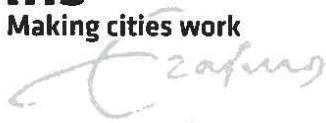




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Thesis

Land value capture: Assessment for public-land leasing and property taxation
in financing roads infrastructure. The case of Mbeya city, Tanzania

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Specialisation: Land Value Capture

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MASTER'S PROGRAMME IN URBAN MANAGEMENT AND DEVELOPMENT

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Land value capture: Assessment for public-land leasing and property taxation in financing roads infrastructure. The case of Mbeya city, Tanzania

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Tanzania

Supervisor: Carlos Morales-Schechinger

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Summary

This research is about assessment for public land leasing and property taxation in financing roads infrastructure. The area of study was Mbeya city in Tanzania, within which researcher identified three locations of concern namely Forest area, Iwambi area and an area of 500 metres in each side along Ilomba-Machinjioni road.

In Forest area the study was about assessment for property taxation and property market, whereas in Iwambi area it was about public land leasing and land market and in Ilomba-Machinjioni road it was about studying the impact of the road infrastructure to land values in the neighbourhood.

The main objective of this study is to make assessment of the set up and performance of two financial instruments namely public land leasing and property taxation on how they can capture land values to finance roads infrastructure. The assessment is geared to find out (a) whether the instruments capture the value of land (b) how far revenue generated by these instruments can contribute to the roads infrastructure investments and (c) the impact of roads infrastructure to land value increments.

Methodology used in this study is explanatory case study approach with single embedded case. However the researcher applied quasi-experiment technique when studying the impact of Ilomba-Machinjioni road to land value increments. Data collection method was interview.

During this study it was revealed that taxable values used by Mbeya city council in revenue collection from land rents, premiums and property taxation are lower than open market values prevailing in the land and properties. It was revealed that premium is generating more revenue than land rents and property taxation. In comparison between revenue and costs of roads investment it was revealed that premium is able to afford costs of establishing new roads if at all production of plots is made at least once a year. In roads maintenance it was revealed that revenue from land rents and property taxation are lower than costs. Finally it was revealed that roads infrastructure contribute a lot to the increments in land values.

It should be noted that researcher decided to compare revenue from premiums with costs of establishing new roads because new roads are established occasionally and premium revenues are collected occasionally when there is production of plots. Costs of road maintenance were compared with revenue from land rents and property taxation because maintenance is done annually and some times during a contingency whereas revenue from land rents and property taxation are collected annually.

Mbeya city council is advised to increase more revenue in premiums by producing plots and putting them in the market at least once a year because it generates more revenue from this source. Ministry of land (MLHHS) is collecting land rents in all local governments (Mbeya city council inclusive) and retain only 30% of revenue to meet collection costs and enhance more collections. It is advised this revenue source to be decentralised to local governments in order to boost their financial capabilities in public expenditures. Since roads infrastructure increases land values, more investments is advised in roads infrastructure to increase revenue in land value capture. In property taxation it is advised taxable values to include market value of land and not only buildings. Mbeya city council is advised to update taxable values in the database to reflect market values of land and properties. Finally Mbeya city is advised to increase commitment and enforcement in collection of land rents and property taxes in order to increase revenue for roads maintenance.

Keywords

Mbeya city council; Land value capture; Public land leasing; Property taxation; Financing roads infrastructure

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Abbreviations

BRT:	Bus Rapid Transit.
CBD:	Central Business District
GN:	Government Notice
GST:	Goods and Services Tax
LVC:	Land Value Capture
M²:	Square Metre
MCC:	Mbeya City Council
MLHSD:	Ministry of Land, Housing and Human Settlement Development.
PDRF:	Plot Development Revolving Fund
SADC:	Southern African Development Community
TANZAM-High way:	Tanzania-Zambia-Malawi-High way
TAZARA:	Tanzania-Zambia Railway Authority
TIC:	Tanzania Investment Centre
TIF:	Tax Increment Finance
TSH/=:	Tanzanian Shillings
USD:	United States Dollar
USRP:	Urban Sector Rehabilitation Project
VAT:	Value Added Tax

Conversions:

1 US\$=Tshs 1600

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CHAPTER ONE: INTRODUCTION

1.1 GENERAL INTRODUCTION

1.1.1 Land tenure in Tanzania:

Initially Tanzania (by then Tanganyika) was the colony of German and later after Second World War became British colony. In the German regime land was declared as Crown land vested in the German Empire. The German governed the land under leasehold and freehold. Land under freehold was mainly granted to immigrant settlers. Roughton (2006, p. 557) says “by the time the rule came to an end, the German government had granted about 1.3 million acres of land in freehold”. The British took over and established the Land Ordinance cap 113 of 1923 and declared all the land (whether occupied or not) as public vested to the Governor for the general control. Under this ordinance, access to land was through granted right of occupancy from the government. Despite of its declaration (that land is publicly owned) the law recognised existing freehold rights and recognised land occupied by native communities under customary tenure to have deemed granted right of occupancy.

However the legal rights of the land holders under customary tenure was having a lot of controversy, among others was the fact that landholders under customary tenure were left land less during land acquisition when rural land is being changed to urban use. Olengurumwa (2010, p. 3) says that the ordinance didn't have provisions relating to customary land tenure. The Ordinance became in force even after independence (in 1961), in 1985 the court ruled concerning the controversy of legal rights of land held under customary land tenure (the case of Nyirabu vs Nyagwasa, 1985), it was established that the rights of land holders under customary land tenure does not extinguish after declaration of land to be a planning area but some legal procedures need to be done to extinguish these rights, one of them being payment of compensation (Kironde, 1995, Lange, 2008, Kayuza, 2006 and Olengurumwa, 2010).

As from the foregoing discourse concerning problems in land tenure, in 1990's land laws reform movement started in order to address the prevailing situation in land administration. This movement resulted into Presidential Commission of Inquiry of 1992, hence formulation of new land laws in 1999. New land laws declare that, all the Land in Tanzania is publicly owned and it is vested in the president as trustee for and on behalf all citizens. Successful applicant can have right to occupy and use land on leaseholds for short term (2 years) and long terms of 33, 66, up to and not exceeding 99 years (Sheuya, 2010). In this sense the occupier has the right to use the land according to the terms and conditions of the lease, contrary to which the right can be revoked by the president and retained back to the government.

Tanzania is a country with two-tier government administration system namely as central government and local government. Local government is comprised of urban and rural authorities as established by Local Government (Urban Authorities) Act of 1982 and Local Government (District Authorities) Act of 1982 respectively. The duties of central government is to initiate the enactment of land laws, land policies, circulars and generally overseeing the conduct of local government in land administration. Ministry of land as overseer is also approving land surveys, land planning and titles over land from local government, and retains the power to allocate the land of sensitive areas of national interest, for example beach

areas and land for investment purposes for foreign individuals and companies in collaboration with Tanzania Investment Centre (TIC).

Local Authorities are responsible for management of their land within the area of their jurisdiction, urban authorities (City, Municipal, and Town councils) manages and fosters land planning mostly from urban centres to the peripheries. District authorities are comprised of District and Village councils, district council manages the lands in its own town centres and village councils manage the land within the village boundaries by supervision from District authorities. Anyone who wishes to occupy the land can go to local authority (in whichever government level) where the subject land is situated and apply for it. Foreign individuals or companies can be granted a right to occupy (derivative right) through Tanzania Investments Centre (TIC) only for investment purposes. It is called a derivative right to the foreign investor because the original right of occupancy is given to TIC for a term of 99 years and then TIC leases it to an investor for a term which is short of some days to 99 years (Kayuza, 2006 and Sheuya, 2010)

Land laws recognize three types of land in Tanzania which are; general land, village land and reserved land. **General land** refers to the land which is surveyed and usually in urban and peri-urban. This land is governed by the Land Act No: 4 of 1999 of the United Republic of Tanzania and under the control of the Commissioner for Lands. **Village land** is the land within the boundaries of a registered village. This land is under administration of village council as an agent of the commissioner for lands, the law governing administration of this land is the Village Land Act No: 5 of 1999 of the United Republic of Tanzania. **Reserved land** refers to the land reserved in whatsoever category like national parks, roads reserve and forest reserve et cetera (Odgaard, 2006).

Sheuya (2010) discusses two types of land tenure systems in Tanzania namely; statutory and customary land tenure. Statutory tenure rights are divided into three categories: a) granted right of occupancy. b) Occupancy under letter of offer and c) Residential licence. Customary land tenure is divided in two categories: a) quasi-customary and b) informal tenure.

Granted right of occupancy; is the renewable right to use land granted by the government on surveyed land for a term of up to 99 years at a premium and subject to annual land rent which is revisable by the commissioner for land. For the 'right of occupancy' to be valid it has to be registered under the land ordinance chapter 334 of the laws of Tanzania.

Occupancy under the letter of offer; in this tenure right, a government gives letter of offer to the successful applicant of land and if she/he accepts the offer becomes the lawful owner of land. The letter of offer can also be registered and become valid document of title under Registration of Document ordinance chapter 117 of the laws of Tanzania. This right is of the same status as granted right of occupancy only that the certificate of the right of occupancy is delayed. It is also subject to the payment of premium and annual land rents.

Residential licence; this is another type of derivative right of the right of occupancy which confers the right to a licensee to occupy land in an area which is not hazardous, on land reserved for public utilities and surveyed in urban or peri-urban areas for a term of not less than six months and not more than two years. Residential licence is renewable and can serve a purpose as collateral. Land Act No: 4 of 1999 and Registration of Document Ordinance Chapter 117 governs the issuance of residential licence. In this right premium involves payment of administrative costs because the major aims are regularisation of settlements and to transform dead capital into live capital. It is subject to payments of annual land rents.

Customary land tenure; in this system land is acquired by community members after traditional acceptance. There is no document which is issued, but any allocation, disposition is subject to approval by clan members. Within this system there exist other systems such as quasi-customary tenure and informal tenure. In *quasi-customary* there is nothing like approval from clan members but decision to transfer or sell the land is on the owner's discretion, however transaction between buyer and seller are witnessed by local leaders. *Informal land tenure* is a system where by land transaction takes place between the person who owns the land and land seeker in the witness of local leaders. In this kind of land tenure land is not registered and not recognised by the government and therefore nor premium either land rent is paid to the government. This kind of tenure should not be confused by the customary right of occupancy granted in the village land under the Village Land Act no. 5 of 1999. In this one village council is given discretion to decide whether to charge land rents and premiums or not to a villager, non-village organisation or person (under section 26 and 28 of the village land act number 5 of 1999).

1.1.2 Land as source of revenue

Allocation of land under granted right of occupancy is a major source of revenue to the government. The land occupant is subject to payment of premium as one-time payment during land allocation and periodical (annual) payment of land rents and also payment of annual property tax after construction and occupation of building. Property tax is also paid by occupants of buildings in the land held under informal land tenure (un-surveyed areas) in urban areas and in the urban peripheries. Revenue from premiums are paid to the local government where the land is allocated but land rents is collected by the same local government and sent to the central government which retains twenty percent of the proceeds to the local government which collected the revenue on behalf. Kelly and Musunu (2000, p. 3) pointed out that "property tax base is narrowly limited to buildings, structures or similar development. Land is not taxed under the property rating since all land belongs to the State and is therefore liable for land rent collected by the central government"(Sheuya, 2010 and Kelly and Musunu, 2000).

The government of Tanzania recognises the need to improve and maintain infrastructure in urban areas, to make this possible it has been making efforts to improve local and regional economic development by ensuring that local authorities are financially viable with stable predictable and effective revenue source. Public land leasing and property tax are among important sources of revenue that the government has been and is struggling to improve. Ministry of land has established Plot Development Revolving Fund (PDRF) which gives financial assistance to local government subject to the submission of viable project proposal to enable them plan and survey their land and recoup revenue from land leasing. The fund obtained from the ministry as cost of investment is returned back and the balance is used by the local government for subsequent projects after building its financial capacity. The Ministry of land started its Pilot projects in Dar es Salaam (Twenty thousand plots project), Mwanza and Mbeya region (Five thousand plots project in the year 2007).

Property tax is important, largest and stable source of funding among others, for this reason the government of Tanzania selected property tax as pilot project in collaboration with World Bank under Urban Sector Rehabilitation Project (USRP). The aim was to improve property tax through producing detailed valuation rolls in eleven urban local authorities. Project involved three municipalities of Ilala, Temeke, and Kinondoni in Dar es Salaam and other local authorities in eight regional towns. The towns were; Arusha, Iringa, Mbeya, Moshi,

Morogoro, Mwanza, Tabora and Tanga. Mbeya was also among the eight regions where valuation for rating was conducted from the year 2000 up to 2002 and total of 26,000 properties were valued in all eight towns. From Mbeya region only 2,033 properties were valued making the total of 13,533 properties in the valuation roll by 2002. This was only 45 percent of all rateable properties (McCluskey and Franzsen, 2005).

1.1.3 Description of case study

Mbeya city borders Mbeya District in all sides with an area of 214 square kilometres and is the headquarters of Mbeya region and one among its ten Local Authorities. In the year 2002 census, its population was 266,422 at a growth rate of 2.4 with average house hold size of 4.1 and in 2012 census, population was 385,279 at a growth rate of 2.7 with average house hold size of 4.2 (National Bureau of Statistics, 2006 and National Bureau of Statistics, 2013)

Mbeya city enjoys the Highway to Zambia and Malawi (TANZAM-High way) which is also catering for all land locked countries around Tanzania and SADC region and also Railway facility (TAZARA-Railway) from the Port of Dar es Salaam to Kapirimposhi in Zambia with big station located at Mbeya city saving for passengers, cargo for railway goes up to Mbeya city industrial area and to some Dry ports for loading and unloading. Other countries like Malawi have located Dry port facility (MALAWI-CARGO) in Mbeya city, which is a temporary cargo-deposit before they are transported to Malawi or to the port of Dar es salaam. Mbeya city is the head-quarter for Southern western highland zone, all ministerial branch offices are allocated in the city to cater for other three regions within the zone.

Figure 1: Map of Tanzania locating Mbeya city



Source: www.mapsgoogle.com

1.1 PROBLEM STATEMENT:

Despite the fact that Mbeya city is growing which makes the possibility for increase in land values there is no test done to reveal whether land values are captured during revenue collection. Kelly and Musunu (2000) wrote about implementation of property taxation and efforts done to identify more taxable properties through valuation for property taxation purposes in Tanzania with experience from the city of Dar es Salaam. Kayuza (2006) made a study about taxpayer's perception towards the benefit of property tax as the result in resistance to paying tax bills and the relationship among the key actors in property taxation in three municipalities of Dar es Salaam. McCluskey and Franzsen (2005) made evaluation about property taxation implementation and challenges focusing eight regions of Tanzania (Mbeya city inclusive). In all these studies no one investigated or tested the theory of land value capture in Tanzania particularly in Mbeya city, taking into consideration the fact that local governments in Tanzania are implementing public land leasing and property taxation which are financial tools for land value capture.

Local authorities in Tanzania are making efforts to cope with increasing demand in urban infrastructure and social services due to urbanisation. Insufficient generation of revenue from local financial sources is a major setback for these local authorities to afford for costs of public goods and services (Kayuza, 2006). Despite its challenges urbanisation is also playing a great role to the increase in land values in the neighbourhoods, capturing increments in land values could be an opportunity to raise more revenue to make the city more sustainable in financing public expenditures without relying on central government transfers.

1.2 OBJECTIVE OF THE STUDY

The objective of this study is to make assessment of the setup and performance of public land leasing and property taxation on how it they can capture land values to finance roads infrastructure. The research objective is dedicated to find out; a) if these financial tools capture land values in Mbeya city, b) if revenue generated by these instruments can meet the cost of financing roads infrastructure in Mbeya city and c) whether roads infrastructure investments increase land values. Hong (2003) pointed out that, many countries use property tax to recapture the public's share of increase in land values, in those countries where land is owned publicly the other possibility is leasing public land. In United States of America revenue generated from property tax accounts for 30% of state incomes or 75% of local government revenues (Hong, 2003). In Hong Kong public land leasing generated an average of 16 percent of total revenues between the year 1998 and 2000 (Hong, 2003).

1.3 OVERALL RESEARCH QUESTION

How can public land leasing and property taxation capture land values to finance roads infrastructure in Mbeya city?

1.4 HYPOTHESIS

Public land leasing and property taxation are financial instruments that captures the value of land. If at all revenue generated from public land leasing and property taxation can suffice the financial needs of roads infrastructure investments then there can be rapid increase in land values as well as more collection of revenue from land value increments.

1.5 SPECIFIC RESEARCH QUESTIONS

The questions are divided into four groups namely: - Legal, Financial, Economic, and social respectively.

1. What is the institutional framework governing public land leasing and property taxation in Mbeya city?
 - a. What are the rights and obligations of government in management of the tools?
 - b. What are the procedures the government follows in undertaking the obligations?
2. How much incomes are generated by public land leasing and property taxation from land value capture in Mbeya city?
 - a. What are parameters involved in dues assessment?
 - b. How much is generated?
 - c. What is the revenue generation capacity comparing to other sources?
3. Do property taxation and public-land leasing captures the value of land in Mbeya city?
 - a. Are the market prices of land and properties reflected in the taxable values of public land leasing and property taxation?
 - b. To what extent is government capturing increments in land values.
4. Can roads infrastructure be financed by public land leasing and property taxation?
 - a. Does roads infrastructure increase land values?
 - b. To which extent can revenue finance roads infrastructure?

1.6 SIGNIFICANCE OF THE STUDY

Due to on-going process of decentralisation, powers from central government are being devolved to lower local authorities in Tanzania. Local authorities are granted with more administrative and fiscal discretion which result into increased responsibilities. Demand for public goods and services have also increased due to urbanisation. All these responsibilities lies on the shoulders of local authorities thus need for improvement of financial capabilities in order to provide according to the demand of the society.

McCluskey and Franzsen (2005, p. 45) says, it is “normally expected that decentralisation provides for greater transparency, accountability, probity, frugality, efficiency and equity. Under appropriate conditions decentralisation can assist in simplifying complex bureaucratic procedures and alleviate the decision making bottlenecks that are caused by central government planning”

- This study brings more debate to the fact that management of land rent is not totally decentralised to local authority because its control is still at central government.
- This study discusses the mechanisation of property tax and leasing of public land as instruments of land value capture which can help to finance roads infrastructure in local authorities particularly in Mbeya city.
- The study discusses the problems affecting operationalization of property tax and public land leasing in Mbeya city and helps provide solutions for improvements.
- The study provides useful information for the reference and also provides enthusiasm for further researches in the context.

1.7 SCOPE AND LIMITATION OF THE STUDY

This study focused on making evaluation on how public land leasing and property taxation can capture land values to finance roads infrastructure in Mbeya city in Tanzania. Evaluation was made in three areas that involves finding out; a) if public land leasing and property taxation capture land values in Mbeya city, b) if revenue generated by these instruments can meet cost of financing roads infrastructure in Mbeya city and c) whether roads infrastructure investments increase land values. However due to time constraint (one month of fieldwork) researcher was not able to find out the trend of change in land values in the city for the period of the year 2004 to 2013.

CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 INTRODUCTION

This chapter gives not only understanding on the theory of land value capture and land price determination but also understanding on public land leasing and property taxation. It provides a picture on the mechanisation of public land leasing and property taxation while analysing the theory of land value capture. It discusses on how these instrument can be used to capture land values while considering land tenure system of the place. It focuses on roads investments giving rationale that revenue from land value capture can be invested in infrastructure, particularly roads because if they increase land values in the neighbourhoods, hence more revenue when there is proper mechanisation of land value capture instruments (Public land leasing and property tax).

2.2 URBANISATION AND INCREASE IN LAND VALUES

There is increasing number of people living in urban areas, more than world's half population is living in urban areas and the figure is expected to rise almost to 60% by 2025 (McKinsey & Company, 2008). Rapid growth in urbanisation increase needs for infrastructure and also provides an opportunity as resource in different countries in terms of physical, financial, social, and intellectual benefits. It is very important for the countries to understand the mechanisation on how they can capture benefits of urbanisation for national growth and poverty eradication (Kessides, 2006). Challenges in urbanisation needs desirable government decisions in terms of allocation of funds and public investment so as to make cities liveable places and also increase land values which in turn can be captured as public share to finance infrastructure.

2.3 CONCEPT OF LAND VALUE CAPTURE

2.3.1 History of land value capture

Scholars including (Alterman, 2012, Andelson, 2001, Anderson, 2012 and Hong, 2003) agree that the concept of land value capture is traced back from the American thinker Henry George when proposing the Idea of *single tax* in his book "Progress and Poverty". George (1897) as quoted in Andelson (2001) justified the concept of single tax which more or less the same as land value capture as "the taking from the community, of that value which is the creation of the community". Under the George's regime every individual having privilege of occupying and using land would pay to the government for enjoying that right at a market value basis. For those who do not occupy land (Tenants) they pay through their land lords through rents, who then retain some amount for becoming agent of the government to collect the revenue. Proceeds generated would be used by the government for the benefit of the public. Henry George's idea was that, the proceeds generated from rents would suffice the general public expenditure.

2.3.2 Definition of land value capture

Land increases in value due to various public interventions such as, public investments, public decisions, society's activities and broader changes in the community profile such as population growth. Since the increase in land values is created by the public, the argument is justified that at least part of increment should be returned back to serve common good and not self-interest. Andelson (2001) gives moral justification for land value capture that "it is a

way of representing an indemnity to the rest of the society for the privilege of monopolizing something the owner did nothing to create and the market worth of which is a social, not an individual product”. Smolka and Amborski (2000, p. 1) defined the concept of value capture as the “process by which a portion of or all land value increments attributed to the 'community effort' are recouped by the public sector either through their conversion into public revenues through taxes, fees, exactions and other fiscal means, or more directly in on-site land improvements for the benefit of the community”. Smolka and Amborski (2000) and Booth (2012) argued that, it is regarded as exception the situation where some actions taken directly by landowner lead to increase in land values. The general rule in this theory is that land values increases due to results from actions other than that of the land owner him/herself. They gave examples of some actions that are most notably increasing value of land as, public sector in granting permissions for development in some specific land uses or densities, through investment in infrastructure and market forces due to increase in urban population. For all these reasons neither of them is the contribution of an individual to the rise of land values, but a society at large, and therefore it is sociably desirable for public sector to capture all increments in land values for the benefit of the whole community.

2.3.3 Mechanics of land value capture in relation to urban infrastructure.

Smolka and Amborski (2000) pointed out that, provision of adequate urban infrastructure in the new residential areas and areas of other land developments tends at least in part, to generate increment in land value. Therefore planners in North America and Latin America consider it justifiable and also financially and economically sensible to design a tool of land value capture to facilitate provision of infrastructure. For example revenue from land value are invested in infrastructure and result into increments in land values then those increment should be captured back again so that society at large benefit from it. Medda (2011, p. 44) when discussing land value related to public transport accessibility made it more explicit that “the basic assumption of land value capture is to recover the capital cost of the transport investment by capturing some or all of the increment in land value resulting from the transport investment.”

2.3.4 Instruments of land value capture

Land value capture concept originated from the theories of land rent but increasing concern of it has made available various tools (instruments) of obtaining public benefits from land value increments. These instruments are divided in two categories, fiscal (Taxes and Fees) and regulatory. The following are some of the instruments of land value capture:- development fees, estate tax, capital gain tax, transfer taxes (land title registration tax), betterment levies, tax increment finance (TIF), joint development projects (public-private partnership), public land readjustment, property tax and public land leasing. However for the purpose of this study focus is on public land leasing and property tax.

Therefore major objectives of land value capture technique are; - to increase tax revenue potential from the value of land, to finance urban infrastructure and to use it as land use controlling mechanism.

2.4 LAND RENT THEORY

2.4.1 Determination of price for land

According to Jäger (2003, p. 235) “for a produced commodity, prices, in a Classical but also in a Marxist view, depend on the costs of production. As there is no capitalist process of

production of urban land by a single firm, the factors which determine the price of land are different from those of a common capitalist commodity.” Therefore unique treatment of land and social relations attached to it is necessary. This prompted the development of a special theory, *land rent theory*. There are varying conceptualisations of land rent theory of which their validity are being tested by different questions, thus no single concept of land rent theory.

2.4.2 Ricardo’s land rent theory

According to Ricardo (1817, p. 39) “rent is that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of the soil.” Rent is often however confused with the interest and profit of the capital. In the language which is popular, rent is regarded as whatever is annually paid to the landlord by the farmer. Ricardo gives an example of two adjoining farms with the same natural fertility and the same extent, one had all privileges of having farming buildings and also were well drained and provided with manure and advantageously divided by fences, hedges and walls whereas the other had none of these privileges (Ricardo, 1817).

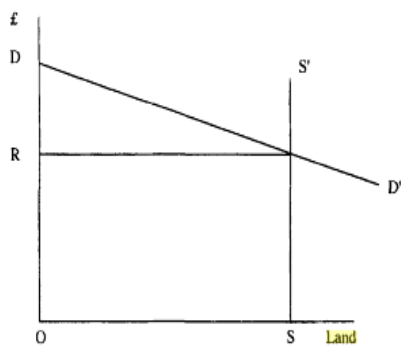
It is obvious that more remuneration would be paid for the use of farm with other extra facilities than for the use of the other with none. But yet all these remuneration would be called rent. It is clear that part of the money paid annually for the improved farm, would be paid for *the original and indestructible powers of the soil* and the other portion would be for the use of the capital employed to improve the quality of the land like those buildings for securing and preserving farm produce (Ricardo, 1817).

On his theory Ricardo assumes that, at the beginning of the country settling, where there is an abundance of rich and fertile land, very small proportion of land will be needed to be cultivated to sustain the existing population. At this time there will be no rent for the use of land because it is in an abundant quantity. Why nothing is paid for the use of air? The principle is the same as in any other gift of nature which exist in boundless quantity (Ricardo, 1817).

In his assumption (Ricardo) assumes the most fertile land will be used first with no rent, increase in population will bring demand to even the worst land to raise supply of food. Then rent will be initiated to the most fertile land. Most fertile land will have more rent than less fertile. Cultivation will continue to the less fertile land up to the worst one where cost of production will be equal to incomes generated. The cost of production on the most fertile will be less than incomes generated. In this situation surplus is created which is called rent. All or part of surplus is given to the landlord to obtain the right to continue using the most fertile land. In terms of worst land no rent is paid because no surplus is produced (Fine, 1982).

Ricardo derived his theory of rent using agricultural production assumption (production of corn), where he regarded that land is fixed in supply and its demand is derived from demand for corn (Evans, 2004).

Figure 2: Ricardo's depiction of the land rent theory.



The Y axis represent rent (R) while X axis represents quantity of land (L). The line DD' sloping downward from left represent demand for land and line (S) represent fixed and inelastic supply of land. The point of intersection (Equilibrium) determines the rent payable to the land lord.

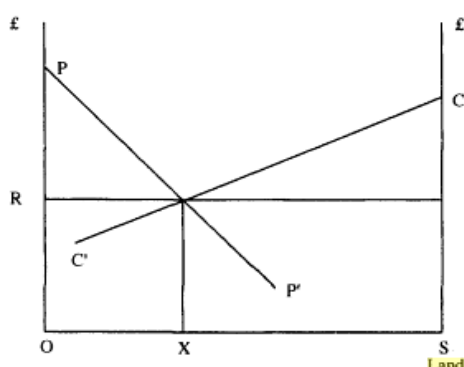
Source: Evans, 2004

2.4.3 Neoclassical rent theory

Unlike assumptions of Ricardo, neoclassical theory assumes that agricultural land may have alternative uses; it can be used to produce corn or potatoes. For the land being used to produce these crops it must receive due remuneration as any other factor of production. Neoclassical approach introduces two components called transfer earnings and economic rent (Evans, 2004)

Transfer earnings are the payments that have to be given to the owner of the land to prevent change of use over a piece of land. This payment can be regarded as a value of any proceeds foregone by not changing land use to the highest and best use. This assumption was not taken along on Ricardo's rent theory because it was assuming only one possible use of land (production of corn). *Economic rent* is referred as additional amount of remuneration (rent) payable to the landlord for the fact that land is scarce relative to its demand (Verhage, 2002)

Figure 3: Neoclassical land rent theory.



This figure illustrates the demand for potatoes (P) as well as demand for corn (C). In the case of demand for potatoes quantity of land increases from right to the left and vice versa for the demand of corn. The vertical lines OR and SR represents rent while horizontal line represent quantity of land. The point of intersection between two demand curves is the point of equilibrium where rent of two products is determined. The smaller the quantity of land available for production of corn, less corn available in the market hence high price of corn as well as high rent for land.

Source: Evans, 2004

In Ricardo's theory of rent, demand for agricultural produce may change and influence demand curve to shift. This change can also affect rent for the production of specific good (corn). "Rent of land is high because the price of corn is high" (Evans, 2004, p. 13). For the case of neoclassical approach based on alternative use of land, increase in rent is also causative to the increase in price of a good. Therefore it is not demand of a good which induces price of good exclusively (Evans, 2004).

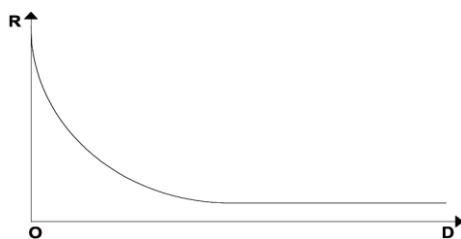
2.4.4 Theory of locational differential rent and the urban land use

This theory was introduced by Von Thünen in the 19th century, with assumption that different agricultural areas have different values and rents in relation to their distances from the city and they bid for different use each land assigned highest and best bidder. For every kind of a crop, bid rent curve shows how much each farmer is able to bid for land regarding distance from the city. The distant land from the city yields less rent up to the most distant which yields no rent because of increased cost of production and transportation. It is clear that, rent is a residual in nature after all costs have been removed from the proceeds obtained from the production of a good (Brakman, Garresten, et al., 2001).

Marshall added some contributions to the theory in the fact that when land is expensive investor will be motivated to erect high buildings on small land, thus introduced the concept of height and size of the site (Marshall, 2004).

Alonso contributed also to the theory considering land values and uses within the city in relation to the distance from the city under perfect market. Showing that, bidding price decreases as the distance from the city centre increases (Alonso, 1964). The figure below depicts.

Figure 4: Land Value as a function of distance from an urban centre.

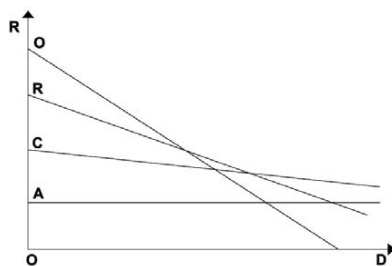


Source: Evans, 2004

Vertical line shows the rent (R) while horizontal line (D) shows the distance from city centre.

(Fujita, 1989) uses bid rent curves to explain multiple commercial sector model with different land use, as the figure below elaborates based on the examples of office, retail, commercial and agricultural use. With another assumption that every goods produced are sold in the city centre and that every sector have different location's needs and different costs of transportation and production.

Figure 5: Every sector bids high in a certain distance from the city than others.



Source: Based on various sources.

Bid rent curve shows how much each sector is able to offer for the land after production and transport cost has been removed from total profits. From the curve it shows office is able to offer high followed by retail, commercial and then agriculture.

2.4.5 The residual value of land

As discussed above, theories of land rent has helped to come up with models of ascertaining land prices. For the other goods their prices are based on the cost of production, but land is not reproducible, and thus its price is determined by the demand for it. Usually demand for land is derived from what the buyer want to invest on it. Investors can use the land for different activities including real estate investments like shopping malls, industrial use and agriculture. These are among the other uses fostering competition for the demand of land. Competition by each investor is made accordingly depending on the expected economic return of the investment to be placed on particular land. Eventually the best land will be sold to the bidder who offers highest, regarding the permitted land use in a particular location (Titman, 1985 and Jäger, 2003)

When land is used as a factor of production to produce a certain good, then producer knows what it can cost to produce the same good in different locations. Using the residual theory approach, the difference between cost and price (residual value) is used to ascertain the value of land. If the land could be granted free to the investor then all the residual value would be profit, or else he should pay for the land to obtain the right to use it in production. This amount payable to the landlord is what is called rent. Jäger (2003, p. 235) says “by capitalising future expected land rent at a specific rate of interest falling to a certain site, the price of a plot may be calculated.” Thus the price of land is the capitalisation expression of land rent (Titman, 1985 and Jäger, 2003)

2.5. Land tenure

Payne (1997, p. 3) defines land tenure and property rights as “the mode by which land is held or owned, or the set of relationships among people concerning the use of land and its product. Property rights can similarly be defined as a recognized interest in land or property vested in an individual or group and can apply separately to land or development on it. Rights may cover; inter alia, access, use, development or transfer and, as such, exist in parallel with ownership”.

The manner in which title over land and property rights are allocated becomes a significant indicator of the nature of the society. Rapid urbanisation has increased competition for and importance of secure serviced land. Land tenure systems are needed to improve equity and efficiency of land markets within cultural and legal systems that are acceptable to all sections of population. Societies including tribal, feudal, socialist and religious have all involved in different concepts patterning the ownership and use of land. Formulation of land tenure systems needs good understanding on how they are working, including their weaknesses and strengths.

2.5.1. Customary land tenure

According to (Fisher, 1993) in Payne (1997, p. 3), customary tenure systems have been defined by the United Nations as the “rights to use or to dispose of use-rights over land which rest neither on the exercise of brute force nor on the evidence of rights guaranteed by

government statute but on the fact that those rights are recognized as legitimate by the community, the rules governing the acquisition and transmission of these rights being usually explicit and generally known though not normally recorded in writing.”

Customary land tenure has the following major characteristics; land is belonged to the whole social group not an individual, subsistence opportunity for each family head is based on birth-right, use-rights for example cultivation and habitation are granted according to family’s need (Fisher, 1993).

2.5.2 Leasehold tenure system

This is a system whereby the state owns all land and allocates right of use, access, transfer and development. This system applies in half of sub-Saharan Africa. The concept of public land ownership was perceived in part as limitations to private ownership to enable access over land to all sections of population. In some situations this system was adopted in order to revert to the pre-colonial system of communal rather than individual ownership whereas in other situation the system was the outcome of socialism ideology (Payne, 1997 and Payne, 2001).

2.5.3 Freehold tenure system

According to (Payne, 1997, p. 17), “freehold tenure derives from state and gives the beneficiary near absolute ownership of land.” Under this system occupant has full right to mortgage, transfer, bequeath, use and unlimited duration. Advantage of this system is its ability to allow almost unrestricted use and exchange of land and it ensures maximum and efficient use hence stimulates investment in land. However it is difficulty for the low-income groups to access land under this system unless government intervention is done through for example subsidies. It also argued that low-income groups may sale the land given to them through subsidy and it might be difficulty for them to obtain housing in areas intended to them originally (Payne, 1997 and Payne, 2001)

2.5.4 Religious land tenure systems

As in traditional land tenure, Islamic countries have various land tenure forms. According to Payne (2001), Islamic societies have four main land tenure categories. ‘Waqf’ represent the land that is held to God; ‘Mulk’ is a private land but also protected in law; ‘Miri’ is a state controlled land under which occupants enjoys usufruct rights and ‘Musha’ represent a communal lands, this tenure type is ceasing its popularity because it doesn’t have requirement of land registration that allows ownership of a piece of land to be proven. Examples of substantial land held as ‘Waqf’ is in the cities of Baghdad and Beirut. This land is protected from legislative encroachment. It is argued that ‘Waqf’ land is inefficiently managed because it is outside commercial land market (Payne, 1997 and Payne, 2001)

2.5.5 Non-formal land tenure

This is a tenure system including wide range of categories. It includes squatting areas which are regularised and un-regularized and informal subdivisions on legally owned land. It is argued that this tenure system exists due to inefficient government land allocation systems or land market to cater for the needs of low income population (Payne, 2001)

It can be concluded that these land tenure systems work in different mechanics, public land leasing as one of land tenure systems can also be looked at as a source of public revenue through rents and premiums and also helping recognition of tax payers for other land-related fees and taxes like property tax.

2.6 Public land leasing

Is the system where by publicly owned land by the government is leased to developers or users subject to certain conditions, one of them being specified term of years. The lessee develops the land and shares the revenues obtained from it with the government. Government grants only the right to use the land to a lessee and retains ownership. After the expiration of the term of lease, the land and its improvement go back to the government if lessee didn't apply for the renewal of the lease. In practice public land leasing allows the lessee to renew the lease for several times as they wish, but subject to new conditions if any. Renewals of the lease give privilege to the government the options for further land use opportunities and generate more revenue as a result of future land value increments from land rents and premiums (Hong, 2003 and Anderson, 2012).

Before the government gets constitutional right to exercise land leasing it must extinguish third party interests over a piece of land. That is interests of the people who have been found occupying and conducting their activities on it. Land acquisition becomes inevitable through full, fair, and prompt compensation. In the discussion to land acquisition in China, Chan (2003) says that, rapid economic development has increased urbanisation in the country. Increased pace of urbanisation has resulted to high demand of land for infrastructure and property development. To meet this demand of land for development the government has implemented several options including compulsory land acquisition. In the countries where land is owned publicly and occupants have only leasehold interest, the government acquires occupant's user rights and takes back the land it originally owns.

2.6.1 Compulsory land acquisition

According to (Keith, McAuslan, et al., 2008) "Compulsory acquisition is the power of government to acquire private rights in land without the willing consent of its owner or occupant in order to benefit society. It is a power possessed in one form or another by governments of all modern nations. This power is often necessary for social and economic development and the protection of the natural environment"

Chan (2003) presents the difference between land acquisition and land resumption. Compulsory land acquisition is referred to as the situation where the government does not have ownership over the land especially for the countries having freehold land tenure system. In this system the government can only acquire freehold interest from the occupant through compulsory land acquisition which is also called compulsory purchase. Compulsory land resumption is referred to the case where the country is under leasehold land tenure, where the government has the ownership over land and occupant has leasehold interest. In this situation the government can only acquire user rights from the occupants and gets back the land. This is known as land resumption.

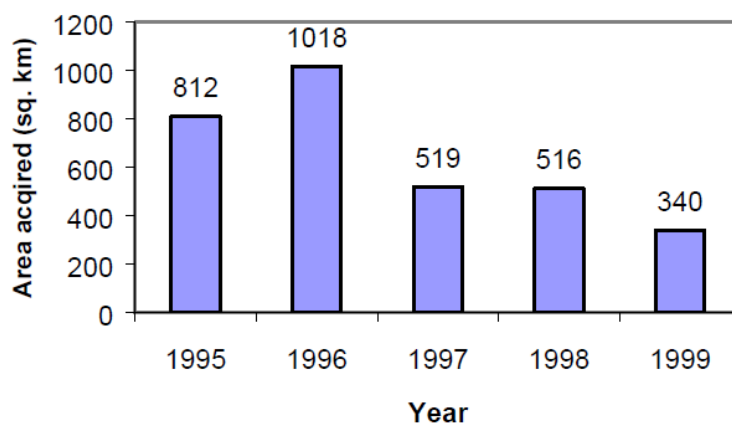
Compulsory land acquisition provides the government with supreme power over access, control and management of land regardless land tenure system under which land is held and owned. Exercise of this power is subject to payment of full, fair and prompt compensation

Okoth-Ogendo, Toulmin, et al (2000) in Larbi, Antwi, et al (2004). However there several problems in compulsory land acquisition, among others being: problems with market value assessment, non-uniform Compensation Standards and lack of Transparency (Chan, 2003).

Larbi, Antwi, et al (2004) discusses three reasons why the government can acquire the land compulsorily:-(a) To provide social and economic amenities and other uses that are for the benefit of the society, e.g. hospitals, police stations, schools, markets, harbours, airports, roads and highways, public parks, open spaces and waste treatment sites, (b) To intervene economic and social inefficiencies in private market operations and ensuring environmental balance for instance between recreational space, public services and economic activities and (c) To provide equity and social justice in land distribution.

Larbi, Antwi, et al (2004, p. 115) says that “compulsory land acquisition powers have been used extensively in Ghana since colonial times, as the main means of the state’s access to land for development” likewise Chan (2003, p. 139) gives statistics of compulsory land acquisition in China for various development since 1996 up to 2000, see the figure below.

Chart 1: Compulsory land acquisition in China from the year 1996-2000



Source: Chan, 2003, p. 139.

The right of the government to exercise compulsory land acquisition has different names depending on the country. In United States of America it is called ‘eminent domain’ where as the action is called ‘condemnation’. In United Kingdom, Australia, and Canada is known as ‘compulsory purchase’, ‘compulsory acquisition or resumption’ and ‘expropriation’ respectively (Chan, 2003). However the definition provided above is also referred to as expropriation, compulsory purchase, eminent domain, land acquisition and resumption (Keith, McAuslan, et al., 2008). Larbi, Antwi, et al (2004, p. 116) says that “the process—termed compulsory purchase, compulsory acquisition, expropriation, eminent domain or resumption, by various jurisdictions—ensures (at least in theory) the good of the individual yields to that of the community, reflecting the supremacy of the state over people and their private property”.

2.6.2 Public land leasing as instrument of land value capture

After compulsory land acquisition the government obtains the right to exercise management over the land through public-land leasing. Management of land involves planning, surveying and allocating the land to the successful applicant subject to payment of premium. After land allocation other obligations of the government are development control and land dispute settlement among others. Under this system the government is able to generate revenue

through initial premiums when granting use rights, through periodic land rents, through variation in the terms and conditions of the lease and from lease renewals. Government can also change land use to highest and best use in future which could also accounts to more revenue. If proceeds accrued from public land leasing are used to finance infrastructure it can increase land values which are recaptured back for further investment in infrastructure. In Hong Kong, Netherlands and Singapore Public land leasing has been used to promote public housing and to finance infrastructure (Fainstein, 2012). Hong and Steven (2003) says that apart from capturing land values public land leasing is also achieving other policy objectives like land development control, stabilizing land prices and controlling land uses.

In Hong Kong the government could generate substantial amount of revenue from public land leasing, the total amount of revenue amounted to US\$ 71.1 billion at the time of between 1970 and 2000. Together with the revenues collected from rates and property tax the amount increased to US\$ 96.1 billion. Rapid increase in property values in Hong Kong resulted into generation of substantial revenues from leasing public land. At the time of between 1996 and 2000 with exception of the year 1998, annual revenue from public land leasing were more than enough to cover the costs of infrastructure and land development. Refer to the table below showing lease revenue accounted for an average of 16 percent of the total government revenue and more than expenditure on public works by an average of 130% (Hong, 2003).

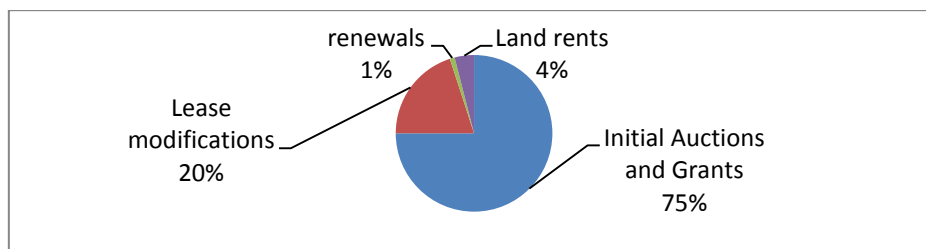
Table 1: Lease revenue in Hong Kong in Relation to total revenue from the year 1996 to 2000 (Amount in Hong Kong \$)

Item	1996	1997	1998	1999	2000	Average%
Lease revenues	29,508	65,931	25,686	39,111	32,183	
% of total revenues	14	23	12	17	14	16
% of total expenditures	16	34	11	18	14	18
% of expenditure on public works	101	229	82	133	105	130
Total revenues	208,358	281,226	216,115	232,995	225,060	
Total expenditures	182,680	194,360	239,356	223,043	232,893	
Total expenditures on public works	29,168	28,772	31,267	29,490	30,577	

Source: Hong (2003).

Hong (2003) and Anderson (2012) identified four ways in which Hong Kong is generating revenue from public land leasing, these are: (a) At the initial public auction and tender (b) By collection of annual land rents; (c) At the time of lease modification and (d) During lease renewals. The large amounts of revenue collected were from initial premiums from auctions. For example in 1970 up to 1995, revenue from initial auctions were 75%, premiums from lease modification were 20%, land rent accounted for 4% and lease renewal was 1%. This shows that large sums of money were obtained at the commencement of the lease, other subsequent collection was not as at the beginning of lease.

Figure 6: Lease revenue for Hong Kong from 1970-1995. Total revenue US\$ 67,147 (1995 US\$ in Millions)



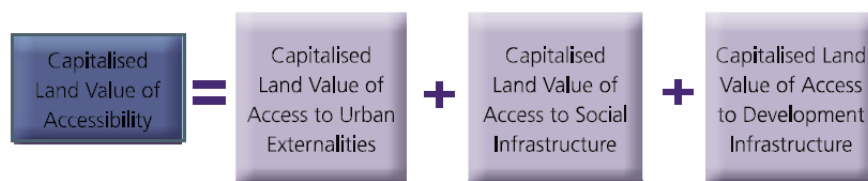
Source: Hong (2003).

Deng (2003) describes how China generated revenue from public land leasing. In 2004-2008 revenue from Chinese cities accounted to an average of 49.5 percent of the cities entire budget levels, incomes were as twice as combined total sum of all other sources. In Australia revenue from public land leasing was used in financing establishment of capital city Canberra. The way premium is assessed in Canberra, is even unique because 50 percent of increase in value resulted from change in use from rural to urban land use is paid by successful applicant of a piece of land, this is why Neutze (2003) and Walters (2011) called it a betterment charge but it is attached to public land leasing as basis for revenue collection.

2.7 How investments in infrastructure increase the value of land

Scholars agree that infrastructure increases the value of land, Medda (2011) and Fensham and Gleeson (2003) went further explaining how it works by describing that “value of land comprises of the capitalised value determined by the accessibility to natural and social resources in the city and capitalised value of improvement and construction insitu. Therefore capitalised value of land due to accessibility is the function of access to natural amenities (Urban externalities), social infrastructure (e.g. schools and hospitals) and development infrastructure such as highway systems, piped water and waste water collection systems (components of aggregative urban land value due to accessibility)

Figure 7: Formulae for capitalisation of land value of accessibility.



Source: Medda (2011)

Medda (2011) pointed that mass transit systems can induce property values by premiums ranging from 3 percent to 40 percent for various reasons. Externalities produced by particular transport facility are what contribute to the changes in land values. Mass transit systems has a high capacity and competitive level of services for a large population of urban travellers, thus it saves commuting time, provides easy accessibility to places of work retail and reasonable working distance to the station. Kumar (2001) in Fensham and Gleeson (2003) reports that, motorways development in Sydney in the past ten years has resulted into increase in value of properties in a premium of 30 to 60 percent (Properties around motor ways). Bocarejo, Portilla, et al (2012) says that, the high capacity BRT systems of Transmilenio in Bogota (Colombia) which has been built almost for a decade now, has brought improvement in travel time, reduced negative externalities like roads accidents and pollution but also induced real estate investments and land value in locations of its coverage. Cervero and Duncan (2002) and Rodriguez and Targa (2004) also agrees that rail transit in relation to property values and land use is conclusive in the sense that investment of metro or train-line in suburban increase property values and substantial urban development in a short time. Perdomo, Mendoza, et al (2007) found that properties located in the area of influence of Transmilenio BRT systems enjoys premiums in their value between 5.8% and 17% for residential buildings and also Rodriguez and Targa (2004) said that premium is increasing by 6.8 to 9.3 after every 5 minutes walking time close to BRT station (Transmilenio), whereas Perdomo, Mendoza, et al (2007) said that average price per square meter for commercial properties having access to transmilenio is 257% and 367% higher than those which has no access.

However on the other hand in some occasions negative externalities in infrastructure can decrease value of land Medda (2011) gave an example of negative externalities related to urban mass transit such as noise, pollution, crime, and unsightliness of the station. She also gave an example citing Diaz (1999) saying that in Atlanta proximity to urban mass transit system has raised property values in economic depressed areas but has decreased property values in economically affluent areas. Cohen and Paul (2007) and Brons, Nijkamp, et al (2003) found decrease in property value due to noise from railroad, Bowes and Ihlanfeldt (2001) identified that commuting time are reduced due to accessibility and also attracts retail activities which increase property values, in the other hand he found negative externalities from increased crime. Espey and Lopez (2000) identified decrease in home prices due to noise from airport. Arimah and Adinnu (1995) when investigating effect of Achapo landfill to rental values of adjoining rooming apartments in Lagos (Nigeria), found that annual rent rise by about 9% per kilometre from the landfill due to negative externalities (Taking the city as a whole).

2.7.1 How increase in land value resulted by transport infrastructure can be captured

Medda (2011) and Smith and Gihring (2006) describes mechanisms of financing cities transport systems in relation to land values resulted from transport investments. In the case of mass transit systems they gave possibility of using three methods to capture land values:- betterment tax, tax increment finance and joint development mechanism. Betterment taxes for this investment are the levies applying on properties that have benefited from transport infrastructure gains. Tax increment finance is what Medda called it economic development incentive package in the sense that, it is a property tax in the designated areas of which its future proceeds are used to pay for bonds used to finance infrastructure and other amenities in the area. In this mechanism payers are guaranteed that their contributions are going to be invested in their area. Joint development mechanism refers to joint venture between the public and private sector in the projects where all parties share the proceeds of their joint development projects e.g. real estate development in transport terminals.

2.8 PROPERTY TAX

Taxation means compulsory monetary contributions from individuals to the government. Governments all over the world impose taxes in order to meet different objectives, among others are (a) revenue generation to support expenditure on public goods and services (b) redistribution of income and wealth (c) intervention to market inefficiencies and (d) money circulation control (Lymer and Hancock, 2002).

Property tax is a tax charged annually on land and/or building based on the market value, taxable base and taxable value is different from one country to another. It is a fiscal instrument used by government to generate revenue in order to finance public goods and services, it is reliable and very important source in the sense that it is based on real property which makes it administratively easy to control, transparent and difficult to evade. Property tax is also a kind of benefit tax because its benefits go back to tax payer during the finance of public infrastructure (Walters, 2011).

Developed countries has been relying on property taxation as the backbone for local government finance for a long time ago, and it has played a big role on financing public

goods and services. I agree with Kitchen (2013) on how he defined public goods and services as those whose beneficiaries cannot be identified (non-rival and non-excludable) and therefore user charges are inappropriate to apply instead local taxes are imposed on residents to finance them.

2.8.1 Characteristics of good property tax system

Plimmer (2013) discusses that a good property tax system is expected to have three basic characteristics in its implementation which are uniformity, equity, and fairness.

2.8.1.1 Uniformity

Refers to proportional taxation basing on ability to pay, its proportion is related to value and can be also reflected in the tax rate and assessment ratios for example percentage of taxable value to full appraised value.

2.8.1.2 Equity

In property tax equity can be treated as horizontal or vertical. Horizontal equity implies that all taxpayers having similar situation with regard to taxable property pay the same amount of tax. Vertical equity means that all tax payers with different situation pay different taxes for example taxpayers with properties of low value are supposed to pay less than those with high value properties.

2.8.1.3 Fairness

Fairness is a subjective term and depends on the perceptions, cultural, norms and values of a particular society. It means that the government is supposed to know what society can or cannot accept and tolerate in property tax system. Generally fairness can be regarded as treatment of all taxpayers in the same way before the law. Fairness can also involve exemption to those who have no financial ability to pay or encouraging and supporting some sectors in the community if they deserve so.

2.8.1.4 Efficiency

Vlansenko (2001) discusses efficiency as another important characteristic of good property taxation system. Sometime efficiency in taxation is referred as small cost of tax collection compared to revenue raised. Vlansenko says efficient property taxation system includes: cost effective arrangements, well defined tax payer, effective collection procedure, revenue raising abilities, manageable dispute mechanism, effective administrative arrangements, effective assessment of the tax base and high quality tax base. Therefore in property taxation efficiency is supposed to be in every part of its system in management.

2.8.2 Determinants of property tax revenue

Kelly (2013) discusses administrative and policy determinants of property tax revenue. A prosperous property tax system depends on the integration of appropriate administrative and policy options. Appropriate policy options are supposed to address issues related to tax base definition, tax rate structure, collection, exemptions, valuation standards, enforcement provisions and dispute resolution mechanisms. Appropriate administrative system is that

which is able to generate accurate property valuations, maintain fiscal cadastre records, bill and collect revenue, handle objections and appeals, enforce against defaulters and provide service to tax payers.

Total tax revenue depends on policy options (tax base definition and tax rate structure) and administrative choices (coverage ratio, valuation ratio and collection ratio).

Tax revenue= [tax base*tax rate] * [coverage ratio*valuation ratio*collection ratio]

Tax base is a policy definition of what is and what is not taxed, **tax rate** is a statutory rate, **coverage ratio** is the amount of taxable property in a fiscal cadastre divided by total taxable properties in the area of jurisdiction (measure of completeness of valuation roll), **valuation ratio** is the amount of property values on the valuation roll divided by real market value on the tax roll and **collection ratio** is tax collection divided by tax liability billed on subject year.

2.8.3 Administrative and Policy Aspects of Property tax Implementation

Property tax implementation differs from country to country, its design depends on the situation of particular place regarding economic, social and political environment. McCluskey, W. J, Cornia, C. G, et al (2013) said that operationalization of property tax needs mix of choices on its design on the following:-to decide which kind of property to tax (land, Improvement, personal property or both land and improvement), to decide what will be the basis of the tax (Market value, Area, Rental value or any), to decide whether to whom tax will be imposed (owner or user), to decide the structure of tax rate (flat rate or different rates to each type of property) and to decide kind of actions to be passed to enforce collection.

2.8.3.1 Choice of tax base

In some countries property tax base is based on land, some on improvement, others in land and improvement and some in moveable properties. Kitchen (2013) says that, in few countries tax base is on buildings and in most countries both land and buildings are taxed. Franzsen and McCluskey (2013) says that, some few countries like Georgia and some states in the United States of America include moveable properties as property tax base such as boats, yachts and aircrafts.

2.8.3.2 Property tax assessment

Assessment for property tax is a big task and is involving a lot of procedures, Kitchen (2013) says that, apart from its tax base used, success on assessment depend on five things: Property identification, assessment uniformity, responsibility for undertaking assessment, reassessment frequency and effective appeals mechanism. This process relies on policy decision and design of property taxation.

2.8.3.3 Property tax rates

Zorn (2013) defines property tax rate as the amount of property tax expected to be collected divided by net property base. This is one option of determining property tax rate, it can also be determined using other official ways and approved by appropriate system of decision making, Kitchen (2013) points out that, in some countries rates are set by senior levels of

government, like the case of Japan, Latvia , Ukraine, Chile, Nicaragua, China, Thailand, Guinea and Tunisia. In Poland, Hungary, Russia, Colombia, and the Philippines rates are set by local governments adhering to the limits set by senior level of government. Decision also should be made whether taxing authority should apply a single uniform tax rate to all properties in the area concerned or different rates to different type of properties and location within the area of jurisdiction. In other countries property tax is in split-rates, Different property tax rates are provided for land and improvement. In this kind of property tax system valuation and taxation is done separately on land and improvements to obtain total tax. This kind of property tax bears various names in different countries such as composite rating, split rate tax, and differential rating in Namibia, United States of America and South Africa respectively (Franzsen and McCluskey, 2013).

2.8.3.4 Incidence of property tax

Tax incidence refers to where tax burden rests, whether to the land owner, occupant (user) or shared by land owner and user of the property. Walters (2011) says that, in countries where private ownership is recognised and recorded, tax burden rests on the lawful owners whereas in those where registration is not complete it is easy to identify the occupant (user) and therefore tax is obligated to user. However even in places where land registration is improved land owners may transfer tax burden to the tenants (user/occupants). Lymer and Hancock (2002) in Kayuza (2006, p. 24) say that, “formal incidence of a tax is not difficult to identify but the effective incidence is difficulty to identify. Effective incidence of taxation results from the taxpayer on whom tax is imposed, shifting burden of tax to another person who becomes the ultimate bearer of the true economic weight of tax”.

2.8.4 Estimating property value for property tax

Value estimation for property tax purpose is done in order to establish taxable value of the subject real-estate asset to be taxed. Accuracy in ascertaining property’s market value depends on availability of reliable and relevant data, manpower competence, integrity and intuition in value judgement.

2.8.4.1 Methods of valuation for determining property value

There three traditional valuation approaches used in estimation of property market value namely as income approach, sales comparison approach and cost approach. Estimation of property market value involves application of at least one of the methods of valuation. Choice of valuation approach depends on the nature of property under appraisal. Normally income approach is appropriate choice for those properties that are typically purchased for investment purposes. Sales comparison approach is appropriate for small office, retail properties, single family and condominiums and cost approach is normally for specialised properties that are rarely changing hands in the market like public utilities and specialised industrial property (Franzsen and McCluskey 2013).

2.8.4.1.1 Sales Comparison approach

This approach involves comparison between subject property under valuation and similar properties that has been sold recently. Jenkins (2000) in Franzsen and McCluskey (2013, p. 60) says that “economic principle that is underpinning this method is that of substitution which states that a prudent purchaser will not pay more to buy or rent a property than it will

cost them to buy or rent a comparable substitute property”. Walters (2011) points out that, comparable sales approach applies widely on residential properties because of general data availability. In this approach valuation expert gathers information of current sales of properties which are similar and makes adjustments on the differences that might affect the value of the subject property. The assumption is that no one will pay for a property more than similar property being sold in the market, property price has been attained by buyers and sellers in the absence of undue influence and reasonable time was given to put the property in the market looking for a buyer. Adjustments on the differences are made because no two or more properties are completely identical, therefore differences may be in terms of location, age, property type, size and date of sale. Sources of information in determining value of subject property include actual sales prices, rental prices, offers and analysis of several factors influencing marketability. However this method is the most useful if good current sales information is readily available.

2.8.4.1.2 Cost approach

This is the approach whereby by value assessment is done based on cost of replacing or reproducing an asset. The valuation appraiser abides in the principle that, the value of an asset should not be more than what will cost to produce or have similar asset of the same features and functionality. Value of an asset is estimated by integrating value of the land and depreciated value of any improvement on the land. Total value is equal to price of buying land plus cost of reproducing or replacing similar improvements less depreciation of improvements. Walters (2011) says, this approach is used widely for commercial properties for the argument that no prudent buyer will pay more to the property than what will cost to buy land and construct the same property at the time of valuation, while making adjustments on age and obsolescence of the improvements. In using this approach substantial engineering expertise is required, in most places construction cost indices are used to estimate value of structures. Franzsen and McCluskey (2013) discusses that, replacement cost is obtained by using current prices, current methods of construction for the improvements of the same or equivalent utility as subject property. Reliability of this approach is based on the accuracy of the information available concerning current costs, good understanding of modern construction methods and understanding on building design and materials. However there is risk if bad decision is made on current materials and design when assessment is done on older properties.

2.8.4.1.3 Income approach

This approach capitalises income streams accrued from property investments into a present value, which represent market value of a property. It is mostly used to value commercial and investment properties. Theoretical underpinning in this approach is that people buy property because of benefit they accrue from property. Investor paying for property will not pay more than the benefit is expecting to receive from it; therefore value of property is determined by capitalisation of cash flow likely to be received from the investment using current discount rate. The method needs or involves projection of income and costs of an investment for its life time and also to establish appropriate discounting rate with regards to risks involving cash flow projections. However the problem with this approach is its difficulties in projections of income streams, Franzsen and McCluskey (2013) says “it requires full financial model to forecast future cash flows of the subject investment. This is not easy task, as it requires the analysis of historic cash flows, the economic environment and all other factors that are likely to have an impact on the cash flow of a subject property.” (Fu and Ng,

2001) point out that, market value of an investment depends on discounted future cash flows from an investment using the expected rate of return appropriate to investment market. Any change in market value depends on the changes in the expectations of future cash flows and required rate of return of an investment or both (Walters, 2011, Franzsen and McCluskey, 2013 and Fu and Ng, 2001).

Currently there many approaches available for assessment of property taxation for example the use of annual rental value in the United Kingdom and computer assisted mass appraisal (CAMA) in many of developed countries (Bird and Slack, 2004 and Walters, 2011).

2.8.5 Choice of valuation method relative to tax base

Application of valuation methods depend on tax base (land and/ or improvements) and its marketability in the open market. Sales comparison method can be used for a valuation of land and/ or improvements so long there is evidence of sales data for comparable. Cost approach is appropriate for valuation of improvements especially when the kind of property is rarely traded in the market. In Namibia property tax for farms is based on land and its improvements, there two methods of valuation used in combination sales comparison approach is used for land and depreciated replacement cost approach is used for improvement and total value of farm is used in property tax assessment. Income approach can be appropriate in the valuation for a land if the appraiser is basing on the streams of residual incomes that can be produced basing on current land use. Income approach can also be used for valuation of improvements (investments) basing on streams of income it can produce for a period of investment period. Valuation of investments by using income approach involves larger income producing assets like hotels, office buildings and shopping malls (Franzsen and McCluskey, 2013, Republic of Namibia, 2010).

2.8.6 Is property tax an effective tool for land value capture?

There increasing debate whether property taxation is an effective tool for land value capture, Walters (2012) discusses that one criterion for property tax to be an effective tool for land value capture is for it to be based on accurate market values which are regularly updated. However if market value estimates are not regularly updated and are reflected on nonmarket variables like building attributes or land area then land value capture potentiality for property tax is impaired. Property tax based on land and / or improvements can serve as potential tool for land value capture and stable source of revenue if it is based on capital market value of property.

2.9 Conclusions

The first part of this chapter analysed the concept of land value capture, showing the importance of using land value increments to finance infrastructure, it discusses two instruments namely property taxation and public land leasing on how they can be used to capture the value of land.

Analysis has been made on land rent theory and the concept of residue value of land, in order to show how land prices can be determined in land. Although land can be treated as a commodity but it is not reproducible like any other goods where cost of production can help determine its price. Its special nature makes its price determined in different ways.

Discussions in the literature review shows how land tenure systems can help determine the value of land especially when capitalising rents by using income approach. In freehold land tenure system value of land is determined by capitalisation of land rents in perpetuity (at infinity term) whereas in leasehold value of land value is determined by capitalising land rents for the lease term as stipulated in the right of occupancy. In public land leasing value of land is what is called premium, which is a result of capitalised land rents.

Public land leasing could be an effective tool of land value capture if land values could be determined basing on an open and competitive land market. This could be done using sales comparison approach, land auctions and tenders.

In property taxation income approach can help determine the value of property investments in order to come up with taxable value of a particular real estate asset. Incomes from the particular property investment are capitalised with regards to land tenure system of a particular country. In countries where property tax is based on improvements only (buildings) cost approach is applied to determine taxable value basing on depreciated replacement cost. In countries where property tax is based real market value of property assets sales comparison approach could be appropriate in determining taxable value of and asset.

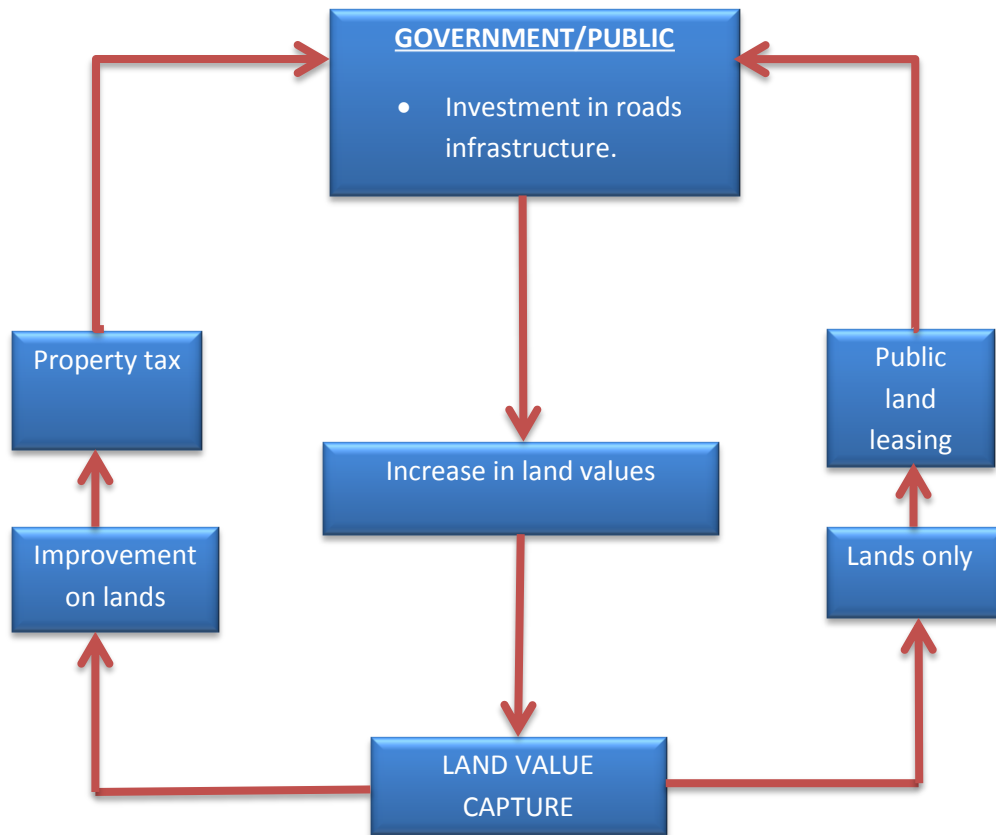
From discussion it shows that roads infrastructure increases land values, therefore it is of paramount importance to invest revenue generated from land values in it. This in turn can increase revenue collections from the land value increments.

There is debate that property tax is not an effective tool for land value capture especially when it is based on nonmarket factors like land area and building attributes. Property tax based on land and/or improvement can be strong source of revenue and potential for land value capture when taxable values are based on capital market value of a property.

2.10 Conceptual framework

This conceptual framework is constructed by the researcher based on the literatures in this study. We have seen from the literature discussions that, roads infrastructure increases land values in the neighbourhood where it is constructed. Creation of land values in the neighbourhood is the result of community activities and government intervention through among others roads infrastructure investments. For that case it is financially justified that whole or part of land value increment should go to the community which created it, because it was not by the effort of landowner him/herself but the community at large. There various financial tools designed for collecting land value increments, for this study focus is on two financial tools namely as property taxation (through property taxes) and public land leasing (through land rents and premiums). In countries where land tenure system is leaseholds property tax is levied on improvements (buildings) and public land leasing (land rents and premium) is charged on lands only. For representation of this idea see the conceptual framework below.

Figure 8: Conceptual framework.



Source: Researcher's own construct 2013

CHAPTER THREE: RESEARCH METHODOLOGY.

3.1 Introduction

This chapter is comprised of research questions, research methods and techniques, operationalization of indicators and variables, selection of sample and size, data collection methods, data analysis methods and assessment of validity and reliability.

3.1.1 Why choosing Mbeya city?

Mbeya city is growing fast economically with a lot of investments within and from neighbouring countries (as discussed in heading 1.1.3 in chapter one). It is expected that even the land values are increasing due to these economic activities. Mbeya city is also among the cities where a government effort on improving property tax and public land leasing has been done through pilot projects, hence a good study area. To the best of understanding of the researcher there is no study conducted in Mbeya city to test whether these land values are effectively captured by available financial tools of land value capture.

This study seeks to examine how public land leasing and property taxation are effective tools of land value capture in Mbeya city and if they can facilitate financing of roads infrastructure in Mbeya city. Public land leasing and property taxation are only financial tools of land value capture that are under management of local authorities in Tanzania. Since this study is making analysis of the theory of land value capture in local government (Mbeya city council) it is inevitable to make assessment of public land leasing and property taxation. Assessment of revenue from these tools in this study is done while comparing the cost of investment in roads infrastructure because roads has impacts in land values. Walters (2012, p. 185) referring UN-HABITAT Vancouver Action Plan document (UN 1976, recommendation D.3) shows consensus on land value capture that, “Unearned increment resulting from the rise in land values resulting from change in use of land, from public investment or decision, or due to general growth of the community must be subject to appropriate recapture by public bodies (the community),...”. Unearned increment for this matter means increment in land values which are not captured. (Smolka and Amborski, 2000, Kayuza, 2006, and Walters, 2012)

3.1.2 Description of case study

It is mentioned earlier that the study has been conducted in Mbeya city, in three subject areas namely as Forest area, Iwambi and Ilomba-Machinjioni road in ilomba ward. Public land leasing was studied in Iwambi, property taxation in Forest area and impact of road investment in land values was examined in Ilomba-Machinjioni road. For the understanding of the whole integrated case study area see annex 2.

The image below shows Iwambi area, this is a new surveyed area in Mbeya city with 1800 plots which were surveyed and allocated in 2010. For a short time the area became potential in the city with active land market involving buying and selling of plots. From this area the researcher selected ten plots based on the recent sales evidence. The area was provided with roads before allocation of plots, roads can be seen on the image.

Figure 9: Iwambi area edged red in Google earth image



Source: Google earth 2013

The second area was Forest area where researcher obtained data concerning property taxation. This is among a well-developed area in the city with 1054 plots identified for property taxation. Ten properties were selected basing on the recent mortgaged properties in the area. To identify the recent mortgaged properties researcher obtained valuation reports from valuation companies which conducted value appraisal in the properties. Valuation companies were M&R Agency Ltd and H&R consultant Ltd. The image below shows the area of study (Forest area).

Figure 10: Forest area edged red in Google earth image



Source: Google earth 2013

Another area of study was Ilomba-Machinjioni road which is connecting Ilomba area and abattoir. It is a road with 2.6 kilometres long constructed to tarmac level. Researcher selected the area of influence of the road to be within 500 meters from the road in each side and along it. From this area he selected ten plots with sales data before road construction and ten plots with sales data during and after road construction. In the area of influence there are 190 plots. The objective was to examine the impact of road infrastructure in land values. Below is the image showing Ilomba-Machinjioni (with red line) road starting from Tanzam-Highway (with black line) to the abattoir. In the left hand side of the road you can see the campus of vocational training college pointed with an arrow.

Figure 11: Google earth image showing Ilomba-Machinjioni road with red line



Source: Google earth 2013

3.2 Research questions

Research questions are provided below in order to enable the reader to be familiar with the whole research idea, hence to understand the idea behind operationalization of variables, indicators and mechanisation of data collection. Questions are divided in economic, financial, legal and social perspective. Main research question is: How can public land leasing and property taxation capture land values to finance roads infrastructure in Mbeya city? Hypothesis being tested is: Public land leasing and property taxation are financial instruments that captures the value of land. If at all revenue generated from public land leasing and property taxation can suffice the financial needs of roads infrastructure investments there can be rapid increase in land values as well as more collection of revenue from land value increments. Specific research questions are as follows;

1. What is the institutional framework governing public land leasing and property taxation in Mbeya city?
 - a. What are rights and obligations of government in management of the tools?
 - b. What procedures do the government follows in undertaking the obligations?
2. How much incomes are generated by public land leasing and property taxation from land value capture in Mbeya city?
 - a. What are parameters involved in dues assessment?
 - b. How much is generated?
 - c. What is revenue generation capacity comparing to other sources?
3. Do property taxation and public-land leasing captures the value of land in Mbeya city?
 - a. Are the market prices of land and properties reflected in the taxable values of public land leasing and property taxation?
 - b. To what extent is the government capturing increments in land value?

4. Can roads infrastructure be financed by public land leasing and property taxation?
 - a. Does roads infrastructure increase land values?
 - b. To which extent can revenue finance roads infrastructure?

3.3 Research approach and techniques

Case study approach was conducted in this study; the approach reveals causal relationships of a phenomenon in its context. Yin (2003, p. 4), says case study is a “method of choice when a phenomenon under study is not readily distinguishable from its context. Such a phenomenon may be a project or program in an evaluation study”. The word context is used to mean environment and influences within the area of study. Schell (1992, p. 2) and Woodside (2010, p. 1) has broadly defined case study as an empirical inquiry which investigates contemporary phenomenon within its real life context in a situation where phenomenon and context are inseparable and multiple sources of evidence are used. This study focuses on answering the main question with the word ‘how’. Schell (1992, p. 4) says “‘How’ and ‘why’ questions are more explanatory by nature, and are likely to lead to the use of experiments, histories and case studies”.

This study is explanatory case study, which means it is a research in which the primary purpose is to explain why events occur and to build, extend and or test theory. The study explains how roads infrastructure can be financed by capturing land values in Mbeya city through property taxation and public-land leasing it also reveals that roads infrastructure increases land values, hence justifying its finance by revenues generated by the instruments.

This research uses case study techniques because there is no possibility (also there is no wish) to control events or situations and it studies a phenomena within its context. The study seek to make assessment for mechanization of property taxation and public land leasing as financial tools while evaluating revenue generated from those tools and costs for roads infrastructure investments. The study is within the theory of land value capture therefore it intends to study on whether property taxation and public land leasing captures land values in accordance with land/property market of the study area (Mbeya city). In this sense it is difficult to separate the phenomena under study with its context (Study area). For example mechanization of financial instruments and its success on revenue collection depends on administrative capacity, management, enforcement of the financial tools and land market in the area. Demand for roads infrastructure depends on population of the area and urban sprawl, among other things. Market value of land/property depends on real estate market of Mbeya city.

Mbeya city has been chosen in this study because it is among the places where attempts to improve property taxation and public land leasing has been done (refer chapter one on background), therefore it becomes a good area of study. The study is single (embedded) case study, because it studies Mbeya city and within the city it focuses on three areas, Forest area at Forest ward, Iwambi area at Iyunga ward and the area of 500 meters each side along Ilomba-Machinjioni road at Ilomba ward. Research was done in Forest area concerning property taxation and Iwambi area concerning public land leasing. Forest area is more developed and consolidated whereas Iwambi is still growing. It is worth noting that property tax is charged on the buildings that its development is completed and occupied, that is why forest area is good representative for property taxation. Research for public land leasing was conducted in Iwambi area because plots in the area were allocated three years ago (year 2010) hence its information is still available to show how land leasing was done in the recent.

In the area of influence of Ilomba-Machinjioni road (2.6 km tarmac road) research was conducted to find out the impact of roads investment in land values. This area of influence has 190 plots; sales data for only 10 residential plots before and 10 residential plots after roads construction investment were picked.

It is worth noting that the whole of this research is case study but **quasi-experiment** was conducted when finding out whether roads investment increase land values or not. It is quasi-experiment because it entails studying impact of roads investments to land values before and after its construction. To avoid the challenges of this technique the researcher decided to choose 10 plots sold after roads investment with those of similar land use sold before roads infrastructure investment in order to make control group comparable but independent from treatment group. By virtue of this study similarity between control group and treatment group was based on average price per square metre for plots of the same land use (Residential) both for plots in the control group and treatment group. Control group includes 10 residential plots sold before roads investment and treatment group include 10 residential plots sold after and during roads investments. Also there is a challenge to prove whether it is the road only which influenced the land values in the neighbourhood or not. Here the researcher was very careful to see if there are other situations happening in the same area which could affect the change in land values. It was noticed that nearby the road there is vocational training college but it was established in 1998, which means it was there before. It would be confusing in judgement if the college could be established at the same time as at the time of road construction. Otherwise roads investment is the only factor for change in land values in the area of influence of the road.

3.4 Operationalization

Table 2: Variables and indicators

<p style="text-align: center;">Main research Objective:</p> <p style="text-align: center;">To make assessment on how public land leasing and property taxation can capture land values to finance roads infrastructure in Mbeya city in Tanzania.</p> <p style="text-align: center;">Main Research question:</p> <p style="text-align: center;">How can public land leasing and property taxation capture land values to finance roads infrastructure?</p>					
Research Questions	Sub questions	Variables	Indicators	Source of data	Data collection Method.
1. What is the institutional framework governing public land leasing and property taxation in Mbeya city?	• What are rights and obligations of government in management of the tools?	• Rights of the government. • Obligations of the government.	• Provisions in the Constitution and secondary laws.	<p>Primary data</p> <ul style="list-style-type: none"> • Ministry for lands (Central government) • Mbeya city council (Local government) <p>Secondary data</p> <ul style="list-style-type: none"> • Constitution. • Secondary laws. • Government notices. 	<ul style="list-style-type: none"> • Interview. • Observation. • Field data analysis.
	• What are the procedures the government follows in undertaking the duties?	• Bundle of responsibilities, procedures and its division to different Authorities.	• Number of responsibilities per Authority.		
2. How much incomes are generated by public land leasing and	• What are the parameters involved in dues assessment?	• Formula used in calculation. • Parameters used in the formula.	<ul style="list-style-type: none"> • Land rent per m² • Premium per meter square • Property tax per property. 	<p>1. Primary data.</p> <ul style="list-style-type: none"> • City Treasurer • Valuation office • Lands office 	<ul style="list-style-type: none"> • Interview. • Observation. • Field data

property taxation from land value capture in Mbeya city?	• How much is generated?	• Amount of revenue generated from land rent, premium and property tax for a period of the 2004 to 2013.	• Amount of revenue generated per year. • Total revenues as at 2013 prices.	2. Secondary data • Expenditure report. • Revenue collection reports.	analysis.
	• What is revenue generation capacity comparing to other sources?	• Amount of revenue generated from public land leasing and property taxation comparing to revenue generated by other sources.	• Amount of revenue generated per year.		
3. Do public land leasing and property taxation captures the value of land in Mbeya city?	• Are the market prices of land and properties reflected in the taxable values of public land leasing and property taxation?	• Comparison between market and database prices for plots and properties.	• Land rent per m ² • Price of plot per m ² • Price of property per m ² • Taxable values of the property in the data base.	Primary data • Real estate brokers. • Valuation companies • Private lawyers offices • Valuation office Mbeya city council. • Department of lands (Mbeya city council) Secondary data • Sales agreements. • Valuation reports (Valuation for mortgage)	• Interview. • Observation. • Field data analysis. • Secondary law analysis.
	• To what extent is the government capturing increments in land value?	• Comparison cost of producing land and market value of land.	• Land survey cost per plot. • Compensation cost per plot. • Plot's market price.		
4. Can roads infrastructure be financed by public land leasing and property taxation?	• Do roads infrastructure increases land values?	• Price of plots before roads infrastructure construction? • Price of plots during and after roads construction?	• Price of plots per square meter.	1. Secondary data • Revenue documents • Expenditure reports. • Plots sale agreements 2. Primary data • Ilomba ward executive officer. • Manga veta <i>Mtaa</i> executive officer.	• Interview. • Observation. • Field data analysis.
	• To which extent can revenue finance roads infrastructure?	• Comparison between revenue and costs of roads construction.	• Revenue per year. • Expenditure on roads construction per year.		

3.5 Selection of sample and the size

Selection of samples for this study is purposive and it is believed that samples selected are desirable to provide all necessary primary and secondary data required. Black (1993, p. 49) describes purposive sampling as that which is done when “the researcher hand-picks subjects on the basis of traits to give what is felt or believed to be a representative sample.” Samples selected include experts and people with working experience in their area of specialisation. It includes officials from Mbeya City Council, ministry of lands (MLHHDS), real estate agents, brokers and private lawyers. In Iwambi there 1800 plots allocated in the year 2010, only 10 recently sold plots from the area was selected and interview was conducted concerning ground rents and premiums paid to the local government and eventually observation made to the plots in order to get understanding of prevailing market prices of the plots. Forest area there 1054 occupied properties identified for property taxation; only 10 recently mortgaged properties in the area were selected. Interview and observation was conducted concerning property tax and market value of properties as per valuation reports done for mortgage

purpose. While studying about the impact of road to land values, researcher was able to find sales data of 10 plots (Residential) before and 10 after roads infrastructure investments. There 190 plots within the area of influence chosen by researcher (the area of 500 metres along the road).

3.6 Data collection methods

In this study three methods of data collection namely as interview-administered questionnaire (semi-structured interview), direct observation (Unstructured) and document review were used.

Semi-structured interview is the kind of interview which uses guide with specific questions organised in topics but they are not asked in its order of arrangement. Question to ask depends on the progress of the interview (interview guide in annex 1). Question that could be asked next can be asked later and if the interviewee had already answered the question, it will not be asked (questionnaires in annex 3). The interview duration depends on the arrangement and schedule done in advance (Bailey, 2007). In this study researcher used one field assistant to help in recording information and taking picture during interview and observation respectively.

Direct observation (Unstructured) is a kind of observation which does not keep a researcher as participant but rather observe, some times without the knowledge of the people in the area. Researcher becomes flexible but focused on the phenomena of study. It is unstructured in the sense that it is not necessary for this study to have observation guide and schedule of what, at what time and whom to observe. In the discussion about unstructured observation Bailey (2007, p. 83) says that “researchers are less likely to have an observation guide, concentrating instead on what is deemed relevant as event unfold”. In this study observation will be focused on location in general, buildings, material used in construction, roads infrastructure and services. Researcher will be accompanied by one real estate broker in order to have a general picture land and property market.

Table 3: Primary data source

Primary Data	Body	Section	Number Of interviews	Position of respondent
Interview,	Mbeya City Council. • Department of Urban Planning and Environment	Valuation Section	1persons	City Valuation Surveyor,
		Lands section	1persons	City Land Officer,
		Land surveying and mapping section	1person	City Land surveyor,
	• Treasury Department	Budget, expenditure and collection section.	1person	City Treasurer,
	• Engineering department	Roads construction section	1person	City Engineer
Interview,	Ministry of Lands (MLHHS)	Land rent section	1person	Commissioner for land.
Interview,	Real estate valuation	M & R Agency Limited	2persons	2 directors of companies

	companies.	H & R Consultants Limited.		
Interview	Private Advocate's offices.	Attorney General's Chambers Kyando advocates	2persons	2Advocates
Interview	Real estate brokers	Mwakasege Seti	2persons	Informal real estate agents.
Interview	Mtaa Executive Officer	Mtaa office at Manga Veta area, Ilomba ward (local leader)	1 person	Mtaa Executive officer
Total Interviews			13	

Table 4: Secondary data source

Secondary Data	Data Source
	<ul style="list-style-type: none"> • Constitution of the United Republic of Tanzania of 1977. • Land Act No: 4 of 1999, Village land Act No: 5 of 1999, Land Disputes Courts Act No: 2 of 2002, Urban Authorities (Rating) Act of 1983 and Property tax By-law of Mbeya city council (GN no: 374 published on 11/11/2011). • Land rent regulations of 2012 (GN no: 266 of 3/8/2012) • Land (Conduct of Auctions and Tenders) GN no: 73 published on 4/5/2001 • Mbeya city council Budgets, Databases, reports and meeting minutes. • Plots sale agreements. • Valuation reports for mortgage purpose. • Property tax and land rent data bases

3.7 Data analysis methods

Data analysis was done using excel software and valuation methods to calculate for land and property values and inflation. Case study approach provides a room for this study to have wide ways of collecting data which includes qualitative and quantitative. Data analysis was done in four dimensions, which are economic, financial, legal and social. *Economic dimension* include analysis of mechanisation of public land leasing and property taxation with its response to land and property market (Land value capture theory). *Financial dimension* include analysis of data concerning correlation between revenue collected and costs of roads infrastructure investments for ten years back (from 2004-2013). *Legal dimension* involves analysis of data concerning constitution and secondary laws of the government and the practice in real world. *Social dimension* involves data analysis concerning influence of public good (road infrastructure) in land values and the possibilities of it to be financed by financial tools in question.

3.8 Validity and reliability

3.8.1 Challenges and solutions for case-study research

It is explicitly mentioned in the foregoing paragraphs that the study is going to be pursued using case study technique, however there some challenges that need to be aware with, that are;-External validity, Internal validity and reliability.

3.8.1.1 External validity

In case study it is difficult to generalize findings of subject case to another similar situation. In single case study it is more difficult to generalise, but in multiple cases (Single embedded, multiple holistic and multiple embedded case studies) trends may be discovered but also not generalizable. This study is using single embedded case study.

3.8.1.2 Internal validity

This challenge is about whether the research instruments measures what is intended to be measured. This include whether the instruments (interview-administered questionnaire) provides adequate investigative questions to cover for all areas being investigated. To get rid of this challenge, researcher measured or judged *coverage adequacy* of the investigative questions by careful going through literature review to see what should be investigated and what is not necessary. Discussion with group of individuals was done on every measurement question to see whether it is ‘essential’, ‘useful but not necessary’ and/or ‘not necessary’ Saunders, Lewis, et al (2007) citing Blumberg, Cooper, et al (2005).

3.8.1.3 Reliability

Refers to testing of degree of consistency between two measures, Saunders, Lewis, et al (2007, p. 367) says “Reliability is therefore concerned with the robustness of your questionnaire and, in particular, whether or not it will produce consistent findings at different times and under different conditions, such as with different samples or, in the case of an interviewer-administered questionnaire, with different interviewers”. Mitchell (1996) in Saunders, Lewis, et al (2007) gives three ways of assessing reliability as through;-Test re-test, internal consistency and alternative form. *Test re-test* is the way of making correlation of data collected by the same questionnaire with those collected at as nearly the same conditions as possible. In this approach questionnaire is administered twice to the respondents. *Internal consistency* involves comparing response of each question in the questionnaire. It measures consistency of response of items or parts across the test or questionnaire. *Alternative form* involves comparing response of alternative forms of the same questions or groups of the questions. Yin (2003) discusses other ways of assessing reliability including inter- judge and intra-judge. Inter-judge is comparing whether two people can judge the same whereas intra-judge is comparing whether one respondent can judge the same at later time or date.

In this study researcher tested questionnaires with field assistant and also to some few respondents, and also triangulation of data was done during data collection. Triangulation was done through observation, document review and interview with different interviewee (real estate brokers, private lawyers and government officials). Research assistant (Daniel Protas Mpomwa) was of great help not only for testing questionnaires but also for taking pictures during observations and also recording conversation during interview because researcher could not guarantee himself of writing down everything.

Another challenge with case study is that, it involves open design of data collection methods, including even the informal ones therefore reliability is difficult to assess. In this case, this study made use of research schedule to plan how research will be conducted, documentation of every step of the study done and keeping data base of all collected data before they are processed. Yin (2003) says data collection preparation can be difficult and complex, if it is not done well the entire case study investigation could be jeopardised and the whole job would be for nothing.

CHAPTER FOUR: RESEARCH FINDINGS

4.1 Introduction

This chapter presents discussion and analysis of the data collected during field work period at the month of July, 2013 in the city of Mbeya located in western southern highlands of Tanzania. The discussion is based on four perspectives; legal, financial, economic and social perspective.

The first part of findings covers the legal perspective which provides details patterning to mechanisation of public land leasing and property taxation in Tanzania and the laws governing it. In this perspective constitution and secondary laws were considered, circulars and government notices were also checked in order to see if there some changes in the principle laws. Secondary laws were checked in advance to see how they stipulate about land tenure system, property rights, land rents, premiums and property taxation. Major concern in this part is on how different obligations of the government concerning property tax and public land leasing are divided in different authorities and how are they implemented. These are rights and obligations of different authorities in implementation of public land leasing and property taxation from central government to local authorities particularly Mbeya city council.

Financial perspective provides details on how dues in these instruments are calculated and what parameters are involved. Moreover it provides insight on the revenue generated from these tools for the past ten years from the year 2004 to 2013 and it shows the revenue generation capacity of these tools over other sources of revenue in Mbeya city council.

Economic perspective examines to check if these financial instruments (public land leasing and property taxation) capture the value of land in Mbeya city. Comparison was made between market values of land and properties with taxable values available in the database of Mbeya city council. The analysis intended to check if the values which are used to charge taxes are the same as those of market values. According to the theory of land value capture this is supposed to be the case. Furthermore, analysis was made to reveal the extent, of which land value increments are captured, analysis based on the cost of producing plots, amount captured and market value of plots.

Moreover social perspective is also discussed, analysis is based on finding out whether roads infrastructure investments increase the value of land, consideration was made on a newly constructed tarmac road of 2.6 kilometres (Ilomba-Machinjioni road). Analysis provides detail of this road and its impacts to the land values in the neighbourhood. Researcher restricted the area of influence of this road to be of 500 meters each side along the road. Furthermore researcher compared revenue from public land leasing and property taxation with the costs incurred on roads investments basing on costs incurred and revenues collected from ten years back from the year 2004 to 2013. The findings tries to justify that, if roads infrastructure can increase land values, then it is justifiable to finance them by revenue from land value capture.

4.2 Legal perspective

In this perspective the discussion will be based on the question below with its sub parts. The discussion will be about public land leasing and property taxation on how the laws stipulate to guide their administration.

What is the institutional framework governing public land leasing and property taxation in Mbeya city?

- a. What are rights and obligations of government in management of the tools?
- b. What procedures do the government follows in undertaking the obligations?

The constitution of the united republic of Tanzania in article 24 (1) states that “every person is entitled to own property, and has a right to the protection of his property held in accordance with the law”. From the same article 24 (2) it provides that “subject to the provisions of sub article (1), it shall be unlawful for any person to be deprived of his property for the purposes of nationalization or any other purposes without the authority of law which makes provision for fair and adequate compensation”. These provisions of the constitution provides fundamental principle of property rights to the citizens of Tanzania, all the provisions in secondary laws have to adhere to those principles. A secondary law which governs land administration in Tanzania includes Land Act number 4 of 1999, Village Land Act number 5 of 1999 and The Land Disputes Courts Act number 2 of 2002. Property tax is governed by Urban Authorities (Rating) Act of 1983 and particularly in Mbeya city there is supplement By-law which also governs property tax within the authority, this is government notice number 374 of 11/11/2011.(United Republic of Tanzania, 1983, United Republic of Tanzania, 1999, United Republic of Tanzania., 1999, United Republic of Tanzania, 2002, United Republic of Tanzania, 1977, United Republic of Tanzania, 2012). Land tenure system is not described in the constitution but rather in the land laws as elaborated in nest paragraph.

4.2.1 Public land leasing

The land laws provides more breakdown of all issues patterning to land, this part provides more insights in land matters as provided in the laws and its practice. It is better to start by defining land as it is perceived in Tanzania. The land Act number 4 of 1999 defines land as it “includes the surface of the earth and the earth below the surface and all substances other than minerals and petroleum forming part of or below the surface, things naturally growing on the land, buildings and other structures permanently affixed to land”. Section 1(1) of the land act goes further to proclaim the fundamental principles of national land policy that “all land in Tanzania is public and vested in the president as trustee on behalf of all citizens”. This declaration is among others and critical principle describing land tenure system in Tanzania (leasehold land tenure system). Under this system the government retains ownership over land whereas the right to develop, use and dispose is granted to leaseholders. This law provides that for the government to get right to manage (to exercise leasing) the land it has an obligation to pay full, fair and prompt compensation (United Republic of Tanzania, 1999).

After the enactment of Local Government (District Authorities) act of 1982 and Local Government (Urban Authorities) act of 1982 the united republic of Tanzania began to have two tier government systems which involve local government and central government. This is the system which allows the central government to devolve powers to local government. In the case of land matters central government (ministry of land-MLHHSD) becomes the

overseer of the local government but majority of the obligations are done by local authority which in this case is Mbeya city council. Obligations of Mbeya city council in public land leasing is to initiate planning of neighbourhoods, survey and allocate plots. Premiums from sale of land are collected by Mbeya city council whereas land rents are collected by Ministry of Land only thirty percent is retained to Mbeya city council for being agent in collection. Initially land rent retention amount was 20% but later in 2012 it was changed to be 30% as stipulated in the land rent collection and expenditure guide of 2012. Ministry of land in the other party has an obligation is preparing bill of laws for the parliament, making policies, circulars and advisory services. Another obligation is supervising local authorities particularly Mbeya city council in the matters concerning land administration. In financial issues the Ministry of land is also responsible to the Ministry of Finance (United Republic of Tanzania, 2012, United Republic of Tanzania, 1982, United Republic of Tanzania, 1982). The following is the division of responsibilities to different departments in the Ministry of Land and Mbeya city council concerning public land leasing.

Table 5: Division of responsibilities for public land leasing in the ministry of land (MLHHS)

No:	Department	Responsibility	Head of department
1	Land management	Approving titles, registration of titles and disposition, approving certificates of village land and land rent management (includes land rent review).	Commissioner for Lands
2	Land survey and mapping	Approving land surveys, approving subdivisions, putting survey control points around the country and amendment of survey plans.	Director of Survey and Mapping
3	Planning and human settlement.	Land planning, preparing maps for administrative boundaries of authorities, preparing strategic master plans	Director of Human Settlement
4	Finance	Transfer land related revenue including land rent to the Ministry of Finance.	Director of Finance
5	Valuation	Approving valuation reports for compensation from local authorities, reviewing compensation prices and reviewing land rent in collaboration with Commissioner for Lands.	Government Chief Valuer

Table 6: Division of responsibilities for public land leasing in Mbeya city council

No:	Department	Responsibility	Head of department
1	Lands	Land allocation, collection of premiums and land rents preparing certificates of titles and send them to the ministry for approval and registration, processing and approving disposition and settling land disputes.	City Land Officer
2	Land survey	Land survey and preparing survey maps, restoration of survey boundaries and settling boundaries disputes.	City Land Surveyor
3	Land planning	Planning and preparing detailed planning scheme, proposing use for different pieces of land, approving building permits in collaboration with engineering department,	City Town Planning Officer
4	Valuation	Preparing valuation for compensation, transfer, records and for balance sheets.	City valuer

5	Finance	Receiving revenue from land rents and premiums after being collected from department of lands.	City Treasury Officer
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4.2.2 Property taxation

Urban Authorities (Rating) Act of 1983 is the law governing property tax in the urban authorities. For the local authority to initiate property taxation in Tanzania it should attain at least administrative status of township authority. This means township authority, town council, municipal council, city council and higher can initiate property taxation. Section 21 of the law stipulates that only improvements are taxable, it elaborate improvement as buildings, structures or similar development. In section 22 it explains that taxable value (rateable value) shall be the market value of the premises or where market value cannot be ascertained replacement cost of the buildings, structures and other development comprised in the premises after deducting depreciation, provided that taxable value shall not be less than 75% of the replacement cost. However due to legacy of socialism, majority of the properties where owned by the government and real estate market was not active therefore replacement cost method of valuation is widely used in property taxation and even in other purposes to ascertain value of buildings. Section 22(3) provides that a Minister may by an order either generally or in respect of a particular authority prescribe the basis of property tax assessment, after provision of that order section 22 shall not apply to that authority (United Republic of Tanzania, 1983, United Republic of Tanzania, 2011).

In respect of Mbeya city council there is by-law which together with the principle law (Urban Authorities (Rating) Act of 1983) they govern management of property taxation. The by-law was endorsed by the prime minister and published as the government notice number 374 of 11/11/2011. The table below shows distribution of responsibilities for property taxation within the department of Mbeya city council.

4.2.3 Division of responsibilities for property tax in Mbeya city council

The table below shows division of duties within the departments of Mbeya city council in the management of property taxation.

Table 7: Division of responsibilities for property taxation

No:	Department	Responsibility
1	Valuation	Valuing properties, preparing valuation rolls, receiving and settling claims from tax payers and assessing property taxes.
2	Finance	Collecting property tax revenue in collaboration with valuation department, budgeting and expenditure of revenue.

4.2.4 Observation

It is noticed in the analysis that ministry of lands, housing and human settlement (MLHSD) has been given powers to be responsible for public land leasing in Tanzania. However due to decentralisation the ministry has devolved some of the powers to the local authorities. The Land Act number 4 of 1999 is the principle law that governs land administration in the country and prescribes responsibilities to different authorities. It can also be noticed that land

rents collection is done by the ministry, the responsibility of local government is to collect on behalf and then transfer the funds to the ministry, and only 30% of collections is retained to enhance capacity of collecting authority.

Premium is totally managed by local government in the sense that it has fiscal discretion of setting premiums, collecting and spending them. A premium is a reliable source that local authority has to manage efficiently to finance its public expenditures.

Property tax is also another source of finance managed by local government with full mandate on designing its assessment, but the design has to get approval from the minister. This is also another reliable source of revenue in Mbeya city council that can contribute to finance public expenditures.

4.3 Financial perspective

This part provides details on how land rent, premium and property tax are calculated and furthermore it provides records of revenue collection for a period of ten years from 2004 to 2013. Moreover it gives insight of the extent of land value that is captured by public land leasing and property taxation. The discussion is based on the following question together with its subparts. How much incomes are generated by public land leasing and property taxation from land value capture in Mbeya city? (a) What are parameters involved in dues assessment? (b) How much is generated? (c) What is revenue generation capacity comparing to other sources?

4.3.1 What are parameters involved in dues assessment?

This question brings discussions on how land rent, premium and property tax are assessed in Mbeya city. Discussion will be based on how the laws guides, it will start with assessment for land rent then premium and finally property taxation.

4.3.1.1 How land rent is calculated in Mbeya city

Section 33 of the land act number 4 of 1999 stipulates that, in determination of land rent, commissioner for land shall have regards to (a) area of the land (leased land) (b) use of the land as per the lease (c) value of land as evidenced by leases sales and other type of dispositions and (d) amount of premium required to be paid at the grant of the right of occupancy. In local authority particularly in Mbeya city council authorised officer (City land officer) is collecting land rents on behalf of the commissioner for lands therefore she or he is always provided with a schedule of land rent per square metre of plots in all areas in the authority, this is provided to all the local authorities in Tanzania based on land market research in the area of jurisdiction. According to section 33(6) of the land act number 4 of 1999, commissioners for lands have the power to revise rents at the intervals of not less than three years. However for a period of the year 2004 to 2013 land rents review have been done twice, that is review of the year 2004 and that of this year 2013. These new rents have started operating since 1st July 2012 as provided in section 1 of the land rent regulations of 2012 (GN no: 266 of 3/8/2012). Land rent prices differ according to land use and distance from the central business district (CBD). To get land rent payable per plot you need to take area of the plot multiply by the land rent per square metre (United Republic of Tanzania, 2012, United Republic of Tanzania, 1999).

Formulae: Land rent payable per plot= Land rent per m²*area of the plot

For example the land rent per square metre for residential plots in Iwambi area is TSHS/= 45 equals to US\$ 0.028. If I want to determine land rent payable annually for a residential plot measuring 1500m² then I have to take area of the plot multiply by land rent per m².

Annual land rent= 1500*0.028
=42US\$

4.3.1.2 How premium is calculated

According to land act number 4 of 1999 under section 31, Minister for Lands determines the premium after having regards to (a) use of the land permitted in the right of occupancy (b) value of land as evidenced by sales of leases and other dispositions (c) value of land as evidenced by auction conducted in the area (d) value of land as evidenced by the highest offer made for a tender for the development of land in the area and or (e) as per assessment of qualified valuer in writing of the value of the land in an open market. However in practice premium is set by local authority itself and revenue generated are spent by the local authority to finance public goods and services. Most of plots in Mbeya city are allocated by the way of inviting applications from the members of the public and successful applicants are qualified to pay premiums as stipulated in their certificates of occupancy. However government notice number 73 published on 4/5/2001 stipulates that prime residential, commercial, and industrial land will be allocated in a transparent manner such as open tender or auction. Therefore if plots are allocated in this manner (auction or tender) premium is set by the market forces of demand and supply. However this option is rarely applied by local authorities.

Under normal circumstance premium per square meter in Mbeya city council is set by the finance committee and approved by the higher decision making body called “full council” in this situation premium payable per plot by a successful applicant is equal to premium per square metre multiply by area of the plot.

Formulae: Premium payable per plot = Premium per square meter* Area of the plot

For example plots at Iwambi area was allocated at the premium of TSHS/=1500 per square meter which is equivalent to US\$ 0.94. If the plot measuring 1200m² is allocated then its premium is equal to area of the plot multiply by the premium per m².

Premium payable per plot=1200*0.94
=1128US\$

If premium is not paid in time the plot is allocated to another successful applicant (United Republic of Tanzania, 1999, United Republic of Tanzania, 2001).

4.3.1.3 How property tax is calculated

For the property tax to be assessed most important thing is to establish taxable value (rateable value). It is prescribed in the Urban Authorities (Rating) Act of 1983 that taxable value shall be the market value and if it cannot be ascertained taxable value shall base on replacement cost of the buildings, structures and other development in the premises. In the case of Mbeya city council replacement cost of the development in the premises is regarded as taxable base.

Method used to ascertain taxable value is replacement cost method of valuation. This is due to the legacy of socialism that real estate market is not active and therefore replacement cost method of valuation is the mostly applied method even in the valuation for other purposes for example valuation for mortgages. After identifying taxable properties valuation is done to establish taxable values. The following are the range of cost of construction of and all inclusive used in property valuation for property valuation; for properties constructed with un-burnt bricks construction cost per m² is in the range of US\$ 25 to 43, for that constructed of burnt bricks but not plastered it is US\$ 44 to 93, that constructed of burnt bricks and plastered it is in the range of US\$ 94 to 156 and that constructed of blocks and not plastered it is in the range of US\$ 157 to 218 whereas that constructed of blocks and plastered it is in a range of US\$ 219 and 312 regardless of location or use. Workmanship in construction of the house and any other extra building materials to the house is accommodated by judgement and intuition of the valuer.

After valuation all taxable properties are enlisted in a valuation roll which shows address of properties, their taxable values, rate and property tax amount payable per every property per year. Property rate is a special percentage established by local authorities (Mbeya city council) that are multiplied by taxable value to get property tax payable per year. That is to say property tax payable per year is equal to taxable value multiply by rate. According to government notice number of 374 of 2011(Property tax by-law) property tax rate of Mbeya city is 0.15% which is equivalent to 0.0015. This rate is applied as flat rate to all properties of different kind.

Formulae: Property tax payable per year= Taxable value*Rate.

For example if taxable value of a property is 400US\$ then property tax payable per year is equal to taxable value multiply by rate.

Property tax payable per year= 4000US\$*0.0015= 6US\$

However the by-law (government notice number 374 of 11/11/2011) has also provided special amounts of property tax for those properties which are not valued. The table below shows the manner and how property tax is assessed in other properties which are un-valued (United Republic of Tanzania, 1983, United Republic of Tanzania, 2011).

Table 8: Property tax for valued and unvalued properties

Location in the city	Property tax in US\$				
	Residential	Residential cum commercial	Commercial	Industrial	Institutional and petrol stations
Un-surveyed plots in the periphery.	1.25	2.5	5	9.375	-
Un-surveyed plots in the CBD	3.125	5	12.5	25	-
Surveyed areas of high	6.25	12.5	37.5	50	-

density					
Surveyed areas of medium density	9.375	15.625	31.125	50	-
Surveyed areas of low density.	12.5	18.75	25	62.5	-
Surveyed plots in the CBD	15.625	31.25	37.5	62.5	-
Light industries (Service trade)	-	-	-	-	93.75
Heavy industries	-	-	-	-	625
Petrol stations in the CBD	-	-	-	-	125
Petrol stations in the periphery	-	-	-	-	62.5
Institutions(Small)	-	-	-	-	62.5
Institutions(Medium)	-	-	-	-	125
Institutions(Big)	-	-	-	-	187.5
Valued properties	0.15%	0.15%	0.15%	0.15%	0.15%

Source: Property tax by-law for Mbeya city council (GN no: 374 of 11/11/2011)

The figure in the table shows the specific amount of property tax payable for the property per year and the rate below shows the percentage of property tax from taxable values for valued properties. For unvalued properties it shows that property tax is higher as you come closer to CBD and when you possess a plot with profitable use (remember income approach of property valuation). High density plots are also paying high property tax than those of low density. In some way property tax for unvalued properties captures the value of land because attributes determining land values like location, land use and density are all considered.

4.3.2 How much is generated?

In this question the discussion is all about revealing the revenue generated in Mbeya city council in public land leasing and property taxation. The revenues are capitalised as at 2013 prices basing on inflation rates as provided below.

4.3.2.1 Revenue generated from land rent, premium and property tax in Mbeya city.

This part gives details on revenue collected for the period of ten years from the year 2004 to 2013. Basing on annual inflation rate from 2004 to 2013, revenues has been capitalised and reported as at the prices of the year 2013. The table below shows inflation rates used to change revenue and costs to the prices of the year 2013.

Table 9: Annual inflation rates for a period from the year 2004 to 2023 in Tanzania.

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Inflation rate	4%	5%	7.3%	7%	10.3%	12.1%	5.5%	12.7%	0.09%	

Source: Ministry of finance-Tanzania 2012

The table below reports revenues obtained from land rents, premium and property tax as at 2013 prices. Revenues and costs in the year 2013 were regarded as having 0% inflation because they already include inflation.

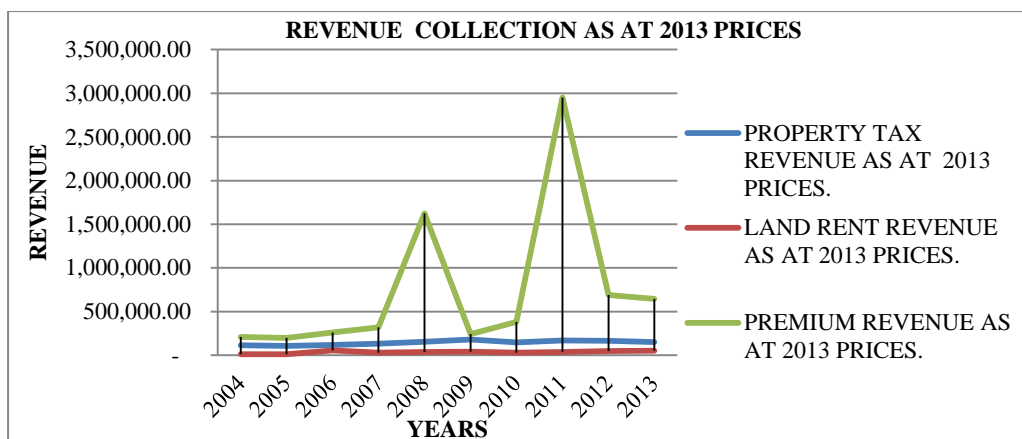
Table 10: Revenue from land rent, premium and property tax from 2004 to 2013

Revenue in US\$ as at 2013 prices			
Year	Property tax revenue as at 2013 prices	Land rent revenue as at 2013 prices	Premium revenue as at 2013 prices
2004	115,930.79	10,815.82	209,508.18
2005	105,626.52	11,684.80	199,340.67
2006	119,250.15	54,174.42	261,130.37
2007	132,335.16	29,289.67	320,285.03
2008	154,236.85	37,011.73	1,626,083.07
2009	181,986.01	41,817.40	243,470.72
2010	147,532.49	29,962.72	381,481.29
2011	168,305.59	36,887.57	2,952,182.76
2012	165,857.10	49,991.91	689,514.78
2013	149,200.72	53,084.16	646,680.12
	1,440,261.37	354,720.20	7,529,676.98

Source: Mbeya city council 2013

For the easy of understanding the table, graphical representation is provided below where some trends of revenue collection in different years can be seen easily. But at least the table is able to show that total revenue from premium is higher than revenue from land rent and property tax, this is shown in the last three columns where revenue are as at 2013 prices.

Chart 2: Revenue collections from land rent, premium and property tax from 2004 to 2013



Source: Researcher's analysis 2013

The chart above shows that more revenue has been obtained from premium than from land rent and property tax. In the year 2008 and 2011 revenue from premium was high and this is because in those years there were more collections from allocation of plots from land survey projects. In the year 2007 there were 2500 plots surveyed in Isyesye and Itezi area which were allocated in 2007 but revenue were reported in 2008 at the finance committee. In 2010 there were 1800 plots surveyed in Iwambi area and premium collections were high and were reported in 2011 at the finance committee. The graph shows that premium is the source which may be relied upon if at all every year the authority can produce and allocate plots. In the other side it also shows that more enforcement should be done in the collections of land rents and property taxes, apart from enforcement the authority should also increase tax base. For property tax increasing tax base can mean to identify more taxable properties and update valuation rolls or update taxable values according to increase in land values time after time. For the land rent tax base can be increased by surveying more plots and enter them in the land rent system. Enforcement in land rent and property tax includes commitment of manpower and penalisation of defaulters in accordance with legal procedures.

4.3.3 What is revenue generation capacity comparing to other sources?

In this part the researcher wanted to understand the revenue generation capacity of land rents, premiums and property taxes in the general budget of Mbeya city council. At first the aim was to compare revenue of the last ten years but it was not possible to get revenue information of all the sources for all the years, instead revenue for four years was obtained from the year 2010 to 2013. Though revenue information for land rent, premium and property tax for all the years were obtained but since revenue data for all sources was not available the researcher compared only for four years.

To analyse this information land rent revenue were divided by revenue from all sources to get the percentage of land rent revenue contribution to the general budget of Mbeya city council. The same was done for premium and property taxation and later average percentage for four years was obtained. The average percentage of revenue collection shows the capacity of revenue contribution of land rent, premium and property taxation to the general budget. The table below shows the percentage.

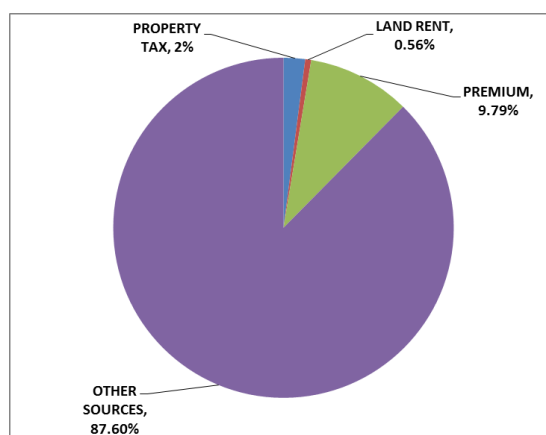
Table 11: Capacity of revenue generation from land rents, premiums and property taxes to the budget from 2010 to 2013.

Year	Property tax revenue in US\$ as at 2013 prices.	Land rent (20%) revenue in US\$ as at 2013 prices.	Premium revenue in US\$ as at 2013 prices.	Revenue from all sources as at 2013 prices.	Percent age of property tax over all sources .	Percenta ge of land rents over all sources.	Percent age of premium revenue over all sources.	Other sources
2010	147,413.52	29,938.56	236,137.56	6,518,266.50	2.26%	0.46%	3.62%	93.66%
2011	167,640.20	36,741.74	2,033,948.71	11,604,255.24	1.44%	0.32%	17.53%	80.71%
2012	166,012.25	50,038.68	603,376.19	8,526,211.91	1.95%	0.59%	7.08%	90.39%
2013	149,200.72	53,084.16	646,680.12	5,917,700.92	2.52%	0.90%	10.93%	85.65%
Total	630,266.69	169,803.14	3,520,142.58	32,566,434.57	8.17%	2.27%	39.16%	350.40%
Average	157,566.67	42,450.79	880,035.65	8,141,608.64	2.04%	0.56%	9.79%	87.60%

Source: Mbeya city council and researcher's analysis, 2013.

The table above shows the average percentage at the bottom. It shows that property tax was able to contribute only an average of 2.04% revenue to the Mbeya city council's budget from the year 2010 to 2013, whereas land rent contributed an average of 0.56% to the budget and premium an average of 9.79% whereas the rest average of 87.60 was contributed by other sources. This shows that premium has the high contribution potential to the budget compared to land rent and property tax. The column with other sources excludes transfers from central government, grants and loans (only local sources). The pie chart below depicts well revenue contribution potential of land rents, premiums and property taxes.

Chart 3: Revenue contribution potential of land rent, premium and property taxes to the Mbeya city council budget from 2010 to 2013.



Source: Researcher's analysis 2013.

4.4 Economic perspective

This party provides details whether public land leasing (land rents and premiums) and property taxes captures the value of land and again it provides details of the extent of which land value increments are captured. The discussion is based on the question below with its sub parts.

Do property taxation and public-land leasing captures the value of land in Mbeya city?

- a. Are the market prices of land and properties reflected in the taxable values of public land leasing and property taxation?
- b. To what extent is the government capturing increments in land value?

4.4.1 Are the market prices of land and properties reflected in the taxable values of public land leasing and property taxation?

The question above guided the researcher to correlate between market values of plots and properties with taxable values of land and properties in the database of Mbeya city council. Researcher starts discussing about property taxation and then public land leasing follows with the discussion of premium and land rent in the side of public land leasing.

4.4.1.1 Property taxation

To examine whether the instruments are capturing land values the researcher started analysing data from property taxation by comparing building values under free market and building values (taxable values) in the data base of Mbeya city council. To get building values under free market researcher was able to obtain valuation reports of ten mortgaged properties in Forest area in Mbeya city. The purpose of those valuation reports was for Mortgage and the method of valuation was replacement cost method. The valuation reports were obtained from two valuation companies namely M&R Agency Ltd and H&R Consultants Ltd. It should be noted that the same method of valuation is used in the valuation for property taxation (valuation for rating) and in determination of property values for mortgage. Building values in the property tax database were provided by valuation section of Mbeya city council as per valuation done in 2013. In the theory of land value capture taxable values in the data base is supposed to be the same as market value of the property under free market transactions. The table below shows taxable values in the database and taxable values under free market as obtained from valuation reports for mortgages.

Table 12: Comparison of property tax from database value and market value at forest area

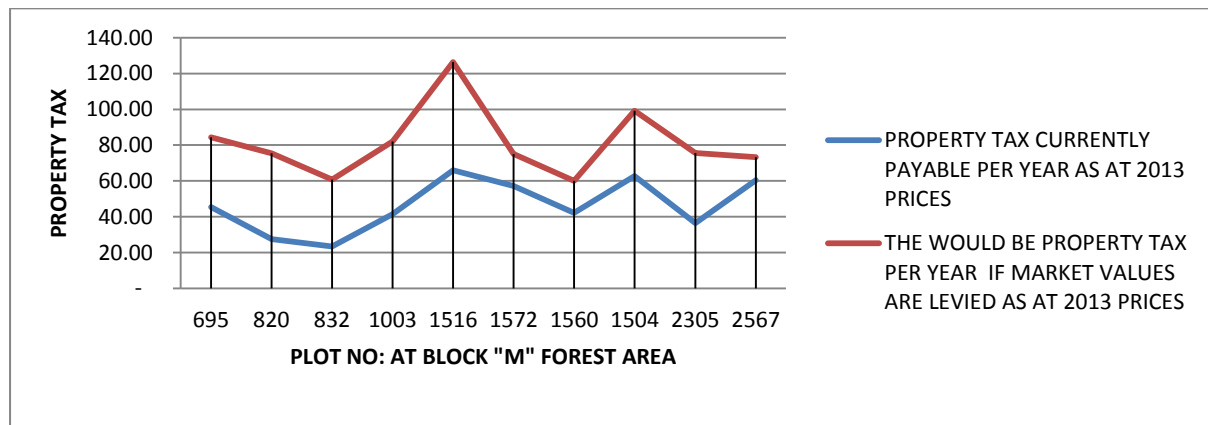
Amounts are in US\$ as at 2013 prices.								
Plot No:	Block	Database taxable values as at 2013 prices.	Buildings market values. As valued for mortgage purpose as at 2013 prices.	Date of valuation.	Property tax rate in Mbeya city.	Property tax currently payable per year as at 2013 prices.	Would be property tax per year if market values are levied as at 2013 prices.	Property tax captured
695	M	30,312.50	38,906.25	2011	0.0015	45.47	84.38	54%
820	M	18,375.00	34,756.25	2011	0.0015	27.56	75.38	37%
832	M	15,625.00	25,181.25	2010	0.0015	23.44	60.72	39%
1003	M	27,625.00	19,175.00	2007	0.0015	41.44	81.98	51%
1516	M	43,937.50	74,025.00	2012	0.0015	65.91	126.39	52%
1572	M	38,125.00	50,000.00	2013	0.0015	57.19	75	76%
1560	M	28,125.00	40,000.00	2013	0.0015	42.19	60	70%
1504	M	41,875.00	23,231.25	2007	0.0015	62.81	99.23	63%
2305	M	24,375.00	17,700.00	2007	0.0015	36.56	75.6	48%

2567	M	40,312.50	42,887.50	2012	0.0015	60.47	73.23	83%
Average		30,868.75	36,586.25			46.30	81.19	57%

Source: M&R Agency Ltd, H&R Consultant Ltd, Mbeya city council and researcher's analysis 2013

The table above shows how property tax is assessed using the special rate as provided in the law. It provides comparison between annual property taxes payable now in the database and property tax that would have been paid under market values as provided in the valuation reports of the same subject properties under mortgage. Moreover it provides percentage that is captured under the current taxable values in the database comparing to those values under market value. From the above table researcher was able to produce two graphs one showing property taxes levied now in the database comparing to property tax that would have been levied under market values. This was just to confirm whether market values are reflected in the database values. The other graph was produced showing the percentage of land value that is captured comparing to 100% that would have been capture in property tax under market values. The graph below shows the graph for property tax under market value and graph for property tax under database values.

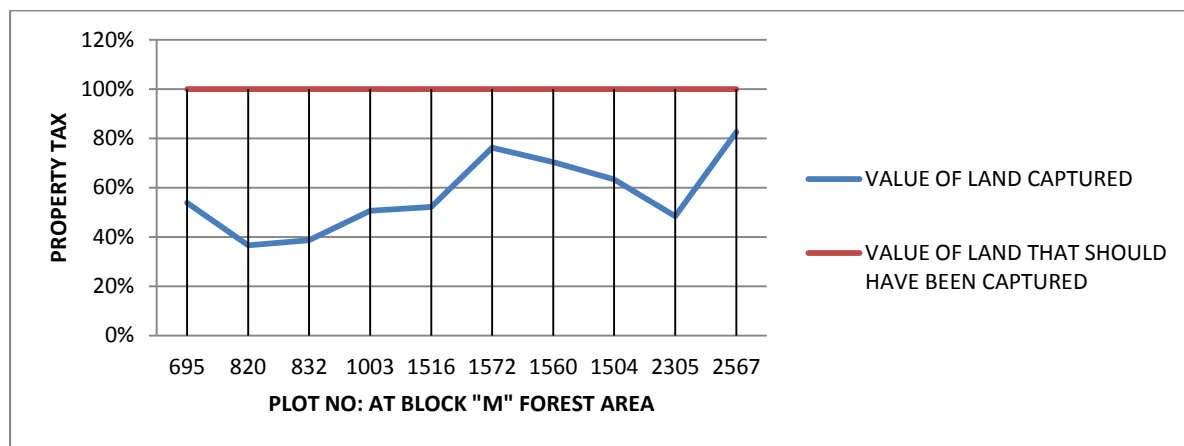
Chart 4: Property tax payable per year in the data base versus that would have been payable under market values



Source: Researcher's analysis 2013

The graph above shows that the taxable values which are currently used in property taxation are not reflecting market values because they are below market values. The researcher tried to see how much is captured by looking at the percentage of property tax which is captured over that which should have been captured under market values. The graph below shows the percentage that is captured currently.

Chart 5: Percentage of property tax captured.



Source: Researcher's analysis 2013.

The graph above shows that the percentage of property tax which is captured is lower because it is charged in taxable values that are lower market values. In some plots it was slightly higher because the taxable value was a bit nearby market value but not reaching it for 100%.

4.4.1.2 Public land leasing

In the side of public land leasing researcher was able to examine whether value of land determined through premium and land rent is the same as market value through sales data in the open market. To reveal this researcher was able to get sales data of ten plots at Iwambi area and also got data of the same plots on how premium was paid during allocation together with annually payable land rent per square metre. In principle it is known that premium is supposed to be determined at market value and if at all it is below market value then land rent will be paid for the portion which is not paid. For this matter premium and capitalised amount of land rent was added together to form the value of the plot as determined by the government compared to sales data value at the plot at open market evidenced by sales of plots between leaseholders and buyers.

Figure 12: Pictures showing some parts of Iwambi area with an on-going construction of houses



Source: Captured by researcher's assistant 2013

It should be noted that plots at Iwambi was allocated at the year 2010 with the lease term of 33 years therefore unexpired term of lease is 30 years. Land rent per year is regarded as the annuity of the full or part of land value to be paid to the land owner at the end of 30 years

(un-expired term of a lease). To determine that value, formulae of present value of annuity will be used.

$$\text{Formulae: Present value of annuity} = C [1/r - 1/r * 1 / (1+r)^t]$$

In that formula ‘C’ represent land rent payable a year, ‘r’ represent interest rate and ‘t’ represent time of investment on land (un expired term of lease). Researcher was able to find interest rate (average) which is used in the capital market especially banks, the term of lease which is unexpired for those plots and land rent payable per year. The land rent per square metre which is paid at Iwambi is TSHS 45/= which is equivalent to US\$ 0.028 at exchange rate of 1US\$= TSHS 1600/= as at 2013 exchange rate. Therefore ‘C’ is equal to 0.028 multiply by area of the plot whereas interest rate r=5% as used by commercial banks in Tanzania as borrowing rate at fixed account and t= 30 years being unexpired term of the lease. For example if the area of the plot is 1000m² then its rent per year is US\$ 28 then C=48, r=0.05 t=30

$$\begin{aligned} \text{Present value of annuity} &= 48[1/0.05 - 1/0.05 * 1/(1+0.05)^{30}] \\ &= 48 * 15.4 \\ &= 739.2 \text{ US\$} \end{aligned}$$

Therefore 739.20 US\$ is the part of value of land which need to be added to premium in order to get full value of land. The table below shows comparison between value of land determined by government basing on premium and land rent with that at the open market sales.

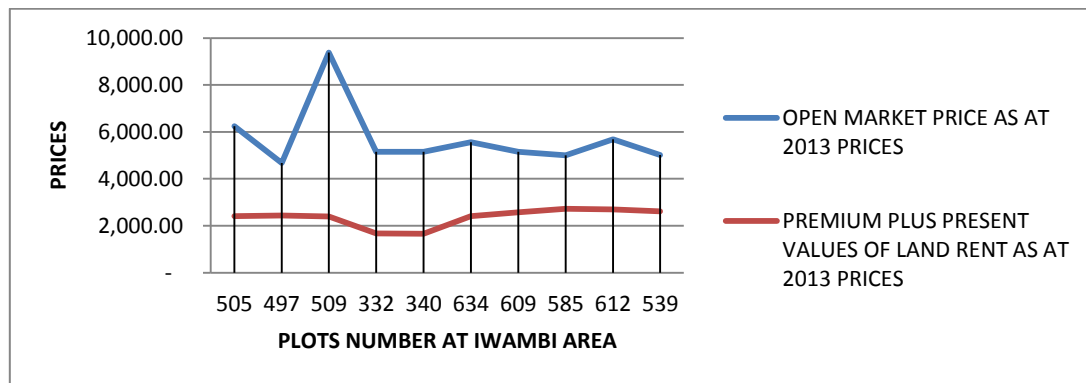
Table 13: Comparison between open market sales prices of residential plots with value of plots through premiums and land rents in Iwambi area

Amounts are in US\$ as at 2013 prices									
Plot No:	Block	Area of plot in m ²	Open market price of plots after transaction	Date of transaction (Year)	Premium paid per plot.	Land rent per year.	Present value of land rent	Premium plus present values of land.	Percent of database taxable values over market values.
505	E	1486	6,250.00	2013	1,769.27	41.79	642.37	2,411.64	39%
497	F	1504	4,681.25	2012	1,790.70	42.3	650.15	2,440.85	52%
509	E	1477	9,375.00	2013	1,758.55	41.54	638.48	2,397.03	26%
332	E	1028	5,159.38	2010	1,223.96	28.91	444.39	1,668.35	32%
340	E	1021	5,159.38	2010	1,215.63	28.72	441.36	1,656.99	32%
634	E	1485	5,556.25	2010	1,768.08	41.77	641.94	2,410.02	43%
609	E	1588	5,159.38	2010	1,890.71	44.66	686.46	2,577.18	50%
585	E	1680	5,000.00	2013	2,000.25	47.25	726.23	2,726.48	55%
612	E	1663	5,684.38	2012	1,980.01	46.77	718.88	2,698.89	47%
539	E	1610	5,015.63	2012	1,916.91	45.28	695.97	2,612.88	52%
Total			57,040.65	20,115.00	17,314.07		6,286.23	23,600.31	Average 43%

Source: Informal real estate agents Seti & Mwakasege, Attorney General’s Chamber-Mbeya branch, Kyando Advocates and researcher’s analysis 2013.

The table above shows prices of plots sold by occupiers at open market values and premiums as at 2013 prices and also capitalised land rent as at 2013. Premiums and capitalised values of land rents has been added together to get the value of plots as determined by the government. The idea is that if the government want to capture all increments in land value then values of the government are supposed be the same and regularly updated to be the same as those of the open market as evidenced by current sales data. From the above table researcher was able to produce the graph in order to get a good picture of correlation between market values and those set by local government of Mbeya city council.

Chart 6: Market prices of plots versus plots value determined by premiums and land rents



Source: Researcher’s analysis 2013.

The graph above shows that the market values of land are higher than the value of plots determined by premium and land rent.

4.4.2 To what extent the government is capturing increments in the value of land?

In this part researcher wanted to reveal the extent of which the government is capturing land value increments produced by government investment in roads infrastructure. To do this, data for cost of producing a plot was obtained and sales data of every plot for recently sold plots in the open market. Market value minus cost of producing a plot would help to know the increments in land values for every piece of land and then premium added with capitalised land rent of particular plot would help us to know what is captured if all the costs are taken out. This was done in Iwambi area where surveying was done by private company, roads of 53 kilometres were constructed by private company and valuation for compensation was done by Mbeya city council. Land survey cost per plot was 35.72 US\$, roads construction cost for all kilometres was US\$ 336,550 since the cost were divided per plots therefore cost of road paid per plot by each successful applicant was US\$ 186.97. Land compensation per metre square was 0.4 US\$, there other compensation costs researcher didn’t determine per plot for example trees compensation per plot, therefore he decided to add 50% of land compensation to every plot. Residential plots were allocated at a premium of 1.191US\$ with a land rent of 0.0357US\$ per square metre. It should be noted that all prices and costs are as at 2013 prices.

In order to get market value for each plot researcher obtained evidence of sales data for ten plots at Iwambi area in the market values and then he was able to get increment in land values by deducting cost of producing plots from market prices. He calculated the value of land by taking premium adding to capitalised land rent to present value of annuity. To get increment

captured he deducted costs of producing a plot from land value (premium and land rent). The table below shows extent to which increment in land values are captured.

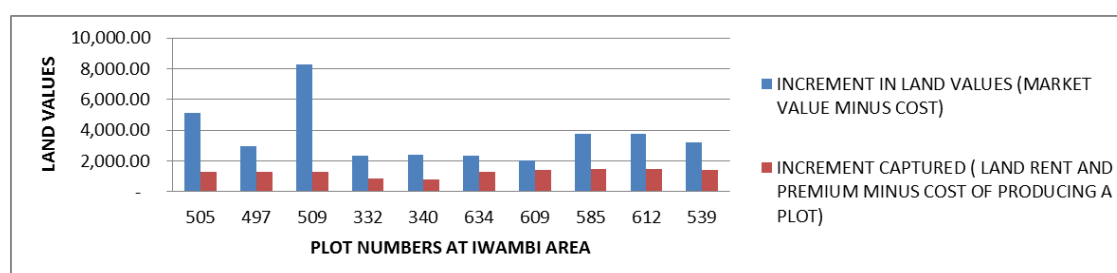
Table 14: Extent to which government is capturing the increment in land values

Amounts are in US\$ as at 2013 prices										
Plot no:	Block	Land survey cost	Money paid for compensating a plot.	Other compensation costs. 50% of a cost of compensating a plot.	Roads investment cost per plot	Market price of a plot as at 2013 prices.	Total cost of producing a plot.	Increment in land value (Market value minus cost)	Increment captured (Land rent and premium minus cost of producing a plot).	Percent age of increment captured.
505	E	35.72	594.4	297.2	186.94	6,250.00	1,114.26	5,135.74	1,297.38	25%
497	F	35.72	601.6	300.8	186.94	4,112.50	1,125.06	2,987.44	1,315.79	44%
509	E	35.72	590.8	295.4	186.94	9,375.00	1,108.86	8,266.14	1,288.17	16%
332	E	35.72	411.2	205.6	186.94	3,209.38	839.46	2,369.92	828.89	35%
340	E	35.72	408.4	204.2	186.94	3,209.38	835.26	2,374.12	821.73	35%
634	E	35.72	594	297	186.94	3,456.25	1,113.66	2,342.59	1,296.36	55%
609	E	35.72	635.2	317.6	186.94	3,209.38	1,175.46	2,033.92	1,401.72	69%
585	E	35.72	672	336	186.94	5,000.00	1,230.66	3,769.34	1,495.82	40%
612	E	35.72	665.2	332.6	186.94	4,993.75	1,220.46	3,773.29	1,478.43	39%
539	E	35.72	644	322	186.94	4,406.25	1,188.66	3,217.59	1,424.22	44%
Average		35.72	581.68	290.84	186.94	4,722.19	1,095.18	3,627.01	1,264.85	40%

Source: Researcher's analysis 2013.

The table above shows how analysis was done to get increments in land values and also to get the increments captured and the percentage of capture. However researcher was able to produce the chart below from the table in order to see the picture of all the increments per plot and what was captured.

Chart 7: Extent of land value increments capture



Source: Researcher's analysis 2013.

From the chart above the blue histograms shows total increments in land values, whereas red histograms shows land value increments which were captured.

4.5 Social perspective

In this perspective researcher wants to find out the impact of roads infrastructure in the land values, and also wants to find out how far revenue from land value capture can contribute to the investments in roads infrastructure. This part is therefore comparing the value of land before and after roads infrastructure and thereafter compare revenue from land value capture with costs in roads investments. Revenues from land value capture are those generated by land rents, premiums and property taxation. The value of land was compared by taking the evidence of sales data for ten plots before and ten plots after roads investments. In order to put this discussion more elaborative there is a need to discuss two questions separately; (a) what is the impact of roads infrastructure in land values? (b) To which extent revenue from land value capture can finance roads infrastructure?

Pictures below shows maps archive in the land survey and mapping section, and people calculating distance of subject plots from the road, all plots were supposed to be 500 metres along the road each side. The same archive helped the researcher to get areas (area in m²) of all plots in areas of study.

Figure 13: Picture showing Mbeya city council's land survey Maps Archive



Source: Captured by researcher's assistant 2013

4.5.1 What is the impact of roads infrastructure in land values?

To answer the first question, the researcher was able to obtain sales data evidence for ten plots before and ten plots after roads infrastructure investment, it should be noted that to find out the impacts of roads infrastructure entails doing *quasi-experiment*. In this matter sales data for ten plots before road construction were treated as control group and sales data for ten plots after road construction were treated as treatment group. The essence was to see if there is any change in land prices per square metre after road construction. In quasi-experiment control group and treatment group should be similar but independent from each other that is why the researcher decided to choose residential plots in all groups and is considering changes in price per square metre of residential plots in the neighbourhood after road construction.

The research was conducted in the 2.6 kilometres road which was constructed in Ilomba ward, the road is called 'Ilomba-Machinjioni road'. Apart from Ilomba being a ward there is also an area called Ilomba where this road has started heading to another area called Machinjioni. In Swahili Machinjioni means abattoir, therefore the road is from Ilomba area to the abattoir. The road is constructed to the tarmac level hence it has made the area look more aesthetic. Research was conducted within 500 metres in each side along the road therefore

sales data of plots along this area before and after road construction was taken. Awareness about road construction by officials from Mbeya city council was brought in the area at the year 2009 and in the year 2010 price of plots started rising due to expectation of road provision. The road construction started in 2012 and finished in 2013 august, it was a project of 15 months. In 2013 the price raised more and more, it was almost as the same as land prices in the affluent areas of Forest, Sae and Mwanjelwa (Block T).

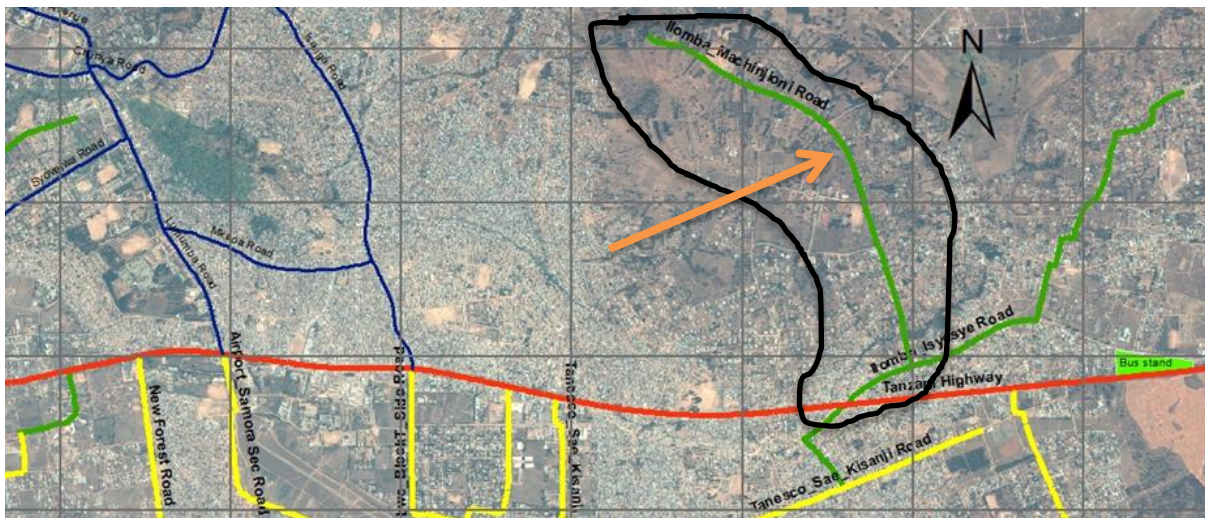
Figure 14: Picture of the road during and after road construction



Source: Captured by researcher's assistant 2013

Below is Ilomba-Machinjoni road as it can be seen on the satellite image, shown by an arrow and also edged with black smooth lined circle. The image is showing road network planned for construction but its implementation goes bit by bit.

Figure 15: Roads Identified for construction to tarmac level



Source: Mbeya city council. Department of Urban planning and environment, GIS unit 2013

During the interview it was revealed that this area was surveyed long time ago, by then the former land ordinance of 1923 was in operation, the law was not providing for compensation on land but only on improvements and those improvements was supposed to be paid by the person allocated the land after making negotiation with the indigenous who was found on the land. Other indigenous denied allowing these new occupants to enter in the land therefore some of those new occupants retreated. But now after road constructions they are coming up with complain that they need their land back while showing certificates of occupancy which were granted by then. For those who bought the land in this area their transaction were witnessed by the local leader called *Mtaa* executive officer, this is for safety (buyer beware)

because these leaders know all the plots under disputes and those which are free from disputes. To the researcher it was an advantage to get all sales data of plots from this local leader. The table below shows details of plot sales before and after road construction, and it shows the trend of changes in land values per square metre after road construction.

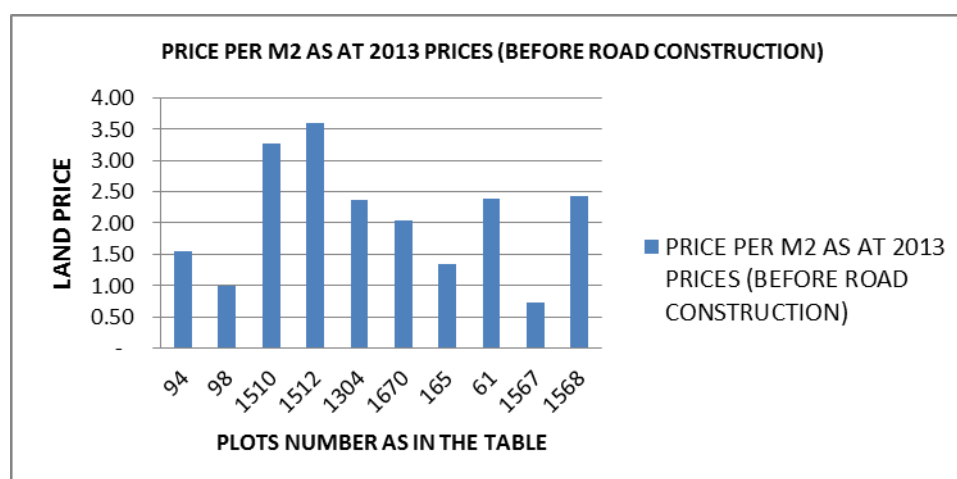
Table 15: Price before road construction

Control group								
Sale of plots before road construction figures are as at 2013 prices)								
Plot No;	Block	Locality	Plot area in m ²	Plot market prices as at 2013 prices	Year of sale	Distance from the road in meters.	Registered survey plan number.	Price per m ² as at 2013 prices.
94	D	ILOMBA	2032	3,150.00	2007	300	E14472/161	1.55
98	D	ILOMBA	1700	1,687.50	2006	300	E14472/161	0.99
1510	X	ILOMBA	1051	3,434.38	2008	490	E14472/108	3.27
1512	X	ILOMBA	954	3,434.38	2008	460	E14472/108	3.60
1304	X	ILOMBA	1550	3,675.00	2007	4	E14472/44	2.37
1670	X	ILOMBA	2172	4,410.00	2007	4	E14472/153	2.03
165	D	ILOMBA	2196	2,943.75	2008	60	E14472/161	1.34
61	B	ILOMBA	1762	4,200.00	2007	49	E14472/144	2.38
1567	X	ILOMBA	2027	1,477.50	2004	175	E14472/84	0.73
1568	X	ILOMBA	760	1,846.88	2004	120	E14472/84	2.43
								Average 2.07

Source: Office of Manga veta *Mtaa* Executive officer and researcher's analysis 2013

Table 15 shows prices of plots per square metre before road construction, the price per square metre was able to be in a range of US\$ 0.73 to 3.60 with an average price per meter square of UD\$ 2.07. The histogram below shows clearly the trend of the price per square metre before road construction.

Chart 8: Price per square metre before road construction



Source: Researcher's analysis 2013.

From the graph above it shows that the highest histogram was able to reach a land price of 3.60 US\$ per square metre and not beyond that.

The table below provide details of prices per metre square as evidenced in the sales data during and after road construction. The price was able to rise in the range of 2.12 to 11.29 with an average price per meter square of US\$ 5.48. There was no impact revealed on price caused by distance of plot from the road, all the plots within the area of influence of the road was in high price. The table below shows the details of price per square metre during and after road construction.

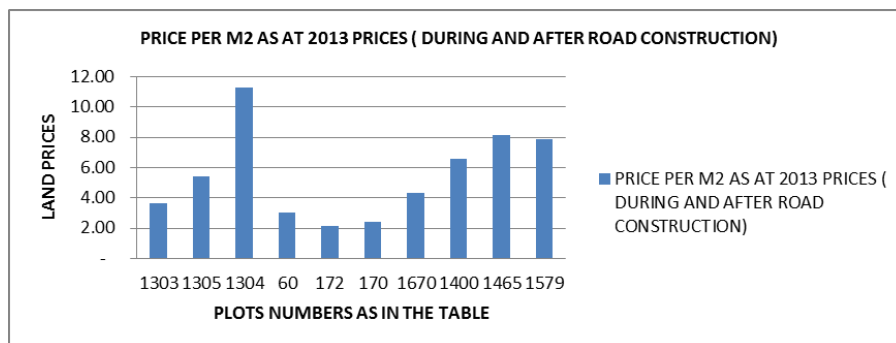
Table 16: Price per meter square during and after roads construction

Treatment group								
Sale of plots during and after road construction (figures are as at 2013 prices)								
Plot no:	Block	Locality	Plot area in m ²	Plot market prices as at 2013 prices	Year of sale	Distance from the road in meters	Registered survey plan number	Price per m ² as at 2013.
1303	X	ILOMBA	2059	7,500.00	2011	46	E14472/44	3.64
1305	X	ILOMBA	2232	12,037.50	2012	4	E14472/44	5.39
1304	X	ILOMBA	1550	17,500.00	2013	4	E14472/44	11.29
60	D	ILOMBA	2041	6,250.00	2013	390	E14472/161	3.06
172	D	ILOMBA	3180	6,746.88	2010	4	E14472/161	2.12
170	D	ILOMBA	2147	5,159.38	2010	4	E14472/161	2.40
1670	X	ILOMBA	2172	9,375.00	2013	4	E14472/153	4.32
1400	X	ILOMBA	2184	14,375.00	2013	490	E14472/69	6.58
1465	X	ILOMBA	1920	15,625.00	2013	490	E14472/84	8.14
1579	X	ILOMBA	1191	9,375.00	2013	320	E14472/127	7.87
								Average 5.48

Source: Office of Manga veta *Mtaa* Executive Officer and researcher's analysis 2013.

The histogram below gives a picture of the trend of plots prices per square metre during and after road construction the highest histogram was able to reach 11.29 US\$ per square metre. The average price per square metre after road construction was more than twice of the highest price before road construction. Average price before road construction was US\$ 2.07 whereas after road construction it was US\$ 5.48. This can be even justification of land value capture to finance roads investment, because the social good itself contribute to the increase in land values hence more revenue.

Chart 9: Price per meter square during and after road construction



Source: Researcher’s analysis 2013.

The researcher was able to find out whether there is any other thing that causes the land price to rise, he discovered that along the road there is vocational training college but he came to know that it was established in the year 1999 therefore it has no influence to the change in land prices which is happening in 2010 to 2013.

Considering influence of inflation he came to know that inflation is in the normal change, there is no change that is shocking to affect land prices in the area. Therefore road is the most probably determinant for change in land prices. Considering change in leadership, we still have the same president since 2005 therefore nothing was discovered other than a road that is influencing land prices.

4.5.2 To which extent revenue from land value capture can finance roads infrastructure?

It is revealed that roads infrastructure increase land values therefore researcher wants to know how far revenue from land value capture can contribute to road investments. Annual costs for road investments were obtained, costs were separated in two parts those for establishing new roads and annual costs for roads maintenance. Annual revenues were also obtained, revenue from land rents, property taxes and premiums. Revenue from premium is always bulk and is paid once when there is allocation of plots for this matter researcher decided to compare these revenue with costs of establishing new roads. Revenue from property tax and land rent are collected annually therefore researcher decided to compare these revenues with costs of roads maintenance. Annual revenues are compared with costs of roads maintenance because maintenance is regularly done whether annually or in some instance at any time of breakdown (e.g. spot improvements). Establishment of new roads is done occasionally that is why it is compared with revenue from premium which is obtained once there is land survey project. There also some instance where premium can be paid at a time where there is no plot allocation like during lease renewal but this kind of premium is always administrative cost and nominal. The table below shows the comparison between the cost of establishing new roads and revenue from premium.

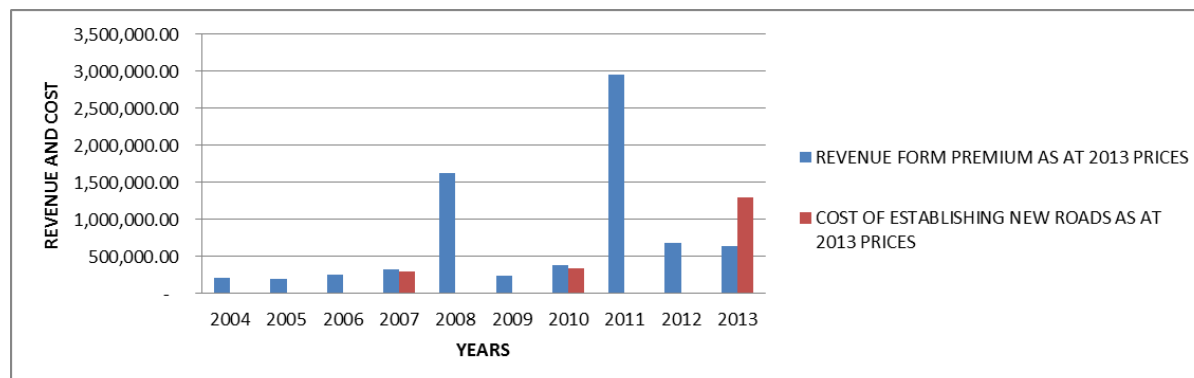
Table 17: Costs of establishing new roads and revenue from premiums

Revenue from premium versus cost of establishing new roads as at 2013 prices (in US\$)							
Year	Revenue from premium in US\$.	Cost of establishing new roads in US\$.	Inflation rate.	Revenue inflation factor.	Revenue from premium as at 2013 prices.	Cost of establishing new roads as at 2013 prices.	Exchange rate (1US\$=T SHS 1600/=)
2004	106,330.93		0.04	1.97	209,508.18	-	1,600.00
2005	105,217.48		0.05	1.89	199,340.67	-	1,600.00
2006	144,723.38		0.073	1.80	261,130.37	-	1,600.00
2007	190,466.08	176,250.00	0.07	1.68	320,285.03	296,379.46	1,600.00
2008	1,034,683.50		0.103	1.57	1,626,083.07	-	1,600.00
2009	170,878.35		0.121	1.42	243,470.72	-	1,600.00
2010	300,136.74	265,000.00	0.055	1.27	381,481.29	336,821.62	1,600.00
2011	2,450,426.15		0.127	1.20	2,952,182.76	-	1,600.00
2012	645,009.15		0.069	1.07	689,514.78	-	1,600.00
2013	646,680.12	1,300,000.00	0	1.00	646,680.12	1,300,000.00	1,600.00
Total					7,529,676.98	1,933,201.08	

Source: Mbeya city council, Finance department and Engineering department 2013.

From the table above it shows that establishment of new roads were only done in the year 2007, 2010 and 2013. The total revenues from premium are higher than the total cost of establishing new roads. This shows that premium can afford the costs of establishing new roads. These total revenues and costs are compared because all of them have been set as at 2013 prices. To get the good picture of how premium can afford costs of establishing new roads see the histogram below.

Chart 10: Depiction of revenue from premium and costs of establishing new roads



Source: Researcher's analysis 2013.

The table below shows the annual costs of roads maintenance compared to the revenue from land rents and property taxes. Land rents and property tax has been summed together.

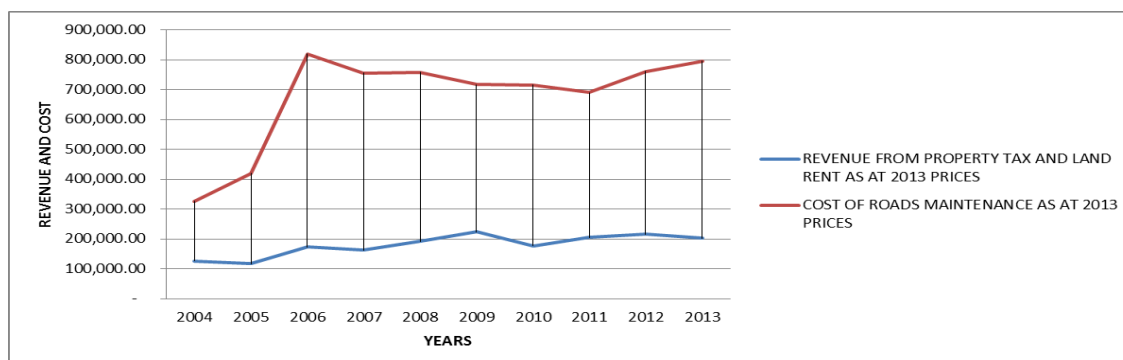
Table 18: Revenue from land rents and property taxes and costs of roads maintenance

Revenue from property tax and land rent versus annual roads maintenance cost in US\$							
Year	Cost of roads maintenance in US\$.	Revenue from property tax and land rent in US\$.	Exchange rate 1US\$=Tshs 1600/=	Inflation rate.	Revenue inflation factor.	Cost of roads maintenance as at 2013 prices.	Revenue from property tax and land rent as at 2013 prices.
2004	165,612.66	64,327.25	1,600.00	0.04	1.97	326,313.37	126,746.60
2005	221,565.09	61,920.14	1,600.00	0.05	1.89	419,768.01	117,311.32
2006	454,813.44	96,115.17	1,600.00	0.07	1.80	820,638.70	173,424.57
2007	449,439.09	96,114.54	1,600.00	0.07	1.68	755,770.31	161,624.83
2008	482,755.99	121,692.27	1,600.00	0.10	1.57	758,687.42	191,248.58
2009	503,786.19	157,074.98	1,600.00	0.12	1.42	717,804.12	223,803.41
2010	563,666.50	139,647.30	1,600.00	0.06	1.27	716,434.19	177,495.21
2011	573,020.31	170,318.28	1,600.00	0.13	1.20	690,353.67	205,193.16
2012	712,882.63	201,916.75	1,600.00	0.07	1.07	762,071.53	215,849.01
2013	796,125.93	202,284.88	1,600.00	-	1.00	796,125.93	202,284.88
Total						6,763,967.24	1,794,981.57

Source: Mbeya city council, department of finance, valuation, lands and engineering 2013.

The table above reports costs and revenue as at 2013 prices, it shows that the costs of maintenance are higher than revenue from property tax and land rents. It suggests that the section of roads maintenance will be dependant to other sources or else tax base in land rent and property tax is advised to be expanded in order to increase revenue. The graph below illustrates the comparison between costs and revenue.

Chart 11: Comparison between costs of roads maintenance and revenue from land rents and property tax



Source: Researcher's analysis 2013.

The graph above shows great discrepancy between the cost of roads maintenance and revenue obtained from property taxes and land rents. Revenues are too little to afford for roads maintenance unless there is supplement from other sources.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

This chapter consists of conclusions and recommendations of the study done in Mbeya city in Tanzania. The objective of the study was to make an assessment on how public land leasing and property taxation can capture land values to finance roads infrastructure in the city. The aim of the recommendations is to improve management of financial tools under discussion hence to increase more revenue from land value capture. Moreover, focus of revenue collections will be on roads infrastructure investment that has proved to increase land values in the neighbourhood. The conclusions and recommendations are particularly for a case study area.

5.1 Conclusions

The main question in this research is on how public land leasing and property taxation can capture land values to finance roads infrastructure. Basing on this question, conclusions and recommendations will focus on four main perspectives namely legal, financial, economic and social.

5.1.1 Legal perspective

Legal dimension sought to examine institutional framework governing public land leasing and property taxation in Mbeya city. It is based on two questions (a) what are rights and obligations of government in management of the tools? (b) What procedures do the government follow in undertaking the obligations?

5.1.1.1 What are rights and obligations of government in management of the tools?

From the above question, the researcher was able to consult the constitution of the United Republic of Tanzania of 1977 and he found that it recognises the right of an individual to own a property and that if for any reason the land is being taken away the occupier is entitled to fair and adequate compensation. The constitution declares that every individual has the right to the protection of his property acquired in accordance with the law.

From the discussion it is clear that the government has a right to manage the land through lease hold system, but before exercising this right it has an obligation to pay full and fair compensation to the native found doing their activities on the land. Most of the natives are those occupying land under customary tenure system. As discussed in chapter one referring to the most popular court ruling in Tanzania in the case of Nyirabu vs Nyagwasa in 1985 it was held that the rights of land holders under customary land tenure does not extinguish after declaration of land to be a planning area but some legal procedures need to be done to extinguish these rights, one of them being payment of compensation.

In property tax it was seen that for the local authority to have the right to manage property taxation it has to be in the administrative status of township authority and above. It was seen also that local authority has the right (fiscal powers) to collect and spend revenue from property taxes but also responsible for provision of infrastructure to tax payers. Whereas in public land leasing we have seen that it is the obligation of local authority to manage land (exercising leasing) in its area of jurisdiction but still collection of land rent is done by local authority and transferred to central government. Central government has the right to spend revenue from land rent. However local government (Mbeya city council) has full fiscal power over premiums (collection and spending).

Despite of Tanzania decentralising powers from central to local government but still land rent revenue is collected by the Ministry of land. This means local government (Mbeya city) has no full fiscal powers over revenue sources regardless of huge burden in the provision of goods and services.

5.1.1.2 What procedures do the government follows in undertaking the obligations?

In public land leasing the government (Mbeya city council) acquires the land, pays compensation and then allocates the land. Upon land allocation successful applicant has to pay premium and other fees otherwise the granted right can be revoked. However it has been realised that premium and land rent are always below the market values of land in Mbeya city.

In property tax the government (Mbeya city council) makes a valuation of properties to establish taxable values of buildings and then charges property tax to house occupiers at a flat rate of 0.15%. For unvalued properties there are specified amounts to be paid as property tax according to building materials of the buildings.

In doing valuation for property tax it has been revealed that valuers are using cost of construction per meter square of floor area of the buildings basing on materials used to construct a house and not location or use. However property tax for unvalued properties is indirectly capturing the value of land in the sense that it considers location of the building from the CBD, land use and plot density. Therefore property tax does not capture the value of land. Premiums and land rents captures but small portion of land value increments.

5.1.2 Financial perspective

In financial perspective the researcher wanted to know how taxes are calculated in public land leasing and property taxation and also to know the collection potential of these instruments over other sources. For better understanding researcher based on the question stipulated in item 5.2.1 below.

5.1.2.1. How much incomes are generated by public land leasing and property taxation from land value capture in Mbeya city?

In answering this question researcher tried to base on the three sub questions; (a) what are parameters involved in dues assessment? (b) How much is generated? (c) What is revenue generation capacity comparing to other sources? However conclusions are based on the last two sub questions because the first question is all about formulas, parameters in the formulas and how taxes are calculated in these instruments.

5.1.2.1.1 How much is generated?

Revenue from premium is contributing more to the budget of Mbeya city council than that of land rent and property tax. For the period of between the year 2004 to 2013 revenue from premium, land rent and property tax accounted to US\$ 7,529,676.98, US\$ 1,440,261.37 and US\$ 354,720.20 respectively. Premium generated more than five times compared to property tax and generated more than twenty one times compared to land rent. Findings show that premium is the strong source of revenue in local authorities. Discussion in chapter two by Hong (2003) revealed that premium from auctions of plots in Hong Kong for a period of the year 1996 to the year 2000 generated revenue which was more than enough to cover for expenditure on public works by 130% and accounted for an average of 16% of total government revenue see page 16.

5.1.2.1.2 What is revenue generation capacity comparing to other sources?

In this question researcher was comparing revenue generation potential of premium, land rent and property taxation in overall revenue sources within Mbeya city council. Comparison was made for four years (2010 to 2013) due to limited revenue information for other sources. Revenue generated by all sources was US\$ 5,917,700.92, premium US\$ 646,680.12, land rent US\$ 53,084.16 and property tax US\$ 149,200.72. Other sources contributed to 87.60% of the total revenue, premium contributed 9.79%, land rent contributed 0.56% and property tax contributed 2%. Generally public land leasing and property tax have strong contribution to the public expenditure Hong (2003) revealed that from the period of the year 1970 to 2000 public land leasing generated substantial revenue, total amount of revenue amounted to US\$ 71.1 billion together with property tax it amounted to US\$ 96.1 billion. Deng (2003) says that for a period of 2004 to 2008 China generated substantial revenue from public land leasing which accounted for 46.5% of the cities entire budget level.

5.1.3 Economic perspective

In this perspective main concern was to understand whether market prices of land and properties are reflected in the taxation data base of land rents, premium and property taxation in Mbeya city council. Another concern was to know the extent to which land value increments are captured in Mbeya city. Main leading question was whether property taxation and public-land leasing captures the value of land in Mbeya city.

5.1.3.1 Do property taxation and public-land leasing captures the value of land in Mbeya city?

This question was subdivided in these two questions (a) Are the market prices of land and properties reflected in the taxable values of public land leasing and property taxation? (b) To what extent is the government capturing increments in land value?

5.1.3.1.1 Are the market prices of land and properties reflected in the taxable values of public land leasing and property taxation?

For the case of public land leasing, it was revealed that taxable values of land and properties were below the market values. Taxable values of land in the database were in the range of 26% to 55% compared to market values of the same plots. This is because real market values are not reflected in the taxable values available in the database of Mbeya city council.

For the case of property taxation, it was revealed that taxable values in the data base of property taxation are lower than property market values. Data base values were in the range of 37% to 83% compared to market values of the same properties. Property taxes are established based attributes of improvements (buildings). Remember Walters (2012) said that if market value estimates are not regularly updated and are reflected on nonmarket variables like building attributes or land area then land value capture potentiality for property tax is impaired.

5.1.3.1.2 To what extent is the government capturing increments in land value?

In this question the researcher based on increments in the value of land by considering market value of plots minus cost of producing the same plot. After getting 100% land value increments in each plot he deducted cost of producing every plot from database value of government which was premium plus capitalised land rents for every plot for a term of the lease. It was revealed that land value increments captured in every plot was at the range of

16% to 69% compared to 100% of increments which would have been captured. This shows that land rents and premiums not effective land value capture tools, for them to be effective they have to be based on real market values.

5.1.4 Social perspective

In this perspective researcher wanted to understand the impact of roads infrastructure in land values and also to know the contribution of revenue from public land leasing and property taxation on roads investment. In the literature we saw that, for the public good to be financed by land value capture then it should have impact on the increments of land values. Researcher based on the question below to find out the answers.

5.1.4.1 Can roads infrastructure be financed by public land leasing and property taxation?

This question was further split into two sub questions as follows (a) Does roads infrastructure increase land values? (b) To which extent can revenue finance roads infrastructure?

5.1.4.1.1 Does roads infrastructure increase land values?

It was found that land values increased in the neighbourhood after road construction. Land values started increasing soon after local government announced the intention of constructing the subject road (Ilomba –Machinjioni road). In the year 2009 the information was conveyed to the neighbourhood about the intention to construct a road, and then from 2010 land values started increasing up to now (year 2013). After road construction was completed prices raised more and more. Before road construction the price of residential plot per square meter was in average of US\$ 2.07, whereas during and after road construction price of residential plots per square meter were in the average of US\$ 5.48 more than twice increased. This is the same findings as discussed in chapter two whereas Perdomo, Mendoza, et al (2007) found that residential properties located in the area of influence of Transmilenio road in Bogota (Colombia) enjoys more premiums in their value for about 5.8% to 17%. Fensham and Gleeson (2003) reports that motor ways development in Sydney which was constructed for past ten years increased value of properties for a premium of 30 to 60 percent.

5.1.4.1.2 To which extent can revenue finance roads infrastructure?

In this question researcher compared cost of establishing new roads versus revenue from premiums whereas cost of roads maintenance was compared to land rents and property taxes.

It was found that premium revenues are enough to afford for costs of establishing new roads. Premium revenue collected from 2004 to 2013 accounted to a total of US\$ 7,529,676.98 whereas total cost spent on establishing new roads for the same period accounted for US\$ 1,933,201.08 these figures are as at 2013 prices. This shows that premium is strong source of revenue and effective tool of land value capture though it is not capturing all the increments in land values.

In roads maintenance it was revealed that cost is higher than what is generated in land rents and property taxes. Revenue from the year 2004 to 2013 from land rents and property taxes accounted to a total of US\$ 1,794,981.57 whereas costs of road maintenance of the same period amounted to US\$ 6,763,967.24 the figures are as at 2013 prices.

5.2 Recommendations

Recommendations based on observations and findings from the study area are provided below.

1. It is recommended that Ministry of lands (MLHHS) should decentralise collection of land rents to Mbeya city council because it is the only authority that has an obligations of providing public goods and services in the city therefore land rents collected in the city are supposed to finance public expenditure in the city.
2. Decentralisation in Tanzania should mean to devolve collection and spending fiscal discretion to local authorities and not only to leave responsibilities to local authority.
3. Mbeya city council is advised to make production of plots and put them in the market at least once a year so that it collects more revenue from premium for supporting public expenditure. This is because it collects more revenue from premium than in any other source.
4. Mbeya city council should put more enforcement in the collection of land rents and property taxation. Enforcement is advised in the area of commitment for manpower and penalisation for defaulters.
5. It is recommended that tax base should be increased in land rents and property taxation by updating land and property taxable values to market values.
6. It is recommended to identify more taxable properties to update property tax database hence increase more revenue.
7. Use of fixed amount as property tax for unvalued properties is advised to be avoided because it reduces revenue for potential buildings and penalisation for taxpayer of low standard houses that bears the same building materials (no fairness).
8. Market prices for land and properties should be reflected in the land rents, premiums and property taxation database in order to capture all increments in land values.
9. It is recommended Mbeya city council to put more effort in the finance of roads infrastructure because it increases the value of land which is captured back by land rents, premiums and property taxation.
10. It is advised Mbeya city council to use premium revenue to establish new roads because premium is one-time payment fee, land rents and property taxes are advised to be spent in roads maintenance because they are annual payment fees and also maintenance is regularly done. However roads maintenance should be supported by other sources because revenues from these sources are lower than costs.
11. It is advised that taxable value for property tax should include the value of land at a market value and not only buildings otherwise there is no land value capture in property taxation.
12. Since the principle law allows using market value it is advised taxable values of properties to be ascertained at market value basis because real estate market in the country has started to be fairly active unlike during socialism ideology.

5.3 Future study

For future study it is recommended further research should be done solely on the market and economic justifications about the impact of roads infrastructure in land value increments in Mbeya city council. Major concern is advised to be put on revealing market and economic forces, showing and justifying increments on land values and advice on probable instruments to capture those land value increments.

REFERENCES

- Alonso, W., 1964. Location and land use. Toward a general theory of land rent. Cambridge, Mass.: Harvard Univ. Pr.
- Alterman, R., 2012. Land-use regulations and property values: "windfalls Capture" idea revised. In: N. Brooks, K. Donaghy and G. Knaap eds., 2012. Urban economics and planning. New York, USA: Oxford University Press. pp. 755-786.
- Andelson, R., 2001. Land-value taxation around the world (Studies in economic reform & social justice). Third Edition. Oxford, United Kingdom: Wiley-Blackwell.
- Anderson, J., 2012. Collecting land value through public land leasing. In: K. Ingram and Y. and Hong eds., 2012. Value capture and land policies. Cambridge, MA.: Lincoln Institute of Land Policy. pp. 123-148.
- Arimah, B. C. and Adinnu, F. I. 1995. Market segmentation and the impact of landfills on residential property values: Empirical evidence from an African city. *Journal of Housing and the Built Environment*, 10 (2), pp. 157-171.
- Bailey, C. A., 2007. A guide to qualitative field research. Second edition. California, USA: SAGE Publications, Inc.
- Bird, R. M. and Slack, E. N. 2004. Land and property taxation in 25 countries: A comparative review. *International Handbook of Land and Property Taxation*. UK: Edward Elgar Publishing, pp. 19-56.
- Black, T. R., 1993. Evaluating social science research: An introduction. London, UK: SAGE Publications Limited.
- Blumberg, B. F., Cooper, D. R. and Schindler, P. S. 2005. Survey research. *Business Research Methods*, pp. 243-276.
- Bocarejo, J. P., Portilla, I. and Pérez, M. A. 2012. Impact of Transmilenio on density, land use, and land value in Bogotá. *Research in Transportation Economics*, .
- Booth, P., 2012. The unearned increment: Property and the capture of betterment value in Britain and France. In: G. Ingram and H. Y-H eds., 2012. Value capture and land policies. Cambridge, MA: Lincoln Institute of Land Policy. pp. Ch.4, 74-76.
- Bourassa, S. C. and Hong, Y., 2003. Leasing public land: Policy debates and international experiences. Lincoln Institute of Land Policy.
- Bowes, D. R. and Ihlanfeldt, K. R. 2001. Identifying the impacts of rail transit stations on residential property values. *Journal of Urban Economics*, 50 (1), pp. 1-25.
- Brakman, S., Garresten, H. and van Marrewijk, C., 2001. An introduction to geographical economics: Trade, location and growth. Cambridge, U.K: Cambridge University Press.

Brons, M., Nijkamp, P., Pels, E. and Rietveld, P. 2003. Railroad noise: Economic valuation and policy. *Transportation Research Part D: Transport and Environment.*, 8 (3), pp. 169-184.

Cervero, R. and Duncan, M. 2002. Land value impacts of rail transit services in San Diego County. *Report Prepared for National Association of Realtors Urban Land Institute.*, .

Chan, N., 2003. Land acquisition compensation in China—problems & answers. *International Real Estate Review*, 6 (1), pp. 136-152.

Cohen, J. P. and Paul, M. C. 2007. The impacts of transportation infrastructure on property values: A higher-order spatial econometrics approach. *Journal of Regional Science*, 47 (3), pp. 457-478.

De Cesare, C., 1999. Challenges to property tax administration in Porto Alegre, Brazil. *Land Lines. Cambridge, MA, USA: Lincoln Institute of Land Policy: Set*, 10 (1), .

Deng, F., 2003. Political economy of public land leasing in Beijing, China. In: S. Bourassa, Y. Hong and Lincoln Institute of Land Policy eds., 2003. *Leasing public land: Policy debates and international experiences.* Cambridge, MA: Lincoln Institute of Land Policy. pp. 229-250.

Espey, M. and Lopez, H. 2000. The impact of airport noise and proximity on residential property values. *Growth and Change*, 31 (3), pp. 408-419.

Evans, A., 2004. *Economics, real estate and the supply of land.* London: Blackwell Publishing.

Fainstein, S., 2012. Land value capture and justice. In: K. Ingram and Y. Hong eds., 2012. *Value capture and land policies.* Cambridge, MA: Lincoln Institute of Land Policy. pp. 21-40.

Fensham, P. and Gleeson, B. 2003. Capturing value for urban management: A new agenda for betterment. *Urban Policy and Research.*, 21 (1), pp. 93-112.

Fine, B., 1982. *Theories of the capitalist economy.* Holmes & Meier NY.

Fisher, R., ed., 1993. *Tensions and tenures in post-apartheid South Africa, [A conference on international land tenure organized by the Royal Institution of Surveyors and the University of East London].*

Franzsen, R. and McCluskey, W. J. 2013. Value-based approaches to property taxation. In: W. J. McCluskey, C. G. Cornia and C. L. Walters eds., 2013. *A primer on property tax: Administration and policy.*. Oxford, U.K: Blackwell Publishing Ltd. pp. 41-68.

Fu, Y. and Ng, K. L. 2001. Market efficiency and return statistics: Evidence from real estate and stock markets using a present-value approach. *Real Estate Economics*, 29 (2), pp. 227-250.

- Fujita, M., 1989. *Urban economic theory: Land use and city size*. Cambridge, UK: Cambridge university press.
- George, H., 1897. *Progress and poverty: An inquiry into the cause of industrial depressions and of increase of want with increase of wealth*. New York, USA: Robert Schalkenbach Foundation.
- Hong, Y. and Steven, S. 2003. Why public leasehold? Issues and concepts. In: S. Bourassa and Y. Hong eds., 2003. *Leasing public land: Policy debates and international experiences*. Cambridge, MA: Lincoln Institute of Land Policy.
- Hong, Y., 2003. Policy dilemma of capturing land value under the Hong Kong public leasehold system. *Policy dilemma of capturing land value under the Hong Kong public leasehold system*. 2003. Cambridge, MA: Lincoln Institute of Land Policy. pp. 151-176.
- Jäger, J., 2003. Urban land rent theory: A regulationist perspective. *International Journal of Urban and Regional Research*, 27 (2), pp. 233-249.
- Kayuza, H. M., 2006. *Real property taxation in Tanzania: An investigation on implementation and taxpayer perceptions*. PHD. Stockholm, Sweden: KTH.
- Keith, S., McAuslan, P., Knight, R., Lindsay, J., et al., 2008. *Compulsory acquisition of land and compensation*. Rome, Italy: FAO. Available at: <ftp://ftp.fao.org/docrep/fao/011/i0506e/i0506e00.pdf> [Accessed July, 2013].
- Kelly, R. and Musunu, Z., 2000. Implementing property tax reform in Tanzania. Working Paper WP00RK1. URL <http://www.lincolinst.edu>: Lincoln Institute of Land Policy.
- Kelly, R., 2013. Property tax collection and enforcement. *A Primer on Property Tax: Administration and Policy*, pp. 141-171.
- Kessides, C., 2006. *The urban transition in Sub-Saharan Africa: Implications for economic growth and poverty reduction*. Washington DC: Cities Alliance. Available at: <http://www.worldbank.org/afr/wps/wp97.pdf> .
- Kironde, J. M. L., 1995. Access to land by the urban poor in Tanzania: Some findings from Dar es Salaam. *Environment and Urbanization*, 7 (1), pp. 77-96.
- Kitchen, H., 2013. Property tax: A situation analysis and verview. In: W. J. McCluskey and C. G. a. W. Cornia C.L eds., 2013. *Aprimer on property tax: Adminstration and policy*. Oxford,UK: Blackwell Publishing Ltd. pp. 1-40.
- Kumar, R., 2001. A long road to potential riches. *Australian Financial Review*, 16 pp. 21.
- Lange, S., 2008. *Land tenure and mining in Tanzania*. R 2008: 2), Bergen, Norway.: CMI.
- Larbi, W. O., Antwi, A. and Olomolaiye, P. 2004. Compulsory land acquisition in Ghana—policy and praxis. *Land use Policy*, 21 (2), pp. 115-127.
- Lymer, A. and Hancock, D., 2002. *Taxation policy & practice*. U.K: Chapman & Hall.

- Lymer, A. and Hancock, D., 2002. *Taxation Policy & Practice*. Chapman & Hall.
- Marshall, A., 2004. *Principles of economics*. Digireads. com.
- McCluskey, W. J. and Franzsen, R. 2005. An evaluation of the property tax in Tanzania: an untapped fiscal resource or administrative headache? *Property Management*, 23 (1), pp. 43-69.
- McCluskey, W. J., Cornia, C. G. and Walters, C. L. eds., 2013. *A primer on property tax: Administration and policy*. First edition. Oxford, UK: Blackwell Publishing Ltd.
- McKinsey & Company., 2008. *Sustainable urban infrastructure*. London edition – a view to 2025. Available at: http://www.siemens.com/entry/cc/features/urbanization_development/all/de/pdf/study_london_de.pdf [Accessed 2013].
- Medda, F., 2011. Land value finance: Resources for public transport. In: R. Sietching ed., 2011. *Innovative land and property taxation*. Nairobi, Kenya: UN Habitat. pp. 42-54.
- Mitchell, V., 1996. Assessing the reliability and validity of questionnaires: An empirical example. *Journal of Applied Management Studies*, 5 pp. 199-208.
- National Bureau of Statistics., 2006. 2002 Population and housing census. (Analytical report ; 2002 Census), Dar es Salaam, Tanzania: Ministry of planning, economy and empowerment.
- National Bureau of Statistics., 2013. 2012 Population and housing census. (Population distribution by administrative areas ; 2012 Census), Dar es salaam, Tanzania: Ministry of finance.
- Neutze, M., 2003. Leasing of publicly owned land in Canberra, Australia. In: S. Bourassa and H. Y-H eds., 2003. *Leasing public land: Policy debates and international experiences*. Cambridge, MA: Lincoln Institute of Land Policy. pp. 39-59.
- Odgaard, R., 2006. Land rights and land conflicts in Africa: The Tanzania case. *Danish Institute for International Studies, Copenhagen*, .
- Okoth-Ogendo, H. W. O., Toulmin, C. and Quan, J. 2000. Legislative approaches to customary tenure and tenure reform in East Africa. *Evolving Land Rights, Policy and Tenure in Africa*, pp. 123-134.
- Olengurumwa, O. P. K., ed., 2010. 1990's Tanzania land laws reforms and its impacts on the pastoral land tenure, [A paper presented during pastoral week at Arusha]. Arusha, Tanzania, From 14th-16th February, 2010.
- Payne, G., 1997. *Urban land tenure and property rights in developing countries: A review*. London, U.K: Intermediate Technology Publications London.
- Payne, G., 2001. Urban land tenure policy options: Titles or rights? *Habitat International*, 25 (3), pp. 415-429.

Perdomo, J.,Mendoza, C.,Baquero-Ruiz, A. and Mendieta, J. 2007. Study of the effect of the Transmilenio mass transit project on the value of properties in Bogotá, Colombia. *Lincoln Institute of Land Policy Working Paper no. WP07CA1*, .

Plimmer, F., 2013. Legal issues in property tax administration. *A Primer on Property Tax: Administration and Policy*, pp. 187-205.

Republic of Namibia, 2010. Implementation of land tax on commercial agricultural land in Namibia. *Ministry of Lands and Resettlement, Directorate of Valuation and Estate Management*, pp. 1-29.

Ricardo, D., 1817. The principles of political economy and taxation. Third Edition, 1821. Kitchener, Ontario, Canada: Batoche Books.

Rodriguez, D. and Targa, F. 2004. Value of accessibility to Bogota's bus rapid transit system. *Transport Reviews*, 24 (5), pp. 587-610.

Roughton, G. E., 2006. Comprehensive land reform as a vehicle for change: An analysis of the operation and implications of the Tanzanian Land Acts of 1999 and 2004. *Colum.J.Transnat'L L*, 45 pp. 551.

Saunders, M., Lewis, P. and Thornhill, A., 2007. Research methods for business students. Fourth edition. England, UK: Pearson education limited.

Schell, C., 1992. The value of the case study as a research strategy. *Manchester, UK: University of Manchester, Manchester Business School*, pp. 1-15.

Sheuya, S. A., 2010. Informal settlements and finance in Dar es Salaam, Tanzania. Nairobi, Kenya: Un-Habitat.

Smith, J. J. and Gihring, T. A. 2006. Financing transit systems through value capture. *American Journal of Economics and Sociology*, 65 (3), pp. 751-786.

Smolka, M. and Amborski, D. 2000. Value capture for urban development: An Inter-American comparison. *Research Paper of the Lincoln Institute of Land Policy*, .

Titman, S., 1985. Urban land prices under uncertainty. *The American Economic Review*, 75 (3), pp. 505-514.

United Republic of Tanzania, 1977. Constitution of the United republic of Tanzania of 1977. Dar es salaam: United Republic of Tanzania.

United Republic of Tanzania, 1982. Local government (District Authorities) act of 1982. Dar es salaam: United Republic of Tanzania.

United Republic of Tanzania, 1982. Local government (Urban Authorities) act of 1982. Dar es salaam: United Republic of Tanzania.

United Republic of Tanzania, 1983. Urban authorities (Rating) act of 1983. Dar es salaam: United Republic of Tanzania.

United Republic of Tanzania, 1999. Land act No: 4 of 1999. Dar es salaam, Tanzania: United Republic of Tanzania.

United Republic of Tanzania, 2001. Land (Conduct of Auctions and Tenders) GN no: 73 published on 4/5/2001. Dar es salaam: United Republic of Tanzania.

United Republic of Tanzania, 2002. Land disputes courts Act number 2 of 2002. Dar es salaam, Tanzania: United Republic of Tanzania.

United Republic of Tanzania, 2011. Mbeya property tax by-law of 2011 (GN no: 374 published on 11/11/2011). Dar es salaam: United Republic of Tanzania.

United Republic of Tanzania, 2012. Land (rent) regulations, 2012 (GN no: 266 of 3/8/2012). Dar es salaam: United Republic of Tanzania.

United Republic of Tanzania., 1999. Village land act no:5 of 1999. Dar es salaam: United Republic of Tanzania.

Verhage, R., 2002. Local Policy for Housing Development. European experience. Aldershot: Ashgate.

Vlassenko, I., 2001. Evaluation of the efficiency and fairness of British, French and Swedish property tax systems. *Property Management*, 19 (5), pp. 384-416.

Walters, L., 2011. Land and property tax: A policy guide. Nairobi, Kenya: UN-HABITAT.

Walters, L., 2012. Are property-related taxes effective value capture instruments? In: K. Ingram and Y. Hong eds., 2012. Value capture and land policies. Cambridge, MA; USA: Lincoln Institute of Land Policy. pp. 187-216.

Woodside, A. G., 2010. Case study research: Theory;Methods;Practice. First edition. Bingley, UK: Emerald Group Publishing.

Yin, R. K., 2003. Case study research: Design and methods. Third edition. California, USA: SAGE Publications, Incorporated.

Zorn, K., 2013. Establishing a tax rate. *A Primer on Property Tax: Administration and Policy*, pp. 125-139.

ANEXTURES

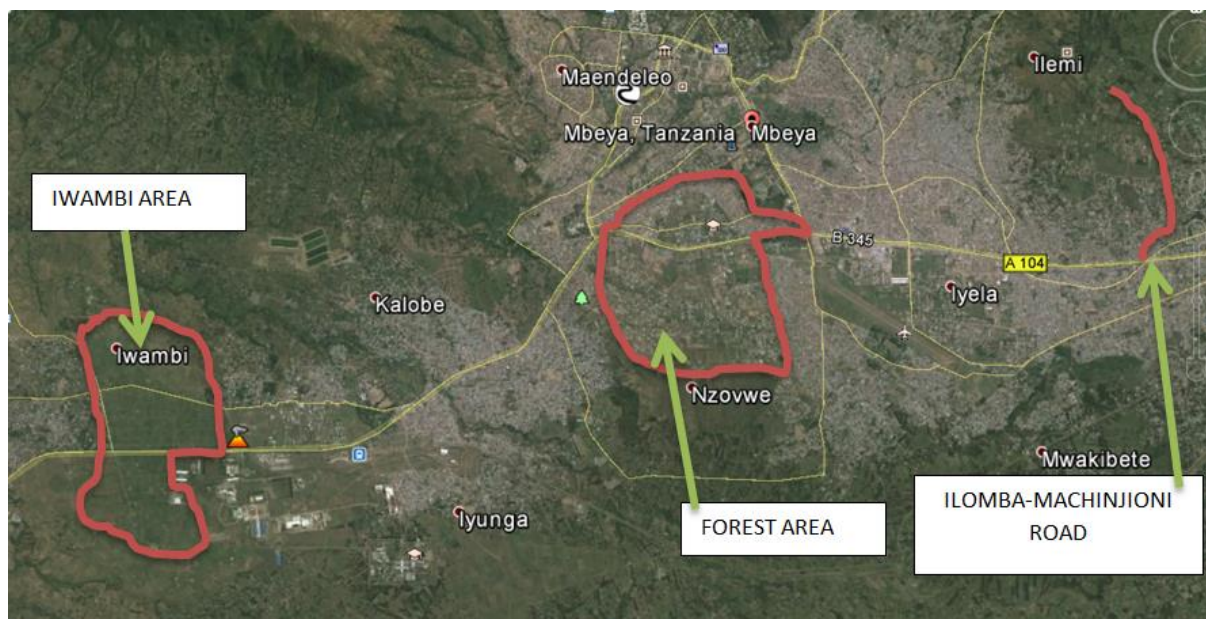
ANNEX 1. INTERVIEW GUIDE:

<p style="text-align: center;">Main research Objective: To make assessment of how public land leasing and property taxation can capture land values to finance roads infrastructure in Mbeya city in Tanzania.</p> <p style="text-align: center;">Main Research question: How can public land leasing and property taxation capture land values to finance roads infrastructure?</p>				
Research Questions	Sub questions	Variables	Indicators	Questions
1. Do property taxation and public land leasing captures the value of land in Mbeya?	<ul style="list-style-type: none"> Are the market prices of land and properties reflected in the taxable values of public land leasing and property taxation? Is the government capturing increments in land value? 	<ul style="list-style-type: none"> Comparison between market and database prices for plots and properties. Comparison between cost of producing a plot and market value? 	<ul style="list-style-type: none"> Land rent per m² Price of plot per m² Price of properties per m² Taxable values of land and properties in the database. Land survey cost per plot. Compensation cost per plot. Market value of a plot. 	<ul style="list-style-type: none"> Real estate brokers Prices of plots Land leasing What are prices of ten plots recently sold at Iwambi area? Valuation companies Property values Property taxation What are the values of ten recently mortgaged properties at Sae area? What are the values of ten recently mortgaged properties at Forest area? Private lawyers office Land prices Land leasing What are the prices of ten plots recently sold at Iwambi area? Note. Plots sold by brokers are what confirmed to lawyers who witnessed sales. Mbeya city council Lands office Land rents and premiums Land leasing What are the land rents per square meter of residential plots in Iwambi area? What are sizes of plots in square meters? What is the premium per square meter used in allocation of those plots? Mbeya City Council Valuation office Property taxation. What are the property taxes per year of residential properties in Sae and Forest area?
2. How much incomes are generated by public land leasing and property taxation from land value	<ul style="list-style-type: none"> What are parameters involved in dues assessment? 	<ul style="list-style-type: none"> Formula used in calculation. Parameters used in the formula. 	<ul style="list-style-type: none"> Land rent per m². Premium per m². Property tax per property. 	<ul style="list-style-type: none"> Mbeya city council Lands office Land rents and premiums Land leasing What is the formula used in calculating land rent and premium? What are the parameters involved in calculation? How land rent and premium per square meter is established?

capture in Mbeya city?				<ul style="list-style-type: none"> • Mbeya city council • Valuation office • Property taxation. • How is property tax calculated? • What is the formula used in calculating property tax? • What are the parameters used in the formula?
	• How much is generated?	• Amount of revenue generated from land rent, premium and property tax for a period of the year 2004 to 2013.	• Amount of revenue generated per year.	<ul style="list-style-type: none"> • Mbeya City council • Treasury office • Revenue collection • What is the revenue generated from land rent, premium and property taxation for a period of the year 2004 to 2013?
	• What is the revenue generation capacity comparing to other sources?	• Amount of revenue generated from public land leasing and property tax comparing to revenue generated by other sources.	• Amount of revenue generated per year.	<ul style="list-style-type: none"> • Mbeya City council • Treasury office • Revenue collection • What are other sources of revenue in Mbeya city council? • What is the revenue from those sources for a period of 2004 to 2013?
3. What is the institutional framework governing public land leasing and property taxation in Mbeya city?	• What are the rights and obligations of government in managing the tools?	<ul style="list-style-type: none"> • Rights of the government. • Obligations of the government. 	• Provisions in the Constitution and secondary laws.	<ul style="list-style-type: none"> • Mbeya city council • Lands office • Land rent and premium • What are the rights and obligations of Mbeya city council in land rent and premiums management? • Ministry of lands • Zonal Assistant Commissioner for lands-Mbeya. • Land rent and premium. • What are the rights and obligations of central government in land rent and premiums management? • Mbeya city council • Valuation office. • Property tax. • What are the rights and obligations of Mbeya city council and central government in property tax management?
	• What are the procedures the government follows in undertaking the obligations?	• Bundle of responsibilities and its division to different Authorities.	• Number of responsibilities per Authority.	<ul style="list-style-type: none"> • Mbeya city council • Land rent, premium and property taxation. • What are the responsibilities of Mbeya city council in land rent, premium and property tax management? • Ministry of lands • Zonal Assistant Commissioner for lands-Mbeya. • Land rent. • What are the responsibilities of Ministry of lands in land rent management?

4. Can roads infrastructure be financed by public land leasing and property taxation?	<ul style="list-style-type: none"> Does roads infrastructure increase land values? 	<ul style="list-style-type: none"> Price of plots before roads infrastructure construction. Price of plots after or during roads construction. 	<ul style="list-style-type: none"> Price of plots per square meter. 	<ul style="list-style-type: none"> Mbeya city council Mtaa executive officer. Land prices before roads during and after roads construction What are the prices of ten recently sold plots within 500 meters along the road? What are the prices of ten plots sold before roads construction within 500 meters along the road? When was it become aware to the public about roads construction? When was the roads construction started?
	<ul style="list-style-type: none"> To which extent can revenue finance roads infrastructure? 	<ul style="list-style-type: none"> Comparison between revenue and costs of roads construction. 	<ul style="list-style-type: none"> Revenue per year. Expenditure on roads construction per year. 	<ul style="list-style-type: none"> Mbeya city council Treasury office What are the revenue in land rent, premium and property tax for a period of 2004 to 2013? What are the expenditures in roads infrastructure for a period of 2004 to 2013?

ANNEX 2. CASE STUDY AREAS



ANNEX 3. QUESTIONNAIRES

QUESTIONNAIRE TO LANDS SECTION-MBEYA CITY COUNCIL

My name is James Venant Francis I am currently pursuing Master's Programme in the Netherlands (M.Sc. in Urban Management and Development) at the Institute of Housing and Urban studies of the Erasmus University Rotterdam. I'm now doing a research as a fulfillment of Masters Programme, your cooperation for data collection in your office is highly requested with honour, thank you.

Mbeya City Council

Department of Urban Planning and Environment,

Land Section,

Name of Officer:.....

Contact details:.....

Position of duty:.....

(1) Land rent

- (a) What is the formula used in calculating land rent?
- (b) What are the parameters involved in calculation?
- (c) How land rent per square meter is established?
- (d) What are the rights and obligations of Mbeya city council in land rent management?
- (e) What are the land rents per square meter of residential plots in Iwambi are?
- (f) What are sizes of plots in square meters?
- (g) Who sets the land rent per square metre?
- (h) What are the Criteria for setting the premium price per square metre?
- (i) What does the law say as who should capture land rent?

(2) Premium

- (a) What is the formula used in calculating premium?
- (b) What are the parameters involved in calculation?
- (c) How premium per square meter is established?
- (d) What are the rights and obligations of Mbeya city council in premiums management?
- (e) What is the premium per square meter used in allocation of plots at Iwambi and Isyesye?
- (f) Who sets the premium price per square metre?
- (g) What does the law say as who should capture premium revenue from sale of plots?
- (h) What are the Criteria for setting the premium price per square metre?

QUESTIONNAIRE TO LAND VALUATION SECTION-MBEYA CITY COUNCIL

My name is James Venant Francis I am currently pursuing Master's Programme in the Netherlands (M.Sc. in Urban Management and Development) at the Institute of Housing and Urban studies of the Erasmus University Rotterdam. I'm now doing a research as a fulfillment of Masters Programme, your cooperation for data collection in your office is highly requested with honour, thank you.

Mbeya City Council

Department of Urban Planning and Environment,

Land Valuation Section,

Name of Officer:.....

Contact details:.....

Position of duty:.....

1. Property Tax

- (a) What are the property taxes per year of residential properties in Sae and Forest area?
- (b) What are taxable values of plots in forest and sae?
- (c) How is property tax calculated?
- (d) What is the formula used in calculating property tax?
- (e) What are the parameters used in the formula?
- (f) What are the rights and obligations of Mbeya city council and central government in property tax management?

- (g) What does the law provide on who should capture property tax revenue?

- (h) What is the current situation?

- (i) Who sets the property tax rate?

- (j) What is the property tax rate in Mbeya City?

- (k) What are the responsibilities of Mbeya City in Property Tax management?

- (l) What are procedures in undertaking responsibilities is property tax management?

2. Compensation.

- (a) What is the cost of compensation for a land and trees?
- (b) Is the compensation based on agricultural value or any other criteria?
- (c) What are other criteria based on during compensation?
- (d) What is the cost of other improvements that are likely compensated in Mbeya city?
- (e) What are other issues that are taken along during compensation as necessary?

QUESTIONNAIRE TO TREASURY OFFICE- MBEYA CITY COUNCIL

My name is James Venant Francis I am currently pursuing Master's Programme in the Netherlands (M.Sc. in Urban Management and Development) at the Institute of Housing and Urban studies of the Erasmus University Rotterdam. I'm now doing a research as a fulfillment of Masters Programme, your cooperation for data collection in your office is highly requested with honour, thank you.

Mbeya City Council

Mbeya City Treasury Office:

Name of Officer:.....

Contact details:.....

Position of duty:.....

Expenditure and revenue collection:

- (a) What is the revenue generated from land rent, premium and property taxation for a period of the year 2004 to 2013?
- (b) What are other sources of revenue in Mbeya city council?
- (c) What is the revenue from those sources for a period of 2004 to 2013?
- (d) What are the expenditures in roads infrastructure for a period of 2004 to 2013?

QUESTIONNAIRE TO CITY ENGINEERING OFFICE-MBEYA CITY COUNCIL

My name is James Venant Francis I am currently pursuing Master's Programme in the Netherlands (M.Sc. in Urban Management and Development) at the Institute of Housing and Urban studies of the Erasmus University Rotterdam. I'm now doing a research as a fulfillment of Masters Programme, your cooperation for data collection in your office is highly requested with honour, thank you.

Mbeya City Council

City Engineers Office:

Name of Officer:.....

Contact details:.....

Position of duty:.....

Roads construction:

- (a) What is the cost per kilometer for roads construction to tarmac roads?
- (b) How many kilometers are constructed for the Ilomba –Machinjioni road?
- (c) What are the expenditures of roads maintenance for a period of ten years from 2004 to 2014?
- (d) What are the expenditures of construction of new roads for a period of ten years from 2004 to 2013?
- (e) How many kilometers of new roads constructed for a period of ten years from 2004 to 2013?

QUESTIONNAIRE TO LOCA LEADER MANGA VETA MTAA EXECUTIVE OFFICE

My name is James Venant Francis I am currently pursuing Master's Programme in the Netherlands (M.Sc. in Urban Management and Development) at the Institute of Housing and Urban studies of the Erasmus University Rotterdam. I'm now doing a research as a fulfillment of Masters Programme, your cooperation for data collection in your office is highly requested with honour, thank you.

Manga Veta Mtaa executive officer (Local leader)

Name of Officer:.....

Contact details:.....

Position of duty:.....

3. Price of plots before and after roads construction (Ilomba –Machinjioni road).
 - (a) What are the prices of ten recently sold plots within 500 meters along the road?
 - (b) What are the prices of ten plots sold before roads construction within 500 meters along the road?
 - (c) When was it become aware to the public about roads construction?
 - (d) When was the roads construction started?

QUESTIONNAIRE TO H&R CONSULTANT LIMITED

My name is James Venant Francis I am currently pursuing Master's Programme in the Netherlands (M.Sc. in Urban Management and Development) at the Institute of Housing and Urban studies of the Erasmus University Rotterdam. I'm now doing a research as a fulfillment of Masters Programme, your cooperation for data collection in your office is highly requested with honour, thank you.

H&R Consultant Ltd (Private valuation firm)

Name of Officer:.....

Contact details:.....

Position of duty:.....

4. Property taxation

- (a) What are the values of ten recently mortgaged properties at Sae area?
- (b) What are the values of ten recently mortgaged properties at Forest area?
- (a) What is the method used in valuation?

QUESTIONNAIRE TO M&R AGENCY LIMITED

My name is James Venant Francis I am currently pursuing Master's Programme in the Netherlands (M.Sc. in Urban Management and Development) at the Institute of Housing and Urban studies of the Erasmus University Rotterdam. I'm now doing a research as a fulfillment of Masters Programme, your cooperation for data collection in your office is highly requested with honour, thank you.

M&R Agency Ltd (Private valuation firm)

Name of Officer:.....

Contact details:.....

Position of duty:.....

1. Property taxation

- (a) What are the values of ten recently mortgaged properties at Sae area?
- (b) What are the values of ten recently mortgaged properties at Forest area?
- (b) What is the method used in valuation?

QUESTIONNAIRE TO REGISTRAR OF TITTLES

My name is James Venant Francis I am currently pursuing Master's Programme in the Netherlands (M.Sc. in Urban Management and Development) at the Institute of Housing and Urban studies of the Erasmus University Rotterdam. I'm now doing a research as a fulfillment of Masters Programme, your cooperation for data collection in your office is highly requested with honour, thank you.

Registrar of Tittles Office:

Name of Officer:.....

Contact details:.....

Position of duty:.....

Property market.

- (a) Are there any properties located at Sae areas which were recently mortgaged (ten properties needed)?
- (b) What are there market values?
- (c) What is the method of valuation used?

QUESTIONNAIRE TO THE COMMISSIONER FOR LAND

My name is James Venant Francis I am currently pursuing Master's Programme in the Netherlands (M.Sc. in Urban Management and Development) at the Institute of Housing and Urban studies of the Erasmus University Rotterdam. I'm now doing a research as a fulfillment of Masters Programme, your cooperation for data collection in your office is highly requested with honour, thank you.

Commissioner for lands (Southern Highland Zone-Mbeya)

Name of Officer:.....

Contact details:.....

Position of duty:.....

1. Land rent.

- a. What are the rights and obligations of central government in land rent and premiums management?
- b. What are the responsibilities of Ministry of lands in land rent management?
- c. What are the procedures in undertaking responsibilities?
- d. What does the law provide who should capture land rent revenue?
- e. What is the current situation?
- f. What is the trend of revenue collection for a period of ten years from 2004-2013 in the zone? (Not twenty percent)
- g. How is land rent per square metre established?

QUESTIONNAIRE TO REAL ESTATE BROKERS

My name is James Venant Francis I am currently pursuing Master's Programme in the Netherlands (M.Sc. in Urban Management and Development) at the Institute of Housing and Urban studies of the Erasmus University Rotterdam. I'm now doing a research as a fulfillment of Masters Programme, your cooperation for data collection in your office is highly requested with honour, thank you.

Real estate brokers

Name of Respondent: Mwakasege and Seti

Contact details:.....

Position of duty:.....

1. Land prices.

- a. What are prices of ten plots recently sold at Iwambi area?

QUESTIONNAIRE TO ATTORNEY GENERAL'S CHAMBERS

My name is James Venant Francis I am currently pursuing Master's Programme in the Netherlands (M.Sc. in Urban Management and Development) at the Institute of Housing and Urban studies of the Erasmus University Rotterdam. I'm now doing a research as a fulfillment of Masters Programme, your cooperation for data collection in your office is highly requested with honour, thank you.

Attorney General's Chambers (Confirming sales information from brokers)

Name of respondent:.....

Contact details:.....

Position of duty:.....

2. Land prices.

- a. What are prices of ten plots recently sold at Iwambi area?

QUESTIONNAIRE TO KYANDO ADVOCATES

My name is James Venant Francis I am currently pursuing Master's Programme in the Netherlands (M.Sc. in Urban Management and Development) at the Institute of Housing and Urban studies of the Erasmus University Rotterdam. I'm now doing a research as a fulfillment of Masters Programme, your cooperation for data collection in your office is highly requested with honour, thank you.

Kyando Avocates (Confirming sales information from brokers)

Name of Officer:.....

Contact details:.....

Position of duty:.....

3. Land prices.

- a. What are prices of ten plots recently sold at Iwambi area?

QUESTIONNAIRE TO CITY LAND SURVEYOR

My name is James Venant Francis I am currently pursuing Master's Programme in the Netherlands (M.Sc. in Urban Management and Development) at the Institute of Housing and Urban studies of the Erasmus University Rotterdam. I'm now doing a research as a fulfillment of Masters Programme, your cooperation for data collection in your office is highly requested with honour, thank you.

City land surveyor

Name of Officer:.....

Contact details:.....

Position of duty:.....

4. Maps and survey plans

- a. Is there survey plans for Iwambi and around Ilomba-Machinjioni road?
- b. What is the area of plots in those areas? Only those concerned
- c. What are the distances of the plots sold before and after roads construction from the road?
- d. What is the current stipulated cost of surveying land?
- e. Is the cost based on plot or area of a plot per square meter?