

LAND ACCESS AND ECONOMIC DEVELOPMENT IN PERI-URBAN AREAS OF RWANDA: CASE STUDY OF GASABO DISTRICT'S POPULATION POINT OF VIEW

Dusabe Jane & Mbabazi Mbabazize

Department of Development Studies, University of Rwanda

ABSTRACT: *The study aimed at establishing whether land access can lead to economic development in Peri-urban areas of Rwanda, with case study of Gasabo District. The objectives of this study were to ; To describe the land access situation among the population of Gasabo District, to describe the land use in Gasabo District and to evaluate (respondents view on) the relationship between the land access/use and economic development. The total sample size were 383 respondents who served as the source of primary data, secondary data was obtained from the documents, books, papers published by different institutions concerned with land and economic development issues as well as electronic sources. In additional, the number of five local leaders were considered and selected purposively to provide the reliable information through deep interviews. The primary data was collected by use of questionnaires and interview schedules that were given to respondents who were purposively selected by researcher and also who were selected through stratified random sampling. For better understanding of the conceptual frame work, the researcher reviewed the existing literature related to the subject matter of the study. Data process was done and went on with data analysis of the nature of relationship between variables. The major findings revealed that the economic development is still back-ward due to lack of sufficient land. However, according to the data collected from the selected respondents and other consulted sources revealed that improved land access can lead to the economic development in Rwanda and elsewhere.*

KEYWORDS: Land Access, Economic Development and Land in Peri Urban Areas

INTRODUCTION

Background

Rwanda is highly dependent on agriculture of which it accounts for almost 40% of GDP and more than 80% of its export earnings. More than 98% of Rural households are cultivating at least one parcel of land and urban households which are cultivating at least one parcel of land have increased from 57% to 66% as it is reported by National Institute of statistics of Rwanda (EICV3:2: thematic Report on Agriculture).

Less developed countries mostly earn their living from the land due to agricultural land access although there are some other activities carried out like mining, fishing, livestock and transport which also are considered as fundamental in understanding the economic development (Catherine A.,1998:2).

Most development economists assert that if development is to be achieved and become self-sustaining, it will have to start in rural areas and in agricultural sector of which will be achieved due to land accessibility (Todaro1985:286).

Another idea was pointed out that Agriculture sector needs to be the leading element in the livelihood diversification and overall strategy for the country's economic development at least for the vast majority of contemporary third world countries. This would be achieved if in less developed countries, government made sporadic attempts at improving land distributions for agriculture sector improvement purposely to ameliorate the economy like the agrarian reform that was instituted in Brazil in 1985(Werner et al., 2005:16).

Agriculture is the major source for livelihood diversification and the development in the developing countries that takes place due to land availability. This has become a topic that has attracted many researchers and institutions that are working and designing policies to facilitate and promote developmental activities to ensure livelihood diversification through agriculture based. Nowadays Governments in developing countries are trying to promote the agriculture as a step towards promoting the economy as well as economic development (Julian. Quan 2006: 42).

Economic development simply means the sustained increase in the productive capacity of a country as measured by changes in the country's growth domestic product (GDP). In recent literature, the term economic growth refers to sustained increase in country's output or more precisely product per capita. The term economic development implies progressive changes in economic structure of a country where the big part is to be accumulated through its available natural resources land majorly inclusive (Hebert (2009:367).

Economic development requires the removal of major sources of poverty, poor economic opportunities in order to ensure promotion/boosting of the economy of the country through agriculture sector where it is expected to feed an increasing population. forecasted to reach 8 billion by 2020 out of which 6.7 billion belong to the developing countries, where the carrying capacity of agricultural lands will soon be reached given the current knowledge and the ongoing environmental degradation (FAO 2001 b:15).

Agriculture is a fundamental sector for the economic development of the most developing countries. It has marked multiplier effect in general economic growth, generating employment, besides its own activities, important economic sectors like mining, trade and so on.

Developing an efficient land reform that improves land access will lead to efficient boosting the economy through many ways mainly agricultural sector which is one of the cornerstones for the long run solution to the famine and hunger in order to achieve poverty reduction strategies as well as economic development. While food aid and official development assistance and private support from non- governmental organizations can help to meet food consumption needs in short run, sustainable food and development should be built on the sweat of millions of family farmers to increase both food and exports (World Bank 1986:19).

Like in most third world countries, the productivity level of all food crops grown in Rwanda is far below to any international standards and also basing on current situation of the agricultural sector, the 90% of the population depend exclusively on agriculture for their survival while the agricultural situation has been on the decline since the mid-1980s. Rwandan agriculture has adapted new strategy like land consolidation, crop intensification programs to the growing population pressure with the signs which could be interpreted as limits to the land exploitation and management system (Catherine A. 1998:18).

Rwanda is a small land locked country in the East African great lakes region and it is characterized by its very high share of the labor force in traditional, subsistence agriculture (May, 1995:3).

The population density in Rwanda (people per square kilometer) is growing fast to 430.64 in the year 2010 according to the worldbank report 2012. the economy is agricultural sector based and the demographic growth rate estimated at 3.2% and has put further strain on the already hard-pressed agricultural economy (World bank report 2012).

Basing also to the estimates of Rwanda demographic profile 2013, the population of Rwanda was 11,689,696 inhabitants in July 2012 and it will go from 16 million in 2020 to 20 million in 2030 (Rwanda demographics profile 2013).

As regards macro-economic context, Rwanda is one of the poorest countries in the world and has annual income per capita of US \$ 367.73 (NISR 2007) and 44.9 % of the population live below poverty line in the year 2011 (NISR , the evolution of poverty in Rwanda from 2000 to 2011: results from the household surveys (EICV 3).

Land accessibility is among the primary source and opportunity for development activities mainly agriculture in developing countries Rwanda inclusive. Land has been among the main sector for developmental activities which are the source of country's foreign exchange and the population means of survival. Still in its embryonic stages, manufacturing industries and constructions, mining mainly constitutes the secondary sector towards development (MINECOFIN, 2003:3).

Also, as cited by Julian. (2006:42), the important features of diversification of livelihoods as well as the economy are the continuing importance of access to land and agriculture and a wide range of natural resources over more expanded areas in diversified livelihoods. The relatively greater dependence of the poor on land access and on subsistence and the role of remittances and off-farm income in subsidizing productivity enhancing farm inputs and investments to achieve economic development.

In Rwanda, like in any other developing countries, the marketable sector that is ready for immediate expansion of economic development is Agriculture. However, Rwanda's agriculture growth was 0.5% in 1980 s and 3.9% in the 1990s, while figures for 1990s was the reason for 1980 s economic performance taking into account its importance in economy of the country (MINECOFIN, 2003:3).

As regards to the land and agricultural improvement, the National Institute of statistics of Rwanda through EICV3, the households owning land were asked upon the agricultural improvement made, the survey showed that 8% of land owning households had applied for a loan to make such improvement(EICV3:9)

Rwanda like any other developing economy is not able to meet its standard level of development due to overpopulation and lack of land access. The economy is agrarian; subsistence crops occupy 92% of cultivated land, bananas under different forms that are banana

fruits for beer occupy more than a quarter of the cultivated land (28%) followed by beans (21%) sorghum (10%), sweet potatoes (12%) and cassava (8%). Export crops are coffee and tea that comes well after with respectively 6.3% and 16% of cultivated area (MINAGRI, 2004:6).

The evaluation of the main subsistence crops production for the 1990-2001 periods has been marked by important variations. According to the results of Demographic and Health Survey (DHS 2010) carried out in 2010, 44% of children under age 5 are stunted or too short for their age. This indicates chronic malnutrition which ends up as an obstacle to the economic development in Rwanda. Land is one of the scarcest resources in Rwanda and it is considered as major inputs in agricultural production where the percentage of Rwandese household cultivating at least one parcel of land has remained at just over 90%. It is also clear that it is the most densely populated country in Africa, its economy is based on largely rain fed agricultural production of small subsistence, and increasingly fragmented farms with insufficient natural resources (EICV3:2012: 2, Themic report on agriculture).

In general, the proportion of households in Rwanda in each land size category has changed relatively little since 2000/01. Two percent of cultivating households do not own any land. So, they rent, share crop or borrow land. Around half of cultivating households, cultivate less than half a hectare. More than 60% of households cultivate less than 0.7 ha of land, and more than a quarter cultivate less than 0.2 ha. The standards of living is strongly related to the size of land holding, with those holding the least and generally being the poorest hence affecting the economic development (MINECOFIN, 2007:9).

According to MINECOFIN (2007:14.), major causes of poverty as well as hindrance to the economic development identified by ubudehe survey respondents were lack of land, poor soils, unpredictable weather and lack of livestock. Exit strategies out of poverty were identified as agriculture improvement, commerce, livestock. Over a half of the households felt that their income or livelihood had not improved and principal activities to be undertaken in the future Ubudehe work were identified in the areas of as livestock rearing, agriculture, small business, water and roads.

In some places of Rwanda such as Gisenyi, Ruhengeri of Northern Province has already reached an average of 0.5 hectares. This situation is critical because the threshold below which a farmer can no longer meet his family's well faire from agriculture alone is 0.75hectares but with land law in place. The implementation of land reform that will improve land use, access and improving the stress on the economy arising from land scarcity, degradation and inappropriate management of land will certainly improve better standards of living and economic development as well (MINITERE, 2004:8).

Land in Rwanda remains a highly complex and contentious issue, involving economic, social, political and cultural systems. There is a strong link between land and poverty. Access to land is a fundamental basis for human shelter, food production and other economic activity. Secure rights to land encourage people to invest in improved dwelling and it enables people to access public services and sources of credit. Land related issues in Rwanda are multiple and varied. Rwanda being a densely populated and a hilly country, it faces serious problems related to the scarcity of land and the evolution of agriculture, long considered as backbone of the national economy, has become un predictable because the land resources has been a problem and yet 90% of Rwandan population work on land from which they earn their livelihood. This has

been recognized by the government of Rwanda that land is a key priority for economic development and poverty reduction. (Kamanzi: land administration system manual 1. 2012:1)

Statement of the problem

The economy of Rwanda is overwhelmingly agricultural based, with most of the workers engaged in subsistence farming and landless laborers are reliant on agriculture employment. The economic development as well as improvement in the better standards of living of the people in Rwanda is hindered by the needs of its large population to access to the land for utilization hence an obstacle to the economic development. Land tenure system has been constrained by excessive land fragmentation, scattered rural housing and duality between written law and customary law. This has been a source of dispute and conflict with population growth of 3.2%, pressure on land which has been increasing over the years (MINITERE 2004:8).

Rwanda arable land use, or crop production for home consumption constitutes the major part of agricultural production for the majority of Rwandese households where the land can be used for growing crops for family consumption known as bananas, pulses, sorghum, potatoes and so on. This also hinders the opportunity for surplus crop for export production which enables the opportunity for economic development of the country to take place. The principal cash crops are coffee, tea, and pyrethrum. Large numbers of cattle, goats, and sheep are raised and food must be imported as domestic production has fallen below subsistence levels (EICV3, 2012:11 thematic report on agriculture).

Rwanda now has made some reforms which result in changes in terms of land access. We anticipate this land access has some implications on economic development of Rwandan population in general.

This study has been conducted in order to evaluate the point of view of the population of Gasabo District on the relationship between land access and economic development.

This study contributes to the assessment of the point of view of the population on the role played by land access in economic development of Gasabo District.

Research objectives

The general objective of this study is to identify the perception of population on the role of land access in economic development in peri-urban areas of Rwanda, with a case study of Gasabo District.

Specifically the study aims to tackle to the below specific objectives:

Specific objectives

- To describe the land access in Gasabo District.
- To describe the land use in Gasabo District.
- To evaluate the perception of the population on the relationship between the land access/use and economic development.

Hypothesis

The contribution of land access towards economic development among the population of Gasabo District.

Research Questions

- How is the situation of land access in Gasabo District?
- How is land in Gasabo District being used?
- How do the population of Gasabo District perceive about the role of land access and use in the economic development?

LITERATURE REVIEW

Introduction

The history of Rwanda is shaped by the issue of land access which were determined by customary rules and revealed that the exclusion from land generates social tension and violent conflict. The political, economic, legal and demographic evolution of the country has greatly influenced the land access and use for development. On mission land in urban areas, land ownership is governed by written law. This means that there are two systems: written and customary law governing land rights and the demographic pressure result in changes to the land access and use systems which brings up constraints which result in an overall economic development crisis.

This chapter provides a detailed of the available literature related to the land access and economic development in peri- urban area of Rwanda. The chapter presents definitions of key terms and was gathered from different sources.

Regarding research, one of the most important steps in theory building is to familiarize oneself with literature and most particularly with any and previous writings on our specific topic. It is in this therefore, that this chapter seeks to present, examine and assess the writings of different researchers that are related to research work.

Definition of concepts

❖ Land

According to MINITERE 2005:4 land is an area that hosts living organism such as human beings, animals and plants, and non living organisms such as rocks, buildings and various infrastructure, water ways and lakes as well as its sub soils and its surrounding air space.

❖ Land Access

According to Musahara 2006:6 land access refers to the benefits accrued from land such as income streams generated through productive land based activities. From this perspective, land access is part of the broader context that enables both agricultural and pastoral production.

It thus encompasses several significant factors including access to inputs, fertilizers, seeds, technology and water for irrigation.

❖ **Land Reform**

According to the Adams as cited by Musahara (2006:8) land reform is the distribution of property or rights in land for the benefit of the land less, tenants and farm labourer.

However this study further acknowledges that this definition is narrow between land reform and agrarian reform.

❖ **Land tenure**

As cited by Rexford A. Ahene (2008:2) Land tenure is the institutional structure that determines the political, economic and social frame work by which individuals and groups secure access to land and associated resources. Tenure systems also have both spatial and temporal dimensions and typically define either by statute or by customary rules, the duration and conditions under which individual can hold land.

Land tenure is also the relationship, ether legally or customarily defined among people as individual or groups with respect to land. Land tenure is also the way people own land and how they rent it to others if they choose not to cultivate it themselves. In Europe during the middle ages, for example a local land lord owned a piece of land that he allowed the local peasant to cultivate. In exchange for cultivating the land the peasant family had to deliver a part of the harvest to the lord, and member of the peasant family had to perform labor services (Malcolm, 1987:484)

According to Boserup (1990) contends that the tenure systems will evolve naturally from communal to individual property as a result of the population pressure and the need for the agriculture. Indeed, the evolution of land tenure is necessary.

Boserup (1990:10) further hypothesizes, that before countries can achieve significant gains in agricultural yields, once intensification reaches appoint where land access are necessary.

Types of land tenure

Individual Land tenure

There are different kinds of individual land tenure. However, the most prominent are freehold and customary tenure:

Freehold tenure is common in western countries and has what are considered private property rights over the land which includes the propensity to sell the land, rent it to others and so on.

Controversy surrounds the question of the impact of customary tenure on agriculture investment as well as economic Development and productivity in individual farm. Some critics assert that customary tenure does not provide sufficient yield thus leading to low levels of investment, inflexible in responding to market signals affecting choice of technology and crops and since is not marketable between farmers have difficulty in gaining access to land that they are capable of farming more productively than their fellows (Cohen, 1980 :37).

Communal land tenure

Communal tenure is defined as a situation where a number of people use the land simultaneously. In much of Sub-Saharan Africa, livestock are grazed on communal pasture grazing rights, in terms of the number of livestock an individual may graze, or where they may graze at different times of the year, may or may not be limited by some local governing structure or by the state. A group's rights may extend to prohibition of non-group members from using the pasture may be open to all that own livestock and have the labour and other necessary inputs to maintain them (MINAGRI, 2004:26)

Historical context of land tenure in Rwanda

In a country with the highest population density of all Africa and with 95% of this population depending on land, it is the best to explore the question of land tenure (World Bank, 1997:65). The land tenure system in Rwanda is now based on the written law. Analysis of the world Bank revealed that little attention of the government has declared some policy changes and enacted legislation affecting land rights, land transaction, size of holdings, imposed land taxes, the substance of law and the extent to which laws are enforced (Bizimana, 2002:27).

Rwandan Land tenure system therefore, has had problems, the land has been excessively fragmented through heritage, and settlement is generally scattered. However, the land law is now in place and as stipulated in its article 20 that in public interest and with a view to the economically profitable use of rural lands, the ministry of agriculture, in consultation with the local authorities and the concerned community may approve the consolidation of plots of land in order to maximize profits. During this exercise, every land owner shall keep the exclusive rights over his parcel (MINITERE 2005:8).

Land tenure System in pre-colonial Rwanda

The pre-colonial law was characterized by collective ownership of land and was based on the complementary links between agriculture and live stock (Rurangwa, 2002:2) this system facilitated economic production, stability and harmony in production. Families were grouped together under lineages, and these were in turn grouped under clans. A clan was normally spread throughout the national territory in different proportion according to regions. The profits were thus based on the liberty to occupy any territory as well as the complementary links among types of production (Rurangwa 2002:3) the main aspects of land tenure were as follows:

- A clan law, which was enacted by the head of the clan who was the first to clear the forest such a chief usually owned vast tracts of land on which he would settle several families and in turn benefited from land tax in kind that was subjected to some customary conditions established.
- The right to grazing land was accorded by the king to one of his chief known as the pastoral families right from land advent of the colonialists; the right to grazing land was one of the most common land tenure systems in Rwanda.
- Custom authorizing the local authorities to dispose of abandoned land. These lands were grouped into a sort of land reserve from which the ruler of the time accorded plots to any who required one.

- The process of settling families on to grazing land, or on fallow land. This was the responsibility of the authority in place.

As socio-political and administrative structure became strong and better organized, so did the land resources become important and their management more efficient, through the chief of land, and the chief in charge of livestock both considered to be at the same rank as the chief of the army. Land rights were respected and transmitted from generation to generation according to Rwandan tradition and custom. The colonial administrators of Rwanda found this system in place over this system, they added new method of administration governed by written land law in this case there was no smooth co-habitation. one would rather term this as dualism of customary law and written law (Rurangwa 2002:3).

Land Tenure during colonial era

During the 20th century, Rwanda was under the control of the German and to, a far greater extent Belgian colonialist. The colonialist introduced new elements to Rwandan society and these elements led to changes and distortions in the social fabric. The German colonialists started as far back as 1898 and lasted till 1998 and as regards land, the first catholic and protestant missions bought land properties and obtained land ownership.

The purchase of territory became more of a gift than a counter- value to an acquired territory while the political management was based on the control of Rwanda's economy which was based on three pillars:

Proper land- use management for agricultural purposes, livestock in order to guarantee property; the Belgians introduced deep managerial changes which were later to destroy the traditional leadership system (MINAGRI, 2004:7).

The colonial government also introduced the written law into the codes and laws of Rwanda, colonialists put this legal structure to protect their interest and any other foreigners who needed a piece of land in Rwanda (Rurangwa 2002:4). Owing to the high population density, and the need to exploit new areas, the colonial administration introduced the system as "paysannats" it was mostly introduced in region with a lot of grazing land and other land reserves and consisted of giving each house hold two hectares for cultivating crops such cotton and coffee of Mayaga area (May 1995:3).

Land tenure system after independence

The land tenure regulations, which had been introduced by the Belgian administration and the various Rwandan councils were recognized as binding after independence by the Rwandan constitution of 1962 article 108 cited by Ruhashyankiko (1985:5) summarized these laws as follows:

- Land occupied by the original inhabitants was to remain their possessions
- All unoccupied land belong to the state
- All sales or gifts of land was to be approved by the territorial governor of Rwanda-urundi and later changed to the minister of Agriculture.

- Lands belonging to persons who were not the original inhabitants had to be registered by registrar of land titles who was responsible for the registration of lands. Ownership was not legally established for non-traditional inhabitants, unless there was registration certificate by the registrar.

Generally as compared to the colonial period, the situation did not change much. As matter of fact, 90% of country's arable land was still governed by customary law. The written land law still applied to every small number of people especially in urban settings as well as religious communities (MINITERE 2004:8).

Land tenure during the 1st and 2nd Republic

After the independence, the government of the time recognized the role done by the commune in the administration and management of land through the communal law of 23/01/1963, the rights concerning registered land under customary law were conserved under the responsibility of the commune (MINITERE 2004:23).

In 1976, the decree number 09/76 of April/03/76 concerning the purchase and sale of customary right on land gives the right to purchase and to sale the customary property and with the conditions of having the permission of the minister in charge of land and regulation to remain with an area of two hectares minimum (MINITERE 2004:25).

The buyer may also justify that he does not have land property of at least two hectares since then the state only recognizes the rights of ownership based on land registration and therefore, become the distinguished owner of the land. During the 1980's the new land no longer existed, and serious problems arose; the reduction in soil fertility as well the land for cultivation, family conflicts stemming from land expropriation, scarcity of land and so on, the average land holding of a family reduced from two hectares in 1960 to 1.2 hectares in 1984 (MINAGRI 2004:32).

Since 1990's the land issue became a serious concern; the problems included insufficient agricultural production, an increased population. Pressure on natural resources, an increasing number of landless peasants, and stiff competition among projects of agriculture, livestock, and natural reserve. However the governments have strengthened its role in the application of vast stretches of land.

Land tenure system after 1994

The massacres and the genocide of April-July 1994 decimated a section of Rwanda population estimated at over one million. The genocide also resulted in millions of refugees and the displaced (May, 1995:8).

After the genocide, the return of 1959 refugees had been stipulated in the framework of the "**Arusha peace Accords**". Article 3 of the Arusha peace accords states that in order to resettle the repatriates; the Rwandan government should release all the unoccupied land after identification by the repatriation commission. The commission was the was at liberty to prospect sites for resettlement in any area within the national territory after words, the government and Rwandese patriotic front commission travelled throughout the country and identified potential sites.

On the other hand, in the article 4 the accords stipulate that the right to property is a fundamental right for all Rwandese. Consequently, the refugees have right to return with their belonging properties. However, the two parties recommended that with a view to promoting social harmony and national reconciliation refugees who fled the country over ten years ago should not claim their property if it has been occupied by other individuals to compensate them, the government will put land at their disposal and will assist them to resettle (Journal Official, 1993:91).

The massive return of the 1959 refugees resulted into a new form of land problems mainly because it was difficult to apply the Arusha peace accords after the genocide temporarily; some refugees have occupied abandoned lands. This situation brought the land regulation of 1996 on temporarily management of abandoned lands. In relation to that, other 1959 refugees were given state lands to enable them produce (Rurangwa 2002:6).

They received to this effect; the so called Umutara game reserve, two thirds of the Akagera National park, and the Gishwati mountains forest as well as land belonging to certain state owned enterprises were partitioned and distributed to the 1959 refugees.

In some provinces where people still have big plots of land, namely in former province of Kibungo, Umutara and Kigali rural many family plots were divided up and shared between owners and 1959 refugees. In spite of these actions many families are still landless and the land issue is yet to be resolved.

From legal economic and social point of view, the land tenure situation leaves much to be desired. Always an issue of great concern, being a source of livelihood to the poor and source of power for the rich.

The land in Rwanda is very delicate because of narrow choices that have been available but with the ongoing reform that is grounded in Rwandan land policy and organic law establishing the tenure system in Rwanda, there are prospects of consolidating scattered plots of land which contributes much to the process of rationalizing the vital sector for the development.

Modes of land acquisition

In Rwanda they are currently two modes of land acquisition, namely acquisition through customary law and acquisition according to written law (MINITERE: 2004:21) under customary law land is acquired through inheritance where by the owner of land is transferred from father to son and underwritten law, land is acquired through government distributions through long term leases and as well as purchase.

However land scarcity due to high population has reduced inheritance practice and acquisition by purchase through informal land market is increasing. study carried out by Andre et al (1998:23-24) in northern province specifically Gisenyi that 1988 and 1993 showed that access to land by purchase went from 28.74% of the total area of land acquired in 1988 to 39.63% in 1993 while inheritance declined from 66.67% to 54.47% during the same period. This shows that land acquisition less on inheritance in favour of land transaction through land market. As land get scarcer, donation of land to closer poor relatives and is also declining giving way to land lease and other temporary land holding systems. Land distribution by the government has declined as well because there is less land for distribution (Bigaragaza, 2003).

Woman and land access in Rwanda

In Rwanda, women's right to property was linked to the cultural situation of the country, women have always been sidelined on matters relating to family or conjugal inheritance customs never allowed them to inherit parents or husband's property according to custom, land rights were passed on from father to son in accordance with the principle of patrilineal succession (Robin 2000:3). However article 3 of the organic law states that national land resource shall be part of common heritage for all Rwandese. Past, present and future generations not with the standing right recognized to the individuals, only the state shall have the eminent right to manage all the lands located to the national territory, which it will exercise in the general interest of all and which shall aim at the true economical development and in accordance with the law (MINITERE 2006:3).

Article 4 also stipulates that every natural or legal person shall be entitled to enjoy all the rights to landed property as also stipulated by article 5 and 6 of the organic law and to exercise them freely. Any discrimination based on sex, origins and all other forms of discrimination in terms of access to land and the enjoyment of land rights shall be prohibited. Men and women shall have equal rights on landed property from these articles therefore; one can rightly assert that women unlike in the past have access to land as men (MINITERE 2005:4).

As cited by Julian Quan (2006:25) women's access to land is important for poverty reduction because of their important role as food producers and the broader role they play in social reproduction in both small holder farming economies which all these contribute to the process of economic development. Women also retain responsibility for feeding family members and maintaining the household in more diversified situations in which wage labor provide livelihood options for family members, female headed households who constitute significant proportion of the poor, can benefit enormously from the security, status, and income earning opportunities that secure access to a plot of land can provide.

Land Distribution in Rwanda

Unequal distribution of land in Rwanda is not phenomenon, which is restricted to countries known for having large colonial settler populations, large farms and plantations like South Africa, Kenya and Zimbabwe. In Rwanda there is an evidence that besides decreasing sizes of plots for cultivation and grazing, land distribution has become more and more negatively skewed of the years (Bigaraza as cited by Musahara 2006:9).

Anticipated rationale of land reform in Rwanda

According to Musahara (2006:11), the rationale for land reform can be put into three categories;

Firstly to put in place a legal and regulatory framework that can ensure land tenure that is more secure as there has no credible land law and policy since independence of Rwanda that could formalize and legally secure by offering titles. Belgian land tenure regulations were recognized as binding after independence by the constitution of 1962 article 108. they are summarized as follows:

- Land occupied by the original inhabitants was to remain in their possession.
- All unoccupied lands including marshlands belonged to the state.

- All sales or gifts of land were to be approved by the minister of agriculture and finally lands that belong to persons who were not original inhabitant had to be regulated as early as 1960 but this was never operationalised the overall situation was not changed by 1976 law, which provided for a number of things;

Firstly, lands not appropriated according to written law belonged to the state. Secondly, lands subject to customary law or rights of occupation granted legally could not be sold without prior permission from the minister. Thirdly, the minister could only grant such authorization when seller had at least two hectares remaining; when the buyer did not possess more than 2 hectares and finally contravention of the above provisions were punishable by a fine of 500-2000 Rfr including loss of customary rights of occupation of the land (Reintsima as cited by Musahara, 2006:12).

This means that previous land acquisition; transactions and the post genocide land use arrangements were not protected by law since 1995 after the genocide, outflows and inflows and the resultant problems that arose made a land reform urgent (Musahara, 2006:13).

Secondly land reform's rationale is to solve problems of land scarcity has been well documented by the national land policy (MINITERE 2004:3-7). Over the last four decades land has become scarce due to demographic pressure. The land area of 26,388 density of population was a bout 121 per square kilometer 40 years ago. It is now estimated to be more than 340 (Musahara, 2006:12).

Through inheritance, land fragmentation has been too pervasive that is often referred to as miniaturization (Bralet 2001:20). Also as cited by Prunier (1995:8) referring Rwanda as a giant garden. In 1950s about 50% of Rwandans lived on more than two hectares. Presently about 75% have less than one hectare and 60% work on less than 0.5 hectares (Waller, 1996).

A statistic commonly cited indicates that a farm which is less than 0.75hectares cannot provide adequate nutritional needs of family and an economically viable plot of land would need to be at least 0.9hectares for normal satisfaction (MINITERE 2004:24).

The same view is shared almost similarly by Pottier (1997:1) to Pottier in the build up to genocide; land scarcity and despair of landless, jobless youth were factors much larger than ethnicity itself. Consequently, a land policy passed in June 2004 and organic law establishing the land tenure system in Rwanda enacted in 2005 in which the reform is grounded consist of package of changes that have to address the all mentioned problems.

In summary, based on land policy and organic law, All Rwandans will enjoy the same rights of access to land; all lands should be registered. The title will be tradable, but not in a way that fragments plots below one hectare, land use should be optimal, land administration will be based on a reform cadastral system, the system of land administration will be developed and finally marsh lands are in the state's private domain, and will be allocated to individual on concession by MINITERE on condition of good management.

Land access and economic development

Inadequate land tenure is still major obstacle to ensuring the progress towards development. Much of the economic development is oriented to export market of cereals and grains. The ownership of land and economic development lies increasingly in the hands of a number of intensive farmers with consequent social and environment impacts. Facilitating transition to

small- scale production for local markets will require a change of land tenure which will further lead to economic development (FAO, 2001b:20).

❖ **Development**

Development is a process of well designed and coordinated activities undertaken to achieve desirable targets and results that a country wants to achieve within a defined time, meaning that an individual can develop when desirable targets that he wants are achieved (Asimwe M. Herbert, 2009:378).

Alderman also presented development as meeting basic needs, reducing poverty, inequality and unemployment, raising living standards, improving access to education, raising life expectancy, and expanding economic and social choice through appropriate economic growth. This means that development is of individuals concern and nations and aims at achieving the necessary requirements for better livelihood improvements.

❖ **Economic Development**

The concept of economic development has achieved greater importance in the modern times. The country cannot increase the well faire of its people without economic development. It is also necessary for the country to be sound economically to meet with different economic, political, social and cultural objectives.

Economic development is the sustained increase in the productive capacity of a country as measured by changes in the country's growth domestic product (GDP) (Asiimwe M. Herbert, 2009:376).

According to (Mugisha B. M. Tayebwa, 1996:235) defined Economic development as the process by which growth domestic product per capita income increases quantitatively and qualitatively over a very long period of time and increases things which improve the quality of life of man for example houses, food, medical care. He pointed out the features of economic development as follows;

- It considers the distribution of GDP and the reduction of poverty, unemployment, and inequality.
- It implied improvement in quality of life and happiness and also it considers the improvement in patterns of employment, social framework for production and modernization
- It includes changes in quality and type of things that people want and improvement in methods of making them (technology improvement).

James M. Rubenstein (1994:316) defined economic development as a process of improvement in the material conditions of people through diffusion of knowledge and technology. He further pointed out that economic development is not a process with beginning and an end. Rather it is a continuous process involving a never-ending series of actions intended to promote constant improvement in the health and prosperity of the people.

The government of Rwanda has embarked on economic development by providing a framework for achieving the country's long term development aspirations embodied in Rwanda vision 2020, the seven year government of Rwanda programme, and the millennium

development goals. The economic development and poverty reduction strategy was formulated by the government of Rwanda as a medium term strategy for achieving economic growth, poverty reduction and human development. Four priorities of EDPRS which include; increasing economic growth, slow down population growth, tackle extreme poverty, and to ensure greater efficiency in poverty reduction (MINICOFIN July, 2007).

❖ **Current Economic situation in Rwanda**

According to international monetary fund (2009), Rwanda's gross domestic product grew by 4.5% and is projected to recover moderately in 2010 to 5.1%. The impressive growth that the country has experienced over the last six years has largely been driven by the good performance of the agricultural sector. However, the government is making efforts to diversify economy as long term strategy for sustaining long term growth. Particularly, Rwanda is the second most densely populated country in sub-Saharan Africa with population density of 384 inhabitants per square kilometer in 2008. While practical steps have been taken to address environmental challenges stemming from population pressures, which threatened agricultural productivity, further productivity growth in agriculture is likely to require Rwandans to access land for utilization in order to achieve economic development. In addition, 28% of Rwandans are food-insecure in spite of improvements in this field.

METHODOLOGY OF THE STUDY

Introduction

Research methodology refers to a description of process, expanded to include a philosophically coherent collection of theories, concepts or ideas as they relate to a particular discipline or field of inquiry/investigation. Methodology also may refer to a simple set methods or procedures, or it may refer to rationale and philosophical assumptions that underlie a particular study relative to the scientific method (Creswell, 2003).

This chapter aims at presenting methodological process that was followed in this study of conducting research. It narrates the approach, methods and techniques and procedures of data collection, processing as well as analysis. It describes scientific methods applied which are systems approach. The research design, the population under study and sample size was presented within this chapter.

Sampling techniques was used such as stratified sampling and purposive sampling was discussed in this chapter. Data collection instruments like questionnaires, interview schedule, and observation method and document study narrated. In addition to this, the chapter discussed the processing of data by including in all steps of editing and tabulation of data that was obtained. The chapter further narrates the data analysis, which was composed of qualitative and quantitative data analysis techniques.

The systems approach

According to Saleemi (2000:1), a system has been defined as an assembly of procedures, methods, processes, routines or techniques united by some form of regulated interaction to form an organized whole". He further went to assert that a system can be described as a set of items, equipments process and people working jointly with an aim of achieving common goals. In this regard therefore, to have complete data which is consistent, accurate with land access and economic development, the researcher used a systems approach since land access and

economic development are composed of interdependent systems of production which are characterized by interactions and some interfaces which are always coordinated to form a system for the better achievement of reliable findings. This systems approach helped the researcher in data collection processes because it entails procedures, methods, and techniques of collecting data from the field for the better and reliable findings.

Research design

As research design is the overall plan that the researcher was used to facilitate in measuring his research variables that is dependent and independent variables and what group of people on whom to test the hypothesis. It included the data that was required to answer the objectives from which data is obtained.

Description of the site of the study

The study title is land access and economic development in peri-urban areas of Rwanda with point of view of Gasabo District's population as a case study.

The land access and economic development in peri-urban areas of Rwanda :point of view of Gasabo District's population as case study was conducted in Gasabo District .

Gasabo is a district in Kigali province, Rwanda. Its headquarter is at Kacyiru, a village in the outskirts of the Kigali urban area. Gasabo occupies the northern half of Kigali province, which had its boundaries extended under local government reorganization in 2006. Gasabo includes major suburbs of Kigali, sections of a ring of hills which surround the city, and some villages to the north and east of those Rwanda's wealthiest area.

Gasabo district is divided into 15 sectors : Bumbogo, Gatsata, Jali, Gikomero, Gisozi, Jabana, Kinyinya, Ndera, Nduba, Rusororo, Rutunga, Kacyiru, Kimihurura, Kimironko and Remera. Gasabo district is divided into 73 cells-, 495 villages (imidugudu) it also includes total households totaling to 82885.(Gasabo District baseline,2008).

Regarding this study therefore, the research was the land access on economic development in peri-urban areas of Rwanda:point of view of Gasabo District's population as case study. The data required was both primary and secondary from local leaders and specifically some of households in Gasabo District through questionnaires, interview schedules, observation and documentation methods.

As regards to the area of the study, the researcher carried out the research in Gasabo District of Kigali city. This case study was selected because it was cost effective to the researcher because of the proximity of the geographical setting in which the research was carried out. So, this was convenient for the researcher to get the information and save transport charges and time costs without facing many difficulties.

Sources of data

In conducting the research study, the required data were gathered from both primary and secondary data sources. The information required helped the researcher to attain the set objectives.

In primary data, the researcher was able to acquire and use the first hand information from the respondents. The researcher also interviewed household farmers, local leaders; agronomists at sector levels and people were asked their views on land access and economic development.

In secondary data, the researcher was able to get second hand information through reading books, reports, and any other library documentation as related to the issue .the researcher also collected data from work of other researchers, reports from different institutions like MINAGRI reports mainly department of agriculture, MINITERE and reviewing published reports. for instance reports on land tenure system in Rwanda especially the organic law establishing land tenure system in Rwanda and the national land policy.

Study Population and sample size

In this research study, the population of the study is composed of headed household farmers and to some extent some local leaders (for example agronomists at the sector level) in the selected population of the study. The target population were head of households in GASABO District. The household heads and some selected local leaders were given questionnaires with both closed and open ended responses. The local leaders were considered to be literate, were able to provide the detailed information upon the questionnaires.

The Table below shows how the population of the study is distributed among different sectors of Gasabo District.

Table 1. Number of Household per sector

Sectors	No of Households per sector
BUMBOGO	5695
GATSATA	5639
GIKOMERO	2573
GISOZI	5110
JABANA	5576
JALI	4177
KACYIRU	6861
KIMIHURURA	5252
KMIRONKO	8087
KINYINYA	9445
NDERA	6249
NDUBA	2702
REMERA	5866
RUSORO	6158
RUTUNGA	3495
Total	82885

Source: Gasabo District Baseline, 2008:31

Sample size calculation

To determine the sample size, the researcher used a tool called Raosoft software (2004). The margin of error that was considered was 5%, the confidence level needed was 95%, the

population size was 82 885, and the response distribution was 50%. Then the researcher obtained a sample size is 383 respondents.

Sample selection/procedure

In normative terms, the entire population was used for the required information for the research. But we selected a sample to achieve the objectives of the study using purposive sampling and the stratified random sampling.

The below sampling strategy, indicates how people was selected and calculated from sector level to take part in the study. As mentioned, proportionate stratified sampling also applied in this study so that the number of household drawn from each stratum (sector) is selected in relation to its proportion in the total population. Each stratum (sector) was then sampled as an independent sub-population, out of which individual respondents were randomly selected. Each respondent in the population had an equal and independent chance of selection in the sample. Then, Element of sample size for each sector equals the total sample size divided by study population then multiply by the number of Household per sector . In addition, some selected local authorities under their respective level were considered to provide the relevant information of the study. These were chosen randomly. The table below shows the distribution of sample size and total sample size among different sectors of Gasabo District.

Table 2.Determine Sample size by the sector level and total sample size

Sectors	No of Households	Number of household for the sample size
BUMBOGO	5695	26
GATSATA	5639	26
GIKOMERO	2573	12
GISOZI	5110	24
JABANA	5576	26
JALI	4177	19
KACYIRU	6861	32
KIMIHURURA	5252	24
KIMIRONKO	8087	37
KINYINYA	9445	44
NDERA	6249	29
NDUBA	2702	12
REMERERA	5866	27
RUSORO	6158	28
RUTUNGA	3495	16
TOTAL	82885	383

Source: Gasabo District Baseline, (2008:31)

Gasabo district is divided into 15 sectors. Therefore in determining and selecting sample size at the village level, primary sampling unit was a village. Among 15 sectors, 7 belong to the urban area and 8 belong to the rural area.

Random sampling was used in each step of selecting respondents from the village level.

Therefore, among 7 urban sectors half of them were selected randomly as well as 8 rural sectors.

The researcher determined the sample randomly from each village selected. The researcher took the total sample size divide by the total number of villages selected. For example $383/14=27$

Table 3. Determine sample size at Cells and Villages level

District category	No of selected sectors(Randomly selected)	No of villages selected (randomly selected)	No of respondents from village level
7 Urban sectors	3 –KIMIHURURA	2	27
	-KACYIRU	2	27
	-GISOZI	2	27
8 Rural sectors	4 -NDERA	2	27
	-RUSORORO	2	27
	-RUTUNGA	2	27
	- JALI	2	27
TOTAL: 15	7 Sectors	14 villages	378+(5 agronomists & 5 more executive secretaries at the sector level who were selected purposively for deep interview)=38

In total, 14 villages and 27 Households in each village, made a total number of 378 Households. In each village, the researcher went in the center, then using a bottle, where she chose randomly a direction to take. Once direction chosen, the researcher went to the households of this direction, one by one, until the researcher reaches the required number of households. Heads of HH were the respondents. In case of absence of head of HH, his/her partner took the position to answer to the questions. In addition to heads of households, 5 agronomists and 5 local leaders namely responsible of villages was chosen randomly from sector and village respectively.

Data collection process

The researcher used questionnaires and interview guide. Identical questionnaires were used to collect data from the local leaders and some selected households. With the guide the researcher used and make face to face interviews from selected households.

The interview guide was standardized through a pre-test in an exploratory or investigative study. The questionnaires were given to the respondents who could be able to read and write. The researcher used also the observation method in collecting data where the researcher was able to observe the variables of interest. In conducting data, the researcher conducted a

documentary study whereby she was able to make the analysis of written documents that got from libraries, for example annual reports on land issues relating to the development.

In data processing, the set of data collected were considered and prepared for tabulation, presentation, analysis and interpretation. After processing the data gathered from the field, the researcher then was able to proceed to process the data collected. In this case therefore, data processing was to be achieved through editing and tabulation.

For data analysis, the researcher focused on the dependent and independent variables.

First of all description of results from different variables in terms of frequencies (percentage, Proportion, ratios,) were done vis a vis socio characteristics of respondents and other variables of the study. Secondary, the uni-variate and bi-variate analysis of result were performed. The relationship between dependent and independent variables was done using some statistical tests such as Chi square test and the usual level of significance of 5% was applied. The Fisher exact test was used in case of small numbers.

SPSS software was done for the purpose of quantitative data entry and analysis, the collected data expressed in tables or calculated in percentages on which the researcher based to design the conclusion and recommendation, while qualitative data were analyzed manually.

For tables, figures and final report writing, word and excel software were used in the process of analyzing the collected data. The researcher was able to present the variables that are central to the goals of the study.

Qualitative tools were considered where it enabled the researcher to use the techniques of observation, interview and documentary methods. The researcher analyzed qualitatively the views of different respondents through dialogue as well as revealed written documents.

FINDINGS

This chapter is concerned with measuring the research hypothesis. The purpose of this study is to assess the perception of population on the role of land access in economic development in peri-urban areas of Rwanda. The following results are based on analysis and interpretation of data that were provided and collected from respondents interviewed during the field.

Description of Respondents

The majority of respondents (79.4 %) were aged between 19 and 45 years old, male (80.4%) , farmers (56.7 %), with primary education level (61.1%), married(96.1 %), of religion Catholic (77.5 %) and head of household (84.3 %). The Table below shows more details.

Furthermore, all households surveyed had more than single person in their household and the majority of the respondents belonged to the category of poor “umukene” according to “ubudehe” structure.

Table 4 : Socio-economic description of the respondents

Variables	Frequency	Percentage
Age		
19-45 yrs	304	79.4
46-65 yrs	79	20.6
Total	383	100.0
Gender		
Male	308	80.4
Female	75	19.6
Total	383	100.0
Occupation		
Farmer	217	56.7
Employee	166	43.3
Total	383	100.0
Education		
Never attended	1	.3
Primary	234	61.1
Secondary	95	24.8
University	53	13.8
Total	383	100.0
Marital Status		
Married	368	96.1
Widow	15	3.9
Total	383	100.0
Religion		
Catholic	297	77.5
Islam	3	.8
Protestant	51	13.3
Adventist	30	7.8
other	2	.5
Total	383	100.0
Head of Household status		
Head of Household	323	84.3
Not head of Household	60	15.7
Total	383	100.0

Land Access

Seventy-six percent of respondents said that they own land as it is shown in the following table.

Table 5: Ownership of the land

Ownership of the land	Frequency	Percentage
Yes	292	76.2
No	91	23.8
Total	383	100

Furthermore, among those who own land, 27.3% acquired land from inheritance whereas 72.7% acquired their land through buying.

Among those the respondents who possess land, 55.4% have affirmed that they have a half of hectare while 13.7% have one hectare as detailed in table below.

Table 6: Land size holding

Land size(ha)	Frequency	Percentage
½	162	55.4
¼	2	0.7
1/3	10	3.5
1	40	13.7
Others (parcels)	78	26.7
Total	292	100

A number of respondents answered that they have only parcels (26.7%) among them 98.7 % have only one parcel and 1.3% have two parcels. No one has more than two parcels.

In addition, the great majority estimated that their land is not enough for their family food security whereas the minority estimated that their land is enough.

As it is shown in table below, 86.3 % of respondents affirm that they lack land to make further investment while 13.7% estimated that they do not require more to make further investment. Basing on the data from respondents upon their situation of land access, it is possible for the land access to determine the level of economic development and vice versa. The land access may impact to the economic development cornerstone.

Table 7: Need Land for further investment

Lack of land for further investment.	Frequency	Percentage
Yes	251	86.3
No	40	13.7
Total	291	100

Concerning the type of investment they would like to make if they have enough land, only 30.7% would like to build houses to rent, while 69.3 % would like to invest in modern agriculture. It was found that the total number of respondents possess definitive land titles and also they were aware of the land organic law.

The sources of information about this land organic law include radio, television and different meetings with local political and administrative authorities.

Land Use

Concerning the land use situation, almost all respondents (99.7 %) affirm that they exploit their land. The agriculture (farming) is the most common kind of exploitation (73.5%), and in 99.7 % of cases the land has not been fragmented as detailed in the table below.

Furthermore, 100% of those who are farmers are carrying out traditional agriculture. When asked how much they estimate the value of production from their land per season, the maximum estimate was 200 000 RWF, the minimum 8000 RWF, and the mode 20000 RWF.

Finally, all respondents (100%) who hold land do not require any permission for land exploitation of their land. Furthermore, the respondents affirmed that their earnings has the relationship with the land they exploit.

Table 8: Land use

Item	Frequency	Percentage
Do you use /exploit your land?		
Yes	291	99.7
No	1	0.3
Total	292	100
What kind of land use/ exploitation?		
Agriculture	214	73.5
Rent	50	17.2
Other/Residential	27	9.3
Total	291	100
Has your land undergone fragmentation?		
Yes	1	0.3
No	291	99.7
total	292	100

Relationship between land access/use and economic Development

In this study, the economic development was estimated through the following elements: quality of life of population including food, poverty, material conditions, malnutrition, education and access to medical care.

Our results show that in the surveyed households, the maximum of monthly earnings are 230 000 RWF, the minimum 1000 RWF, with the median and mode of 7000 RWF.

The totality (100%) of respondents affirm that there is a relationship between their monthly earning and the land they exploit.

In 72.5 % of cases, the totality of monthly gain is directly from the land exploited, while in 27.5 % of cases, the monthly gain is not directly from the land exploited but it is linked to some extent.

Furthermore, the table below (food security and land exploitation) shows that 41% of respondents estimate that they have enough food for their families and 59% of the respondents estimated they do not have enough food.

Concerning the relationship between the situation of food security as shown in the table below, some are benefiting their food consumption from their land exploited while the majority estimated that they the food is not enough to sustain their family. Further analysis of results show that there is no statistical association between owning land and having enough food for family (p value > 0.05). The below table gives detail

Table 9: Food security and land exploitation

Item	Frequency	percentage
Food security		
Do you estimate you have enough food for your family?		
Yes	121	41
No	174	59
Total	295	100
Relationship between food security and land exploitation		
Thanks to the land exploitation		
Able to get family food consumption	184	55
Able to get family food consumption and small reserve to the market	107	45
Total	291	100

According to the results, all respondents (100%) have a health insurance. Among respondents 72.4 % are holding Mutuelle de santé (health insurance), 26.3% RAMA and 1.3% Military Medical Insurance (MMI).

The majority (56.1%) affirm that they are able to pay health insurance fee thanks to the land exploitation. However, 21.4% estimate that there is no relationship between the health insurance and the land they exploit.

The results show also that all respondents belong to the category of poor. and all of them affirm that there is relationship between their socio-economic status and the land they exploit.

Concerning material conditions, 70.2% of respondents have radio, while 29.2% have Television. Basing on the findings, the respondents confirm that the land exploitation contributed to the possessing of these materials.

According to the findings, any case of malnutrition in children under five was found.

It was found also that only 38.9 % of heads of households reached secondary school education. However, the land exploitation contributes to education fees in 56.4% of cases as it is shown in table below.

Table 10: Education for HH Heads and land exploitation

Item	Frequency	Percentage
Education Head of household		
University	2	.5
Secondary	149	38.9
Primary	232	60.6
Total	383	100.0
Relationship between education and land exploitation		
Education fees are supported by funds from land exploitation	215	56.4
Education fees are supported by other funds	166	43.6
Total	381	100.0

Cross tabulation

In addition to the point of view of the population, we wanted to evaluate whether statistically there is any relationship between land access/use and some elements of economic development.

However, the variables under the study were analyzed basing on the nature of the variable. Some were able to show correlation automatically while others were analyzed manually by the researcher. For example relationship between land access and food security, land ownership and owning some materials, land ownership and education, these were able to show correlation status. The following tables show the different findings based on variables.

Table 11: Relationship between land possession and food security.

	Estimation of having enough food for the family	
	Yes, we estimate having enough food	No, we don't have enough food
Land ownership		
Yes	118 (40.4%)	174 (59.6%)
No	3(1.0%)	0 (1.0%)
Total	121(41%)	174 (59%)

(P value=0.068)

As seen in the above table, among 292 of people who own land 59.6% of respondents who own land estimated that they don't have enough food.

The statistic test shows also that there is no statistically significant relationship between having land and food security (P. value>0.05; P value=0.068).

The results also show that there is no statistical association between using/exploiting land and food security in family (p>0.05).

Table 12: Relationship between land ownership and owning some materials

	Equipments/materials possession		
	Radio	Television	others
Land ownership			
Yes	233 (79.8%)	57 (19.5%)	2 (0.7%)
No	36 (39.6%)	55 (60.4%)	0 (0.0%)
Total	269 (70.2%)	112 (29.2%)	2 (.5%)

(P.Value=0.000)

As concerns to the materials condition of the respondents, the table a above shows that 79.8% owns radio,19.5% owns television thanks to the land ownership. The statistic test shows that there is a significant association between land ownership and material possession or condition. (P.lue<0.01; the fisher P.Value=0.000)

Table 13: Relationship between Land ownership and education .

	Do head of this household or any member have achieved the following categories of education: University, secondary, primary		
	University	Secondary	primary
Land ownership			
Yes	1 (0.3%)	70(24%)	221(75.7%)
No	1(1.1%)	(86.8%)	11(12.1%)
Total	2(0.5%)	(38.9%)	232(60.6%)

Fisher's Exact Test(**P.value=0.000**)

As concerned to the correlation between land ownership and the education, there is a correlation between the two variables. in this context therefore , the land ownership contributes to the education access and levels (P.value=0.000) .75.7% are primary level education , 24% are secondary level education and 0.3% are possessing University level of education as detailed in the above table.

Table 14: Relationship between owning land and some material

	Which of the following equipments/materials do you have ?			Total		
	radio	Tv	Others			
Do you own land ?	Yes	Count	233	57	2	292
		% of Total	60.8%	14.9%	.5%	76.2%
	No	Count	36	55	0	91
		% of Total	9.4%	14.4%	.0%	23.8%
Total		Count	269	112	2	383
		% of Total	70.2%	29.2%	.5%	100.0%

P value: 0.000

The results show however that there is statistical association between using/exploiting land and having radio or television ($p>0.05$).

We were not able to perform the same bi-variate analysis (2x2 tables) with other variables where responses were 100%. This was the case e.g. for poverty (100% of respondents were poor), malnutrition (any case of malnutrition in children under five was found), access to healthcare (100% of respondents had health insurance), etc

DISCUSSION OF THE KEY RESULTS

Characteristics of Respondents

Although the study was conducted in Gasabo District, where one could think that the population has more characteristics of the city, it was not surprisingly that most of characteristics of our respondents were not very different from the general distribution of the population in the country. For example, our findings shown that the majority of respondents were aged between 19 and 45 years old, farmers, with primary education level, of Catholic religion, and belong to the category of poor “umukene”.

This situation is due to the fact that the study was conducted in peri-urban area of Gasabo District, with more attention to the good representative sampling. Such situation makes us more comfortable with our findings and conclusions.

A good sampling method is very important in research because when data are drawn from a non-representative sample, results cannot be generalized to the study population and conclusions may be erroneous.

Land Access

The first specific objective of our study was to describe the land access situation among the population of Gasabo District.

The results show that the majority of the population (76.2%) owns the land (table 5). Looking at such figure only, without more details and other information behind, one could wrongly conclude that the situation is very good. However, more details on the size of the land for example show that the situation is not satisfactory at all. In fact, the biggest size found was only one Ha, belonging to only 13.7% of the population. Other sizes are less than one Ha. Almost a quarter (26.7%) of the population has only parcels, which means just a very small size for building (plot).

Furthermore, the great majority of the respondents estimated that their land is not enough for their family in terms of food security or survival. Then as compared to the fact 56.7 % of the population is famer (table 1) suggest a big problem, which is actually confirmed by the table 7 shows that 86.3% of the population would like to make more investment but need sufficient land to do so.

Based on these results, we can conclude that land access in Gasabo District is a big challenge for the population. Unfortunately, this situation is in contradictory with the will of the population where 69.3 % would like to invest in modern agriculture if they could have enough land.

Maybe the population should be sensitized to create many opportunities not only in agriculture for development but also to orient and invest more in other sectors than agriculture.

Other authors have found that as a result of land access challenges and difficulties, there should be a generate shift of emphasis in developing policies towards wider questions of land access for the poor. Although it may be difficult to achieve more equitable and higher overall levels of growth through comprehensive land reforms it still remains possible to reduce poverty by improving the opportunities and arrangement for land access specific groups (poor). Possible improvement might include facilitating land access through rental and in some cases purchase markets, securing and protecting rights to land acquired through customary allocations and transactions, strengthening women's land rights and opportunities to access land and the programs to provide to access to homestead and garden plots (Julian Quan, 2006, p.6) Land access in the 21st Century.

Land Use

Our results show that 99.7 % of the population exploits their land. This confirms our results above, on the land access. In fact, when the great majority of the population lack land to invest, it seems normal for those few people who are lucky to have some land, to exploit it. Our findings show also that, in 73.5% of cases, the exploitation of land is done in agriculture, 17.2% are using their land in business terms (rent) and 9.3% of respondents categorized in (others) or residential as shown in the table 8. Once again this result confirms what we found in the section 5.2 above, where 69.3 % of the population would like to invest agriculture if they could have enough land.

Such results suggest that the population of Gasabo District is still attached to the agriculture sector, and this is not surprising because farming has been the main activity of Rwandan population in general, since several years. Therefore, even nowadays, the culture of farming in Rwanda is still in the mind of the population, including in city.

We have found also that, all of the 73.5% of the population who are in agriculture sector are still using traditional methods.

This result is not good because it affects population outputs from the land exploited. And it is confirmed through the value of their seasonal production where the maximum of production was estimated to 200 000 RWF, the minimum 8000 RWF, and the mode 20 000 RWF. Such low production could be the consequence of both traditional methods and small size of the exploited land.

Fortunately, our results show that the mind of population is now changing, since 69.3 % of population confirms that they would like to invest in modern agriculture.

Other authors have found that Land is still a challenge due to population pressure and many others on natural resources to the extent that it has brought about some consequences like decline in agricultural production and over cultivation which contributes to low yields which has also resulted into decrease in the size of land holdings and yields as well (John F. May, p.6) policies on population, Land use and Environment in Rwanda.

Relationship between land access/use and economic Development

The main objective of this study was to evaluate the perception of the population on the role (or relationship) of land access and use on the economic development.

In effect, agriculture has been playing an important role in Rwandan economy. According to the last General Census of the population, the percentage of the population who is in agriculture sector was 90%, at least cultivating one parcel of land. This show that the agriculture sector is very important in the economic development in Rwanda. (EICV 3: P,2)

According to FAO (FAO, 2001b:2), the ownership of land and economic development lies increasingly in the hands of a number of intensive farmers with consequent social and environment impacts. Facilitating transition to small- scale production for local markets will require a change of land tenure which will further lead to economic development

In the context of Rwanda, we wanted to know what could be the perception of the Gasabo's population on the relationship between land access /use and this economic development, considering that this perception could be influenced by other factors related to the city.

The concept of economic development is defined differently according to the authors. For example, depending to the author, the economic development takes into consideration growth domestic product /GDP (Asimwe M. Herbert, 2009:376), the quality of life of man for example houses, food and medical care (Mugisha B. M. Tayebwa, 1996:235), material conditions (James M. Rubenstein (1994:316), etc...

In our study, the economic development was considered through some of those elements such as the quality of life of population (including food security), poverty, employment, material conditions, malnutrition, education and access to medical care.

- Our finds show that the totality(100%) of respondents affirm that there is a relationship between their monthly earnings and the land they exploit. In 72.5 % of cases, the totality of monthly gain is directly from the land exploited.
- This result is quite surprising. In effect, one could think that the earnings of Gasabo's population are more from other sectors other than agriculture, mainly services. However, it is now clear that the exploitation of land is among the main sources of household's income, which incontestably contribute to the economic development.
- Concerning the access to medical care, our findings show that all respondents (100%) have a health insurance (72.4 % are holding Mutuelle de santé, 26.3% RAMA and 1.3% Military Medical Insurance). But what is most interesting is that 56.1% of the population affirm that they are able to pay health insurance fee thanks to the land exploitation.
- For economic development, people have to be healthy, and this is directly conditioned by the access to healthcare. Therefore, the role of land use in the economic development through access to healthcare is once again incontestable.
- Material condition is also an element that can be considered in economic development. For us it can be one of indicators reflecting the economic development of a given population. For example, radio or television not only give idea about the economic status of the holder, but also these materials contribute to the economic development because they facilitate access to the information.

- In our study, 70.2% of respondents have radio, and 29.2% have television. Moreover, all of them confirm that the land exploitation contributed the possessing of these materials.
- Therefore, it is undeniable that, once again, the land exploitation is contributing to the economic development of the population.
- None can contest the role of the education in economic development.

- In our study, we managed to evaluate how the land use contributes to the economic development through education.
- According to our findings, the land exploitation contributes to education fees in 56.4% of cases (table 13). Therefore, the role of land use is once again confirmed.
- The relationship between land use and economic development as it is highlighted above is mainly the result of the affirmation of the population itself.

- As researcher, we wanted to evaluate ourselves, through statistical analysis, how these two main variables are linked.
- However, due to the nature of the responses we have from population, some analyzes were not possible using Chi square test. For example, we were not able to perform bi-variate analysis (2x2 tables) with some variables where responses are 100% (100% of respondents are in the category of poor, any case of malnutrition in children under five was found, 100% of respondents have health insurance, etc
- Some few analyzes which were possible have shown that there is no statistic association between owning land (table 11) or exploiting land and having enough food for family (p value > 0.05).
- We think that this situation is probably due to the lack of enough land to exploit and therefore to product enough food for family. While on the other hand, in Gasabo District there are other ways to get money (to buy food) without necessarily possess or exploit land.
- This situation could be the trend for the whole country because, for the first time, in 2012 the service sector has surpassed the agriculture sector in terms of contribution to the economy of the country.

CONCLUSION AND RECOMMENDATIONS

The land access is a probably a challenge in Gasabo District. Despite the majority of population affirm that they own land, the size of this land is something else. The great majority of population has less than one Ha. This is confirmed by the population because, not only the exploited land is not enough to satisfy the needs of households in term of food security, but also they lack sufficient land to make more investment.

For the land use, almost all people exploit their land, mainly in agriculture. However, the methods used are still traditional. Traditional agriculture made on very small lands result in low production, therefore lack of enough food for families.

Despite this situation, the population believes that there is strong relationship between land use and economic development. In effect, the land use contribute to the economic development through different mechanisms including household's monthly earnings, contribution to

education fees, financing access to healthcare, acquiring some materials such as radio and television, etc..

However, the study had three objectives and were achieved as follows;

The first objective of this study was to describe the land access situation among the population of Gasabo District. This objective was able to be achieved by the researcher since it was possible to know the land access situation in Gasabo District chosen as case study. The Researcher was able to come up with the number of respondents from the selected sample who are owning the land and those who are not owning land. This is confirmed by the table 5 where 76.2% are owning land and 23.8 owns no land. The land size holding was also considered by the researcher to achieve the objective. The results show that 55.4% are owning half a hector (Table 6).

The second objective was to describe the land use situation in Gasabo District. This objective was also achieved where by the researcher managed to know and come up with the situation of land use in Gasabo District. The result shows that 99.7% affirmed they exploit their land where the most common kind of exploitation was agriculture with traditional means (73.5%) and the population need to invest more in Agriculture if they could have more land for exploitation.

The third objective of the study was to evaluate the perception of the population on the relationship between land access/use and economic development.

This objective according to the findings it was achieved because it considered the respondent's view to show the linkage between land access and economic development in Gasabo District. This shows that the objective was also achieved.

Furthermore, among the results that were able to be achieved, the great majority of respondents (86.3%) affirmed that they could make further investments if they could have more land. This result may be among the revealed findings by the respondents that allows the researcher to validate the assumption.

Therefore, we conclude that the land access in Gasabo District strongly contribute to the economic development.

This led us to the formulation of the following recommendations/suggestions;

- The District authority should think about a policy which facilitates the land access to the maximum of population who need it for further investment.
- Where land for agriculture is still available, the District and households should put more efforts in modern agriculture for better exploitation and more yields as well.
- Since land access will inevitably continue to be a challenge because of growing of town/Kigali city and population increase, the District and households should also think about encouraging and investing in other sources of revenue generating, in parallel to the agriculture.

BIBLIOGRAPHY

- Assimwe M. Hebert(2009).Fundamental Economics. Kampala:MK Publishers
- Boserup E.,(1990), Population pressure, Land Tenure and Natural Resource Management, Blackwell, Oxford
- Byiringiro F,(2003): Promoting food security in Rwanda through sustainable agricultural productivity: meeting the challenges of population pressure, Land Degradation, and poverty, International Development paper.
- Bigagaza, J. Abong, c.(2003), Land scarcity, Distribution and conflict in Rwanda.
- Cohen J.M.(1980), Land Tenure and Development in Africa, Praeger Publishers, New York.
- Bizimana C, Economic Impact of Land Fragmentation in Butare, Southern Rwanda
- May John F.(1995) Policies on population, Land use and Environment in Rwanda, Washington D.C 2003.
- Mugisha B. M Tayebwa(2008)Basic Economics,Guinine publishers and Consultants Kampala, Uganda.
- Hon. Ambassador Stanislas ,(2012) Rwanda Land Administration System Procedures Manual, Version vi. 2
- FAO (2001a), The Place of Agriculture in Sustainable Development, the way forward on SARD Rome.
- FAO(2001b), Assessment of the world food security situation, Committee on the world food security, 27th session, Rome.
- Juian. Quan,(2006), Land Access in the 21st Century: Issues, Trends, Linkages and policy options.
- James M.Rubenstein(1994).The cultural Land Landscape :an introduction to human geography. New york: Macmillan Publishers Company
- NISR, (2008): GASABO District Baseline
- The Evolution of poverty in Rwanda from 2000-2011: Results from the Household surveys (EICV)
- Rexford A. Ahene: Measures to improve access to Land Resources and related benefits in Uganda.
- MINECOFIN: EDPRS, Economic Development and Poverty Reduction strategy Paper, 2008-2012
- MINECOFIN,(2001),National Poverty Reduction paper, Kigali.
- MINECOFIN(2003), Rwanda Vision 2020,English draft , Kigali
- MINECOFIN(2006), Quarterly economic report, Kigali
- MINITERE (2004), draft on the National Land Policy, Kigali
- Catherine . A, (1998): Rwandan Land: Access, Policy and Land Reform
- NISR, EICV3-Thematic Report ,Economic Activity (August 2012)
- NISR, EICV3-Thematic Report, Agriculture (August 2012)
- Malcolm Gillis et al (1987):Economics of Development, W.W. Norton and Company 2nd Ed., London
- Musahara. H., (2006) Improving Land Tenure Security for the poor. A case study of Rwanda, Kigali
- Musahara. H., Implications of the in going Land Reform on Sustainable Development and Poverty Reduction in Rwanda, Kigali.
- Pottier, J.(2002),Reimagining Rwanda. Conflict, Survival and Disinformation in the 20th Century, London.
- Reintsima, M.(1981), Land Tenure in Rwanda, AID, Kigali

- Reintsima, M.(1983) Land Tenure in Rwanda, AID, Kigali
- Republic of Rwanda (2004) A document on Rwandan Agricultural Policy, Kigali
- Republic of Rwanda (2005) organic law establishing Land Tenure System in Rwanda, Kigali
- Ruhashyankiko N.(1985), Reflections Sur quelque Aspects du problem Foncier au Rwanda.
Revue Juridique du Rwanda.
- Rurangwa. E,(2002), Perspectives of Land Reform in Rwanda, Kigali.
- Nisar.A.Saleemi, (2000), Systems Theory and Management Information Systems Simplified
,College of Professional Accountants,Nairobi.
- Todaro M, P (1985) Economic Development in third World .Longman group Ltd, Essex.
- United Nations (1975), Report of the world Conference ,Rome5-16 November 1974
- Warner Baer (2005),Growth, Efficiency and Equity. The impact of Agribusiness and Land
Reform in Brazil.
- World Bank(1997), Global Environment and Natural Resources conditions and Tender for
United Nations
- Sen, A.(1981),Poverty and Famines, Oxford: Clarendon Press.
- Hon. Stanislas Kamanzi: Land Administration System Manual 1,2012
- Journal Officiel de la Republique Rwandaise, Accord de paix d'Arusha entre le gouvernement
de la Republique Rwandaise et le front patriotique Rwandaise no 16 of 15th August
1993.
- LWANGA S.K., LEMESHOW S. sample size determinants in health studies: practical
manual. WHO, Geneva 1991.
- RoR. REMA, 2010. Rwanda Environmental Education for Sustainable Development
Strategy. A strategy and Action Plan for 2010-2015. Kigali: REMA (Online, Soft
copy/Gaspard).
- RoR. REMA, 2009. Rwanda State of Environment and Outlook. Our Environment for
Economic Development. Kigali: REMA (online/Hard copy Gaspard/Hard copy CGIS-
NUR/Hard copy Library Biology Dpt).