive and review documents
Assign to land privatization specialist
Land privatization specialist Receive and check
Check in field
Check the document
NO
YES
Upload into Database
Access to the database
Prepare decision certificate draft & relevant documents
Send the decision certificate draft
Receive
Department of Law give a comment
Department of City Development Policy give a comment
Department of State Administrative haltes give a comment
4 sub directors give a comment
NO
YES
Approval decree
Receive the decree
Send the decree
Write decision certificate
Send the decision certificate
Receive
Sign and stamp on the certificate
Receive the signed sertificate
Send the certificate
Copy decision certificate and send to archive, Make certification on land quality and charachteristics with cadastral map



Activity diagram; the proposed process of registration of immovable property rights



Workflow process designed in Eclipse platform



Workflow process designed in Eclipse platform