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STUDY ON ACCESS TO THE LAND TENURE ADMINISTRATION SYSTEM IN RWANDA AND THE OUTCOMES OF THE SYSTEM ON ORDINARY CITIZENS

FINAL REPORT

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CONTACT INFORMATION:

LAND Project
Nyarutarama, Kigali
Tel: +250 786 689 685
aknox@land-project.org

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LIST OF ACRONYMS

BK	Bank of Kigali
BPR	Banque Populaire du Rwanda
DLM	Department of Lands and Mapping
DLO	District Land Officer
FAO	Food and Agriculture Organization
GIS	Geographic Information Systems
GoR	Government of Rwanda
KCB	Kenya Commercial Bank
LAS	Land Administration System
LAIS	Land Administration Information System
LTRP	Land Tenure Regularization Program
MIDIMAR	Ministry of Disaster Management and Refugees Affairs
MINAGRI	Ministry of Agriculture and Animal Resources
MINECOFIN	Ministry of Finance and Economic Planning
MINIJUST	Ministry of Justice
MINIRENA	Ministry of Natural Resources
NGO	Non Governmental Organisation
NISR	National Institute of Statistics in Rwanda
ORG	Office of the Registrar General
RDB	Rwanda Development Board
RISD	Rwanda Initiative of Sustainable Development
RNRA	Rwanda Natural Resources Authority
Rwf	Rwandan Francs
SACCO	Savings and Credit Co-operative
ToR	Terms of Reference
UNECE	United Nations Economic Commission for Europe
UNHABITAT	United Nations Human Settlements Programme
WB	World Bank

1. INTRODUCTION

1.1. Background

Over the last decade, the Government of Rwanda (GoR) has engaged in reforming the land sector through formulation and enactment of an enabling legal framework, establishment of land administration institutions, and land tenure regularization. In 2008, the GoR initiated the Land Tenure Regularization Program (LTRP) with two main objectives: (1) to ensure secure forms of land tenure for citizens and (2) to ensure efficient management and administration of land. The program set up procedures to carry out first-time systematic registration of land in the names of its owners with the aim of creating a complete public record of landholdings.

Based on the National Land Policy of 2004, the envisaged benefits of having a good land administration were included increased security of tenure through clearly and definitively established property rights; reduction of land disputes; open and flexible land market in both urban and rural areas; increased access to credit by ordinary citizens; increased investment on land and improvement of land productivity; augmented government revenue through the collection of land taxes; efficient and decentralized land administration institutions; improved land administration and management through the use of land information; and improved physical planning through the use of a cadastral system. The LTRP substantially concluded in 2013, resulting in the demarcation of about 10.3 million parcels, encompassing the vast majority of private land in Rwanda. This program, seen as ambitious, has become a model for other countries (Ayalew *et al*, 2012).

Under the Land Law of 2013, all landholders must formally register their land, implying that all land transactions must be registered in the name of the party(ies) acquiring the land for their rights to be upheld. Beginning in January 2010, the GoR launched the Land Administration Information System (LAIS) and migrated data on systematically registered parcels into the system. Under the LAIS, District Land Officer (DLO) are responsible for preparing documents evidencing land transactions for submission to the Registrar of Land Titles, which in turn is responsible for issuing leasehold certificates, widely referred to as “titles.” DLBs are also charged with monitoring land surveying, valuation, and land use (GoR, 2013).

In order for the government to adequately appreciate the effectiveness of the land administration system and resulting certificates of rights, as well as take measures to maximize its effectiveness and accessibility to ordinary citizens, research is needed to better understand the extent to which citizens: 1) are aware of the system and the reasons for registering transactions, and know how to use the system; 2) have easy access to the system in terms of time, procedures, cost, and documentation; and 3) experience the intended outcomes of possessing a land certificate.

The goal of the study on “*Access to the land tenure administration system in Rwanda and the outcomes of the system on ordinary citizens*” was to build on and improve current knowledge on the above, using evidence-based assessments and analysis of data collected from surveys of ordinary citizens and different stakeholders involved in land administration.

1.2. Objectives of the study and research questions

The main objectives for the study, as specified in the terms of reference (ToR) issued by the LAND Project are: 1) Assess the degree to which ordinary citizens have access to Rwanda's formal land administration systems, and 2) Assess the outcomes of that system and land certificates on the primary goals for formalization, including access to credit, increased investment and productivity, prevalence of land disputes, and robust land markets.

Specifically, the study sought to provide answers to the following list of questions advanced in the ToR:

1. To what extent are ordinary citizens (women, men, youth, adults) familiar with the formal land system in place for land transactions including the existence of District Land Bureaus (DLB) and Sector Land Managers (SLM) and their purpose; the procedures for registering different land transactions (bequeathal / inheritance, sale / purchase, long-term rental, gift, mortgage, a restriction on transactions to prevent its transfer); and requirements associated with these procedures (documents and fees)?

What are citizens' perception of this system, and to what extent are they satisfied or dissatisfied with the current situation in terms of accessibility and provision of services by local land administration authorities?

2. To what degree do ordinary citizens have access to local land administration offices (distance of offices from their homes; time needed to arrive at offices); to information about registration of land transactions; and how are they able to comply with the procedures and requirements for registering transactions?
3. To what extent are ordinary citizens able to afford the cost of land transactions, taking into account their annual incomes and the value of their land?

Among those landholders that have engaged in land transactions subject to registration, what portion of them has registered the transactions (buyers, sellers, long-term lessors and lessees, and those who have mortgaged their parcels)? Among those who have not registered, what are the reasons?

Is registration of land transactions affected by law that restricts subdivision of land resulting in parcels of less than one hectare?

4. To what extent is local land administration staff knowledgeable of common rules and procedures for administering land transactions? Do they perform these efficiently, and if not, why?
5. What has been the impact of land certificates on access to credit by ordinary citizens (both formal and informal sources of credit)? To what extent are financial institutions willing or unwilling to accept land certificates as collateral and why?
6. What has been the impact of land certificates on landholder investment in one's land, home and business? What are the mechanisms by which land certificates have had this impact?

7. What has been the impact of boundary demarcation and land certificates on the prevalence of land disputes and the capacity to rapidly and effectively resolve such disputes?

8. What has been the impact of land certificates on the volume of land sales and rentals between ordinary Rwandan citizens; between citizens and investors?

Are land markets affected by law that restricts subdivision of land resulting in parcels of less than one hectare?

9. Do landholders have lingering concerns related to tenure security that are not addressed by the existing registration and certification process? If so, do these concerns inhibit access to credit, investments or land markets?

10. What measures can be taken to make the land administrative systems more accessible to ordinary Rwandan citizens? What alternatives exist for augmenting the impact of the system on access to credit, land investment, and equitable land markets?

2. LITERATURE REVIEW

The following section gives a summary of the literature¹ on land administration with an aim of identifying gaps in current knowledge that this study might to strive to fill.

2.1 Land Administration

Land administration as defined by UNECE (1996) comprises four functions: land tenure, land value, land use and land development. These functions are normally undertaken by various professionals including surveyors, lawyers, valuers, planners, developers, and land economists (Williamson *et al.*, 2010). A good land administration system creates accurate, accessible, interoperable, timely, secure, and complete information about land and property in an affordable and efficient way that promotes confidence between the public, commercial enterprises, and government (Williamson *et al.*, 2010). An effective land administration system requires long term investments and continued support from both citizens and politicians, actions which result from both groups' recognition of the benefits of land administration (UNECE, 2005). Lindsay (2002) recognizes land administration as management of a system of land rights that includes procedures governing transactions in land such as sales, leases, mortgages; and adjudication of disputes relating to land rights and parcel boundaries, among other subjects.

Formalization of land administration is often considered a prerequisite for economic development. Reported benefits of a formal land tenure system include increased tenure security and improved access to credit. These benefits should in turn strengthen farmers' ability to invest in making improvements to their land. Moreover, formal administration of land often seeks to facilitates a land market and allow land to move towards its "highest and best use" (FAO, 2002).

Evaluation of land administration systems is necessary to improve the efficiency and the effectiveness of these systems. In 2006, Land Equity International developed a framework to assess land administration efficiency and effectiveness (Burns, *et al.*, 2006). This framework divided land administration systems into customary and formal land administration systems. In this framework qualitative indicators for formal land administration system are identified as security of tenure, clarity and simplicity, timeliness, fairness, accessibility, cost, and sustainability (Burns, *et al.*, 2006: 42).

2.2 Land Administration and Tenure System in Rwanda

Before the launch of the nationwide systematic Land Tenure Regularization Programme (LTRP) in 2009, land tenure in Rwanda was characterized by a combination of customary and statutory systems wherein land was accessed through inheritance, leasing, and purchase. Other methods of acquiring land included government land allocations, borrowing, gift, first clearance and informal occupation (Rurangwa, 2013). The National Land Policy of 2004 and Organic Law No. 08/2005 constituted the country's first comprehensive governance framework for land tenure, use and management. Following the LTRP roll out, over 10.3 million parcels were successfully registered and 8.4 million certificates of emphyteutic leaseholds were issued (Sagashya, 2014).

¹ For the full literature review, see <http://www.rwandaland.org/en/partner-products/item/107-ines-ruhengeri-research-on-rwanda-s-land-administration-system>.

Passed in June 2013, the Law No 43/2013 Governing Land in Rwanda (which replaced the 2005 Organic Land Law) recognizes the State as the sole authority to grant rights of occupation and use of land and provides for equal access to land rights without discrimination based on sex or origin. All Rwandans are entitled to acquire land under an emphyteutic lease. For most agricultural land in rural areas, the leasehold period is 99 years, renewable, while terms are shorter in urban areas and for high-value agricultural areas like swamp lands. Foreigners are entitled to emphyteutic leases up to 49 years (GoR, 2013).

To enable landholders to register land transactions following first-time registration, the GoR established land offices in every district as part of the decentralization program implemented by the Ministry of Local Government.

2.3 Approaches and Methods to Evaluate Effectiveness and Outcomes of Land Administration Systems

The success of a formal land administration system depends on the willingness of ordinary citizens to participate in the new system. The new system needs to prove its superiority over traditional and established ways of securing land rights and transferring property. For this, one needs to monitor whether citizens are aware of the existence and purpose of the land administration system, the benefits of participating in the system, and how they can make use of the services (Magis and Zevenbergen, 2014). Land information systems can only be efficiently updated, complete and accessible if citizens understand the existence and importance of the land administration systems. According to Muyombano (2014), citizens in Rwanda are reporting tenure changes occurring on their land and have a positive perception of the benefits of land registration.

According to the FAO (2002), most land administration activities are concerned with property rights and focus on the quantity of rights (e.g. ownership, lease, and easement), the size of the parcel of land, and its economic value. At the same time, the uniqueness of a land tenure system within a given culture highlights the importance of nature or quality of rights that may be involved. The FAO (2002) proposes a generic framework to guide the definition and construction of suitable indicators for evaluating success and failure of access to land administration systems. The framework indicates that land administration procedures should be quick, inexpensive, and transparent. However, in many parts of the world, formal land administration procedures are time consuming, bureaucratic, expensive and inaccessible to rural population (FAO, 2002).

Burns *et al.* (2006) assessed the effectiveness of land administration procedures in 17 countries across the world. These case studies provided systematic assessment of the characteristics, accessibility, costs, and sustainability of different land titling and registration options. The authors developed and evaluated indicators of the cost of providing secure and transferable property rights under different policy and institutional environments across the case study countries. In this assessment, they proposed principles that can guide the efforts to strengthen land administration systems where some are focusing on the land administration reforms. These include: the preparation of the framework for long term development of the system; to broaden the geographic extent of land administration services only where the legal framework reflects reality on the ground, and where there are appropriate dispute resolution mechanisms; to raise the institutional profile of land issues in formal political and administration structures; to do a need assessment before implementing the systematic

registration; to adopt a customer-rather than process-focus; and to adopt administrative rather than judicial approaches for formally recognizing rights in land.

Using a difference-in-differences approach to assess the economic impacts of a low-cost program in Ethiopia that resulted in the registration of some 20 million parcels, Deninger, Daniel and Tekie (2008) found that despite policy constraints, the program increased tenure security, land-related investment, and rental market participation, and yielded benefits significantly above the cost of implementation. However, a systematic review on the impact of property rights interventions on investment and agricultural productivity in developing countries found that the positive effects of registration in Africa were weaker compared to those found in Asia and Latin America (Lawry *et al.* 2014). It is possible that gains from registration in Africa are more limited because customary land tenure provides long-term tenure security to individuals and communities in most Sub-Saharan African countries. Thus, tenure insecurity is not prevalent to the degree that designers of registration programs would otherwise assume. Additionally, the comparatively low levels of wealth and income of African farming families may explain the low gains to investment and productivity in Africa following tenure registration, as compared to those studied in Latin America or Asia (Lawry *et al.* 2014). This comparison suggests that the economic gains from registration advocated by the De Soto (2000) theory may be significantly more modest than anticipated and should consider local contextual factors.

3. METHODOLOGY

This section describes the methodology used to meet the objectives of the research and respond to research questions as given in ToR (see section 1.2). It presents the sources of data and data collection methods and highlights the sampling and analytical framework.

3.1 Data Sources and Data Collection Methods

Both secondary and primary data sources were used to get information for this study. Secondary data included recorded land transactions per district and land use types in each cell, which were obtained from the RNRA Department of Lands and Mapping; administrative boundaries data from the National Institute of Statistics of Rwanda; and delineation of urban, peri-urban and rural areas from Ministry of Infrastructure.

Primary data was acquired from a survey of key informants and a household survey. The key informant survey was employed to inform the study's research objectives as well as to help inform the design of the household survey. Overall, 29 key institutions – comprised of government and civil society organizations with expertise in land related issues, as well as some international organizations – were chosen for the key informant interviews. Of the 29 respondents, 24 completed the interviews or filled out the questionnaire. Details on the results of the qualitative analysis can be found in the Qualitative Research Findings Report.²

Before administering the household survey, the research team conducted a pre-survey in all 23 districts selected for the study. The pre-survey enabled the team to gather information about specific characteristics of landowners (e.g. where most female commercial landowners are located in each cell) and to secure the contact information of cell officers who were needed as field locators in the general data collection.

3.2 Sampling Framework

A total sample of 1,957 respondents were interviewed in the general data collection. The selection was done using a multi-stage random sampling in three phases:

Stage 1 – Selection of districts by number of land transaction

Five districts in each province of Rwanda were selected based on the number of recorded land transactions. These included two districts with a large number of transactions, two districts with a very low number of transactions, and one district that fell somewhere in the middle. Of the selected districts, one was classified as an urban district, while the remaining four were classified as rural districts. This was done to represent the fact that 80% of Rwandans live in rural areas, per the 2012 census. Thus, of the 23 selected districts, 16 were considered rural and seven were urban. A list of the study areas where the data were collected can be found in Appendix 1, Table A24.

Stage 2 – Selection of cells within the district according to land uses

In each district, three cells were selected to represent one of these three land uses: residential, commercial, agriculture.

² See <http://www.rwandaland.org/en/partner-products/item/107-ines-ruhengeri-research-on-rwanda-s-land-administration-system>

Stage 3 – Selection of respondents within the cells

The study did not use lists of households, since landowners are not always living on their plots. Instead, cell-level authorities provided locators to help select respondents. The target population for the study was people who have had land registered in their names, and this served as the guiding characteristic for locators to select who should be interviewed. The locators also helped the enumerators exclude land renters.

For those people owning more than one property, information recorded for this study pertained only to the property located in the selected cell (survey site) and having the selected type of land use (agriculture, residential, or commercial plot). For example, if the enumerator interviewed a farmer about her/his agricultural land use, but the interview was conducted at her/his residence, the question was asked about her/his agriculture plot and not about the residence where the interview was conducted.

Before starting the data collection, the mayor of each selected district was informed about the arrival of the research team. Data collection was carried out in 16 days from 5th to 20th March 2015. The administered questionnaire is included in Appendix 2.

3.3 Analytical Framework

Based on the main objectives and the list of research questions addressed, the study analyzed the following four broad themes:

- **Awareness of the formal land tenure administration system**

The study adapted empirical approaches commonly employed in the literature for construction and analysis of appropriate awareness indicators and measures of their adequacy and competence. These indicators include the proportion of citizens who: followed a radio/television broadcast or participated in campaigns/meetings on land administration (e.g.: Land Week); registered at least one land transaction; were able to state steps involved in registering at least one type of transaction and name different requirements (documents and fees) associated with it (Santos and Fletschner, 2012). Both tabular and descriptive statistics analytical methods were used to evaluate the degree of awareness and level of satisfaction among citizens, as well as the competence and efficiency of local land administration staff. The study also investigated contributing factors to the likelihood that someone is aware of and satisfied with the land administration system. This analysis covered the list of awareness theme questions listed in the research question 1 and 5 in Table 1 below.

- **Access of citizens to the land tenure administration services**

The study analyzed the relevant qualitative, quantitative and spatial data to assess ordinary citizens' access to land administration services. The research team conducted individual surveys to solicit respondents' perceptions on whether or not they have access to land administration offices and services; are able to comply with land registration requirements; can afford the associated registration costs (considering their incomes and value of their land); and their level of satisfaction with the provision of land administration services. The team also investigated respondents' mode of transport, the documents required, and the number of visits required to complete a transaction. In terms of distance and time, spatial analysis using GIS complemented the quantitative data gathered on respondents' perceptions of their access to land administration services. The factors influencing citizens' decisions to participate and to use the system in registering titles or record other

land transactions were analyzed using logit or probit choice models. The analysis covered the list of access theme questions listed in research questions 2 to 4 in Table 1 below.

- **Outcomes of the land administration system on ordinary citizens in terms of achieving the primary goals of registration**

Registration of land rights and a functioning land administration system are commonly believed to increase one's ability to use land titles to access credit; increase incentives to invest in land improvements and development due to security of ownership provided through a title; reduce incidences of land disputes as a result of clearer definition of property boundaries and enforcement of rights; and spur a more active land market with fewer incidences of fraud. Qualitative and quantitative data on whether respondents have applied for credit or not, from what source and if they have been successful to obtain credit; whether land certification has enhanced incentives to invest in land by Rwanda's citizens; the relationship between land titling and incidence of land-related disputes; and the impact of land certificates on the volume of land transactions were assessed and analyzed using tabular and descriptive statistics and econometric analysis. This analysis covered the list of access theme questions listed under categories 6 to 9 in Table 1 below.

- **Current concerns and alternative measures for improvement**

Through individual surveys and key informant interviews, the study collected information on lingering concerns related to tenure security that are not addressed by the existing registration and certification process, and if these concerns inhibit citizens' willingness to seek credit, their willingness to make investments on their land, or their ability to sell, rent or otherwise transact on their land. The research collected qualitative data from key informants and ordinary citizens on what can be done to optimize access to the current land administration system and its outcomes including the access to credits, inducement of land investments and equitable land markets. The findings from the data analysis informed policy recommendations to be suggested to policy makers. The analysis covered the list of access theme questions listed under categories 10 and 11 in Table 1 below.

Table 1: Research questions to be addressed by the study, data required and methods of collection and proposed methods of analysis

No	Research question	Data needed	Methods and Sources of data	Analytical methods / techniques
1	To what extent are ordinary citizens familiar with the formal land administration system in place for land transactions (the existence of DLBs and SLMs and their purpose; the procedures for registering different land transactions and the restrictions on transactions; and requirements associated with these procedures)? What are citizens' perception of this system, and to what extent are they satisfied or dissatisfied with the current situation in terms of accessibility and provision of services by local land administration authorities?	<u>Qualitative data:</u> <ul style="list-style-type: none"> - Current structure of land administration offices - Procedures and requirements to register a land transaction - Citizens' awareness of the formal land administration system - Reasons for satisfaction/dissatisfaction of ordinary citizens 	<ul style="list-style-type: none"> - Survey of literature and secondary sources (NISR⁽¹⁾, DLM⁽²⁾) - Key informants surveys (DLO⁽³⁾) - General survey* 	<ul style="list-style-type: none"> - Awareness indicators analysis - Tabular - Descriptive statistics
		<u>Quantitative data:</u> <ul style="list-style-type: none"> - Awareness of the ordinary citizens on the formal land system, - Perception of the citizens on the formal land system, - The extent of satisfaction / dissatisfaction of ordinary citizens regarding the service provision. 	<ul style="list-style-type: none"> - General survey, - Key informants (e.g.: managers of cooperative, community leaders) - Secondary sources (NISR, DLM) 	
2	To what degree do ordinary citizens have access to local land administration offices (distance of offices from their homes; time needed to arrive at offices); to information about registration of land transactions; and how are they able to comply with the procedures and requirements for registering transactions?	<u>Qualitative data:</u> <ul style="list-style-type: none"> - Procedures and requirements to register a land transaction - Access to the land administration services (including LAIS⁽⁴⁾) - Compliance with the requirements and procedures 	<ul style="list-style-type: none"> - Key informant surveys (DLO) - General survey 	<ul style="list-style-type: none"> - Access indicators analysis - Tabular - Descriptive statistics - Spatial proximity analysis using GIS⁽⁵⁾
		<u>Quantitative data:</u> <ul style="list-style-type: none"> - Level of access by ordinary citizens (distance and time, conditions of the roads, availability and affordability of the transport associated with travelling to the district office) - Fees charged and the ease with which citizens are able to understand the different procedures and requirements for registering different land transactions - Degree of compliance with the requirements and procedures 	<ul style="list-style-type: none"> - General survey - Key informants (e.g.: managers of cooperative, community leaders) - Secondary sources (NISR, DLM) 	

3	To what extent are ordinary citizens able to afford the cost of land transactions, taking into account their annual incomes and the value of their land?	<u>Qualitative data:</u> - Affordability by ordinary citizens	- Survey of literature and secondary sources (NISR, DLM) - Key informants surveys (DLO)	- Tabular, - Descriptive statistics
		<u>Quantitative data:</u> - Transport, possibly accommodations and meals costs associated with traveling to the DLB - Income level of ordinary citizens, - Value of land - Cost of land transactions (fees, time, etc)	- General survey, - Key informants (e.g.: managers of cooperative, community leaders) - Secondary sources (NISR, DLM)	
4	Among those landholders that have engaged in land transactions, what portion of them has registered the transactions (buyers, sellers, long-term lessors and lessees, and those who have mortgaged their parcels)? Among those who have not registered, what are the reasons? Is registration of land transactions affected by law that restricts subdivision of land resulting in parcels of less than one hectare?	<u>Qualitative data:</u> - Engagement in land transactions (sales, sub-leases, mortgages, inheritance, gifts) - Reasons behind not registering land transactions - Effects of the law restricting subdivision	- Survey of literature and secondary sources (NISR, DLM) - Key informants surveys (DLO, SLM). - General survey	- Tabular, - Descriptive statistics - Regression analysis of factors influencing the decision to register (logit / probit models)
		<u>Quantitative data:</u> - Portion of registered transactions, - Percentage of those affected by the restriction on subdivision - Percentage of collected land leases	- General survey - Key informants (e.g.: managers of cooperative, community leaders)	
5	To what extent is local land administration staff knowledgeable of common rules and procedures for administering land transactions? Do they perform these efficiently, and if not, why?	<u>Qualitative data:</u> - Knowledge of procedures and requirements to register a land transaction - Efficiency of performance of land administration staff	- Survey of literature and secondary sources (DLM) - Key informants surveys (DLO) - General survey	- Tabular, - Descriptive statistics
		<u>Quantitative data:</u> - Level of experience the current land administration, - Number of transactions handled per day, - Previous training in handling land transaction.	- Key informants surveys (DLO, District surveyors)	

6	<p>What has been the impact of land certificates on access to credit by ordinary citizens (both formal and informal sources of credit)?</p> <p>To what extent are financial institutions willing or unwilling to accept land certificates as collateral and why?</p>	<p><u>Qualitative data:</u></p> <ul style="list-style-type: none"> - Impact of land certificates on access to credits (applied and received) - Forms of security for loans and preferences, - Source and duration of the loan - Purpose of credit - Willingness of financial institutions to accept land certification as collateral - Reasons for unwillingness 	<ul style="list-style-type: none"> - Survey of literature and secondary sources (financial institutions, ORG - RDB⁽⁶⁾) - Key informants from financial institutions (Credit manager in banks) - General survey 	<ul style="list-style-type: none"> - Tabular - Descriptive statistics - Econometric analysis methods to measure and explain the relationship between access to, amount of, and purpose for credit and their determinants (logit / probit for access and purpose, tobit regression for amount) - Two-step Heckman selection model
		<p><u>Quantitative data:</u></p> <ul style="list-style-type: none"> - Portion of those who were asked to produce titles to secure credits - Portions of those who acquired loans after pledging their land as collateral - Amount of credit received 	<ul style="list-style-type: none"> - General survey - Key informants (e.g.: managers of cooperative, community leaders) 	
7	<p>What has been the impact of land certificates on landholder investment in one's land, home and business?</p> <p>What are the mechanisms by which land certificates have had this impact?</p>	<p><u>Qualitative data:</u></p> <ul style="list-style-type: none"> - Impact of land certificates on investment (invested or not) - Type of investments on land - When the investment was made 	<ul style="list-style-type: none"> - Survey of literature and secondary sources (financial institutions, MINECOFIN ⁽⁷⁾, MINAGRI ⁽⁸⁾, ORG - RDB) - Key informants from financial institutions (Cooperative managers, agricultural extension officers, cell leaders) 	<ul style="list-style-type: none"> - Tabular - Descriptive statistics - Econometric analysis methods to measure and explain the relationship between investment type and level and their determinants (logit / probit for type, tobit regression for amount)
		<p><u>Quantitative data:</u></p> <ul style="list-style-type: none"> - Value of investment - Type of land based investments - Portion of investment on land influenced by land titles 	<ul style="list-style-type: none"> - General survey - Key informants (e.g.: managers of cooperative, community leaders) 	
8	<p>What has been the impact of boundary demarcation and land certificates on the prevalence of land disputes and the capacity to rapidly and effectively resolve such disputes?</p>	<p><u>Qualitative data:</u></p> <ul style="list-style-type: none"> - Prevalence of land disputes on boundaries, ownership, use and other land related disputes, - Long standing land disputes - Influence of the land certificates in preventing and/or resolving land disputes - Capacity and effectiveness of resolving disputes (resolved or not, how fast, at what level/institution was the disputes resolved, etc.) 	<ul style="list-style-type: none"> - Survey of literature and secondary sources (MINIJUST⁽⁹⁾, MIDIMAR ⁽¹⁰⁾) - Key informants (Abunzi, Primary courts, Office of ombudsman, RISD⁽¹¹⁾, RCN Justice & Democratie) - General survey 	<ul style="list-style-type: none"> - Tabular - Descriptive statistics, - Econometric analysis methods to measure and explain the relationship between the types of land disputes that arise from the land demarcation and land titling

		<u>Quantitative data:</u> <ul style="list-style-type: none"> - Incidents of land disputes (number, type, etc.) before and after land tenure regularization - Portion of pending land disputes against incidences of disputes before and after land tenure regularization, - Capacity and effectiveness resolving disputes (percentage resolved, time to resolve, cost, etc.) - At which weight land certificate and boundaries supported rights claims? 	<ul style="list-style-type: none"> - General survey - Key informants (e.g.: managers of cooperative, community leaders, local mediators) 	
9	<p>What has been the impact of land certificates on the volume of land sales and rentals between ordinary Rwandan citizens; between citizens and investors?</p> <p>Are land markets affected by law that restricts subdivision of land resulting in parcels of less than one hectare?</p>	<u>Qualitative data:</u> <ul style="list-style-type: none"> - Mode of land acquisition (inheritance, purchase, rentals) - Factors considered before acquiring land (size, location, use, presence of land certificate) - Purpose of acquiring land (occupation, investment) - Approximate size of the land acquired - Trends in land sales and rentals - Registered land transactions - Reasons for not registering land transaction 	<ul style="list-style-type: none"> - Survey of literature and secondary sources (DLO, Real property agencies, MINECOFIN) - Key informants (DLO, SLM, Real property agencies) - General survey 	<ul style="list-style-type: none"> - Tabular - Descriptive statistics - Econometric analysis methods to measure and explain the relationship between various aspects of functioning land markets (logit / probit) and levels (tobit) of activity as a result of land certification
		<u>Quantitative data:</u> <ul style="list-style-type: none"> - Percentage of sample that have engaged in land sales, purchases and rentals - Percentage of those who acquired land for investments - Proportion of purchases less than a hectare - Proportion of transactions influenced by the presence of land certificates 	<ul style="list-style-type: none"> - General survey - Key informants (e.g.: managers of cooperative, community leaders) 	
10	<p>Do landholders have lingering concerns related to tenure security that are not addressed by the existing registration and certification process? If so, do these concerns inhibit access to credit, investments or land markets?</p>	<u>Qualitative data:</u> <ul style="list-style-type: none"> - Concerns about tenure insecurity - Outcomes of unaddressed concerns on access to credit, investment and land market - Perception of tenure security 	<ul style="list-style-type: none"> - Key informants (RISD, RCN Justice & Democratie) - General survey 	<ul style="list-style-type: none"> - Tabular - Descriptive statistics

		<u>Quantitative data:</u> - Proportion affected by the concerns - Percentage of those who believe that they are tenure insecure	- General survey - Key informants (e.g.: managers of cooperative, community leaders)	
11	What measures can be taken to make the land administrative systems more accessible to ordinary Rwandan citizens? What alternatives exist for augmenting the impact of the system on access to credit, land investment, and equitable land markets?	<u>Qualitative data:</u> - Recommendations to optimize the access to the improved land administration. - Recommendations to improve access to credit, land investment, equitable land markets and tenure security.	- Key informants survey - General survey	- Tabular - Descriptive statistics

* General survey refers to the main survey of citizens

- (1) NISR: National Institute of Statistics in Rwanda
- (2) DLM: Department of Lands and Mapping
- (3) DLO: District Land Officer
- (4) LAIS: Land Administration Information System
- (5) GIS: Geographic Information System
- (6) ORG - RDB: Office of the Registrar General under Rwanda Development Board
- (7) MINECOFIN: Ministry of Finance and Economic Planning
- (8) MINAGRI: Ministry of Agriculture and Animal Resources
- (9) MINIJUST: Ministry of Justice
- (10) MIDIMAR: Ministry of Disaster Management and Refugees Affairs
- (11) RISD: Rwanda Initiative for Sustainable Development

4. RESEARCH FINDINGS

This section details the findings associated with the eleven research questions described under Section 1.2. It includes tables and/or graphs presenting the results obtained from surveys done in this study.

4.1 Characteristics of Population

The sample size of the general survey was 1,957 respondents. Of the respondents, 52.5% were male and 47.5% were female, where 85.1% are among economically active population (between 20 and 60 years old) as shown in Figure 1 below (group ages per districts can be found in the appendix Table A25).

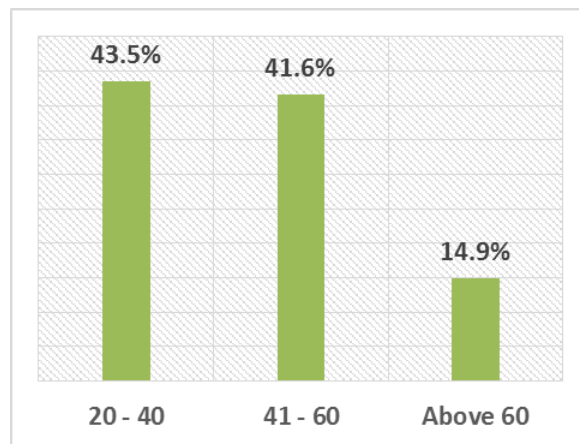


Figure 1: Age of the respondents

In addition to sex and age, the basic information collected about each respondent included their marital status, profession and monthly income.

The marital status shown in Figure 2 shows that the majority of owners were married (72%) followed by widowed (17%).

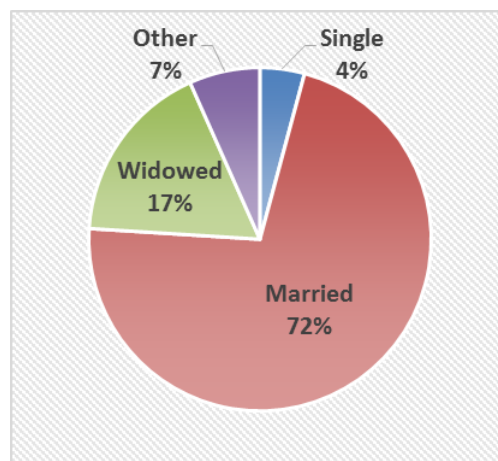


Figure 2: Owner marital status

The category referred to as ‘other’ combines those respondents who are either separated/divorced or married but not living with their spouses. For more details per district, see in the appendix, table A26.

Figure 3 reveals that almost half of the sample (49.8%) has primary school as their highest level of education, while 23.6% never attended school. For more details per district, see in the appendix, table A27.

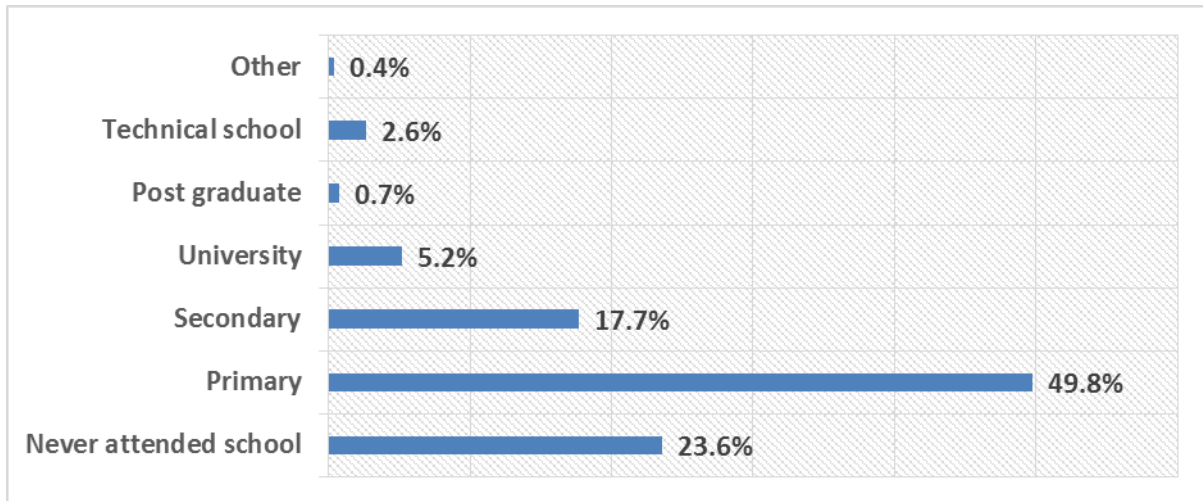


Figure 3: Level of education

Figure 4 below indicates that the majority of respondents are in farming activities (61%), a profession that does not require a higher level of education.

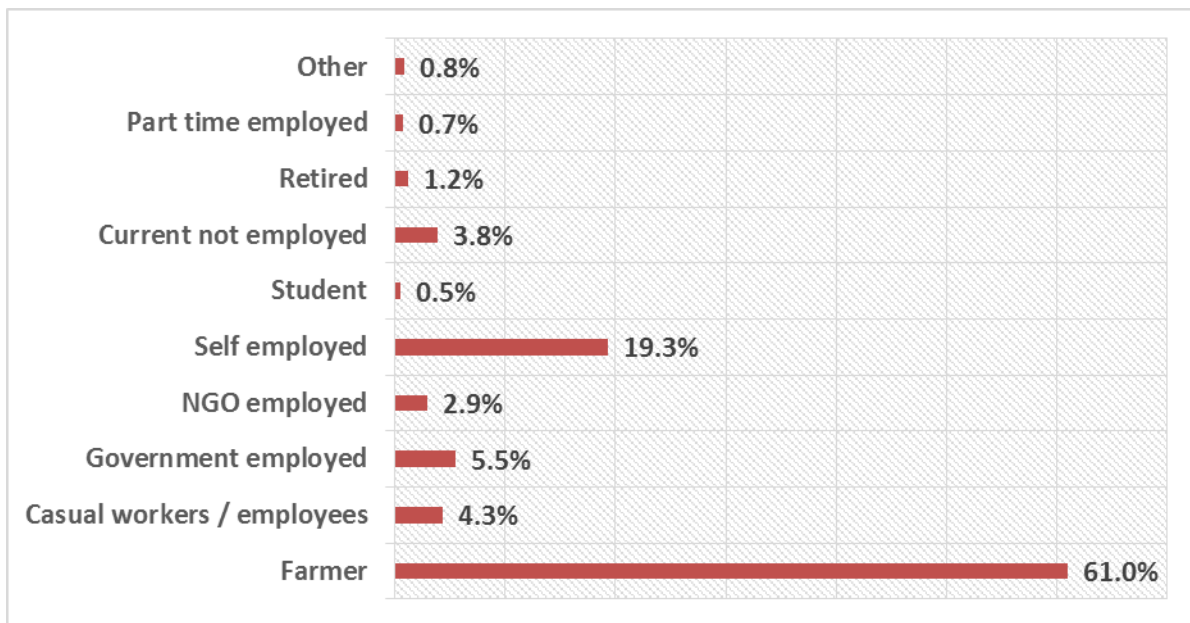


Figure 4: Primary profession of the owner

As shown in Figure 5, the largest percentage of the respondents (64.9%) earns less than 50,000 Rwandan francs per month. No big difference observed between districts as shown in the table A28 in the appendix 2.

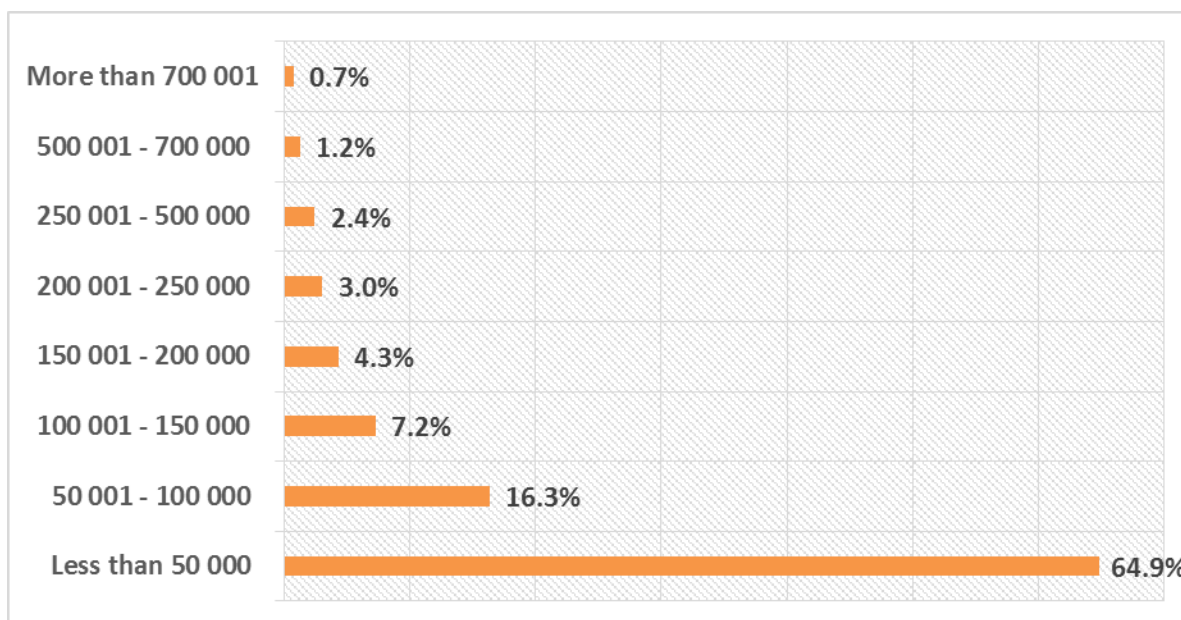


Figure 5: Monthly income of the respondents

Whereas most respondents were farmers and could only estimate their monthly income, the research team was able to assess the extent to which citizens can afford the cost of registering a land transaction, as explained in the section 4.4.3.

4.2 Characteristics of Properties

As explained in Section 3.2, the properties included in the study were selected based on land use type. Figure 6 shows the percentages of different land uses associated with the properties owned by the respondents.

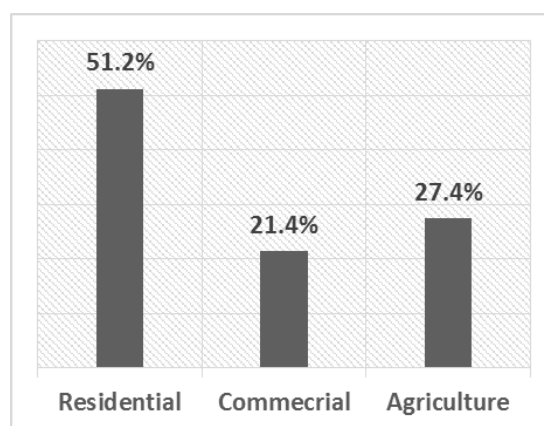


Figure 6: Land use types

Residential properties represent the highest percentage of properties owned by respondents (51.2%). This is not surprising given how sampling was carried out, selecting 30 respondents with residential land per district in both rural and urban areas. For Kigali City districts, the number of respondents with residential land was doubled to 60 respondents. Table A24 in the Appendix 1 provides more details on how the sample was distributed among districts in urban, peri-urban and rural areas.

Three important historic events appear to have impacted the acquisition of property in Rwanda (see Figure 7):

- 1994: genocide committed against Tutsi,
- 2004-05: adoption of the National Land Policy and the Organic Land Law, and
- 2009: land tenure regularization.

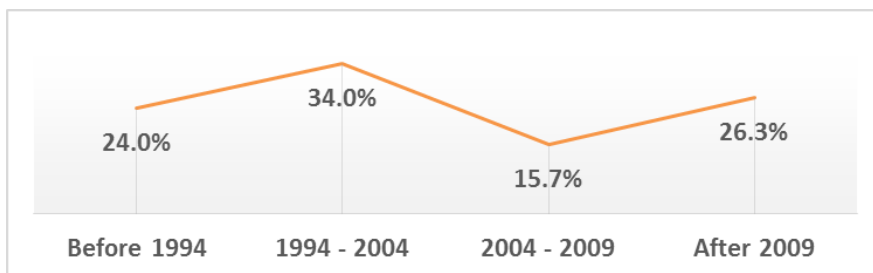


Figure 7: Period when the property was acquired

After 1994, there was an increase in property acquisitions. This could be explained by the waves of returnees and the land sharing policies that were implemented during this period to accommodate them. Another increase is observed once the systematic land registration exercise was underway.

The majority of respondents (88.7%) reported that they possess a land certificate for their properties. However, this information is based on what respondents told enumerators. Enumerators did not ask to see the certificates to verify respondents' claims. It is possible that some respondents erroneously claimed to have certificates for fear of being revealed to be out of compliance with the law requiring owners to register their land. For more details about the possession of land certificates per district, see Appendix 3, table A29.

As shown in Figure 8, the majority of properties are jointly owned (70.4%) compared to those that are individually owned (29.6%).

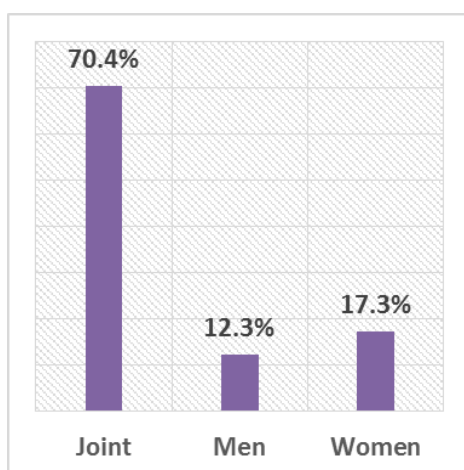


Figure 8: Land ownership

Among individual owners, women-owned plots in the sample outnumbered men-owned plots. This phenomenon was more commonly observed in Gatsibo district (see table A30, in Appendix 3). This may be a result of the sensitization of women on claiming their rights to land.

Regarding ways in which the property was acquired, 51.7% of respondents said that they bought land from either a previous owner or a developer (see Figure 9, or table A31 in Appendix 3, for more details per district). The next most common mode of property acquisition is through gift or *umunani*.

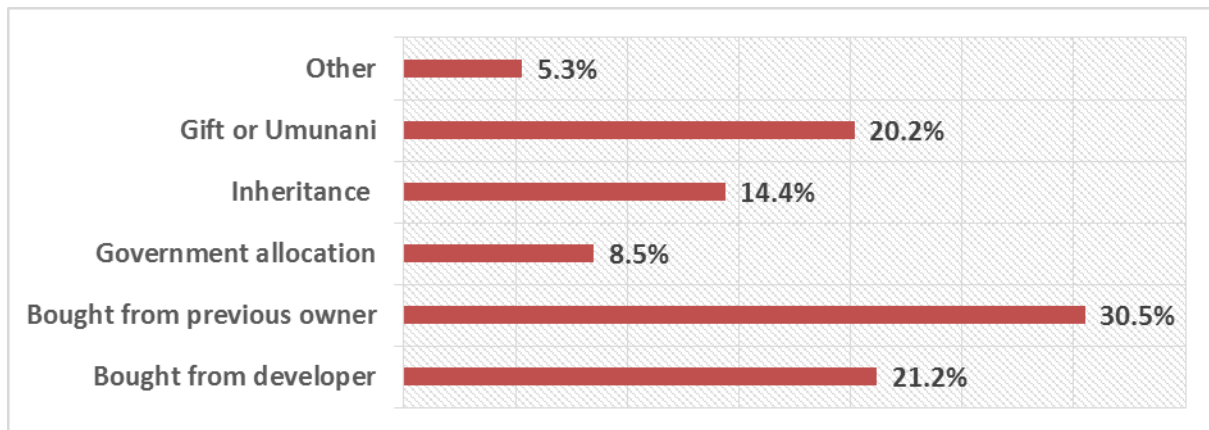


Figure 9: Mode of Properties Acquisition

The average size of plots was found to be only 0.27 hectares, substantiating the median size of 0.33 hectare stated in the EDPRS II (Economic Development and Poverty Reduction Strategies – GoR, 2013).

4.3 Awareness of the Land Administration System

This section elucidates the general awareness of Rwandan citizens about the current formal Land Administration System (LAS) and its procedures and requirements to register a land transaction, as informed by the general survey. The survey asked a number of questions regarding the extent to which ordinary citizens (women, men, youth, adults): are familiar with the formal system in place for registering land transactions; are aware of the existence of DLBs and SLMs and their purpose; and are aware of the procedures for registering different land transactions (bequeathal / inheritance, sale / purchase, long-term rental, gift, mortgage, a restriction on transactions to prevent its transfer) and the associated requirements with these procedures.

4.3.1 Awareness of LAS and services provided by various LA offices

The study results indicate a high level of awareness about the formal LAS in place to register land transactions. Of all the interviewed respondents, 99% indicated that they are aware of the formal LAS in place (see Figure 12) and 90.8% are aware of the system for registering changes in property rights. This result is not surprising, given investments by the GoR and CSOs in building citizen awareness about the LAS and the need to register land transactions. Participants from the District validation exercise were not surprised that only 1% of respondents reported they were unaware of LAS, and surmised that these might be new buyers who are unfamiliar with the land program or older people who may not be interested because they do not see the real benefit of it.

The survey further investigated whether awareness of LAS varies by gender and age of citizens. Results reported in Figure 10 revealed that there are no significant differences in awareness between men (51.9 %) and women (46.9 %). This seems to suggest that the

various efforts by the GoR, NGOs and development projects to sensitize citizens and raise awareness about LAS reached men and women fairly equally, though differences in the quantity and quality of the information received by women and men were not assessed. The slight difference (0.11%) between the numbers provided in Figure 10 is coming from respondents whose gender was not specified by the enumerators.

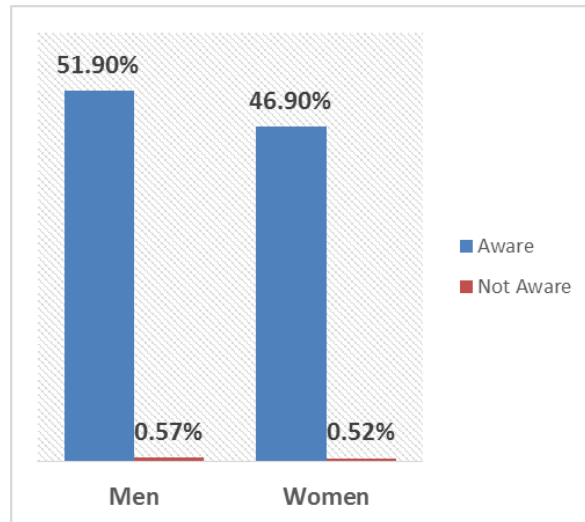


Figure 10: Awareness of the LAS by gender

Similarly, the survey results on awareness did not vary greatly among age groups. This seems to suggest that perhaps all Rwandan age groups have access to information sources about the LAS.

Findings on citizens' awareness of the land registration system were further informed by key informant interviews. The majority of respondents said that landowners are aware of the existence of the formal LAS. Key informants explained that the high numbers of people collecting their land certificates and coming to DLBs to record land transactions is evidence of their awareness. Key informants who did not think landowners are aware of the LAS alleged that low levels of education and ignorance are the major factors contributing to the lack of citizen awareness about LAS.

4.3.2 Knowledge of Services Provided by LAS from Different Offices

Before asking about respondents' familiarity with procedures for registering land transactions, the survey asked citizens about their knowledge of the kinds of services they can access from various land bureaus. This was an open question and there was no wrong or correct answer as the purpose was to assess the level of knowledge about land services offered. The majority (44%) said the LAS is responsible for issuing land certificates; 27.9% believe that the LAS is responsible for transfer of land titles; and 21.1% said that LAS is responsible for land registration (see Figure 11). Rusizi District reported the highest number respondents saying that LAS is responsible for issuing land certificates (71%) (see appendix 3, table A32).

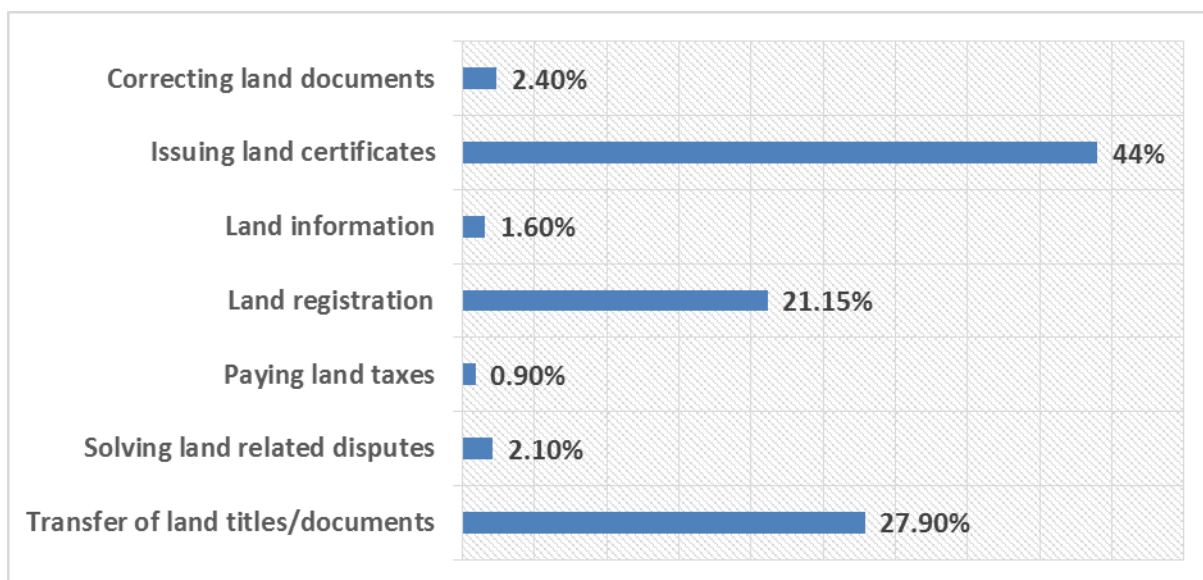


Figure 11: Knowledge of what services the LAS provide

The survey went on to find out if respondents knew where to go to access land registration services. Of the interviewed respondents, 69% said that they knew where to go and 31% did not know where to go. The respondents who indicated that they knew where to go to access the land registration services were then asked which office they go to for these services. As shown in Table 2, the majority (43.7%) said they would go to the cell office, followed by the sector office (24.8%), district office (23.2%), and One Stop Centre (6.9%). A few (1.4%) said they would go to the Registrar's office (see Table 2). Analysing results by District, Rubavu followed by Gicumbi Districts registered the highest number of respondents attesting that they would go to the cell office to obtain such services (see appendix 3, table A33).

Table 2: Office where respondents go to for the land registration services

	East	Kigali City	North	South	West	Total
Cell	74 (9.3%)	144 (18.2%)	241 (30.4%)	137 (17.3%)	197 (24.8%)	793 (43.7%)
Sector	30 (6.7%)	85 (18.9%)	155 (34.4%)	105 (23.3%)	75 (16.7%)	450 (24.8%)
District	71 (16.9%)	92 (21.9%)	91 (21.7%)	64 (15.2%)	102 (24.3%)	420 (23.2%)
OSC*	34 (27.0%)	22 (17.5%)	27 (21.4%)	32 (25.4%)	11 (8.7%)	126 (6.9%)
Registrar	6 (23.1%)	4 (15.4%)	6 (23.1%)	7 (26.9%)	3 (11.5%)	26 (1.4%)

* One Stop Center

Given that only the DLBs can register land transactions, the results show that people are not aware of the right office to go for land registration services. According to the LAS procedures manual of 2012, applications for land registration are submitted to the DLB where the District Land Officer verifies, notarizes and processes the documents for recording the transaction in the LAIS. The documents are then transferred to the provincial-level Deputy Registrar's of Land Titles, whose role is to approve (or refuse) the transaction, then electronically sign and print the certificate for issuing by the District Land Officer. Rusizi and Nyagatare are the only districts in which the majority of respondents (41.6% and 40.6%, respectively) identified the correct office for LAS services (see Appendix 3, table A33).

The study also sought to understand if citizens are aware of the services provided by the various land offices. As illustrated in Figure 12, only 6.8% of respondents knew what services the Registrar's office provides; 27.9% knew what services the DLB provides; and 30.8% knew what services the Sector Office provides. This finding confirms the results

illustrated in Table 2, which showed that respondents said they would go to the cell office for land registration services.

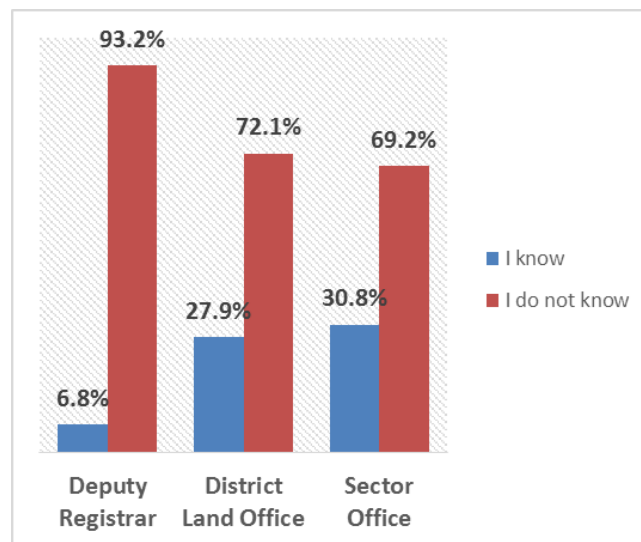


Figure 12: Knowledge of services provided by different land offices

4.3.3 Familiarity with procedures and requirements to register a land transaction

While respondents' awareness of the existence of the LAS was found to be very high, the same cannot be said about familiarity with procedures and requirements for registering transactions. Less than half (43.8%) of the respondents aware of the LAS indicated that they were familiar with the procedures and requirements for registering different land transactions. In contrast, 56.2% were not familiar with these procedures. Results by district show that Nyamasheke followed by Rutsiro had the most familiarity (54.6% and 53.1%, respectively) with the procedures and requirements for registering land transactions. Bugesera (90%) and Nyamagabe (82.4%) districts had the least knowledge on the procedures and requirements. (See Appendix 3, table A34).

Among those who are familiar with the procedures, the majority (94.2%) knew where to get information on the procedures and requirements for registering land transactions. Additionally, 80.6% of this group thought that it was easy to access this information when they needed it, whereas 19.4% said it is difficult to access this information. Those who said it is difficult to access the information provided their reasons, as illustrated in Figure 13. Thirty three percent (33%) said that the long distance to the perceived source of information makes it difficult to access the information, while 21% said that no one is available at the perceived source of information to give the required information.

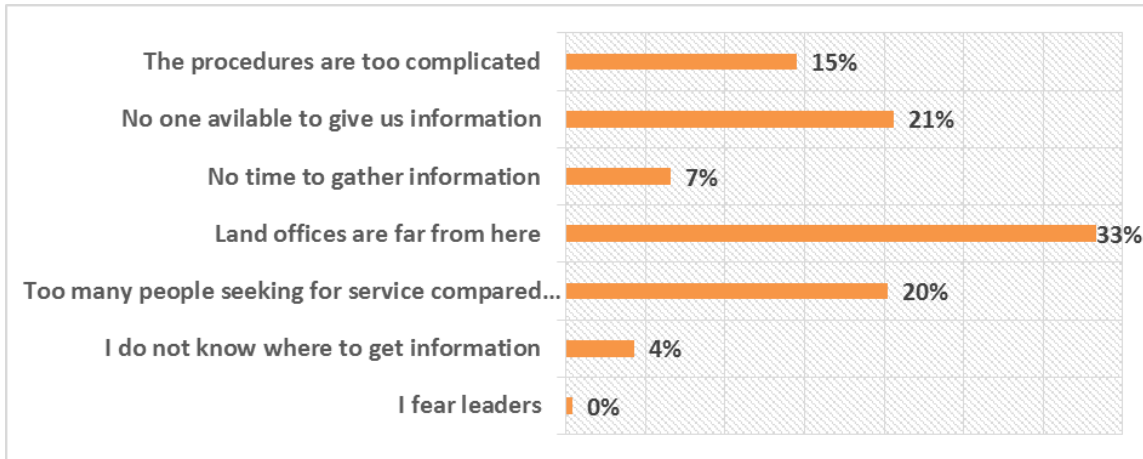


Figure 13: Reasons why it is difficult to access information

When asked about where they would go to get such information on procedures and requirements, the majority (51%) said they would go the cell office (Figure14). Since the DLB is in charge of providing land registration information and services, it is unclear whether the cell office would be able to provide such information. Similarly, almost all respondents said they would go to the cell office for land registration services. These findings indicate that people do not know where to get information on land registration procedures and requirements.

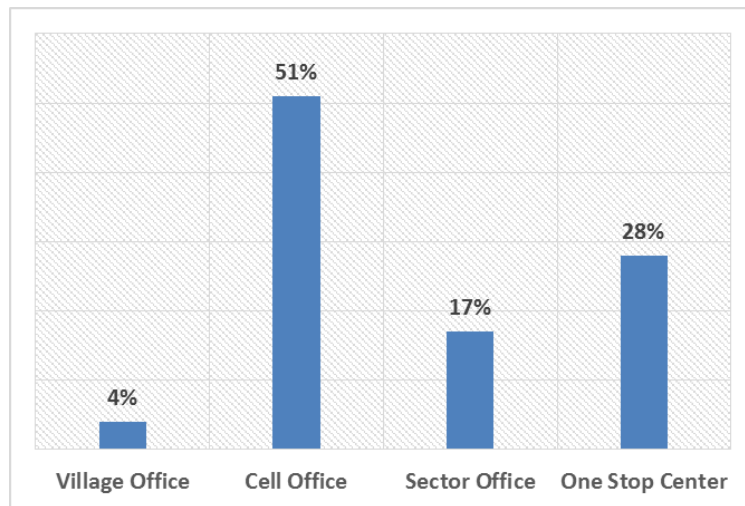


Figure 14: Sources of information about procedures of LAIS services

Asked about the documents required to register a land transaction, respondents gave diverse responses depending on the type of transaction they have undertaken. In the results, the maximum number of documents cited was eight and the mean result was 1.5 documents.

Information obtained from the key informant interviews indicated that, among the major challenges that citizens face in complying with procedures of land registration, are the very long distances they must travel to access land registration services. Informants also blamed illiteracy for preventing citizens from understanding the importance of land registration, which they felt is exacerbated by citizens' reluctance to accept change in the formal land registration system.

4.3.4 Sources of Information about the LAS

When asked about sources of information on the registration of transactions, the majority of respondents (75%) said that they learned about the formal land registration system through public meetings, while 59.3% of respondents reported that they learned the information from the radio (Figure 15).

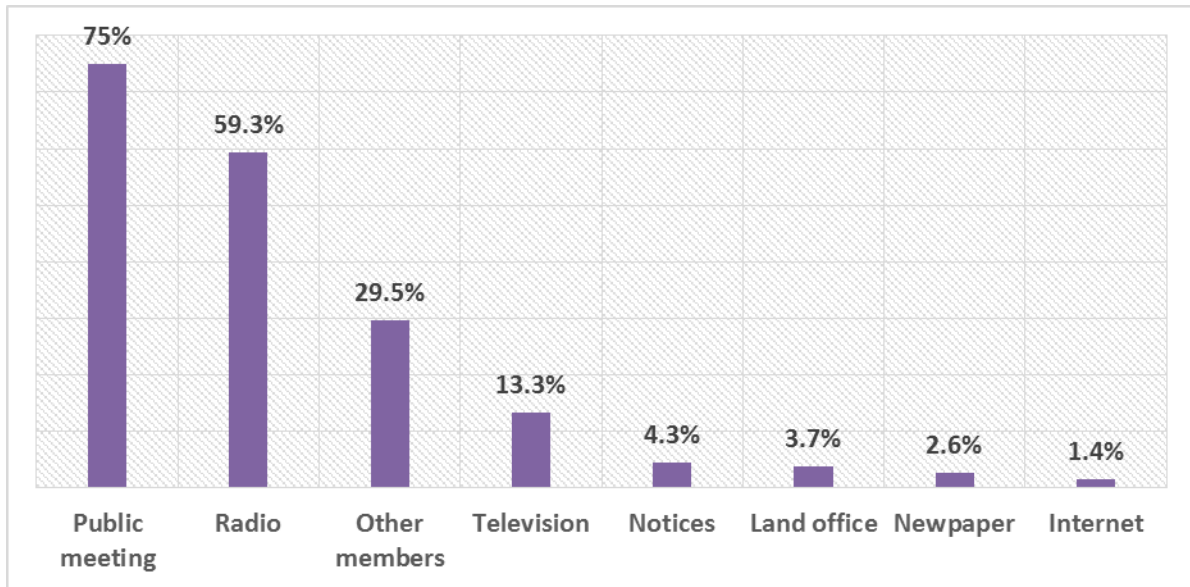


Figure 15: Source of information about land registration

The results show that newspapers and the Internet are used by few people to obtain this type of information, potentially reflecting low levels of literacy (Agrarini, 2011). Additionally poor internet access and low availability of newspapers in rural areas could exacerbate the low accessibility of these information sources. These findings are supported by Muyombano (2014), who found in his study of Runda Sector in Kamonyi District that the majority of citizens accessed information on the land registration system through public meetings/campaigns and radio.

The research team compared respondents' sources of information on LAS against the level of education of the household head. As illustrated in Figure 17, respondents with higher education (post-primary) accessed information about LAS mainly from televisions (60%), newspapers (60%), and billboards (58%). On the other hand, respondents with less education accessed information primarily from public meetings (74%), meetings with other people (73%), and radios (68%). The difference between these two categories of education is not significant, indicating that education makes little difference in terms of accessing information through the various channels.

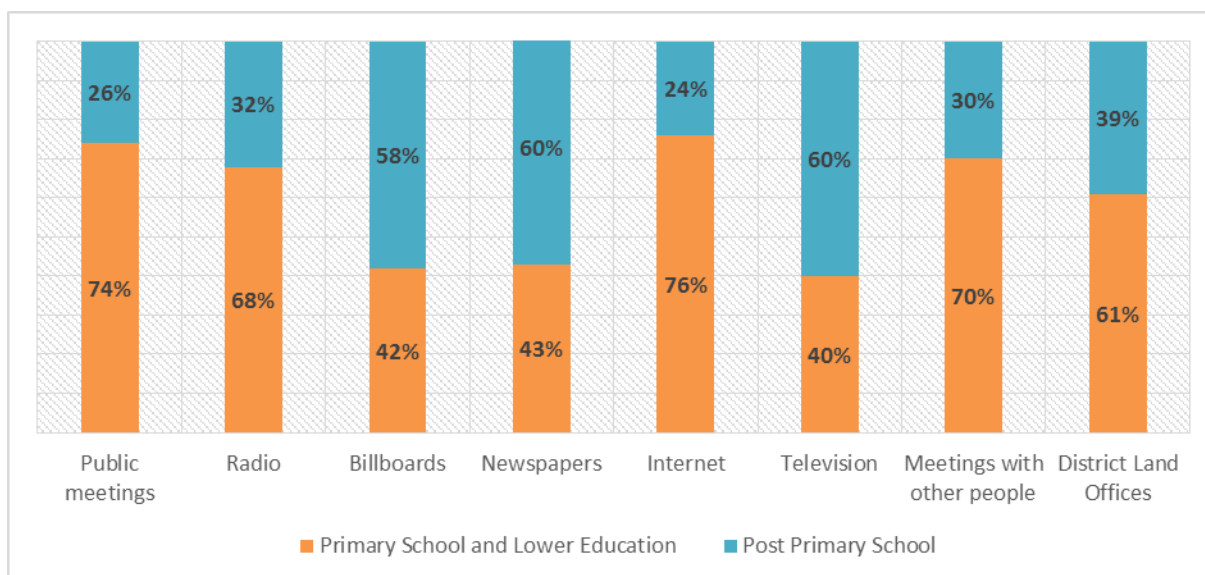


Figure 16: Source of awareness information by education level

Qualitative survey respondents indicated that the government has played a major role in raising awareness about the formal land registration system by sensitizing the public through different channels, especially public meetings and the media. Sensitization during the LTRP and more recently during Land Week campaigns appear to have raised awareness on the importance of formal land registration.

In analysing awareness, key informants were asked about the level and sufficiency of citizens' knowledge when it comes to registering a land transaction. The majority of key informants indicated that knowledge to register transactions is partial for all groups of people. According to key informants, the major challenges citizens face in complying with land registration procedures are high levels of bureaucracy and citizen illiteracy.

4.4 Accessibility and affordability of the formal land administration system for ordinary citizens

The study assessed ordinary citizens' access to land administration services through analysis of relevant qualitative, quantitative and spatial data, which is presented in this section.³

4.4.1 Use of Land Administration System

Forty two percent (42%) of survey respondents, a total of 824 cases, reported they have not used the LAS to register a land transaction. But, these include 779 cases where landowners reported first time registration as the only time they used the system. There were 45 cases of landowners who simply did not want to register a transaction on their land. Since the Government of Rwanda registered all land on behalf of all citizens (i.e. citizens did not need to do it themselves), researchers did not count these among the group who had used the LAS to register a transaction.

Figure 17 therefore represents only the remaining 1,133 cases (58%), who were actually involved in a land transaction after first time registering. Analysis of only those respondents

³ This corresponds to research questions no. 2, 3 and 4 of the ToRs (see section 1.2).

who engaged in a land transaction show that 18.4% claimed they did not use the formal system to register their transaction(s), while 81.6% said they did use it for registering their transaction. In only three districts were reported use rates were below 50%. These were Muhanga (40 %), Nyanza (45.8 %) and Nyaruguru (42.9 %). See further results by District in Appendix 3 in table A42.

Of those who reported using the LAS after first time registration, 71.7 % claimed they used it mostly for registering sales and purchases of land followed by registration of gifts and inheritance (see Figure 17).

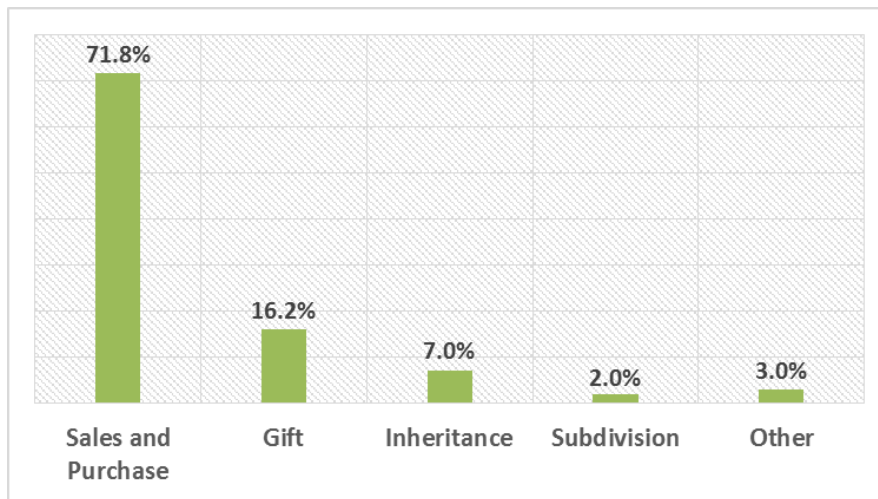


Figure 17: Use of the Land Administration System of Citizen who engaged in a Land Transaction after First Time Registration

179 respondents (18.4%) reported that they engaged in a land transaction after first time registration and did not register it formally. They were asked for the reasons why they did not use the system to record the transaction, but only 93 persons (52%) responded. Most respondents stated they were not aware of the existence of LAS (50%), while others reported that they are unable to comply with land registration requirements/procedures (34.4%) as shown in figure 18.

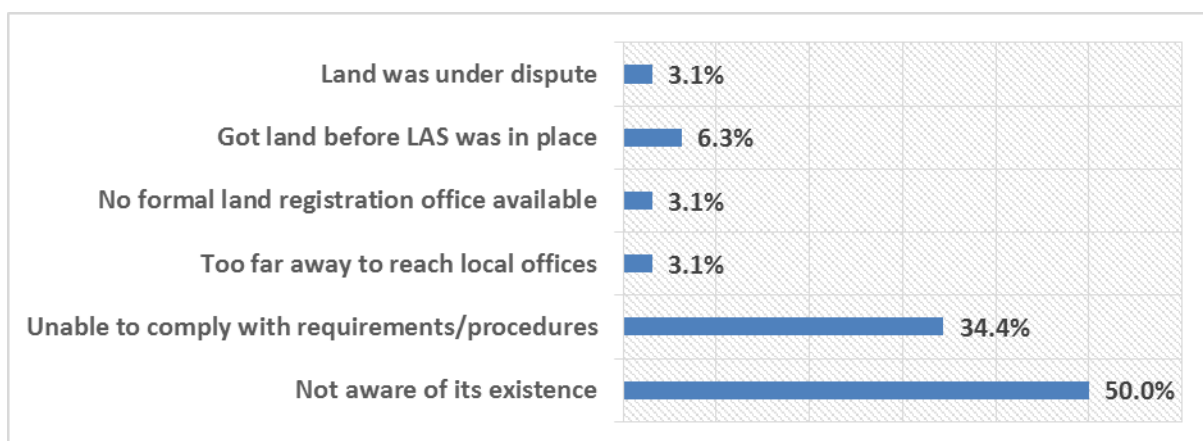


Figure 18: Reasons for Non-Use of the Land Administration System for Land Transactions

To explore the correlation between reasons given of lack of awareness of the LAS and the inability to comply with requirements/procedures with the level of education of the respondent, a cross-tab analysis was performed (see Appendix 3; table A36). The lack of

awareness reason appears to have a high correlation with those who never attended school or finished only primary school (84.2% and 72.3%, respectively), as compared to those with secondary education or higher (15.8% and 27.8%, respectively). However, no statistical significance was found.

As discussed in section 4.2, most landowners claim to possess their land certificates (89.7%). Although this may lead one to assume that those who have reported transacting their land have used the LAS to register those transaction, respondents were not asked if the land certificates they possessed were in their own names. It is possible that they possess certificates with the name of the former owner, or have another (informal) record of the transaction that they regard as a land certificate. Moreover, as noted previously, respondents were not asked to produce their land certificates to verify that they actually possess them. Therefore, some may have reported having them out of concern that they could face consequences if they reported otherwise.

Citizens who did not have a land certificate were asked why they lacked one; their responses are displayed in Figure 19. Most landowners who do not have a land certificate (49%) claimed that their certificates were not yet issued, while 14 % said they lacked the money to pay the fee to collect the certificate, and 13% cited non-provision of a certificate by the former landowner who sold it to them. One possible reason for the high percentage of respondents claiming that their certificates have not yet been issued could be that their certificates have been issued and are waiting to be collected, but the landowners have not been informed. Another possibility is that a dispute was recorded on their plot during the LTR process, and therefore no certificate was issued for it.

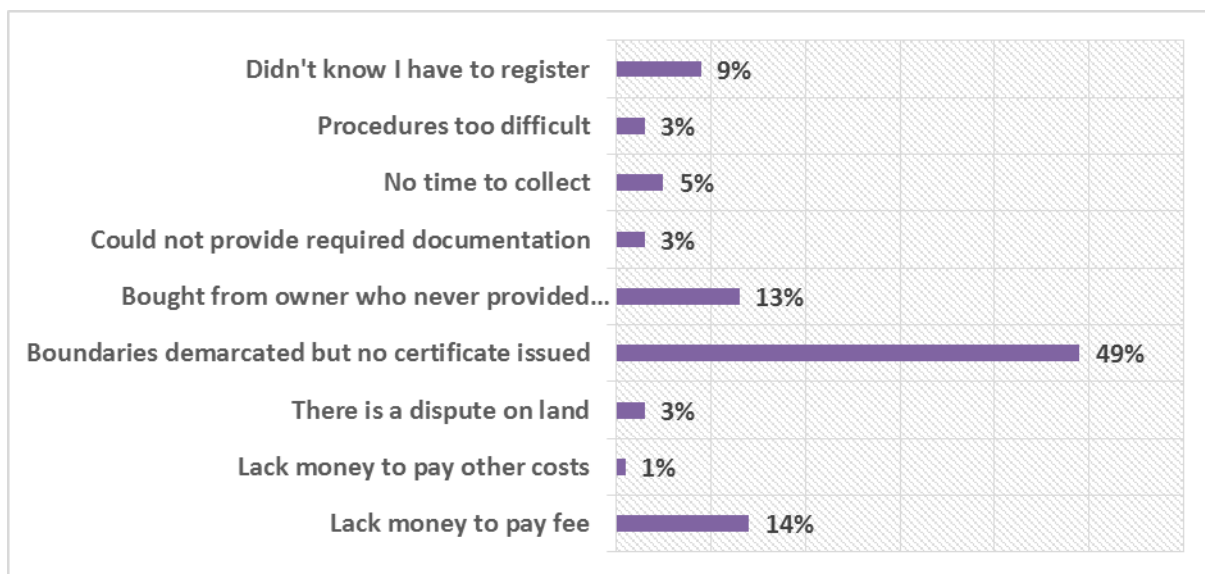


Figure 19: Reason for Not Possessing a Land Title of Total Sample Population

The following logit regression analysis is used to investigate who uses the LAS and why. The analysis looks at the role of various geographic, household, and property characteristics in determining the likelihood of participation in the LAS. Here, participating in the LAS is defined as people who were using or not using the system after first time registration and being engaged in a land transaction. Results are shown in Table 3 below.

Table 3: Results of the Logistic Regression Estimation of the Likelihood of Using the LAS

	B	S.E.	Wald	Sig.	Exp(B)
Western Province	4.106		45.948	.000	
Eastern Province	0.42	.426	0.10	.922	1.043
Kigali Province	-1.207	.358	11.394	.001	.299
Northern Province	-.696	.323	13.392	.000	.521
Southern Province	-1.783	.316	31.816	.000	.168
Land Use Type is Residential	-.388	.205	3.589	.058	.678
Landowner is Male	-.649	.280	5.367	.021	.523
Age of Respondent	-.020	.007	7.688	.006	.980
Income of Respondent	.391	.126	9.611	.002	1.478
Land Acquired from Developer	.950	.345	7.583	.006	2.586
Possession of Land Title	.507	.302	2.824	.093	1.660
Constant	2.320	.536	18.710	.000	10.179

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
632.562a	.142	.231

The results suggest that the highest likelihood of using the LAS is for those citizens in Western Province followed by Eastern Province (both showing a positive coefficient sign). This is also confirmed by a cross-tab analysis and Chi-Square Test which shows high statistical significance of the Province factor on use of LAS (see Appendix 3; table A37). As can be seen from table A37, both Western and Eastern Provinces reported very high use rates (91% and 88%, respectively) compared to other provinces (showing negative signs on probability coefficients in Table 3), particularly the Southern Province where use rates are relatively very low (44%). For the Southern Province, the results appear to reflect long distances between citizens' homes and administration offices, which increase the associated costs of registering, such as transportation costs. This point is further explored in section 4.4.3.

Type of land use is a significant factor affecting the likelihood of land registration. For example, transactions after first registration (sales, purchases, etc.) for non-residential properties are more likely to be registered than for residential properties. This suggests that commercial and agricultural properties may be more subject to market transactions than residential properties. During district level workshops held to validate the study findings, local authorities supported this finding and added that citizens do not register transactions for residential properties because they fear being taxed (technically, they are charged lease fees). Since commercial and agriculture landowners have an income from a business on their plot, they are more able to pay such taxes, compared to landowners who are living in their own house or plot and receive small or no income from use of their property.

The logit regression results illustrated in Table 3 also indicate that, if the owner of the property is an individual male (compared to individual ownership by women and joint ownership) and older in age (compared to the young), they are less likely to use the LAS. Results may suggest that men and older citizens tend to be more confident about their land ownership and may consider that they do not need a formal land certificate to defend their rights.

Having a higher income and acquiring property from a developer (compared to from a previous owner or via government allocation, inheritance, etc.) increases the likelihood of using LAS. Since a family's income is the main source of paying fees and associated costs

for registering a land transaction, it is no surprise that a higher income increases the likelihood of using the LAS. This is consistent with other studies which have found that access to the LAS seems to be less accessible to the poor (Williamson *et al.*, 2010). Further, since developers typically use the LAS to sell and transfer land to the new owner, the association is not unexpected.

Less significant in increasing the likelihood of formal registration of a transaction is the possession of a land certificate. In fact, only cases of first time land buyers would seem to be in a position to use the LAS without previously having a land certificate. Among survey respondents, those who used the LAS and sold all of their land may no longer hold a certificate. Otherwise, most individuals would be expected to have a land certificate in order to use the LAS.

Other factors such as level of education, primary occupation of respondents, size of land and the year in which the property was acquired (before or after 2004) were tested, but showed low statistical significance. Additional cross-tab analysis on these factors can be found in Appendix 3 (Table A38 to A41).

4.4.2 Perceptions of and Satisfaction with Accessibility and Use of the LAS Services

According to the survey question regarding people’s perceptions about fees required to register a land transaction, about 56% of respondents believe fees are about right and therefore affordable (see Figure 21).

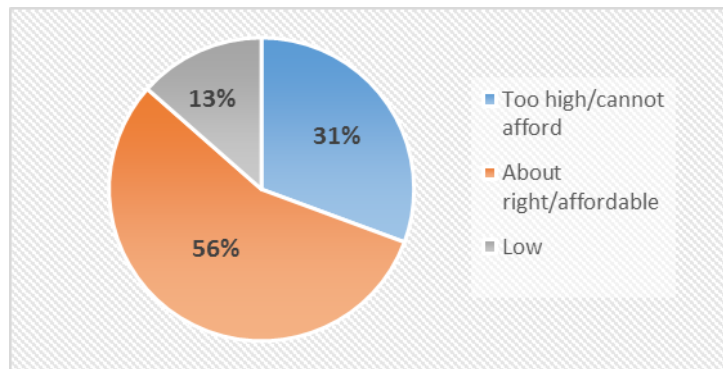


Figure 20: Citizens Perception of whether Fees for Transactions are Affordable

This pattern appears to be the same for all types of transactions with some small variations (see Figure 21). However, the highest portion of people who consider fees to be too high (39%) was among those who registered “other” transactions, which includes registering restriction, mortgages, and disputes.

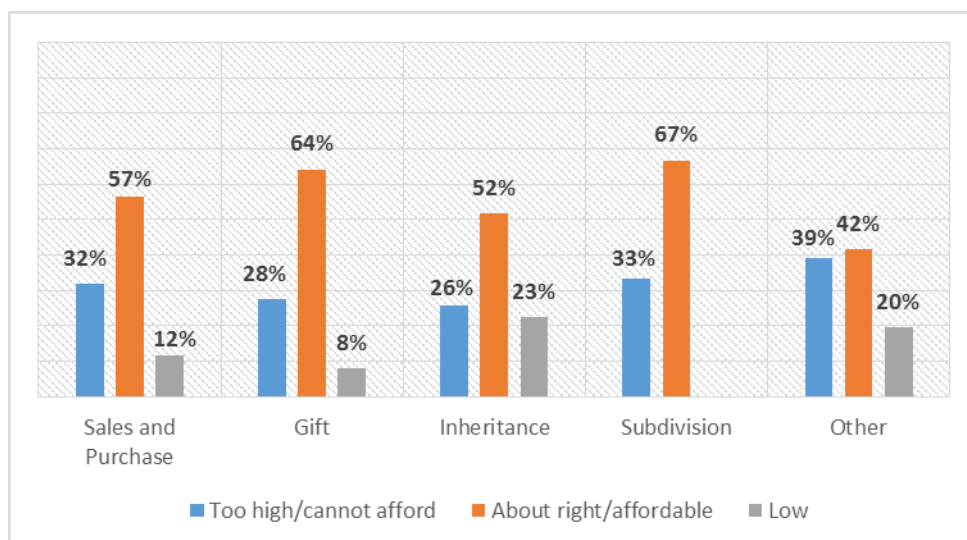


Figure 21: Citizens Perception of whether Fees for Transactions are Affordable by Type of Transaction

Fees charged for all land transfers, further discussed in section 4.4.3, amount to a very high percentage of the monthly income of the vast majority of citizens. Thus, the above results indicating that a high proportion of the respondents perceive fees to be affordable and not too high are rather surprising. However, since very few respondents answered these questions (less than 10% of those who used LAS to register a land transaction), this sheds doubt on the reliability of the responses. We suspect that the enumerators and/or respondents may have misunderstood the question. Moreover, officials in the district validation meetings and national stakeholder forum were surprised by this finding, arguing that fees are not affordable to most Rwandans, especially for land transactions that do not involve money (such as gifts and inheritance) or involve only small amounts of money.

Investigating correlations between reported average costs of land transactions and citizens' perception of whether fees for transactions are affordable, showed that those citizens who found fees to be too high reported higher costs than those who found fees affordable or even low (see table 4). However, very few people reported on costs of and satisfaction with land transaction fees.

Table 4: Cross-Tab Analysis of Citizens Perception of whether Fees for Transactions are Affordable by Type of Transaction and Reported Costs in Rwf⁴

	Too high/Cannot afford	About right/Affordable	Low
Sales and Purchases	16,260	10,454	8,553
Gift	3,828	2,115	1,625
Inheritance	10,300	1,980	2,877
Subdivision	35,000	2,400	-
Other	3,889	3,313	1,000

Figure 22 displays citizens' perception about the ease of getting information on the requirements for land registrations. The biggest portion of respondents (58%) thought that it was somewhat easy to get this information, while 22% thought it was difficult and 2% thought it was impossible to get information on the requirements for land registration.

⁴ Results in table 4 exclude extreme values (higher than 100,000 Rwf) likely to reflect outliers in the data.

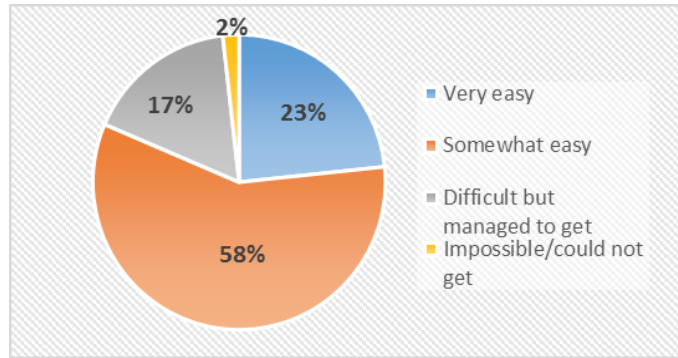


Figure 22: Citizens Perception about Ease of Getting Information on Registration Requirements

This pattern appears to be the largely the same when broken down by different types of transactions. The highest portion of those who reported it was difficult to get information or they could not get any were for “Sales and Purchase”, “Gift”, “Inheritance” and “Subdivision” transactions (see Figure 23).

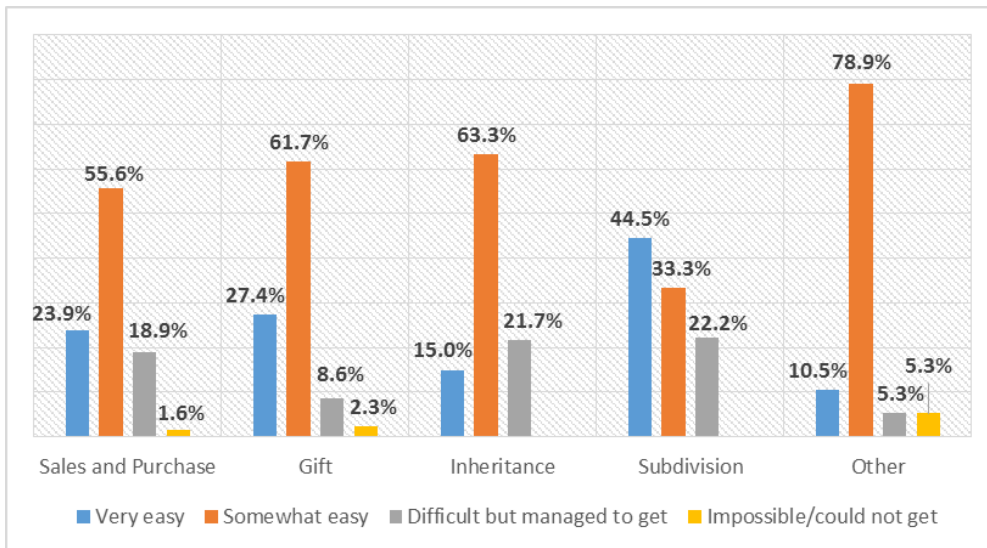


Figure 23: Citizens Perception about Ease of Getting Information for Requirements by Type of Transaction

Fifty-seven percent (57%) of respondents indicated that it is somewhat easy to comply with the requirements for registering land transactions, compared to 19% reporting that it is difficult or impossible to comply with the requirements (see Figure 24).

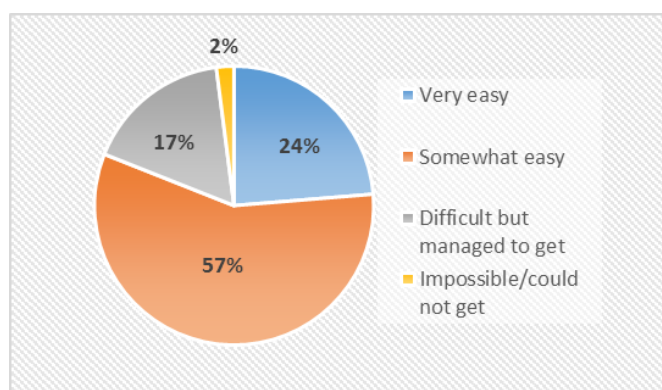


Figure 24: Citizens Perception about Ease of Complying with Requirements

The same pattern appears to hold when broken down by type of transaction (see Figure 25). However, the most citizens who claimed it was difficult or even impossible to comply with requirements were found in the categories of “Sale and Purchase” and “Inheritance”.

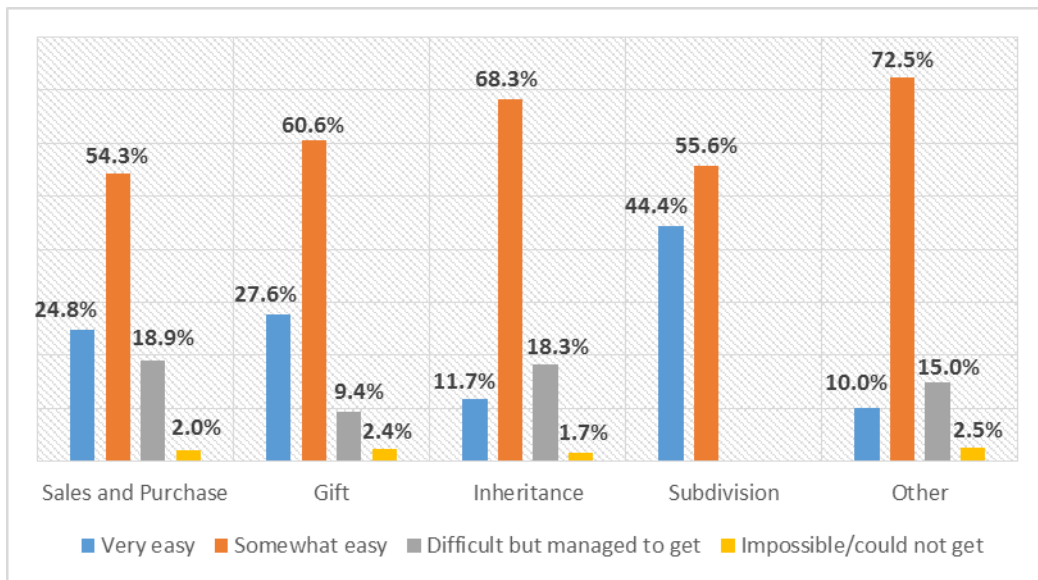


Figure 25: Citizens Perception about Ease of Complying with Requirements by Type of Transaction

A cross-tab analysis examining the relationship between the ease of complying with the land registration requirements and respondents’ highest level of education shows that level of education does not impact ease of compliance (Figure 26). For all transaction types and all levels of education, the majority found the requirements at least “somewhat easy” to comply with.

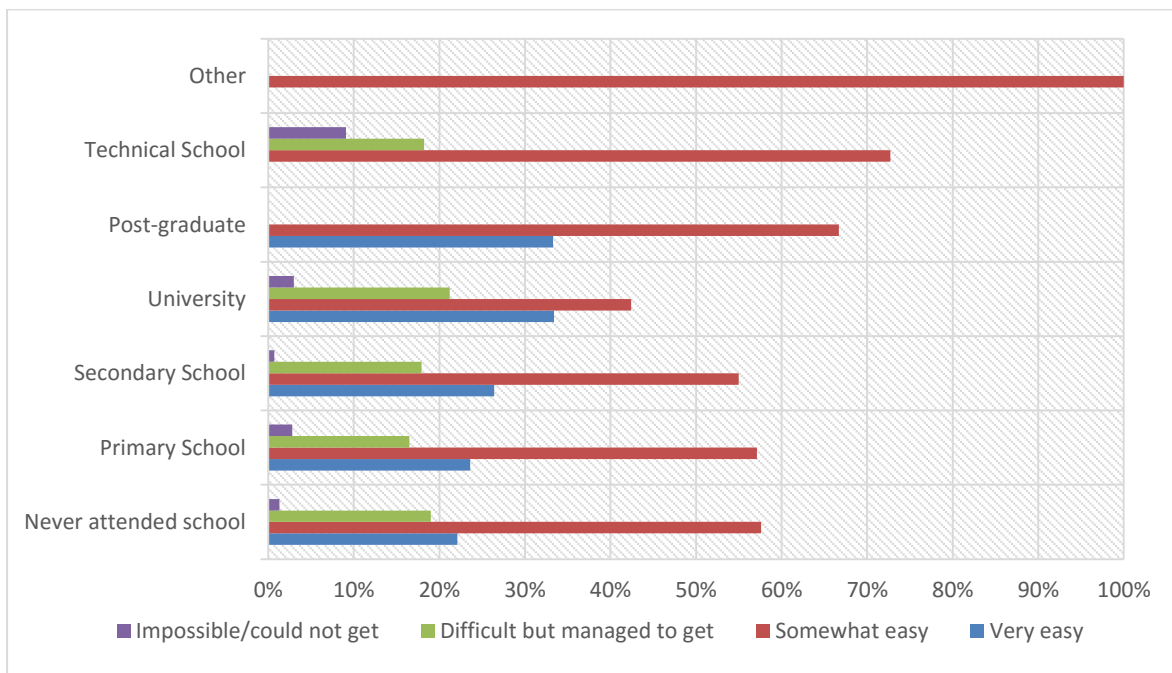


Figure 26: Cross-tab Analysis of Citizens Perception about Ease of Complying with Requirements and Highest Education of Respondents

The survey results also suggest that, in general, citizens were satisfied with services provided by land administration offices: 94.7% of respondents considered land administration officers to be very or somewhat helpful (see Figure 27).

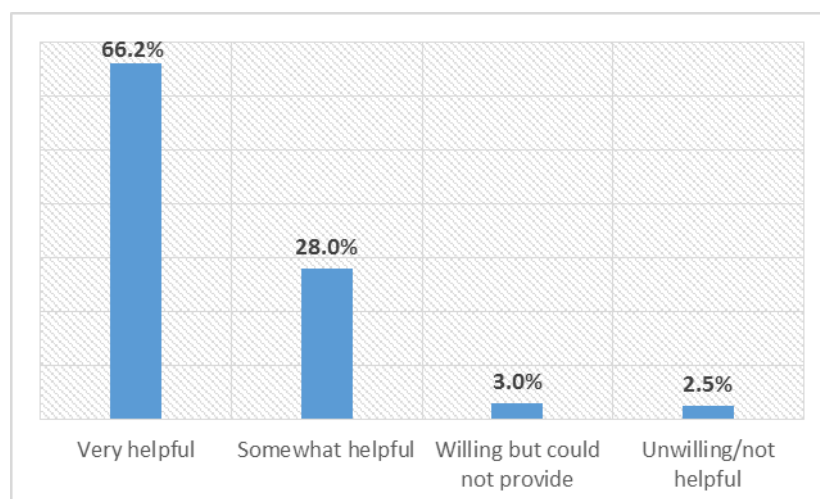


Figure 27: Analysis of Respondent Satisfaction of Services Provided by the Land Administration Offices

4.4.3 Affordability of Costs

Article 16 of Presidential Order no. 25/01 from 27th July 2012⁵ fixes fees for registration of immovable property transactions (see Table 5). As such, the research team decided not to survey citizens about the costs of different land administration services.

Table 5: Fees charged for services related to registration of immovable property

Service Description	Fee in Rwf
Changing ownership/Changing names of shares certificates in companies	20,000
Changes or requests for a new land lease title	5,000
Fee for the notarization of any agreements	2,000
Total	27,000

Based on the information provided in Table 5, applicants are officially required to pay around 27,000 Rwf to register a land transfer, whereas Table 6 shows the average maximum amounts that respondents in different districts reported paying in fees for registering a land transfer. Overall, respondents reported an average maximum fee of 33,014 Rwf, with extraordinarily higher average amounts reported among respondents from Ngoma, Nyaruguru, and Nyamagabe. However, since only 9.5% of respondents reported fees, the results do not necessarily suggest corruption; some respondents may not have remembered well what they paid. District officials nevertheless reported that they believe commissioners are paid extra fees for facilitating and expediting services for clients' convenience, but LAS officials are not paid these extra fees. This comment is unsurprising, since officials would not admit to being paid to speed up the transaction process. District officials also explained that citizens might include the cost of producing the deed plan (known as fiche cadastral) in their fee calculations. The deed plan is required when there is a change in parcel boundaries

⁵ RNRA (2012). *Presidential order n°25/01 of 09/07/2012 - Establishing the list of fees and other charges levied by decentralized entities and determining their thresholds*. Retrieved from: http://rnra.rw/#New_Fees_Presidential_Order_Official_Gazette_no_Special_of_27_07_2012.pdf

(subdivision, merge or area correction), and costs 10,000 Rwf for the fiche cadastral and an additional 30,000-60,000 Rwf if a private surveyor is used. However, there is a need to further investigate why some respondents claim to pay higher fees than required, especially in Ngoma, Nyamagabe and Nyaruguru.

Table 6: Average Maximum Amount Paid as Fees in Rwf reported by Respondents by District

District	Average Maximum Amount Paid as Fees in Rwf
Bugesera	40,000
Burera	9,744
Gakenke	5,825
Gasabo	7,756
Gatsibo	3,866
Gicumbi	36,251
Gisagara	5,967
Kicukiro	16,852
Kirehe	6,004
Muhanga	33,667
Musanze	10,259
Ngoma	217,161
Ngororero	5,964
Nyagatare	53,751
Nyamagabe	86,750
Nyamasheke	11,871
Nyanza	5,375
Nyarugenge	27,360
Nyaruguru	144,914
Rubavu	9,346
Rulindo	11,224
Rusizi	2,085
Rutsiro	7,325
Total	33,014

Land registration fees are fixed and therefore not related to people's income and/or the size and value of their land. One of the key-informants reported further that costs of registering transactions are too high in relation to the size of land being transacted.

Figure 28 below shows the distribution of owned immovable properties and their sizes. Given that fees charged for land transactions are fixed regardless of land size, one would expect those with smaller holdings would be less likely to register transactions formally. However, no correlation was found between land size and the decision not to register a transaction as reported in section 4.4.1.

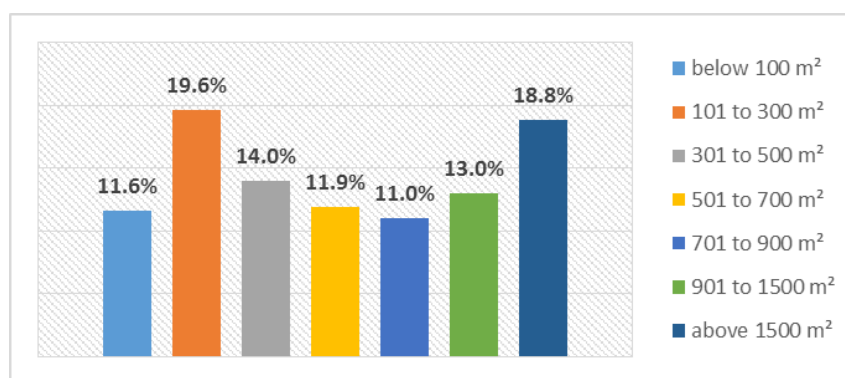


Figure 28: Size of Immovable Properties of Total Sample Population in Rwanda

The study examined the affordability of indirect costs associated with land registration, including estimated costs for transportation, accommodation, bringing and accommodating witnesses, and costs to expedite the registration process. The average costs reported by respondents are shown in Table 7.

Table 7: Average Transaction Costs by Type of Transaction in Rwf^{6,7}

	Transport costs	Other costs	Total costs
Sale and Purchase	11,043	12,948	15,712
Gift	4,120	3,833	4,586
Inheritance	3,067	1,250	2,925
Total	10,128	12,201	14,435

Table 8 shows that the highest transactions cost were reported in the Southern and Western Provinces. In the Southern Province, high transportation costs could be attributed to poor infrastructure in the Southern province and the relative difficulty of reaching LAS offices to access services. This seems to support the regression results described in section 4.4.1. Actual distances and accessibility to DLBs are investigated later in this section.

Table 8: Average Transaction Costs to Register a Land Certificate by Province in Rwf

	Transport costs	Other costs	Total costs
Eastern Province	11,645	12,650	17,638
Kigali City	9,393	28,667	22,041
Northern Province	8,888	9,634	10,645
Southern Province	31,525	18,667	45,525
Western Province	5,844	4,995	7,204
Total	9,911	12,222	14,142

Looking at cost by district, we found that the highest average transportation costs were in Kicukiro (Kigali City) at 16,780 Rwf, followed by Burera at 15,429 Rwf (Northern Province), and Rusizi (Western Province) at 12,500 Rwf (see Table A43 in Appendix 3). However, many districts were omitted because several respondents did not report transport costs and, therefore, some districts lacked sufficient responses for robust analysis.

Accommodation costs for applicants and costs for bringing and accommodating witnesses were both reportedly high in Kigali City (see table 9).

⁶ Only 160 out of 1133 (14.12 %) respondents could estimate and provide information on fees and all following costs reported in the next tables

⁷ Results in table 6, 7 and 9 (and table 32 in appendix 3) exclude extreme values likely to reflect outliers in the data, e.g. higher than 200,000 Rwf

Table 9: Average Cost for the category “Other costs” for Accommodation and Meals for Applicant, Bringing other Witnesses and Speeding up Transaction Registration Processes by Province in Rwf

	Costs for accommodation and meals for applicant	Costs for bringing and accommodating witnesses	Cost for enable or speed up transaction registration processes
Eastern Province	8,280	16,600	10,000
Kigali City	22,000	30,889	-
Northern Province	2,933	12,775	-
Southern Province	8,000	40,000	-
Western Province	3,240	33,300	-
Total	5,228	22,491	10,000

Table 10 examines average indirect costs of registration by type of land use. Transportation costs were found to be on average higher for registering agricultural land. This may reflect the higher propensity of agricultural land to be in rural areas where farmers usually have to go a longer way to get to the DLBs, which are mostly located in district capitals.

Table 10: Average Transaction Costs by Type of Land Use in Rwf

	Transport costs	Other costs	Total costs
Residential	9,883	9,1889	11,762
Commercial	6,850	15,176	15,774
Agriculture	12,336	11,695	15,796
Total	9,680	11,968	13,828

Most key stakeholders describe costs to register a land transaction as fair/affordable, while few believe costs are expensive. Those respondents who think costs are expensive mentioned the high cost of transportation for registering the transaction at the DLBs, which seems to support the main survey results above.

4.4.4 Accessibility in Terms of Transportation and Required Documentation

Walking is the most common mode of transportation to get to Sector and District offices (Figures 29 and 30). In Kigali City and the Eastern Province, more people reported using public transport to get to DLBs compared to other provinces (Figure 30).

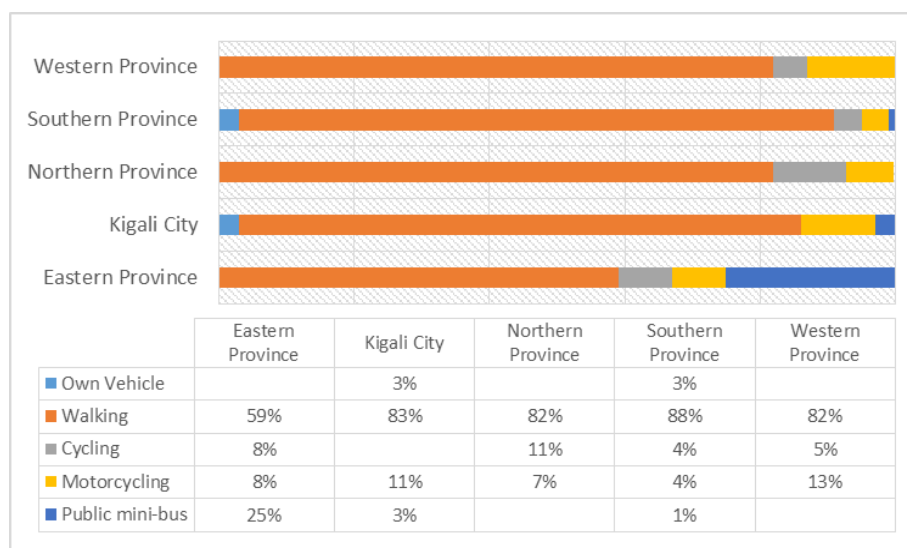


Figure 29: Mode of Transportation to Sector Offices by Province

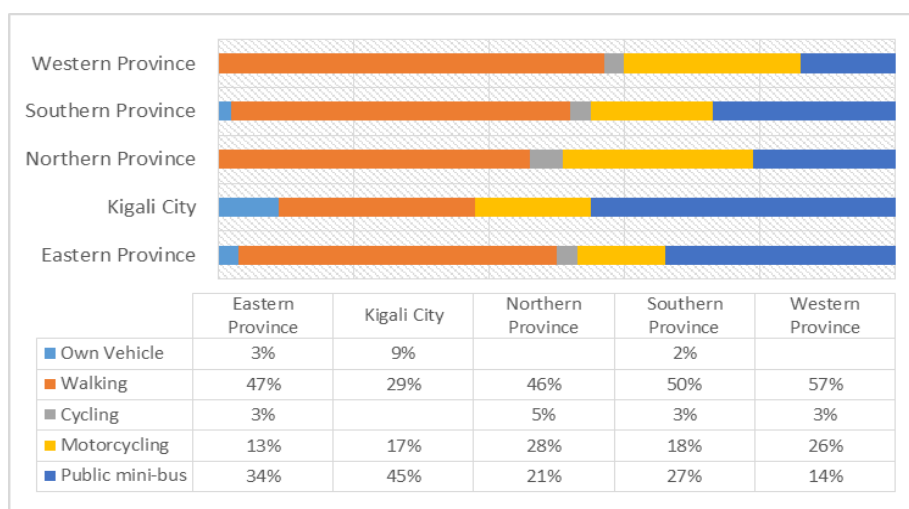


Figure 30: Mode of Transportation to District Offices by Province

Depending on the transaction, respondents reported between 1.5 and 2.8 trips and between 1.3 and 6.4 days being needed to complete it (see table 11). Therefore, on average, citizens need to take two trips to the respective administration office and spend three days to register a land transaction.

Table 11: Average number of trips and days to complete a registration of a transaction and previous reported transportation costs by type of registered transaction

Transaction type	Average number of trips	Average number of days	Transportation Costs in Rwf
Sales and Purchase	2.8	6.4	11,043
Gift	2.1	4.1	4,120
Inheritance	1.6	2.0	3,067
Subdivision	1.5	1.3	
Others	1.8	6.2	
Total	2.0	4.0	10,128

Many transactions take longer than three days to register. This is particularly true for sales and purchases, gifts and “others”, which includes the registration of restrictions, mortgages and land disputes. Moreover, transportation costs correlate with the number of trips and days spent on completing a transaction registration. Therefore, higher transportation costs are reported for transactions that require more time and trips.

The highest average number of trips was found in Kirehe (Eastern province) at 4.1 trips, while the lowest was in Rusizi (Western province) at 1.7 trips. The highest number of days to complete a transaction registration was found in Nyamagabe (Southern province) at 21.2 days, while the lowest was found in Nyamasheke (Western province) at 1.7 days. On average, it takes 3 trips to complete registration of a transaction in the Eastern province, whereas it takes only 2 trips in Western province. Moreover, it takes more than 10 days to complete a registration in Southern and Eastern province, while it takes about three days in Western province. These results further explain earlier logit regression results (Table 3) indicating highest likelihood of using LAS in Western compared to others. The full results on the average number of trips and days needed to register a transaction by district can be found in table A44 in Appendix 3.

4.4.5 Distance to DLBs

The method of spatial proximity analysis via GIS software was used to assess the degree of accessibility in terms of distance to reach the land administration offices. We estimated distances between respondent homes and the DLBs. Results of a network analysis are shown in the map in Appendix 4.

Table 12 shows average distances from centers of survey sites (villages) to DLBs along commonly traversed roads and paths. We believe there are insignificant differences within a village in terms of distance and therefore used centroids within a village, rather than including all GPS-points in the spatial data analysis.

As expected, the highest average distances were found in the Southern and Western Provinces, followed by the Eastern and Northern Provinces, and the lowest average distances in Kigali City. The average distance to a DLB is 12,487.53 meters. Since most people walk to the DLB, it is estimated that the journey will take on average 2 to 3 hours (TranSafety Inc., 1997) to reach the office and register a land transaction. In exploring whether distance to DLBs influenced the number of transactions (see table 12), no meaningful correlation between the two variables was not found.

Table 12: Average distances from village centers of study areas to respective DLBs in meters

District/Province	Mean in m	Average time to walk	Number of Transactions
Musanze	6,295.20	70 min. (1.2 h)	37
Burera	20,333.66	226 min. (3.5 h)	39
Gakenke	10,036.73	112 min. (1.9 h)	39
Rulindo	9,266.33	103 min. (1.7 h)	33
Gicumbi	11,823.34	131 min. (2.2 h)	35
Northern Province	11,551.05	128 min. (2.1 h)	183
Nyagatare	9,603.81	107 min. (1.8 h)	29
Gatsibo	18,838.70	209 min. (3.5 h)	31
Ngoma	9,361.18	104 min. (1.7 h)	24
Kirehe	12,070.41	134 min. (2.2 h)	35
Bugesera	9,821.78	109 min. (1.8 h)	8
Eastern Province	11,939.18	133 min. (2.2 h)	127
Gisagara	13,104.65	146 min. (2.4 h)	29
Nyaruguru	13,613.80	151 min. (2.5 h)	18
Nyamagabe	25,543.89	284 min. (4.7 h)	22
Nyanza	11,109.79	123 min. (2.1 h)	11
Muhanga	19,831.09	220 min. (3.7 h)	12
Southern Province	16,640.64	185 min. (3.1 h)	92
Rusizi	18,825.61	209 min. (3.5 h)	54
Nyamasheke	21,128.61	235 min. (3.9 h)	48
Rutsiro	17,645.12	196 min. (3.3 h)	41
Rubavu	7,622.29	85 min. (1.4 h)	44
Ngororero	17,356.03	193 min. (3.2 h)	50
Western Province	16,515.53	184 min. (3.1 h)	237
Gasabo	6,585.95	73 min. (1.2 h)	53
Kicukiro	6,316.62	70 min. (1.2 h)	44
Nyarugenge	4,471.18	50 min. (0.8 h)	60
Kigali City	5,791.25	64 min. (1.1 h)	157
TOTAL	12,487.53	139 min. (2.3 h)	796

Results of the qualitative survey show that most key informants think citizens have poor access to DLBs, in terms of distance and transportation. Key informants reasoned that access is poor due to long distances to the DLBs, the poor road network, and the cost of public transportation.

4.5 Outcomes of the System on Ordinary Citizens on Investment

This section presents and discusses results of the study investigation of the effect of land certification on people’s access to credit (formal), investment, rental and sales markets and on the prevalence of disputes over land. Specifically, the section attempts to address research questions 6, 7, 8 and 9 and related subthemes in the ToR.

4.5.1 Outcomes of Title Registration on Access to Formal Credits

The survey results show that, of the 1,926 respondents who answered the question of whether they had applied for loans using their land certificates, only 18.4% said they did (see table A46 for details per district).

The study consequently investigated why 82% of surveyed citizens have not used their land titles to apply for loans. As shown in Figure 31, the majority (75.9%) of this group reported that they did not need a loan, whereas 11.4% would have liked to get a loan but were not willing to use their land title as security, likely for of fear of losing the land should they fail to repay (see Figure 39). Other respondents got loans, but did not need to use their land certificate (5.5%), while still others acquired loans using other forms of security (7.1%). These results suggest that most Rwandans did not access credit despite having titles which can be used as loan security. It may be that they do not know what to do with a loan or do not know that they are eligible to apply. High interest rates and/or high level of risks involving agricultural production may also dissuade farmers from seeking loans. Land tends to be the primary livelihood asset of the majority of Rwandans and hence losing one’s land as a result of inability to repay a loan can place families at high risk of falling into deep poverty or even threaten their survival. Participants of the district validation process agreed that people in their communities usually do not seek loans using their land titles. They claim that the heavy bureaucracy and costs encountered when people try to use their titles to get credit is a problem, including the need to secure a valuation of the property, RDB verification, etc. In other words, the costs of securing a loan, including the time, expense and bureaucracy, would appear to outweigh the benefits.

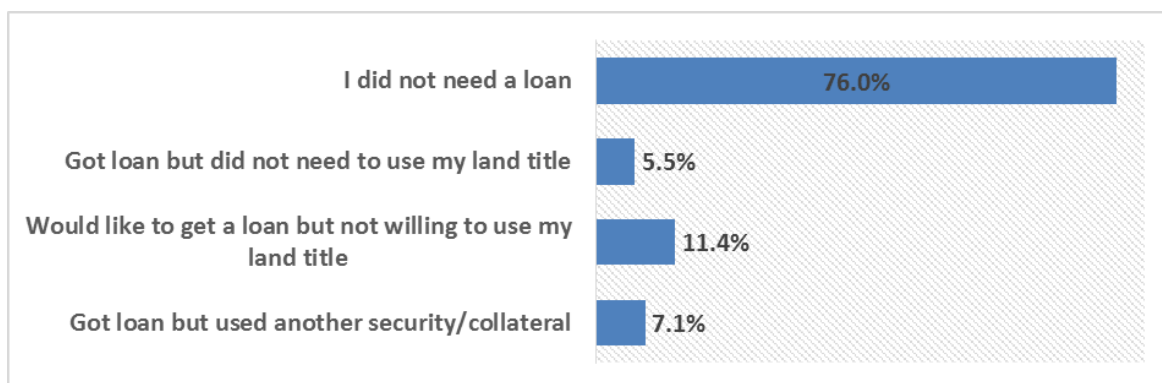


Figure 31: Reasons why land titles were not used to apply for loans

The study revealed that *Banque Populaire du Rwanda* (BPR), SACCOs, and Bank of Kigali (BK) were the main credit providers supplying loans to 33.3%, 27.1%, and 16.1% of

applicants, respectively (see Figure 32). *Urwego Opportunity Bank*, Kenya Commercial Bank (KCB), *Agaseke Bank*, and Others provided credit to the remaining 23.5% of approved applicants.

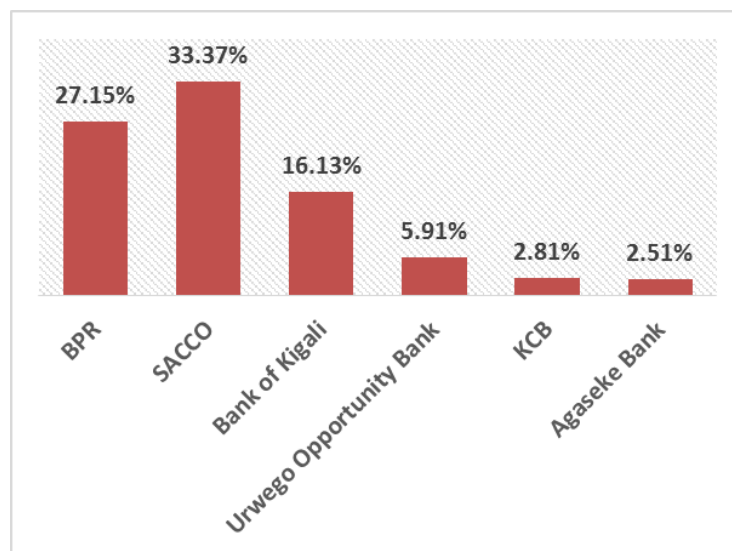


Figure 32: Application for loans using land titles in different financial institutions

The above results indicate that grassroots banks that operate at more local levels, such as BPR and SACCOs, play a critical role as credit providers to Rwandan citizens as their combined provisions cover more than 60% of all loans. KCB was the only foreign-owned bank mentioned by the respondents, which suggests that outreach of foreign-owned banks, remains very limited.

The ratio of approved loans was found to be high. Out of 354 people who applied, 324 applications were approved which is a 91.4% approval rate (see table A46 in the appendix 3). This indicates a willingness on the part of financial institutions to offer credit to people with land certificates. The majority (75.9%) of the total of 324 respondents whose loans were approved received the full amount (100%) for which they had applied (Figure 33 or table A47 for details per district).

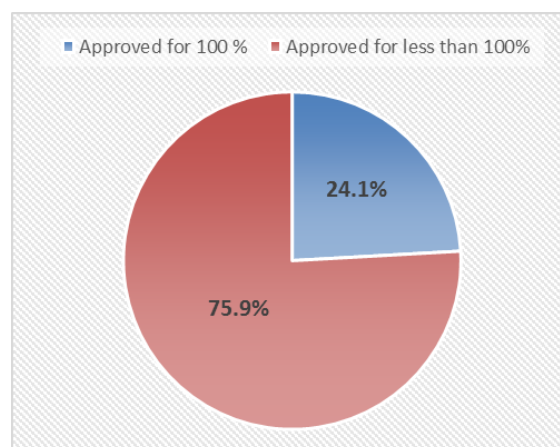


Figure 33: The ratio of approved loans among those who applied

This appears to be the case across all financial institutions (full amount approval rate of more than 70%) with the exception of *Urwego Opportunity Bank*, which approved the full amount for only 57% of their applications (see Figure 3).

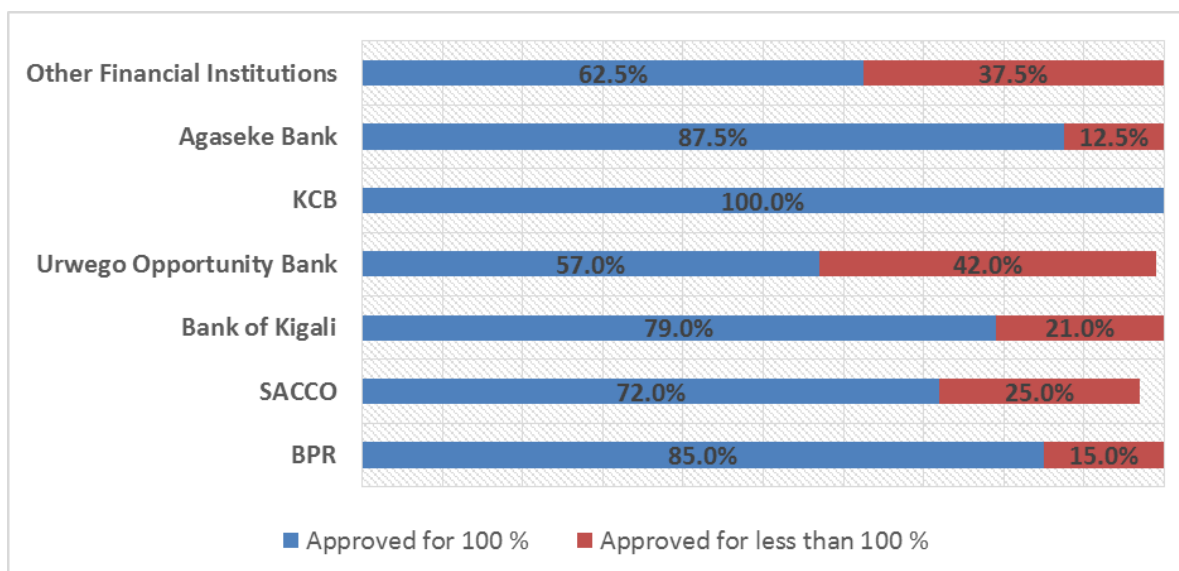


Figure 34: The percentage of loans approved by financial institutions

Of those whose loan applications were approved for less than the full amount (see Figure 34), 25.4% believed that the reason was because they lacked sufficient security (see Figure 35).

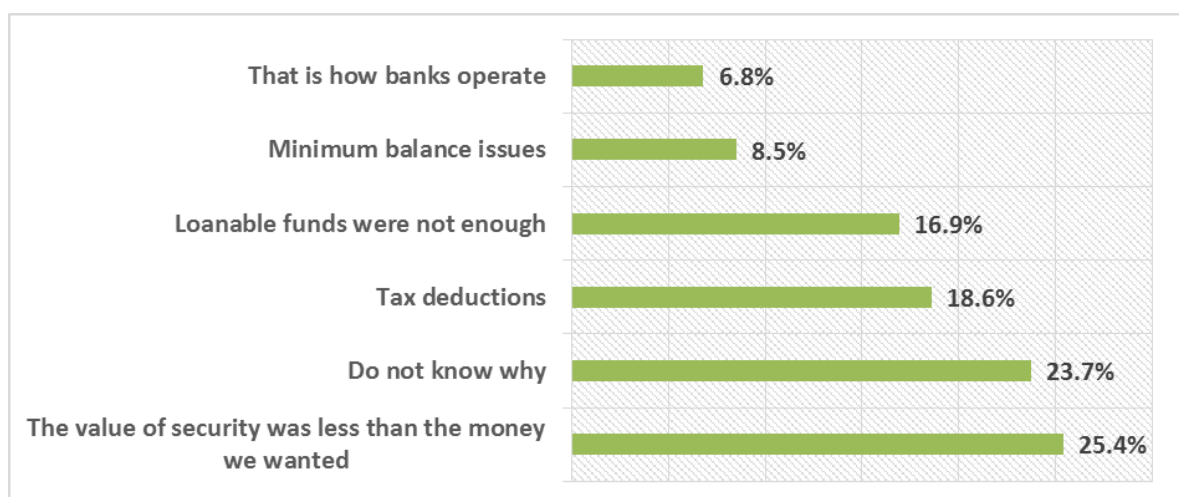


Figure 35: Reasons for less than full amount approval

It is also notable that 23.7% of those receiving less than the full amount did not know why, implying that: the financial institution did not explain why the applicants' full loan was not approved, the applicant did not ask why, and/or the applicant did not understand the explanation.

These results suggest that people are not fully aware of the requirements for qualifying for a loan. However, many applicants seem to believe that the reason for less than full amount approval is lack of sufficient funds with the financial institutions, including the minimum balance regulation of the central bank, and tax deductions to the applicants (16.9% and 18.6%, respectively – Figure 35).

The study also established that providing a land certificate as collateral was the only requirement for most (78.1%) of those who applied for loans. This implies that in most financial institutions certificates are acceptable as a trusted form of security in applying and accessing credit.

However, 21.9% of respondents indicated that there are other requirements beside land certificates. These requirements included bank statements, guarantors, photocopy of national identity cards, and marriage certificates. As it is expected that provision of documents such as valid identity, marriage certificate, etc. are always required to apply for a loan and do not fit the definition of loan security, they should not actually be classified as additional loan security requirements. Again, this confirms that titles are the primary collateral requirement for accessing credit from formal financial institutions. This study did not collect information on informal sources of credit.

4.5.2 Application for credit using land certificates according to provinces

The study found that, in all provinces, the number of people who used land certificates to apply for loans was far less than the number of people who applied for loans, but did not use land certificates (see Figure 36). In terms of provincial differences, Kigali City has more people using certificates to apply for loans compared to other provinces, followed by the Eastern and Western provinces respectively. The least number of respondent using land titles to secure loans were the Northern and Southern provinces, respectively.

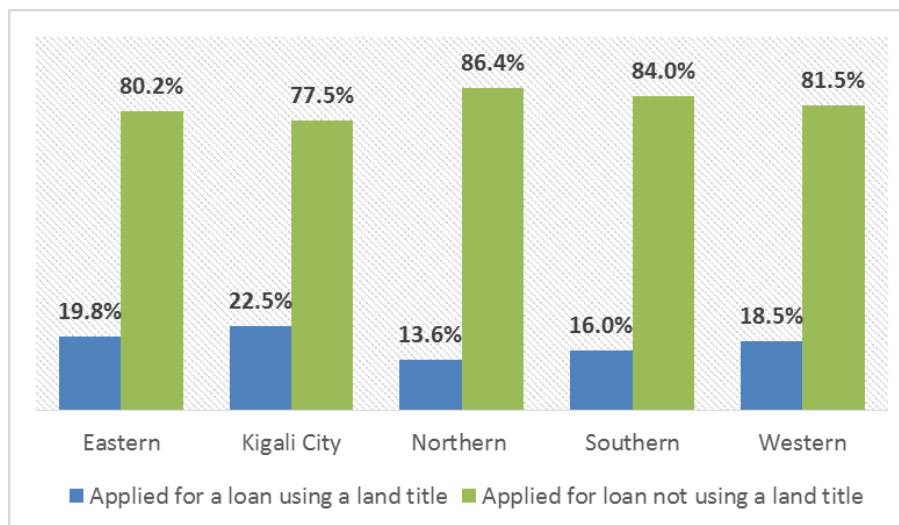


Figure 36: Use of land title to secure loans by province

4.5.3 Outcomes of LAS on landowners' investment in property

This section analyzes the impacts of land certificates on landowners' investments in their land, homes and businesses and the mechanisms by which such impacts have been realized. Since land certificates identify the intended land use determined by the government, to investigate such impacts the study assessed the values of various potential investments associated with that land use before and after land certification. The analysis indicates that different potential investment activities were affected differently by certification of land rights (Table 13). Half of the activities reported realized a positive change (mean difference being positive) while the other half experienced a negative change (mean difference being negative). In brief, land certificates are positively related to investment in cultivated annual crops, built new residential structures, farm structures and built new business structures while there was a negative relationship between land certificate and other investments like land improvement, improving farm structures and improving business structures, to mention only a few (table 13). The mean difference in the investment values were calculated as the average

value of the total investments after land title registration minus the average value of total investment before land title registration.

Table 13: Comparative analysis of the differences of Values before and after Land Certificate

Means values	Paired Differences			t	df	Sig. (2-tailed)
	Mean	95% Confidence Interval of the Difference				
		Lower	Upper			
Cultivated annual crop after - Cultivated annual crop before	1.357E5	-42460.58	313822.329	1.509	114	.134
Cultivated perennial crops after - Cultivated perennial crops before	9.811E3	-78886.23	98507.291	.232	18	.819
Land improvements after - Land improvements (terracing, drainage, ditches, etc.) before	-1.866E6	-4848789.	1117218.213	-1.530	6	.177
Irrigation investment after - Irrigation system before	-3.510E5	-3248271.152	2546271.152	-.279	8	.787
Built new residential structure after - Value of built new residential structure	1.642E6	-624515.538	3907848.871	1.594	11	.139
Built new farm structures after - New farm structures before	3.972E5	-689789.820	1484289.820	1.163	3	.329
Built new business structures after - Built new business structures before	1.837E6	-2595663.821	6268997.154	1.065	5	.335
Improving existing residence after - Value of improving existing residence before	-5.000E5	-1646515.103	646515.103	-.942	13	.363
Improving existing farm structures after - Value of improving existing farm structures before	-1.191E6	-2991270.108	608520.108	-1.411	15	.179
improving existing business structures after - improving existing business structures before	-4.160E5	-2302010.590	1470010.590	-.462	19	.650

Regardless of the direction of change (sign on mean difference), the results were not statistically significant when evaluated at the 5% level. Evaluated at the 10% level, the mean difference of cultivated annual crops and that of built new residential structures and land improvements were almost significant (slightly higher than 10%). Both of these variables had positive signs. This suggests that land certificates may have had an impact on investments, but no robust conclusions can be drawn.

Examining the incidence of using credit to finance investment, we observed that 50% of respondents with agricultural land who made investments in irrigation systems used credit to finance them while 48.1% of respondents who invested in improving existing farm structures did so via loans (see Table 14). Nevertheless, the number of respondents making these investments is quite low (especially for irrigation) as a portion of the sample size. In terms of frequency, the number of respondents who reported using credit for a particular investment is highest for construction of residential houses (29 respondents) and investment in annual crops (20 respondents).

Table 14: Summary of aspect related to use of credit on various investment activities

Issues concerning use of credit	Status	Freq	Percentage
Used credit for investment in cultivating annual crops after certificate	No	96	82.8
	Yes	20	17.2
Used credit for perennial crops cultivation invest after certificate	No	27	84.4
	Yes	5	15.6
Used credit for irrigation system investment after certificate	No	5	50.0
	Yes	5	50.0
Used credit for building new residential structure	No	85	74.6
	Yes	29	25.4
Used credit for building new farm structures	No	12	75.0
	Yes	4	25.0
Used credit for new business structures	No	14	66.7
	Yes	7	33.3
Used credit for improving existing residence	No	43	75.4
	Yes	14	24.6
Used credit for improving existing farm structures	No	14	51.9
	Yes	13	48.1
Used credit for improving business structures	No	21	56.8
	Yes	16	43.2
Used credit for land improvements investment	No	10	62.5
	Yes	6	37.5

4.5.4 Outcomes of LAS on Land Markets

This section presents the results of research on the impact of land certificates on the volume of land sales and rentals among ordinary citizens and between citizens and investors. It also examines the extent to which land markets have been affected by laws restricting subdivision (Question 9 in the ToR). The survey revealed that about two thirds (66.5%) of ordinary citizens believe that land transactions have become easier with possession of a land certificate, whereas one-third reported that a land certificate does not ease transactions.

To examine the impact of the issuance of certificates on the volume of land sales and rentals, a comparison of transaction frequency was done of the time periods before and after 2010, considering that 2010 was a peak period for systematic land registration. Survey results indicate that the number of people selling and buying properties (frequency) decreased after the peak period of land tenure regularization (see Table 15). It is worth noting that the records from 2010 onward reported in Tables 16 through 17 represent less than five years of transactions, while the records preceding 2010 represent decades of transactions (some dating back to early 1900) Thus, rates of sale and purchase transactions after 2010 could be considerably higher than the rates before 2010.

Table 15: Volume of buy/sell land transactions before and after 2010

Type of transaction	Frequency
Total Transaction of Residential property before 2010	211
Total Transaction of Residential property After 2010	115
Total Transaction of Commercial property before 2010	118
Total Transaction of Commercial property After 2010	72
Total Transaction of Agricultural property before 2010	256
Total Transaction of Agricultural property After 2010	237

Similar analyses have been attempted on rental transactions. Results seem to suggest a general decrease in the number of people (frequency) renting out residential and agricultural properties but remained the same in the case of commercial properties after 2010 (Table 16).

Table 16: Renting out of properties before and after 2010

Type of transaction	Frequency
Number of renting out residential properties before 2010	43
Number of renting out residential properties after 2010	39
Number of renting out commercial properties before 2010	36
Number of renting out commercial properties after 2010	36
Number of renting out agriculture properties before 2010	58
Number of renting out agriculture properties after 2010	52

The same analysis was carried for renting in transactions and results indicate that, the number of people renting in (frequency) has increased for commercial and agricultural uses while remained unchanged for residential properties after 2010 (Table 17). Above results seem to suggest that land markets have become more active after the issuance of land certificates.

Table 17: Renting in transactions before and after 2010

Type of transaction	Frequency
Number of renting in residential properties before 2010	13
Number of renting in residential properties after 2010	13
Number of renting in commercial properties before 2010	14
Number of renting in commercial properties after 2010	20
Number of renting in agriculture properties before 2010	114
Number of renting in agriculture properties after 2010	171

To address the question of the impact of subdivision restrictions contained in Article 30 of the 2013 Land Law, the survey sought citizens' perceptions on whether they believe the restriction on subdivision had affected land market activities in terms of potential selling and buying land and whether the effect was negative or positive. Findings reveal that 81% of the 1,551 who responded to the question indicated that land subdivision restrictions have affected potential land market activities (see Figure 37). Results show that 64.4% believe that restrictions on land subdivision have negatively affected potential land markets (see Figure 38). Only 12.2% of the respondents believe that subdivision restrictions have positively affected potential land market activities, while 23.4% of the respondents did not perceive any effect or did not answer to the question at all.

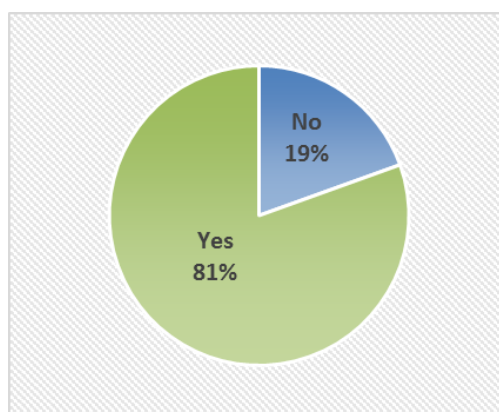


Figure 37: Perception on the Impact of Subdivision restrictions of land on land market activity

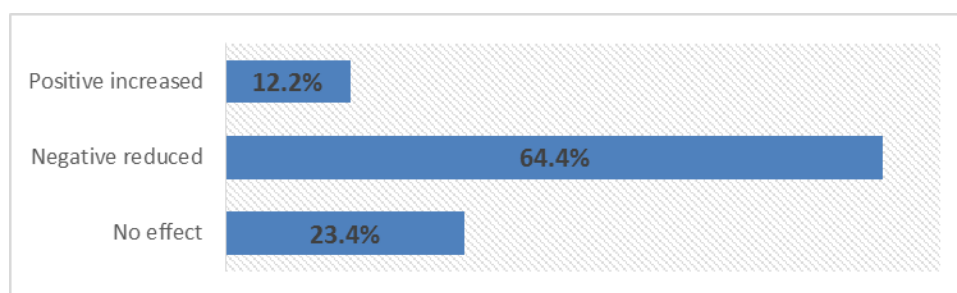


Figure 38: Direction of the effect of land subdivision restrictions on Land markets

Moreover, all participants in the general survey and district validation meetings agreed that the law on subdivision negatively affects the land market since people are not allowed to subdivide and transact agricultural land if the resulting parcels are less than one hectare. Officials stated that citizens sometimes sell or buy this type of land informally since such transactions are illegal. They told us that citizens sometimes decide to transact formally without subdividing the land, but end up registering the land in both the buyer's and seller's name whereby they share the rights to the land. They added that this creates arguments over who should keep the certificate.

Officials further expressed concern that this not only affects the land market, but the land information system in general since other transactions such as donations and inheritance also remain unregistered. If nothing is done about the prevalence of informal land transactions, in the future the land registry will be out-dated and can no longer serve its purpose of facilitating certainty and tenure security in land and enabling collection of land-based revenues, according to DLOs.

The study compared the volume of sale/purchase and rental land transactions after 2010 between provinces. As shown in Table 18, the variance is not remarkable with the exception of the low volume of residential transactions in Southern Province, the high number of agricultural land transactions reported in the Northern Province (104), the low number of agricultural land transactions reported in the Western Province (35). Low volume of agricultural land transactions in Kigali City is expected given its urban character.

Table 18: Variation in land transactions by province

Province	Transaction of residential after 2010	Transaction of commercial after 2010	Transaction of agriculture after 2010
Eastern	25	15	87
Kigali City	26	18	38
Northern	34	25	104
Southern	14	10	61
Western	28	15	35
Total	127	83	325

The statistical tests performed on this confirm that market transactions in agricultural land showed high statistical differences between provinces (see results reported in Table 19). Also represented in the same table, residential and commercial transactions did not show any

statistical difference across provinces in Rwanda.⁸ Whereas the results show Kigali City had a comparatively a lower number of transactions than other provinces, the rate of transactions in Kigali is skewed by the low number of transactions in agricultural land (see table 18). Kigali has an average number of transactions in residential and commercial land.

Table 19: Analysis of variation in total transactions by Province

	Source of variation	Sum of Squares	df	Mean Square	F	Sig.
Transaction of residential properties after 2010 * Name of province	Between Groups	.533	4	.133	1.642	.161
	Within Groups	158.226	1952	.081		
	Total	158.758	1956			
Transaction of commercial properties after 2010 * Name of province	Between Groups	.297	4	.074	1.281	.275
	Within Groups	113.183	1952	.058		
	Total	113.480	1956			
Transaction of agriculture properties after 2010 * Name of province	Between Groups	10.096	4	2.524	10.036	.000
	Within Groups	490.931	1952	.252		
	Total	501.027	1956			

Analysis of the traces of variations in renting out transactions was also done in this study. At a 5% level of significance, the results as presented in Table 20 below do not reveal any significant variations among the five provinces in such transactions since 2010.

Table 20: Analysis of variation in rented out properties by Province

		Sum of Squares	df	Mean Square	F	Sig.
Number of renting out residential properties after 2010 * Name of province	Between Groups	.965	4	.241	2.111	.077
	Within Groups	222.942	1952	.114		
	Total	223.907	1956			
Number of renting out commercial properties after 2010 * Name of province	Between Groups	2.611	4	.653	.441	.778
	Within Groups	48.889	33	1.481		
	Total	51.500	37			
Number of renting out agriculture properties after 2010 * Name of province	Between Groups	1.148	4	.287	.355	.839
	Within Groups	40.379	50	.808		
	Total	41.527	54			

However, if allowing a 10% level of significance, the difference in the number of rented out residential properties after 2010 by province becomes statistically significant. However, there was no evidence that the number of rented out commercial properties and number of rented out agriculture properties after 2010 vary across provinces, whether at the 5% level or 10% level.

Table 21 presents results about the status of variation in “renting-in” different properties after 2010. As shown in the table, the properties considered here are residential properties, commercial properties, and agriculture properties. Analysis of the data reveals no statistical difference in the number of rented in properties across provinces in Rwanda.

⁸These views were from a total of 1957 respondents from all provinces of Rwanda. Kigali city had the highest number of respondents (431), while the Eastern Province had 392, the Northern Province had 384, the Western Province had 378, and the Southern Province had 372 respondents.

Table 21: Analysis of variation in renting in properties by Province

	Source of variation	Sum of Squares	df	Mean Square	F	Sig.
Number of renting in residential properties after 2010 * Name of province	Between Groups	.123	4	.031	.088	.984
	Within Groups	2.800	8	.350		
	Total	2.923	12			
Number of renting in commercial properties after 2010 * Name of province	Between Groups	.077	4	.019	.354	.838
	Within Groups	.875	16	.055		
	Total	.952	20			
Number of renting in agriculture properties after 2010 * Name of province	Between Groups	14.497	4	3.624	1.650	.164
	Within Groups	366.921	167	2.197		
	Total	381.419	171			

4.6 Outcomes of land certification on land disputes

Land disputes are often seen to have negative impacts on societies. Disputes over ownership, boundaries and control rights, for instance, can give rise to expensive litigations, breakdown in law and order, delays in delivery of justice in the judicial system, and even civil conflict. Moreover, land under dispute in Rwanda often cannot be used as collateral or sold, and it sometimes may be restricted from use. The study sought to test whether land certificates, by providing state-supported, documentary evidence of land rights, are contributing to reduction and resolution of land disputes in Rwanda.

The findings on the impacts of land certification on land disputes are based on the responses from the general survey of 1,957 respondents and interviews with 55 local mediators (Abunzi) who are tasked with the mediation and resolution of disputes including land disputes at the cell level (see questionnaire Appendix 2). The interviews with Abunzi were conducted in 75 selected cells with the aim of getting additional insights on land disputes from the mediators.

4.6.1 Types and nature of disputes over land

Household survey respondents were asked if they had had a dispute with a neighbor/family member or any other person about their land. The results of the survey showed that only 11% of the surveyed population has had such land disputes. However, it should be noted that land conflicts are sensitive issues, and some people may not be comfortable telling the enumerators if they have had a dispute. As such, the prevalence of disputes could be higher than 11%. Incidences of disputes per province (Figure 39) showed higher percentages in the Southern Province followed by Eastern Province. The prevalence of disputes per district is shown in Appendix 3, table A48.

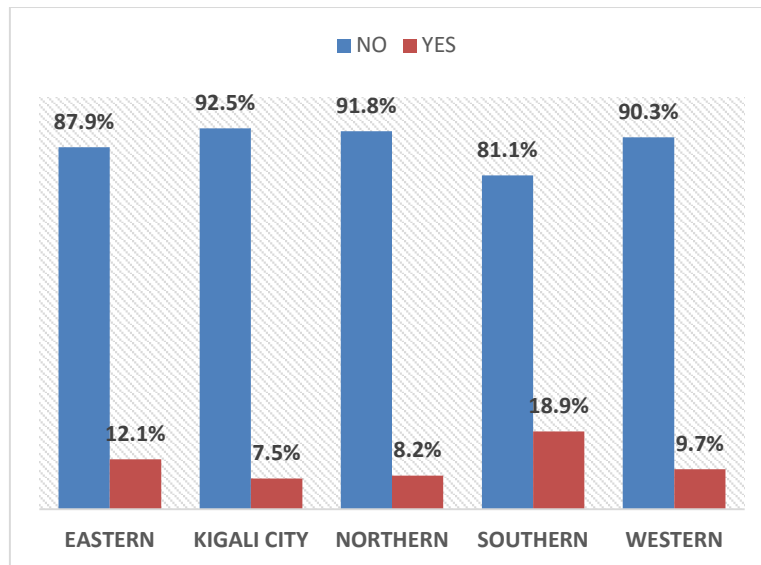


Figure 39: Prevalence of land disputes per province

Land disputes take place between family members, adjacent neighbors, and even between landowners and governmental authorities. The survey revealed that among those who have registered disputes, 49% have indicated that the dispute was with individuals who are immediate family members, followed by disputes amongst neighbors who are not family members (31%) (Figure 40). The distribution of parties engaged in land disputes per district is shown in Appendix 3, table A49.

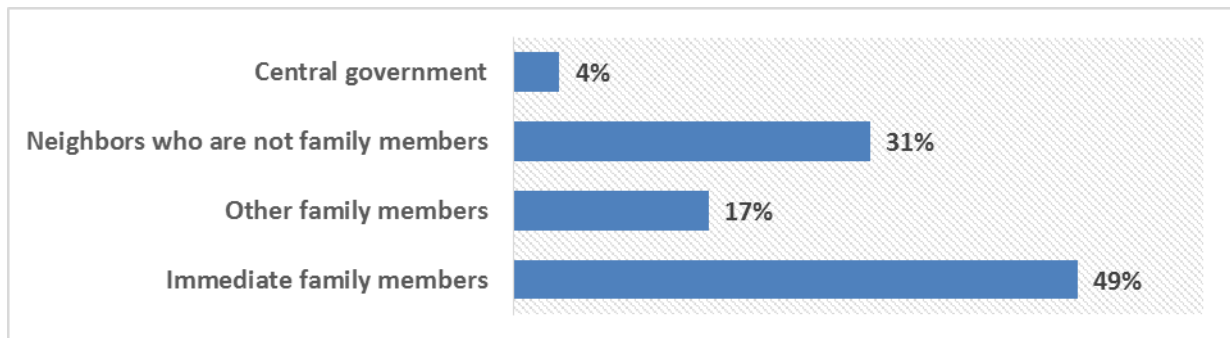


Figure 40: Engaged party in land disputes

Boundary disputes were the most commonly reported dispute type (43.8%), followed by disputes over ownership (22.2%). Only 1.7% of survey respondents reported disputes with the government over expropriation or requisitioning of land (see Figure 41).

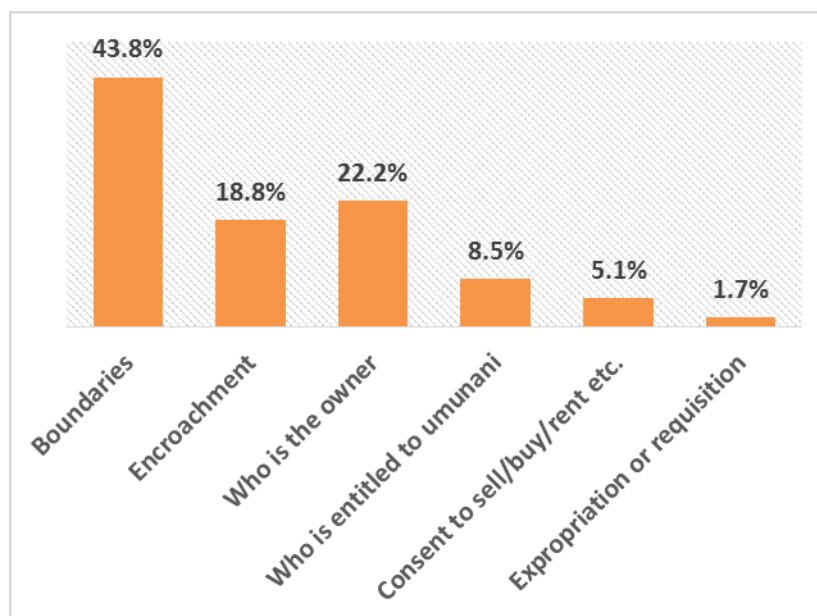


Figure 41: Types of land disputes

The survey classified the main types and nature of disputes, as shown in Table 22. According to mediators, disputes over inheritance of family land are the most prevalent (34.5%), followed by boundary encroachments by neighbors (20%). Other sources of disputes include inheritance, including boundaries of the land (20%); control of use of the land between husband and wife (5.5%); and ownership and control of use amongst spouses (12.7%).

Table 22: Main types of land disputes received by local mediators

Main types of land disputes	%
Family issues (inheritance)	34.5
Boundary encroachments by the neighbor	20
Family disputes on land (inheritances) and boundaries disputes)	20
Differences between ownership and control between husband and wife	12.7
Marital issues(who controls the land)	5.5
Individual wants the land back after selling it	3.6
Boundary disputes, different children (Intra-family boundary dispute)	1.8
People registered land which was not theirs	1.8
Total	100.0

4.6.2 Institutions approached for resolving disputes and satisfaction with their role

Respondents were asked if they had sought help from various institutions to resolve land disputes and if they were satisfied with the intervention of that institution. The survey results show that families are the preferred institution for land dispute resolution with 33% of the respondent having sought the help from family counsels or similar family institutions. Twenty-four percent (24%) of the respondents had sought help from legal assistance providers. Police and church are the least sought for in land dispute resolution (see Figure 42). However, disaggregating by gender reveals that far more men prefer to go to families to seek resolution of land disputes, whereas most women prefer other institutions (see Appendix 3, table A50).

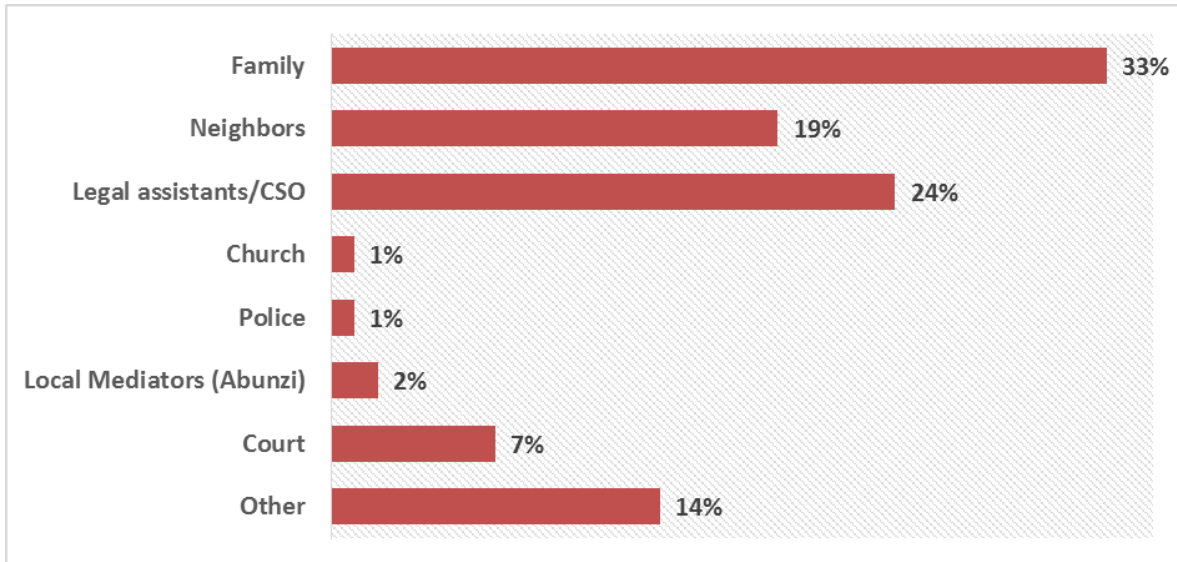


Figure 42: Institutions from which citizens sought help

Of those who sought family intervention, 27.2% of the respondents were satisfied with the intervention, while 23.1% of those who sought assistance from neighbors were satisfied and 17% of those who sought assistance from the Cell Office (Cell Executive Secretary) were satisfied. Respondents also appear to be relatively happy with the help they get from local mediators (*Abunzi*) or the court compared to churches and police, which received the lowest satisfaction rating for resolving land disputes, with over 80% of respondents who sought their help reporting being not satisfied with their interventions. Overall, the low level of satisfaction expressed by those who sought help from all dispute resolution institutions is a notable concern (see Figure 43).

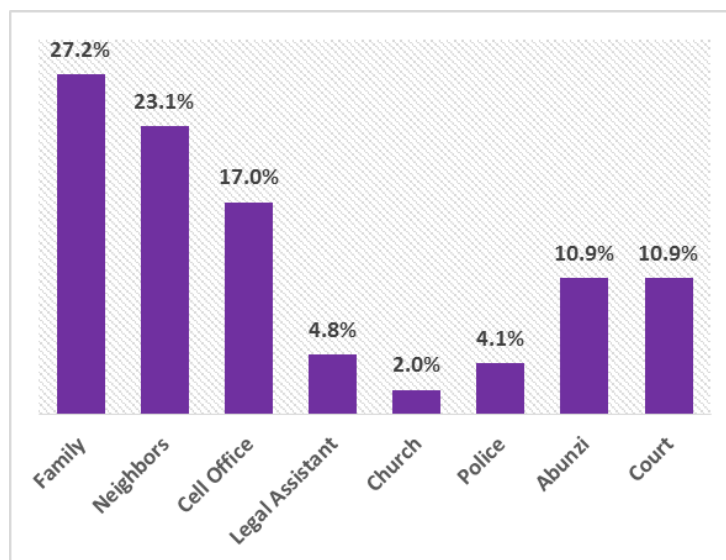


Figure 43: Respondents satisfaction with the assistance received on resolution of land disputes from intervening institution

4.6.3 Effectiveness and Outcomes of Land Certification on Incidence and Resolution of Land Disputes

The LTRP in Rwanda sought to reduce land disputes by clarifying boundaries and rights to land. The survey indicated that 89% of respondents believe that disputes over land had decreased since land tenure regularization (Figure 44). Additionally, 95% of local mediators (*Abunzi*) believe that the prevalence of land disputes has decreased since land tenure regularization.

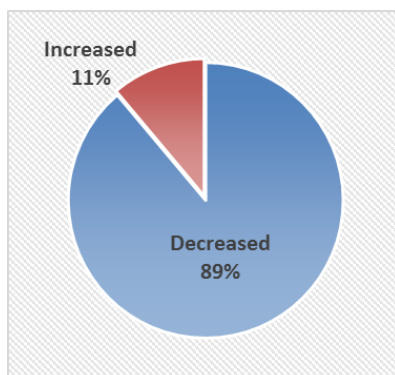


Figure 44: Citizens' perception of change on disputes over land

The local mediators were asked to estimate the average number of land disputes they have recorded per year since 2009. Out of the 50 local mediators interviewed, 42 estimated between 2 and 100 disputes per year as shown in the table below (Table 23).

Table 23: Average disputes recorded per year by *Abunzi*

	No	Minimum	Maximum	Mean
How many land disputes are you recording per year in average (as from 2009)?	42	2	100	18.26

Land title certificates are prima facie evidence of land ownership and are expected to clarify rights in disputes over land. However, the household survey results show that less than half (42.4%) of the 165 respondents who had registered land disputes confirmed that land title certificates were useful in land dispute resolution. Of those who thought that land title certificates were useful to the resolution of land disputes, 78.5% felt that the land title had a decisive influence on the resolution of their land disputes, while 16.9% felt that title certificate had no influence (see Figure 45).

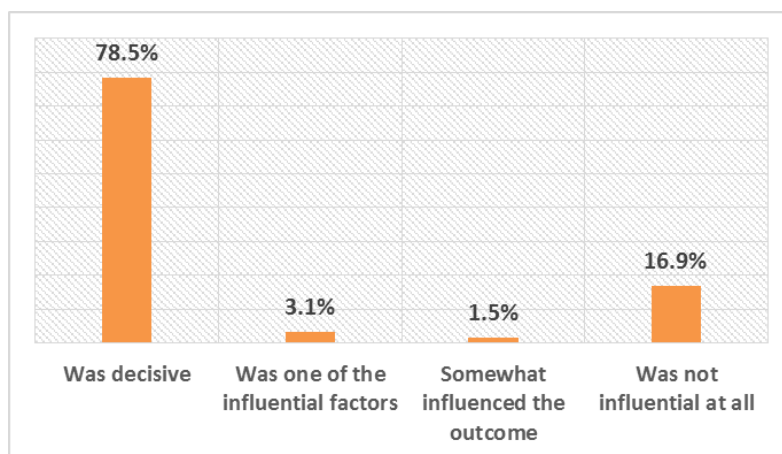


Figure 45 : Influence of the land titles in resolving land disputes

Ninety-six percent (96%) of local mediators felt that land title certificates help in land dispute resolution and that boundary demarcation, in particular, has contributed to the resolution of land disputes (See Figure 46).

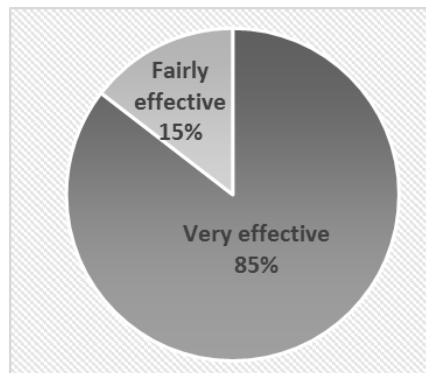


Figure 46: Effectiveness of boundary demarcation in disputes resolution as perceived by local mediators

The efficacy of land dispute resolution can be examined by looking at the number of disputes resolved and the average time needed to resolve the dispute. Of the 168 respondents who reported having land disputes, 67.3% had resolved their disputes, while 32.7% had unresolved disputes. Of those with unresolved disputes, 85.5% reported having only one dispute yet to be resolved, while 3.6% had more than two unresolved land disputes.

Regarding average time it takes to resolve land disputes, 42.7% of the reported disputes were resolved in less than one month, while the majority took longer than this (see Figure 47).

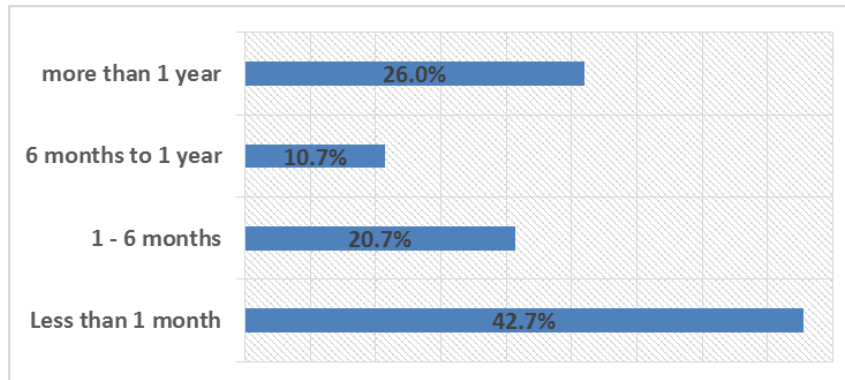


Figure 47: Average time taken to resolve a land disputes

Results from the survey of local mediators showed that most land disputes (84%) they handle are resolved in less than a month and the remaining are resolved between a period of one month or more (see Figure 48).

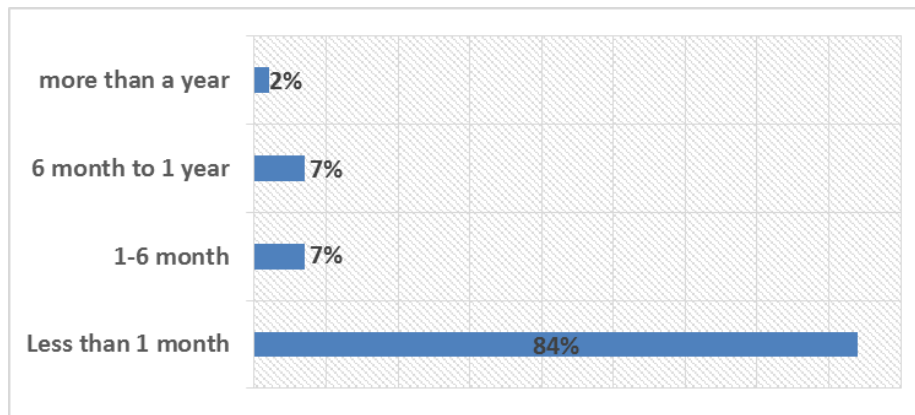


Figure 48: Duration of *Abunzi* land disputes resolution according to local mediators

4.7 Lingering concerns not addressed by land registration

The research tried to ascertain if land owners have any lingering concerns related to tenure security that were not addressed by the land tenure registration and certification process. The majority of the survey respondents reported being satisfied with the system thus far (87%) whereas 13% had concerns that are not addressed by the existing land registration and certification process.

Some of the unaddressed concerns reported by respondents have already been addressed in this report: persons having registered their land, but not receiving their land certificate; the high cost of land administration services; delays in delivering land administration services; and unresolved land disputes. Others concerns expressed that were not previously mentioned included the high costs of land lease fees and the short period for land leaseholds.

Participants at the national stakeholder forum suggested a need for a comprehensive study on tenure systems for agricultural land so as to better understand purposes for which certificates for agricultural land are used. It was also proposed at the national stakeholders workshop that a land research day be organized to inform the public of research results, inform researchers on upcoming priority research themes, and advise on ongoing research projects in order to avoid duplication of research efforts.

5. CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study is to assess the level of awareness and access of ordinary citizens to Rwanda's formal LAS and investigate the impacts of the system on its intended goals of increased security of tenure, reduction of disputes over land, functional land markets, increased access to credit and investment on land improvement and productivity, and efficient decentralized land administration institutions. The conclusions and implications of the study presented in this section are based on findings of the preceding analyses of data collected from the main survey of ordinary citizens complemented by information collected from secondary sources and from stakeholders' surveys targeting key informants involved in management and use of land administration in Rwanda.

Almost all citizens (99%) regardless of gender, age, and level of education are aware of the formal LAS. This is a clear indication that some basic aspects of LAS are widely understood by the population. While the study revealed a high level of awareness of the system (also confirmed by the key informants' survey), familiarity with procedures and requirements remains low, as less than half of the respondents (43.8%) who are aware of LAS confirmed familiarity with the procedures and requirements for registering different land transactions. The research team suggests making an effort to improve citizens' familiarity with the procedures and requirements for registering land transactions. This can be achieved through comprehensive trainings for District and Sector Land Bureau managers and land service deliverers, who then are mandated to educate their clients and other landowners in the community. Community meetings are also an effective venue for sharing important information and could be used to educate citizens about the importance of formal registration as well as the processes and procedures for doing so.

The majority (94.2%) of those who are familiar with procedures and requirements for registering different land transactions know where to get such information, and most (80.6%) indicated that it is relatively easy to access information regarding how to register one's land, with the main sources of information being public meetings (75%) and radio (59.3%). Outreach through public meetings has been equally effective regardless of level of education, which suggests that this should be the primary mean of sensitization and communication and should receive more attention than other sources of information that seem to be more accessible to those with higher levels of education (e.g. radio, television, and Internet). This is of particular importance in Rwanda where about three-quarters of the population have a primary education or less, and two-thirds of the population is in the bottom income bracket with low likelihood of affording televisions, computers, or personal devices.

The survey also revealed that knowledge of which office processes land transactions is limited. First, one-third of respondents indicated that they do not know where to go to register land transactions. Second, the two-thirds who said they knew where to go identified the Cell office followed by the Sector office as the source of these services. At the same time, only 7.9% knew what the DLB does. Given that the only functioning local office for registering transactions is the DLB, the above results suggest that citizens seek services where they should not. This has an implication on the time the registration process would take, which may affect the use of the system to report changes. Information shared during community meetings can help clarify to citizens which are the correct authorities to register land transactions.

Logit regression analyses results suggest that female and young landowners are more likely to register titles, reflecting possibly higher feelings of tenure insecurity among these groups

compared to male and older owners. However, participants of the national validation process did not think a national campaign targeting men and older persons was advisable. They suggested that the campaign should target everyone and mention the issue of men and older persons not using the system as part of the campaign.

The research found that those having a higher household income and larger property are more likely to use the system, possibly reflecting that these groups can better afford the cost of registering land transactions and are thus more likely to participate in the system. Likewise, results demonstrated that most transactions took 2-3 days to complete and absorbed significant time and resources. The land administration policy should consider a revision of fixed prices and take into account the size of land and its value (reflecting landowner's income and purpose of use) in order to sustain the LAS. Ways to improve the efficiency of processing transactions should also be identified and adopted to prevent people from opting out of the system.

As expected, those who acquired land after 2004 (when the National Land Policy was adopted) and those who acquired property directly from developers are more likely to have used the system to register land certificates. At the same time, the LAS is less likely to be used to register residential properties compared to commercial and agricultural land, suggesting there may be higher levels of market transactions (selling and buying activities) and tenure security risks for owners of land used for these purposes. Measures that would incentivize residential land owners to register their properties (e.g. lower transaction fees or annual lease fees for residential land) warrant consideration.

Location in terms of province was found to be a significant factor influencing the likelihood of using the system. The highest rate of use of LAS was found in the Western and Eastern Provinces (consistent with relatively higher percentage of citizens indicating DLO to be the provider of land registration services) compared to other provinces. This could be a reflection of better road infrastructures and means of public transport; hence lower transport costs and better access to DLOs. The contrast is clear in the Southern Province, which had the lowest LAS use rates and where transport infrastructures are relatively poorer and distances longer leading to difficulty with accessing DLOs and higher associated transaction costs. By 1st July 2015, Sector Land Managers are expected to be in place to register land transactions, according to district officials. The research team recommends monitoring the intervention to see if the use of the LAS is increasing as a result and to evaluate the effectiveness of the intervention against the associated costs.

Key informants also indicated major constraints to accessing the system. Most key informants indicated that distances to DLBs are too long, the road network is poor, and ordinary citizens cannot afford public transportation. With this in mind, it is clear that greater decentralization of land administration services are needed for improving access to LAS and increasing the probability that people will use the system to register their land transactions. This calls for fast tracking current efforts to hire and train Sector Land Managers and post them at Sector offices for more decentralized service provision in order to increase the utility of the system and promote higher use rates.

About two-thirds (62%) of the respondents indicated that it is relatively easy to get information about registering land transactions and also believe it is easy to comply with requirements. As expected, ease of compliance was found to be positively correlated with level of education, suggesting that illiteracy is an important constraint to deal with as

confirmed by the stakeholders' survey. The survey also indicates high degree of satisfaction by citizens (94.7% approval rate) with services provided by Land Administration Offices.

According to the law, applicants must pay a fixed fee of 27,000 Rwf to register a land transfer. Overall, respondents reported an average maximum fee of 33,014 Rwf with few respondents actually reporting higher fees. Although, this result does not confirm the existence of corruption, closer investigation of its incidence is advisable. Local leaders suspect there are cases of corruption in select districts, mainly to facilitate and expedite registration of transactions. During the district validation meetings, some participants were of the view that investigations should be carried out in districts where citizens made such claims, while others supported a general investigation covering all districts.

Considering that over 60% of respondents own less than 50,000 Rwf per month, it is doubtful that fixed fees of 27,000 Rwf for registering land transfers are affordable for most Rwandans. The researchers team suggests revising the fixed fees for registering land transfers taking in consideration the size and value of market transferred properties as well as applying different bases for setting fees for non-market-based property transfers (e.g. inheritance, gift, and *umunani*).

The study revealed that although most formal credit providers in Rwanda consider land certificates to be sufficient security for acquiring a loan, less than one fifth (18.4%) of respondents used land titles as security to gain access to credit. The most common reason cited for not obtaining a loan using a title was lack of demand for credit. Community-based financial institutions such as SACCOs and *Banque Populaire*, were found to be the main providers of credit for citizens compared to other financial institutions found in the country. Participants of the district validation meetings suggested that projects for which a loan is requested be studied carefully to avoid its failure and recommended citizens be trained on how to develop viable projects that enable them to repay loans acquired. However, they did not offer recommendations for promoting use of land certificates as collateral to get bank loans.

Study findings revealed that more than 80% of the respondents indicated that land subdivision restrictions have affected potential land market activities, most (64.4%) of them believe the effect was negative, while only 12.2% believe it was positive. However, the fact that only 1% of the respondents cited restricting subdivision as a deterrent on registering land transactions suggest the possibility that citizens are engaged in land transactions less than one hectare plots but not registering these transactions with the LAS because of the law. Most district validation participants were of the opinion that legal provisions regulating land subdivision should be more flexible in order to accommodate special circumstances. For example, if married people owning less than two hectares separate, they should not be forced to co-own land when they are no longer living together. Rather, the law should allow them to sub-divide it.

Respondents indicated that the family is the preferred institution for resolving land disputes, though this is mostly the case for male respondents. Family mediation earned a 62.5% satisfaction rating, followed by neighbors with a satisfaction score of 54.8% and the cell executive secretary with a 47.6% satisfaction score. Respondents also appear to be relatively more satisfied with dispute resolution services from local mediators (*Abunzi*) compared to churches and police, who received the lowest satisfaction rating for resolving land disputes with over 80% of respondents not satisfied with their interventions. This finding and the fact that no institution received overwhelmingly positive satisfaction scores suggest that

training in effectively and durably resolving disputes should be provided to families, neighbors and cell executive secretaries, since people prefer to seek help from those institutions.

Whereas the majority of household survey respondents claimed that land tenure regularization had reduced land disputes in the country, less than half (42.4%) of the 165 respondents who had registered land disputes confirmed that land title certificates were useful in land dispute resolution. However, the majority (78.5%) of those who believe that land title certificates were useful indicated that title certificates had decisive influence on resolving land disputes. 96% of the local mediators (*Abunzi*) agree that land title certificates help in land dispute resolution and that boundary demarcation in particular has contributed to the resolution of land disputes. Researchers found the highest proportion of disputes are boundary disputes. It may be that use of more accurate boundary survey methods would reduce their incidence. Local authorities at district level agreed that the presently used general boundaries should be upgraded to demarcate boundaries more accurately. Doing further research on this issue is needed to ensure that undertaking this costly exercise would lead to substantial reductions in land disputes and faster and more durable resolution of disputes.

The research tried to ascertain if land owners have any lingering concerns related to tenure security that were not addressed by the existing registration and certification process. The majority of respondents (87%) reported being satisfied with the LAS and hence had no lingering concerns over tenure security. The issues and examples given by the 13% who thought that there are still some concerns that were not yet addressed mainly included cases where people have registered their land but still have not received a certificate, the high cost of land administration services, and unresolved land disputes.

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APPENDIX 1: STUDY AREAS AND SAMPLE SIZES

Table A24: Study areas and sample sizes

Location	#	Province	District	Sector	Cell	Land Use	Sample size	Proximity to DLO
URBAN	1	Kigali City	Gasabo	Kinyinya	Kagugu	Residential	30	Far
	2	Kigali City	Gasabo	Kacyiru	Kamatamu	Residential	30	Near
	3	Kigali City	Gasabo	Kacyiru	Kamutwa	Commercial	30	Near
	4	Kigali City	Gasabo	Jabana	Kabuye	Commercial	30	Far
	5	Kigali City	Nyarugenge	Mageregere	Nyarurenzi	Residential	30	Far
	6	Kigali City	Nyarugenge	Nyamirambo	Rugarama	Residential	30	Far
	7	Kigali City	Nyarugenge	Nyarugenge	Kiyovu	Commercial	30	Near
	8	Kigali City	Nyarugenge	Kigali	Nyabugogo	Commercial	30	Far
	9	Kigali City	Kicukiro	Gatenga	Nyanza	Residential	30	Near
	10	Kigali City	Kicukiro	Gahanga	Rwabutenge	Residential	30	Far
	11	Kigali City	Kicukiro	Kagarama	Rukatsa	Commercial	30	Near
	12	Kigali City	Kicukiro	Kanombe	Kabeza	Commercial	30	Far
	13	Northern	Musanze	Muhoza	Ruhengeri	Residential	30	Near
	14	Northern	Musanze	Kinigi	Kampanga	Commercial	30	Far
	15	Eastern	Nyagatare	Nyagatare	Nyagatare	Residential	30	Near
	16	Eastern	Nyagatare	Rwimiyaga	Rwimiyaga	Commercial	30	Far
	17	Southern	Muhanga	Nyamabuye	Gitarama	Residential	30	Near
	18	Southern	Muhanga	Kibangu	Gitega	Commercial	30	Far
	19	Western	Rubavu	Gisenyi	Nengo	Residential	30	Near
	20	Western	Rubavu	Busasamana	Rusura	Commercial	30	Far
Subtotal							600	
PERI-URBAN	21	Kigali City	Gasabo	Jabana	Ngiryi	Agriculture	20	Far
	22	Kigali City	Nyarugenge	Kanyinya	Nzove	Agriculture	20	Far
	23	Kigali City	Kicukiro	Masaka	Rusheshe	Agriculture	20	Far
	24	Northern	Musanze	Cyuve	Migeshi	Agriculture	20	Half way
	25	Eastern	Nyagatare	Rwempasha	Cyenjonjo	Agriculture	20	Half way
	26	Southern	Muhanga	Nyamabuye	Gifumba	Agriculture	20	Near
	27	Western	Rubavu	Rubavu	Rukoko	Agriculture	20	Near
Subtotal							140	
RURAL	28	Northern	Rulindo	Bushoki	Mukoto	Residential	30	Near
	29	Northern	Gakenke	Gashenyi	Rutenderi	Residential	30	Far
	30	Northern	Burera	Rusarabuye	Ndago	Residential	30	Near
	31	Northern	Gicumbi	Byumba	Gacurabwenge	Residential	30	Near
	32	Northern	Gakenke	Gakenke	Rusagara	Commercial	15	Near
	33	Northern	Burera	Rugarama	Gafumba	Commercial	15	Far
	34	Northern	Gicumbi	Mutete	Nyarubuye	Commercial	15	Far
	35	Northern	Rulindo	Base	Rwamahwa	Commercial	15	Far
	36	Northern	Rulindo	Cyungo	Marembo	Agriculture	30	Far
	37	Northern	Gakenke	Kamubuga	Kamubuga	Agriculture	30	Far
	38	Northern	Burera	Butaro	Nyamucucu	Agriculture	30	Half way
	39	Northern	Gicumbi	Miyove	Mubuga	Agriculture	30	Far
	40	Eastern	Gatsibo	Kabarore	Karenge	Residential	30	Near
	41	Eastern	Ngoma	Kibungo	Cyasekamba	Residential	30	Near
	42	Eastern	Bugesera	Nyamata	Nyamata y' Umujyi	Residential	30	Near
	43	Eastern	Kirehe	Kirehe	Nyabikokora	Residential	30	Near
	44	Eastern	Gatsibo	Murambi	Murambi	Commercial	15	Far
	45	Eastern	Kirehe	Kigarama	Nyankurazo	Commercial	15	Far
	46	Eastern	Ngoma	Gashanda	Giseri	Commercial	15	Half way
	47	Eastern	Bugesera	Juru	Kabukuba	Commercial	15	Far
	48	Eastern	Gatsibo	Muhura	Taba	Agriculture	30	Far
	49	Eastern	Kirehe	Gahara	Murehe	Agriculture	30	Far
	50	Eastern	Ngoma	Murama	Rurenge	Agriculture	30	Far
	51	Eastern	Bugesera	Ngeruka	Gihembe	Agriculture	30	Far
52	Southern	Nyanza	Busasamana	Nyanza	Residential	30	Near	

53	Southern	Gisagara	Ndora	Gisagara	Residential	30	Near
54	Southern	Nyaruguru	Kibeho	Mubuga	Residential	30	Near
55	Southern	Nyamagabe	Gasaka	Nyamugari	Residential	30	Near
56	Southern	Nyanza	Kibilizi	Mututu	Commercial	15	Far
57	Southern	Gisagara	Nyanza	Higiro	Commercial	15	Far
58	Southern	Nyaruguru	Busanze	Nkanda	Commercial	15	Far
59	Southern	Nyamagabe	Buruhukiro	Kizimyamuriro	Commercial	15	Far
60	Southern	Nyanza	Kibilizi	Mbuye	Agriculture	30	Far
61	Southern	Gisagara	Mukindo	Runyinya	Agriculture	30	Far
62	Southern	Nyaruguru	Nyagisozi	Mwoya	Agriculture	30	Far
63	Southern	Nyamagabe	Kaduha	Musenyi	Agriculture	30	Far
64	Western	Rutsiro	Gihango	Congo-nil	Residential	30	Near
65	Western	Ngororero	Ngororero	Rususa	Residential	30	Near
66	Western	Rusizi	Kamembe	Cyangugu	Residential	30	Near
67	Western	Nyamasheke	Kagano	Ninzi	Residential	30	Near
68	Western	Rutsiro	Murunda	Kirwa	Commercial	15	Far
69	Western	Ngororero	Muhanda	Gasiza	Commercial	15	Far
70	Western	Rusizi	Butare	Rwambogo	Commercial	15	Far
71	Western	Nyamasheke	Kirimbi	Karengera	Commercial	15	Far
72	Western	Rutsiro	Mukura	Mwendo	Agriculture	30	Far
73	Western	Ngororero	Matyazo	Rutare	Agriculture	30	Far
74	Western	Rusizi	Gitambi	Gahungeri	Agriculture	30	Far
75	Western	Nyamasheke	Cyato	Murambi	Agriculture	30	Far
Subtotal						1200	
TOTAL						1940	

APPENDIX 2: QUESTIONNAIRE FOR GENERAL DATA COLLECTION

GPS ID (Sticker): _____

Questionnaire No: _____

GPS WP: _____

Enumerator's ID: _____

Date: _____

Access to the Land Tenure Administration System in Rwanda and Impacts of the System on Ordinary Citizens

A study under taken by INES-Ruhengeri in cooperation with USAID LAND Project

You have been selected to participate in a survey on issues related to **“Access to the Land Tenure Administration System in Rwanda and Impacts of the System on Ordinary Citizens”** conducted by INES Ruhengeri. It is mainly an instrument for gathering data for an on-going research on the awareness of people and the accessibility of the formal land administration system in Rwanda and its impacts on citizens. All information provided will be used for academic purposes and research that will be used to help guide policy governing land.

While your participation is important for gathering information that can help inform decision-makers how they can strengthen land policies, you have the right not to participate if you wish. If you choose to participate, your responses will be confidential, meaning that your name will not be shared with anyone in association with the responses you provide. Your responses will also be put together with the responses of other persons so that they may not be identified.

Kindly let me know if you agree to participate in this survey. I anticipate it will take about 40 minutes of your time. If there is any question you do not wish to respond to, please let me know.

Mwatoranijwe gutanga amakuru ku bushakashatsi buri gukorwa ku buryo abaturage bafite amakuru ku miyoborere y'ubutaka mu Rwanda ndetse n'ingaruka izo mpinduka zabagizeho. Ubu bushakatsi buri gukorwa na Kaminuza y'Ubumenyigiro yitwa INES Ruhengeri iherereye mu karere ka Musanze mu ntara y'Amajyaruguru. Amakuru yose utanga azakoreshwa gusa muri ubu bushakashatsi kugirango bifashe inzego zifata ibyemezo kugira ishusho ihamye ku miyoborere y'ubutaka mu Rwanda.

Nubwo bwose amakuru mwatanga ari ingenzi mu gufasha abafata ibyemezo mu miyoborere y'ubutaka, mufite n' uburenganzira bwose bwo kutagira icyo mudutangaza igihe cyose mwumva bibabangamiye. Mubaye mwemeye kugira uruhare muri ubu bushakashatsi, tubasezeranijeko ibisubizo muduha bizagirwa ibanga.

Mwabwira noneho niba mwemeye kugira uruhare muri ubu bushakashatsi. Ngereranije, iki kiganiro kiratwara iminota 40. Habaye hari ikibazo mutifuza gutangaho amakuru, mwabimenyesha.

SITE INFORMATION:

Province name/Intara: _____

District name/Akarere: _____

Sector name/Umurenge: _____

Cell name/Akagali: _____

Village name/Umudugudu: _____

The distance to the District Land Office/ Intera kugera ku biro bishizwe ubutaka mu karere:

_____ km

**SECTION A: Citizens' Awareness of and Access to the land administration system (LAS) /
Ubumenyi bw'abaturage n'ubushobozi bwabo mu gukoresha uburyo bushya mu
miyoborere y'ubutaka**

1. Are you aware of any system that exists for recording your land rights and giving you a certificate, which you can use to prove your rights? / *Waba uzi ko hariho uburyo bwo kwandikisha ubutaka ukanahabwa ibyangombwa byabwo wakwifashisha werekana uburenganzira bwawe?*

Yes/Yego		
No/Oya		If answer is NO, go to question 13 / <i>Niba asubije OYA, jya ku kibazo cya 13</i>

2. Are you aware of any system that allows people to report and register changes in land rights, such as when land is sold or inherited? / *Waba uziko hariho uburyo bwo kwandikisha ihererekanya ry'ubutaka igihe wabuguze/wabugurishije cg se habayeho izungura?*

Yes/Yego		
No/Oya		If answer is NO, go to question 13 / <i>Niba asubije OYA, jya ku kibazo cya 13</i>

When I ask other questions about these systems, I will just refer to them as the system that came with the systematic land registration done in Rwanda since 2009 / Mu bindi bibazo ndi bubaze uburyo bushya bwo kwandikisha ubutaka ndaba mvuga, ni ubwazanye n'iyandisha rusange ry'ubutaka ryabaye mu Rwanda guhera mu mwa w'i 2009.

3. How have you come to know about this system? (More answers are possible) / *Wamenye ute ubu buryo bushya bwo kwandisha ubutaka? (Ibisubizo byinshi birashoboka)*

A	Public meetings / <i>Inama rusange z'abaturage</i>	
B	Radio / <i>Radiyo</i>	
C	Television/ <i>Televisiyo</i>	
D	Notices/ <i>Amatangazo amanitse</i>	
E	News papers/ <i>Mu binyamakuru</i>	
F	Internet / <i>Kuri iterineti (murandasi)</i>	
G	In discussion with other members of the community/ <i>Mu biganiro n'abandi baturage</i>	
H	Land office/ <i>Ku biro by'ubutaka</i>	
I	Others, please specify/ <i>Ahandi:</i>	

4. Please give the type of services you know the LAS can provide to you? / *Watubwira serivise uzi zitangwa n'ibiro bishizwe ubutaka?*

5. Do you know where to go to get such services mentioned above (under question 4)? / *Waba uzi ibiro izo serivise zitangirwamo (yasubije mu kibazo cya 4)?*

Yes/Yego		
No/Oya		If answer is NO go to question 13 / <i>Niba asubije OYA, jya ku kibazo cya 13</i>

6. Please name the office you would go to for these services mentioned above (under question 4) / *Watubwira ibiro uzi bitanga izo serivise wavuze zigendanye ni iby'ubutaka (yasubije mu kibazo cya 4)?*

A	Cell office/ <i>Ku kagali</i>	
B	Sector Office/ <i>Ku murenge</i>	
C	District Office/ <i>ku karere</i>	
D	One Stop Centre/ <i>Ibiro bishizwe ubutaka mu karere</i>	
E	Office of the Registrar of land titles/ <i>Ibiro by'Umubitsi w'Impapuro-mpamo z'Ubutaka</i>	
F	Others / <i>Ahandi:</i>	

7. Can you indicate / *Watubwira:*

- a) What means of transport you use to get to the office chosen above (under question 4) / *Ugera ute aho serivise watubwiye zitangirwa (yasubije mu kibazo cya 4)?*

	Walking/ <i>Amaguru</i>	Cycling/ <i>Igare</i>	Motobike/ <i>Moto</i>	Public transport (bus)/ <i>Kutega imodoka</i>	Own vehicle/ <i>Imodoka yawe</i>	Others/ <i>Ubundi buryo</i>
Cell office/ <i>Ku kagali</i>						
Sector Office/ <i>Ku murenge</i>						
District Office/ <i>ku karere</i>						
One Stop Centre/ <i>Ibiro bishizwe ubutaka mu karere</i>						
Office of the Registrar of land titles/ <i>Ibiro by'Umubitsi w'Impapuro-mpamo z'Ubutaka</i>						
Others/ <i>Ahandi:</i>						

- b) What time it will take to get there using above indicated means of transport? / *Bigutwara igihe kingana iki kugera kuri ibi biro ukoresheje uburyo wavuze?*

	Walking/ <i>Amaguru</i>	Cycling/ <i>Igare</i>	Motobike/ <i>Moto</i>	Public transport (bus)/ <i>Kutega imodoka</i>	Own vehicle/ <i>Imodoka yawe</i>	Others/ <i>Ubundi buryo</i>
	Minutes/ <i>iminota</i>	Minutes/ <i>iminota</i>	Minutes/ <i>iminota</i>	Minutes/ <i>iminota</i>	Minutes/ <i>iminota</i>	Minutes/ <i>iminota</i>
Cell office/ <i>Ku kagali</i>						
Sector Office/ <i>Ku murenge</i>						
District Office/ <i>ku karere</i>						
One Stop Centre/ <i>Ibiro bishizwe ubutaka mu karere</i>						
Office of the Registrar of land titles/ <i>Ibiro by'Umubitsi w'Impapuro-mpamo z'Ubutaka</i>						
Others / <i>Ahandi:</i>						

8. Are you familiar with the procedures and requirements for each of the services you indicated above (question 4)? / *Waba uzi ibikorwa kuri buri serivise watubwiye (yasubije ku kibazo cya 4) ndetse n'ibisabwa?*

Yes for all/ <i>Yego kuri buri serivise ndabizi</i>	
Yes for some/ <i>Nzi kuri serivise zimwe na zimwe</i>	Please specify/ <i>Serivisi uziye ibisabwa:</i> _____ _____ _____
Not familiar with any/ <i>Nta n'imwe</i>	

9. If you need information about procedures and requirements for accessing these services you indicated above (question 4), do you know where to get them from? / *Ukeneye amakuru ku bikorwa ndetse n'ibisabwa kugira ngo uhabwe serivise watubwiye (yasubije ku kibazo cya 4), waba uzi aho wabariza?*

Yes/ <i>Yego</i>		
No/ <i>Oya</i>		If answer is NO go to question 11 / <i>Niba asubije OYA, jya ku kibazo cya 11</i>

10. Where you will get them from? / *Wabariza hehe?*

11. Do you think it is easy for you to access such information? / *Ubona byoroshye kubona ayo makuru?*

Yes/ <i>Yego</i>		If answer is YES go to question 13/ <i>Niba asubije YEGO, jya ku kibazo cya 13</i>
No/ <i>Oya</i>		

12. What do you think are the reasons that make access to such information difficult? / *Ni iki gituma kubona ayo makuru bigorana?*

13. Do you know what the following offices do? / *Waba uzi icyo ibiro bikurikira bishinzwe cyo bikora?*

	Yes / Yego	No / Oya
Deputy Registrar of Land Titles / <i>ibiro by'umubitsi w'impapuro-mpamo wungirije mu ntara</i>	Please specify what they do / <i>Garagaza icyo bikora:</i> _____ _____ _____	
District Land Officer / <i>Ushizwe ubutaka mu Karere</i>	Please specify what they do / <i>Garagaza icyo bikora:</i> _____ _____ _____	
Sector Land Manager / <i>Ushizwe ubutaka ku murenge</i>	Please specify what they do / <i>Garagaza icyo bikora:</i> _____ _____ _____	

14. In general, how many documents are required to register a land transaction? / *Muri rusange, hasabwa ibyangobwa bingaha mu kwandikisha iherekanya ry'ubutaka?*

1	2	3	4	5	More than 5/ <i>Birenze 5</i>	I don't know (Go to question 16) / <i>Ntabwo mbizi (Jya ku kibazo cya 16)</i>

15. Please give examples of such documents / *Waduha ingero z'ibyangobwa bisabwa?*

SECTION B: Actual Access and Use of the land administration system / *Kugera no gukoresha uburyo bushya bwo kwandikisha ubutaka*

16. For which of the following services you have used the LAS? (More answers are possible) / *Ni ku zihe serivise waba warakoreshe uburyo bushya bwo kwandikisha ubutaka? (Ibisubizo byinshi birashoboka)*

A	Sale/ <i>Kugurisha</i>	
B	Purchase/ <i>Kugura</i>	
C	Donation/ <i>Impamo</i>	
D	Inheritance/ <i>Kuzungura</i>	
E	Subdivision / <i>Kugabanya isambu</i>	
F	Restriction / <i>Itambamira</i>	
G	Mortgage / <i>Ingwate</i>	
H	First title registration / <i>Kwandisha bwa mbere ubutaka</i>	
I	Land disputes / <i>Amakimbirane ku butaka</i>	
J	Others / <i>Izindi zivuye:</i>	
K	None / <i>Nta ni mwe</i>	Go to question 18 / <i>Jya ku kibazo cya 18</i>

17. For the services selected above (question 16), enter the services selected and responses for each of them in a separate column) / *Uzuza muri buri kazu amakuru ajyanye na buri serivise yasubije haruguru (ku kibazo cya 16)*

	Type of service (Use letters "A" up to "J") / <i>Ubwoko bwa serivise (Koresha inyuguti "A" kugeza kuri "J")</i>							
1	How many times since 2009 (Number) / <i>Ishuro zingaha uherye mu myaka wa 2009? (Umubare)?</i>							
2	What is the maximum number of trips you did to register a single transaction? (Number) / <i>Wakoze ingendo zingaha kugira ngo uhabwe iyi serivise? (Umubare)</i>							
3	What is the maximum amount you have ever had to pay in fees to the land administration authorities to record a single transaction? / <i>Wasabwe kwishyura amafaranga angana iki kugira ngo uhabwe iyi serivise?</i>							
4	Apart from the official fees you paid, did you have to pay any other of the following costs / <i>Usibye amafaranga wasabwe kwishyura kugirango uhabwe iyi serivise, haba hari ibindi wishyuye muri ibi bikurikira:</i>	Costs of transportation / <i>Ingendo</i>						
		Costs for accommodations or meals / <i>Icumbi cg ifunguro</i>						
		Costs to bring the other party (buyer, heir, etc) and /or witnesses (e.g. transport, food, accommodation) / <i>Kwishyura ingendo, icumbi cg ifunguro ry' abo mwarerekaniye ubutaka cg abagabo</i>						
		Costs to enable or speed up the transaction (bribes) / <i>Kwihutisha dosiye (ruswa)</i>						
		Other costs / <i>Ayandi watanze:</i>						
5	What is the maximum amount of time it has taken you to register a single transaction (days)? / <i>Byagutwaye iminsi ingaha kugira ngo ubashe guhabwa iyi serivise?</i>							
6	How do you consider the fee to be: / <i>Ubona amafaranga bishyuzwa ari:</i>	Too high, cannot afford it / <i>Menshi cyane, sinayabona</i>						
		About right, affordable / <i>Ari mu rugero, nayabona</i>						
		Low / <i>Ni makeya</i>						
7	How easy was it to get information about the requirements for registering a transaction / <i>Byarakoroheye kubona amakuru agendanye n'ibikenerwa kugira ngo uhabwe iyi serivise?</i>	Very easy / <i>Byaranyoroheye cyane</i>						
		Somewhat easy / <i>Byaranyoroheye</i>						
		Rather difficult, but I managed to get it / <i>Byarangoye ariko nabashije kuyabona</i>						
		Impossible, I did not manage to get the information needed / <i>Byarangoye, sinabashije kuyabona</i>						

8	How easy was it for you to comply with requirements to register a transaction? / <i>Byarakoroheye kuzuza ibisabwa kugirango ubashe guhabwa iyi serivise?</i>	Very easy / <i>Byaranyoroheye cyane</i>						
		Somewhat easy / <i>Byaranyoroheye</i>						
		Rather difficult, but I managed / <i>Byarangoye ariko nabashije kubyuzuza</i>						
		Impossible, I was not able to register it / <i>Byari bigoye, sinabashije kwandikisha</i>						
9	Overall, considering the transaction you have registered, how would you rate the services provided by the land administration officers / <i>Ugendeye kuri serivise wasabye z' ubutaka, muri rusange wabonye warakiriwe ute n' abakozi bashinzwe iby' ubutaka?</i>	Helpful / <i>Barafasha</i>						
		Somewhat helpful / <i>Bagerageza gutanga ubufasha</i>						
		Willing to help but unable to provide needed assistance / <i>Baba bafite ubushake ariko ntibashobore gutanga ubufasha bukenewe</i>						
		Not helpful, unwilling to help / <i>Nta bufasha batanga, nta n'ubushake baba bafite</i>						
Go to question 19 / Jya ku kibazo cya 19								

18. Please indicate the reason for not using LAS / *Ni ku zih mpamvu utigeze ukoresha uburyo bushya bwo kwandikisha ku butaka?*

A	Not aware of its existence / <i>Sinarinzi ko bubaho</i>	
B	Unable to comply with requirements / <i>Sinabashije kuzuza ibisabwa byose</i>	
C	Could not afford to pay registration fees / <i>Nabashije kwishyura amafaranga yasabwaga</i>	
D	Too far away to reach / <i>Aho bikorerwa ni kure cyane</i>	
E	No formal land register office available / <i>Ntaho kwandikisha ubutaka hahari</i>	
F	I did not need it / <i>Ntabwo narimbikeneye</i>	
G	Other reasons / <i>Izindi mpamvu:</i>	

19. In which year did you acquire this land / *Ni mu wuhe mwaka wabonyemo ubu butaka?* _____

20. How did you acquire it / *Wabubonye ute?*

A	Bought directly from the developers / <i>Nabuguze n'uwahubatse</i>	
B	Bought from previous owner(s) / <i>Nahaguze na(ba) nyirabwo</i>	
C	Government allocation / <i>Nabuhawe na leta</i>	
D	Land sharing / <i>Nabubonye mu isaranganya ry'ubutaka</i>	
E	Inheritance (after parent(s) died) / <i>N'umurage w'ababyeyi</i>	Go to question 22 / Jya ku kibazo cya 22
F	Donation / <i>Impano</i>	
G	<i>Umunani</i>	
H	Others ways/ <i>ubundi buryo</i>	

21. If you bought it, how much did you pay to acquire this land / *Niba waraguze, wabuguze amafaranga angaha?* _____ Rwf

22. What is the size of this land / *Ubutaka bungana iki?* _____ Sqm²

23. On whose name the title is registered? / *Ubu butka bwanditswe kuri nde?*

Joint / <i>Ku mugabo n'umugore</i>	
Husband / <i>Ku mugabo</i>	
Wife / <i>Ku mugore</i>	
Other / <i>Undi</i>	

24. Do you have a title / certificate for this land? / *Ufite icyangobwa cy'ubu butaka?*

Yes/Yego		Go to question 26 / <i>Jya ku kibazo cya 26</i>
No/Oya		
Do not know/ <i>Ntabwo mbizi</i>		Go to question 26 / <i>Jya ku kibazo cya 26</i>

25. Why not (Many answers are possible) / *Kubera iki nta cyangobwa ufite? (Ibisubizo byinshi birashoboka)*

A	I lacked the money to pay the fee for it / <i>Nabuze amafaranga yo kukishyura</i>	
B	There is a dispute on my land; a certificate was not issued / <i>Ubutaka bwanjye bufite amakimbirane, nta cyangobwa nahawe</i>	
C	The boundaries were recorded, but no certificate was issued / <i>Ubutaka bwanjye bwarabaruwe ariko nta cyangombwa nahawe</i>	
D	I acquired the land from someone else and never got a certificate/ <i>Nahawe/naguze ubutaka n'undi muntu ariko nta cyangombwa nigeze mbona</i>	
E	I could not afford other costs to collect it (e.g. transportation)/ <i>Ntabwo nabashije kubona amafaranga akenewe kugirango mbashe kujya kugifata (Urugero: itike)</i>	
F	I did not provide the requested information necessary to obtain it / <i>Ntabwo nashoboye gutanga amakuru yari akenewe kugira ngo nkibone</i>	
G	I am worried that if I collect it, I may have to pay lease fees or taxes / <i>Mfite impungege ko ningifata, nzasabwa kwishyura imisoro</i>	
H	It takes too long; I do not have time/ <i>Bitwara igihe kirekire, kandi nta mwanya mfite</i>	
I	Procedures are too difficult / <i>Inzira bicamo ziragoye cyane</i>	
J	Too far away / <i>Aho bikorerwa ni kure cyane</i>	
K	The land size is too small; I will not be allowed to register it / <i>Ubutaka ni buto cyane ntabwo nakwemererwa kubwandikisha</i>	
L	I did not want to register the land with my wife / <i>Sinshaka kwandikisha ubutaka bwanjye ho umugore</i>	
M	I am worried that it could be damaged or lost/ <i>Mfite impungenge ko nkifashe nshobora kucyangiza cg kikabura</i>	
N	I do not see the reason to collect it; it does not provide me with benefits / <i>Nta mpamvu mbona yo kugifata kuko nta nyungu mbona mu kugitunga.</i>	
O	I did not know that I have to register it / <i>Sinarinzi ko ari ngombwa kubwandikisha</i>	
P	Other reasons / <i>Izindi mpamvu:</i>	

26. Do you own any other land(s)? / *Ufite ubundi butaka?*

Yes/Yego		
No/Oya		Go to question 30 / <i>Jya ku kibazo cya 30</i>

27. How many other plots do you own? / *Utunze andi masambu cg ibibanza bingaha?*
 _____ (Number / *Umubare*)

28. How many of these plots have you obtained title/certificate for? / *Ni angaha muri ayo masambu/ibibanza ufitiye ibyangobwa?* _____ (Number / *Umubare*)
 (If all plots have titles/certificates, go to question 30 / *Niba ibibanza byose bifite ibyangobwa, jya ku kibazo cya 30*)

29. If do not have title/certificate for some of them, what were the reasons for not registering / *Niba nta na kimwe ufite ibyangobwa, ni iyihe mpamvu ituma utabifite?*

A	I lacked the money to pay the fee for it/ <i>Nabuze amafaranga yo kukishyura</i>	
B	There is a dispute on my land; a title/certificate was never issued / <i>Ubutaka bwanjye buriho amakimbirane</i>	
C	The boundaries were recorded, but no title/certificate was prepared / <i>Ubutaka bwanjye bwarabaruwe ariko nta cyangombwa nigeze mbona</i>	
D	I acquired the land from someone else and never got a title/certificate/ <i>Nahawe ubutaka n'undi muntu ariko nta cyangombwa nigeze mbona</i>	
E	I could not afford other costs to collect it (e.g. transportation)/ <i>Ntabwo nobona amafaranga y'ibindi bikenerwa (Urugero: itike)</i>	
F	I was unable to provide the requested information necessary to obtain it / <i>Ntabwo nashoboye gutanga amakuru yari akenewe kugira ngo nkibone</i>	
G	I am worried that if I collect it, I may have to pay lease fees or taxes / <i>Mfite impungege ko ninkifata, nzasabwa kwishyura imisoro</i>	
H	It takes too long; I don't have the time/ <i>Bitwara igihe kirekire, kandi nta mwanya mfite</i>	
I	Procedures are too difficult / <i>Inzira bicamo ziragoye cyane</i>	
J	Too far away/ <i>Bikorera kure cyane</i>	
K	The land size is too small; I will not be allowed to register it/ <i>Ubutaka ni buto cyane ntabwo nakwemererwa kubwandikisha</i>	
L	I did not want to register the land with my wife/ <i>Sinshaka kwandikisha ubutaka ho umugore wanjye</i>	
M	I am worried that it could be damaged or lost/ <i>Mfite impungenge ko nkifashe nshobora kucyangiza cg kikabura</i>	
N	I do not see the reason to collect it; it does not provide me with benefits / <i>Nta mpamvu mbona yo kugifata kuko nta nyungu mbona mu kugitunga.</i>	
O	I did not know that I have to register it / <i>Sinarinzi ko ari ngombwa kubwandikisha</i>	
P	Other reasons / <i>Izindi mpamvu</i>	

SECTION C: Options and alternatives for improving access to the land administration system / Uburyo bwo kunoza imiyoborere y'ubutaka

30. What do you think is the single greatest challenge to access the current land registration system/*Kuri ubu, ni iyihe mbogamizi nkuru ubona iri mu kwandikisha ubutaka?*

A	Distance to local Land Offices is too far/ <i>urugendo rurerure ujya ku biro by'ubutaka</i>	
B	Customer service by land office staff is insufficient / <i>kutakirwa neza mu biro bishinzwe iby'ubutaka</i>	
C	Fees are too high / <i>amafaranga asabwa ni menshi</i>	
D	Requirements are too many / <i>ibisabwa ni byishi</i>	
E	Processes are too difficult to understand easily / <i>inzira bicamo ntizoroshye kuzumva</i>	
F	Other concerns/ <i>ibindi</i>	

31. Do you have any suggestions on how to improve the accessibility of current land administration system to citizen? / *Waba ufite igitekerezo cy'uko uburyo bwo kwandikisha ubutaka bwanzwaga kugirango abaturage babugane?*

SECTION D1: Impact of land titling/certification on citizens – Access to credit/ Ingaruka zo kwandikisha no kubona ibyangombwa by'ubutaka - Kubona inguzanyo

32. Have you applied for a loan using your land title/certificate as collateral? / *Wigeze usaba inguzanyo ukoresheje ibyangombwa by'ubutaka bwawe nk'ingwate?*

Yes/Yego		
No/Oya		Go to question 40 / <i>Jya ku kibazo cya 40</i>

33. At which financial institution did you apply for the loan? / *Ni ikihe kigo ki cy'imari wasabyemo iyo nguzanyo?*

34. Did your financial institution require anything other than the land title/certificate to secure the loan? / *Ikigo cy'imari wakoreshije cyagusabye ibindi byiyongera ku cyangombwa cy'ubutaka nk'igwate?*

Yes/Yego		
No/Oya		Go to question 36 / <i>Jya ku kibazo cya 36</i>

35. What other requirements were asked for? / *Ni biki bindi wasabwye?*

36. Was your application approved? / *Ubusabe bwawe bwaremewe?*

Yes/Yego		Go to question 38 / <i>Jya ku kibazo cya 38</i>
No/Oya		

37. What reasons was it not approved? / *Ni kuzihe mpamvu butemewe?*

38. What proportion of the loan amount you applied for did you receive? / *Wahawe inguzanyo wasabye ku kigereranyo cya kangahe kw'ijana?*

Full amount (100%)/ <i>ayo nasabye yose</i>		Go to question 41 / <i>Jya ku kibazo cya 41</i>
Less than full amount (%)/ <i>makeya kuyo nasabye</i>		

39. What were the reasons for that? / *Ni izihe mpamvu zabiteye?*

40. Why you did not apply for loan? (Many answers are possible) / *Kubera iki utasabye inguzanyo? (Ibisubizo byinshi birashoboka)*

A	I have not needed to acquire a loan/ <i>Ntabwo nigeze nkenera gushaka inguzanyo</i>	
B	I have acquired a loan(s), but have not needed to provide security/collateral / <i>Nafashe inguzanyo ariko sinigeze nkenera gutanga ingwate</i>	
C	I would like to obtain a loan, but am not willing to use my land certificate as collateral / <i>Numva nafata inguzanyo ariko sinshaka gutangaho ibyangombwa by'ubutaka bwanjye ingwate</i>	
D	I have acquired a loan(s), but have used other security/collateral (not my land certificate) / <i>nafashe inguzanyo ariko nakoresheje izindi ngwate atari ibyangombwa by'ubutaka bwanjye</i>	
E	Others / <i>Izindi mpamvu</i>	

SECTION D2: Impact of land titling/certification on citizens – Incentive for investment on land/ *Ingaruka zo kwandikisha no kubona ibyangombwa by'ubutaka ku baturage - Gushora imari mu butaka*

41. Did you acquire this land developed or as undeveloped land? / *Ese wabonye ubu butaka bwubatseho ibikorwa cg butubatseho?*

Developed / <i>bwari bwubatseho</i>	
Undeveloped / <i>ntibwari bwubatseho</i>	

42. Have you invested in developing this land after acquiring it? / *Wigeze ushora imari uteza imbere ubu butaka?*

Yes/Yego		
No/Oya		Go to question 44 / <i>Jya ku kibazo cya 44</i>

43. Please give a list of your major investments and an estimate of their value / *Watubwira iby'ingenzi wakoze k' ubutaka n'agaciro kabyo?*

Type of investment/ <i>ubwoko bw'igikorwa</i>	Estimate of value / <i>ikigereranyo cy'agaciro (Rwf or Days)</i>		Did you use credit to finance these investments after receiving title/certificate <i>Wasabye inguzanyo umaze kubona icyangombwa cy'ubutaka</i>	
	Before receiving certificate/title <i>Mbere yo kubona icyangombwa cy'ubutaka</i>	After receiving certificate/title <i>Mbere yo kubona icyangombwa cy'ubutaka</i>	YES <i>YEGO</i>	NO <i>OYA</i>
Cultivated new perennial crops or trees / <i>guhinga ibihigwa bimara igihe gito mu murima</i>				
Invested in new land improvements (e.g. terracing, drainage, ditches, etc.) / <i>Gukora ibikorwa birinda ubutaka (materasi, imirwanyasuri, n'ibindi)</i>				
Invested in new installing irrigation system/ <i>Gukora bundi bushya ibikorwa byo kuhira imyaka</i>				
Built new residence(s)/home / <i>kubakamo inzu yo guturamo</i>				
Built new barn/fencing/sheds/storage or other farm structures/ <i>Kubaka bundi bushya uruzitiro, ibigega, ibiraro, amariba cg ibindi bikorwa bifasha m'ubuhinzi n'ubworozi</i>				
Established new shop, store or other commercial investment/ <i>kubaka bushyashya amaduka, ububiko cg ibindi bikorwa bifasha mu bucuruzi</i>				
Improved existing structures/ <i>kuvugurura ibikorwa byari bihasanzwe</i>	Home/ <i>inzu</i>			
	Farm/ <i>urwuri</i>			
	Business/ <i>inzu zubucuruzi</i>			
	Others / <i>ibindi wakoze:</i>			
Others/ <i>ibindi:</i>				

SECTION D3: Impact of land titling/certification on citizens – Disputes/ *Ingaruka zo kwandikisha no kubona ibyangombwa by'ubutaka – Gukumira amakimbirane*

44. In your experience have the land disputes increased or decreased in your area/ *Ku giti cyawe, ubona amakimbirane ashingye ku butaka yaragabanutse cg yariyongereye nyuma yo kwandika ubutaka?*

Decreased/ <i>yaragabanutse</i>	
Increased/ <i>yariyongereye</i>	

45. Give the reasons for the change reported above/Tanga impamvu z'izo mpinduka

46. Have you had any dispute with a neighbour/family member or another person about your land? / Wigeze ugirana amakimirane ashingiyeye ku butaka n'umuturanyi /umuvandimwe wawe cg undi muntu?

Yes/Yego		If answer is NO go to question 57 / Niba ari OYA, komereza ku kibazo cya 57
No/Oya		

47. What did the dispute(s) concern (Tick all that apply) /Ayo makimirane yari ashingiyeye kuki (Hitamo ibisubizo bishoboka byose)

Encroachment of and boundaries/ kurenga imbibi	
Who owns the land/ ibyerekeranye no kuba nyir'ubutaka	
Who is entitled to land inheritance or umunani or how much/amakimirane ashingiyeye ku izungurane n'umunani?	
Consent to sell/donation/rent/mortgage the land/ Kumvikana k'ubyo kugurisha/impano/ubukode cg ingwate yu butaka	
Expropriation or requisitioning of land/ kwimurwa ku bw'inyungu rusange cg gufatirwa k'ubutaka	
Other, please specify / ibindi bigaragaze	

48. With who of the following have you engaged in a land dispute (Tick all that apply / amakimirane ashingiyeye ku butaka wayagiranye nande muri aba? (Hitamo ibisubizo byose bishoboka)

A	A member of my immediate family (spouse, son, daughter, sister, brother, mother, father) /Uwo mu muryango wanje(uwo mwashakanye, umwana wawe, umuvandimwe wawe, umubyeyi wawe)	
B	Another member of my family/undi wo mu muryango wawe	
C	A neighbour who is not a member of my family / umuturanyi udakomoka mu muryango wawe	
D	Local government authority/ubuyobozi bw'inzego z'ibanze	
E	Central government authority/urwego rwa leta	
F	Others /Abandi	

49. Did you take your disputes to any of the following to help resolve it / Hari aho wagejeje ikibazo cyawe ngo bagufashe kugikemura?

The Family/mu muryango		Go to question 54 / Jya ku kibazo cya 54
Neighbours/abaturanyi		
Cell / Ku kagari		
Legal assistance provider/CSO/abafasha mu by'amategeko		
The Church/mu rusengeru		
The Police/Polisi		
Local Mediators / Abunzi		
Court/mu rukiko		
Other/ahandi		
No, I did not seek any help/oya, ntabwo nashatse ubufasha		

50. Are you satisfied with the services of those providing assistance? / *Niba waragiye kureba abunganizi, waba wanyuzwe na serevise wahawe?*

Service provider/ <i>abunganizi</i>	Yes/ <i>Yego</i>	No/ <i>Oya</i>	If NO, reason/ <i>niba ari OYA, impamvu</i>
The Family/ <i>umuryango</i>			
Neighbours/ <i>abaturanyi</i>			
Cell / <i>Ku kagari</i>			
Legal assistance provider/ <i>CSO/ abunganizi mu mategeko</i>			
The Church/ <i>mu rusengero</i>			
The Police/ <i>polisi</i>			
Local Mediators/ <i>Abunzi</i>			
Court/ <i>urukiko</i>			
Others / <i>Ahandi:</i>			

51. In seeking help for your case, did you use your land certificate as evidence of your land claim? / *Mu gihe washakaga ubufasha, wagaragaje icyangombwa cy'ubutaka waburanaga nk'ikimenyetso?*

Yes/ <i>Yego</i>	
No/ <i>Oya</i>	

52. Did the other party in the dispute use a land certificate as evidence of their land claim/ *Abo mwagiranye amakimbirane, bagaragaje icyangombwa cy' ubutaka baburanaga nk'ikimenyetso?*

Yes/ <i>Yego</i>	
No/ <i>Oya</i>	Go to question 54 / <i>Jya ku kibazo cya 54</i>

53. How much influence did it have over the final decision on the land claim? / *Cyagize uruhare mu kwemeza ny'ir'ubutaka?*

A	It was a decisive factor in rendering a decision/ <i>nicyo cyashingiweho mu gufata umwanzuro.</i>	
B	It was one of the influential factors in rendering a decision/ <i>ni kimwe mu mpamvu zatumye hafatwa umwanzuro wanyuma.</i>	
C	It somewhat influenced the outcome, but only a little / <i>cyagize uruhare ariko rutoya mu gufata umwanzuro</i>	
D	It was not influential at all/ <i>ntacyo cyafashije na gato mu gufata umwanzuro</i>	

54. Are all land-related disputes you have had now resolved? / *Amakimbirane yose ashingiyeye ku butaka wari ufite ubu yarakemutse?*

Yes/ <i>Yego</i>		Go to question 56 / <i>Jya ku kibazo cya 56</i>
No/ <i>Oya</i>		

55. How many land disputes, you are part of, are not resolved? / *Hasigaye amakimbirane angana iki?*
_____ (Number / *Umubare*)

56. On average, how long did it take to resolve past disputes/ *Ugereranije, byatwaye igihe kingana iki kugirango amakimbirane wari ufite arangire?*

Less than 1 month/ <i>munsi y'ukwezi</i>	
1 to 6 month/ <i>Hagati y'kwezi 1 n'amezi 6</i>	
6 month to 1 year/ <i>Hagati y'amezi 6 n'umwaka</i>	
More than 1 year/ <i>byarengeje umwaka</i>	

57. To what extent do you feel a land certificate protects you from others encroaching on your land boundaries? / *Ni ku ruhe rugero wumva icyangobwa cy'ubutaka cyakurinda amakimbirane ashingiye ku mbibi?*

Full protects / <i>cyayandinda bihagije</i>	
Partially protects/ <i>cyayandinda gahoro</i>	
Does not protect at all/ <i>ntacyo cyamarira</i>	

58. To what extent do you feel a land certificate protects you from someone else taking away your land / *Ni ku ruhe rugero wumva icyangombwa cy'ubutaka cyakurinda uwari wese washaka kugutwara ubutaka?*

Full protects / <i>cyayandinda bihagije</i>	
Partially protects/ <i>cyayandinda gahoro</i>	
Does not protect at all/ <i>ntacyo cyamarira</i>	

59. How effective do you feel a land certificate in reducing your chance of engaging in a land dispute? / *Ni ku ruhe rugero wumva icyangobwa cy'ubutaka cyakugabanirije guhora mu makimbirane y'ubutaka?*

Effective/ <i>byaramfashije cyane</i>	
Not effective/ <i>Ntabwo byamfashije</i>	
Not sure / <i>ntabwo mbizi</i>	

60. Do you have other lingering concerns related to tenure security that are not addressed by the current land administration system? / *waba ufite izindi mpungenge zitigeze zicyemurwa n'uburyo bushya bwo kuyobora neza ubutaka?*

Yes/ <i>Yego</i>		
No/ <i>Oya</i>		Go to question 62 / <i>Jya ku kibazo cya 62</i>

61. Please, specify/ *Zaba ari izihe?*

SECTION D4: Impact of land titling/certification – Land market activities / Ingaruka z'iyandikisha ry'ubutaka mu guteza imbere igurisha n'igura ry'ubutaka

62. Do you think land transactions (selling/buying/leasing) have become easier after acquiring the title/certificate? / *Guherekanya uburenganzira k'ubutaka (kugurisha, kugura, gukodesha) byaba byaroroshye nyuma yo guhabwa ibyangombwa by'ubutaka?*

Yes/Yego	
No/Oya	

63. Indicate the level of the following land market activities you have done before and after land registration? / *Ni ibihe bikorwa waba warakoze mbere cg nyuma y'igikorwa cyo kwandikisha ubutaka?*

Activity / Igikorwa		Number of transactions / Umubare w'iherekanya	
		Before / Mbere	After / Nyuma
Selling / Kugurisha	Residential property / Inzu yo guturamo		
	Commercial property / Inzu yo gucururizamo		
	Farm land / Ubutaka bwo guhingamo		
Buying / Kugura	Residential property / Inzu yo guturamo		
	Commercial property / Inzu yo gucururizamo		
	Farm land / Ubutaka bwo guhingamo		
Renting out / Gukodesha ubutaka bwawe	Residential property / Inzu yo guturamo		
	Commercial property / Inzu yo gucururizamo		
	Farm land / Ubutaka bwo guhingamo		
Renting in / Gukodesha ubutaka bw'abandi	Residential property / Inzu yo guturamo		
	Commercial property / Inzu yo gucururizamo		
	Farm land / Ubutaka bwo guhingamo		

64. Do you think the restriction on subdividing land giving plots of less than one hectare has affected buying and selling of land? / *Ukekako itegeko ribuza abantu kugabanyamo ubutaka buri butange ibibanza bitagejeje kuri hegitari (Ha) imwe rigira ingaruka ku igura n'igurisha ry'ubutaka?*

Yes/Yego	
No/Oya	

65. How do you think this restriction on subdividing land giving plots of less than one hectare has affected potential levels of land market activities? / *Ukekako itegeko ribuza abantu kugabanyamo ubutaka buri butange ibibanza bitagejeje kuri hegitari (Ha) imwe ryagize ingaruka zimeze gute ku igura n'igurisha ry'ubutaka?*

No effect / <i>Nta ngaruka ryagize</i>	
Negative effect (reduced potential levels) / <i>Ryagize ingaruka mbi (kugura na kugurisha byaragabanutse)</i>	
Positive effect (increased potential levels) / <i>Ryagize ingaruka nzizai (kugura na kugurisha byariyongereye)</i>	

SECTION E: Basic Personal Information on the owner/ *Umwirondoro wa nyir'ubutaka*

66. Gender/ *Igitsina*

Male/ <i>gabo</i>	
Female/ <i>gore</i>	

67. Date of birth / *Igihe yavukiye* _____ (Year / *Umwaka*)

68. Marital status / *Irangamimerere*

Single/ <i>ingaragu</i>	
Married (with living spouse residing in the household)/ <i>narashatse(mbana nuwo twashakanye</i>	
Married (with living spouse residing outside the household)/ <i>narashatse(simbana n'uwo twashakanye)</i>	
Separated/Divorced/ <i>twaratandukanye</i>	
Widowed/ <i>umupfakazi</i>	
Others / <i>ibindi</i>	

69. How many persons are living in this household? / *Ubana nabantu bangahe mu nzu?*
 _____ (Number / *Umubare*)

70. What is your highest level of educational attainment/ *Ni uruhe rwego rw'mashuli wagarukiyemo?*

	Land owner / <i>Nyir'ubutaka</i>	Spouse/ <i>umufasha</i>
Never attended school/ <i>sinigeze niga</i>		
Primary/ <i>amashuli abanza</i>		
Secondary/ <i>ayisumbuye</i>		
University/ <i>kaminuza</i>		
Post-graduate/ <i>ikiciro cyagatatu cyakaminuza</i>		
Technical Schools / <i>amashuli yimyuga</i>		
Others, Please specify / <i>Ayandi, yavuge</i>		

71. What is your occupation [Pick all occupations that apply] / *Ukora akahe kazi [hitamo ibisubizo byose bishoboka]*

	Land owner Primary/ <i>Umurimo w'ibanze w'usubiza</i>	Land owner Secondary/ <i>Umurimo wa kabiri w'usubiza</i>	Spouse Primary/ <i>Umurimo w'ibanze w'umufasha</i>	Spouse Secondary/ <i>Umurimo wa kabiri w'umufasha</i>
Farmer/ <i>umuhinzi cg umworozi</i>				
Casual labourer/ <i>akazi kadahoraho</i>				
Government employee/ <i>umukozi wa leta</i>				
NGO employee/ <i>umukozi ukorera imiryango yigenga</i>				
Self-employed/Business/ <i>uwikoresha</i>				
Student/ <i>umunyeshuli</i>				
(Currently) not employed/ <i>nta kazi mfite</i>				
Retired/ <i>nafashe ikiruhuko cy'izabukuru</i>				
Part-time employed/ <i>nkorera kumasaha</i>				
Others, please specify/ <i>indi mirimo yivuge</i>				

72. In what monthly income bracket is your household / *Mwinjiza amafaranga angana iki mu mu kwezi?*

Under / <i>Munsi 50 000 RWF</i>	50 001 - 100 000 RWF	100 001 – 150 000 RWF	150 001 – 200 000 RWF	200 001 – 250 000 RWF	250 000 – 500 000 RWF	500 000 – 700 000 RWF	Above / <i>Hejuru ya 700 000 RWF</i>

73. What purpose do you use this property for? / *Ubukoresha iki?*

A	Residential / <i>Gutura</i>		
B	Commercial (including industrial) / <i>Ubucuruzi (n'inganda zirimo)</i>		
C	Agricultural (livestock or forest)/ <i>Ubuhinzi - Ubworozi - Ishyamba</i>		
D	Others/ <i>Ibindi:</i>		

Thank you / *Murakoze!*

APPENDIX 3: DETAILED INFORMATION PER DISTRICT

Table A25: Age groups of the respondent

District	20 - 30	31 - 40	41- 50	51- 60	61- 70	71+	Total
Bugesera	10	20	13	17	10	9	79
Burera	12	25	16	7	9	2	71
Gakenke	13	35	17	4	5	1	75
Gasabo	11	43	41	25	8	6	134
Gatsibo	10	21	15	19	9	1	75
Gicumbi	12	16	18	16	11	1	74
Gisagara	7	16	19	11	9	4	66
Kicukiro	11	48	34	34	9	3	139
Kirehe	9	25	18	12	7	5	76
Muhanga	11	15	21	15	9	5	76
Musanze	11	42	9	13	4	1	80
Ngoma	8	23	13	13	10	7	74
Ngororero	9	24	12	10	11	6	72
Nyagatare	15	32	15	8	7	4	81
Nyamagabe	14	13	22	11	6	6	72
Nyamasheke	11	25	15	10	5	6	72
Nyanza	3	16	13	18	15	9	74
Nyarugenge	6	39	47	32	14	2	140
Nyaruguru	11	8	22	22	6	7	76
Rubavu	14	30	16	14	6	2	82
Rulindo	8	30	15	12	6	4	75
Rusizi	6	26	19	11	4	3	69
Rutsiro	11	20	14	10	4	4	63
Total	233	592	444	344	184	98	1895

Table A26: Owners' marital status

District	Single	Married	Widowed	Other	Total
Bugesera	3	56	12	4	75
Burera	2	56	13	3	74
Gakenke	5	53	12	5	75
Gasabo	7	98	20	8	133
Gatsibo	4	40	24	3	71
Gicumbi	1	48	16	8	73
Gisagara	3	36	18	8	65
Kicukiro	5	99	25	4	133
Kirehe	4	61	6	3	74
Muhanga	3	48	12	8	71
Musanze	4	53	16	6	79
Ngoma	7	47	18	1	73
Ngororero	5	53	11	5	74
Nyagatare	4	65	10	1	80
Nyamagabe	1	55	8	6	70
Nyamasheke	2	60	6	4	72
Nyanza	2	47	13	9	71
Nyarugenge	3	95	19	12	129
Nyaruguru	2	52	18	1	73
Rubavu	4	65	13	7	89
Rulindo	3	55	15	2	75
Rusizi	3	53	11	4	71
Rutsiro	1	49	7	4	61
Total	78	1344	323	116	1861

Table A27: Owner level of education per district

District	Never Attended School	Primary	Secondary	University	Post-Graduate	Technical School	Total
Bugesera	24.4%	61.5%	12.8%	1.3%			100%
Burera	37.3%	41.8%	16.4%	3.0%		1.5%	100%
Gakenke	32.4%	46.5%	21.1%				100%
Gasabo	6.2%	35.7%	39.5%	13.2%	2.3%	3.1%	100%
Gatsibo	18.3%	60.6%	15.5%	4.2%	1.4%		100%
Gicumbi	41.9%	50.0%	8.1%				100%
Gisagara	15.3%	62.7%	15.3%			6.8%	100%
Kicukiro	9.8%	52.3%	25.0%	8.3%	2.3%	2.3%	100%
Kirehe	29.0%	62.3%	5.8%	2.9%			100%
Muhanga	23.4%	42.2%	20.3%	9.4%		4.7%	100%
Musanze	27.5%	41.2%	23.8%	5.0%		2.5%	100%
Ngoma	20.0%	57.3%	16.0%	4.0%		2.7%	100%
Ngororero	26.3%	59.2%	9.2%	2.6%		2.6%	100%
Nvagatare	19.2%	50.0%	17.9%	12.8%			100%
Nvamagabe	43.9%	47.0%	1.5%	1.5%		6.1%	100%
Nvamasheke	13.3%	54.7%	26.7%	1.3%		4.0%	100%
Nvanza	35.5%	53.2%	6.5%		1.6%	3.2%	100%
Nvarugenge	16.9%	40.4%	20.6%	14.0%	2.9%	5.1%	100%
Nvaruguru	38.7%	45.3%	10.7%	1.3%		4.0%	100%
Rubavu	21.3%	55.1%	19.1%	3.4%		1.1%	100%
Rulindo	37.8%	43.2%	13.5%	4.1%		1.4%	100%
Rusizi	12.7%	49.3%	25.4%	7.0%		5.6%	100%
Rutsiro	27.9%	59.0%	8.2%	1.6%	1.6%	1.6%	100%
Total	23.7%	50.1%	17.8%	5.2%	0.6%	2.6%	100%

Table A28: Monthly income of the owner

District	< 50,000	50,001 – 100,000	100,001 – 150,000	150,001 – 200,000	200,001 – 250,000	250,001 – 500,000	500,001 – 700,000	More than 700,001
Bugesera	49	10	9	5	3	1	0	0
Burera	58	12	4	1	0	0	0	0
Gakenke	54	11	4	4	1	0	1	0
Gasabo	42	31	15	11	9	11	3	1
Gatsibo	43	12	5	0	3	0	0	0
Gicumbi	64	10	1	0	0	0	0	0
Gisagara	55	8	0	0	0	1	0	0
Kicukiro	56	21	18	10	9	8	3	5
Kirehe	57	8	1	0	1	0	0	0
Muhanga	51	12	7	0	1	0	1	0
Musanze	52	16	3	4	2	3	0	0
Ngoma	57	7	1	2	0	2	0	1
Ngororero	52	11	4	3	2	1	0	0
Nvagatare	27	21	8	5	2	5	3	1
Nvamagabe	61	9	0	0	0	0	1	0
Nvamasheke	45	15	8	3	0	0	0	0
Nvanza	62	6	2	2	0	0	0	0
Nvarugenge	51	17	19	21	14	9	8	5
Nvaruguru	58	9	1	0	0	0	0	0
Rubavu	51	20	8	4	5	1	0	1
Rulindo	52	13	5	1	1	2	0	0
Rusizi	44	15	3	2	2	0	2	0
Rutsiro	44	3	5	1	0	0	0	0
Total	1185	297	131	79	55	44	22	14

Table A29: Possession of land certificate

District	No	Yes	Total
Bugesera	16	62	78
Burera	6	65	71
Gakenke	2	73	75
Gasabo	5	133	138
Gatsibo	12	61	73
Gicumbi	2	69	71
Gisagara	17	49	66
Kicukiro	13	122	135
Kirehe	17	57	74
Muhanga	9	67	76
Musanze	5	74	79
Ngoma	9	67	76
Ngororero	12	63	75
Nyagatare	3	77	80
Nyamagabe	13	60	73
Nyamasheke	1	76	77
Nyanza	9	64	73
Nyarugenge	8	136	144
Nyaruguru	15	61	76
Rubavu	9	79	88
Rulindo	0	74	74
Rusizi	11	61	72
Rutsiro	4	57	61
Total	198	1707	1905

Table A30: Land ownership

District	Joint	Husband	Wife	Total
Bugesera	50	12	11	73
Burera	46	14	14	74
Gakenke	53	6	16	75
Gasabo	97	14	27	138
Gatsibo	38	6	25	69
Gicumbi	44	11	19	74
Gisagara	40	7	16	63
Kicukiro	103	11	17	131
Kirehe	50	20	4	74
Muhanga	52	7	12	71
Musanze	53	9	18	80
Ngoma	40	16	17	73
Ngororero	58	8	8	74
Nyagatare	59	11	8	78
Nyamagabe	38	15	16	69
Nyamasheke	66	2	7	75
Nyanza	50	7	14	71
Nyarugenge	120	12	11	143
Nyaruguru	42	10	14	66
Rubavu	49	21	17	87
Rulindo	56	3	14	73
Rusizi	54	6	10	70
Rutsiro	54	2	6	62
Total	1312	230	321	1863

Table A31: Property acquisition

District	Bought from developers	Bought from previous owners	Government allocation	Inheritance	Gift or <i>umunani</i>	Land sharing	Other
Bugesera	15	25	19	4	8	1	2
Burera	12	21	0	23	17	0	1
Gakenke	17	18	2	21	15	2	0
Gasabo	48	50	1	14	18	0	1
Gatsibo	6	23	9	7	16	9	1
Gicumbi	8	24	2	18	21	0	2
Gisagara	9	19	1	9	17	5	2
Kicukiro	25	48	5	10	24	7	2
Kirehe	8	29	17	6	5	5	0
Muhanga	13	27	1	8	19	0	3
Musanze	26	21	9	14	10	0	0
Ngoma	2	14	8	14	23	7	3
Ngororero	22	19	4	13	9	4	2
Nyagatare	12	38	26	0	2	0	2
Nyamagabe	4	20	11	3	19	7	4
Nyamasheke	16	25	0	19	13	0	1
Nyanza	5	14	16	2	30	1	3
Nyarugenge	56	46	3	17	18	1	3
Nyaruguru	4	20	2	13	33	0	6
Rubavu	31	23	4	9	19	0	3
Rulindo	18	16	3	22	16	0	0
Rusizi	21	15	10	10	12	4	1
Rutsiro	13	19	1	13	9	3	1
Total	391	574	154	269	373	56	43

Table A32: Knowledge of what services LAS provides by district

District	Issuing land certificates	Don't know	Change of land documents	Correction of land documents	Sensitization of land related issues to masses	Collection of land taxes	Land registration	Land transfer services	Solving land related disputes	Total
Bugesera	8	5	3	0	0	4	6	4	1	31
Burera	20	2	0	0	0	1	18	20	2	63
Gakenke	17	0	3	0	0	4	21	2	3	50
Gasabo	57	0	4	0	2	7	20	8	5	103
Gatsibo	18	3	2	0	0	1	4	11	1	40
Gicumbi	28	1	1	0	1	2	26	11	2	72
Gisagara	23	0	1	0	0	0	13	9	3	49
Kicukiro	39	9	5	0	0	6	13	9	0	81
Kirehe	12	1	4	0	0	0	4	17	0	38
Muhanga	23	0	1	1	0	2	9	4	4	44
Musanze	26	1	3	0	0	0	24	9	2	65
Ngoma	15	2	5	1	1	0	3	7	4	38
Ngororero	31	1	7	0	0	1	9	0	2	51
Nyagatare	21	4	8	0	1	0	6	11	1	52
Nyamagabe	19	0	2	0	2	0	5	3	6	37
Nyamasheke	29	0	7	6	0	0	13	5	1	61
Nyanza	17	0	1	0	0	1	9	3	4	35
Nyarugenge	69	0	8	2	2	6	18	5	7	117
Nyaruguru	21	0	1	1	0	0	6	6	7	42
Rubavu	23	0	2	0	1	2	29	22	1	80
Rulindo	14	0	0	0	0	0	30	14	4	62
Rusizi	44	1	2	1	0	1	10	0	3	62
Rutsiro	31	1	4	1	2	1	5	1	1	47
Total	605	31	74	13	12	39	301	181	64	1320

Table A33: Office where respondents would go to for the land registration services

District	Cell	Sector	District	One Stop Center	Province	Total
Bugesera	10	6	4	8	1	29
Burera	47	29	25	7	2	110
Gakenke	42	25	13	2	0	82
Gasabo	53	40	33	9	1	136
Gatsibo	23	5	15	1	0	44
Gicumbi	55	36	20	7	0	118
Gisagara	24	15	17	13	0	69
Kicukiro	24	22	21	9	2	78
Kirehe	16	6	14	6	1	43
Muhanga	25	22	12	4	0	63
Musanze	43	35	22	7	2	109
Ngoma	16	5	14	4	0	39
Ngororero	41	3	12	0	0	56
Nyagatare	9	8	24	14	4	59
Nyamagabe	33	18	6	5	1	63
Nyamasheke	37	7	26	1	0	71
Nyanza	23	21	14	3	1	62
Nyarugenge	67	23	38	4	1	133
Nyaruguru	32	29	15	7	5	88
Rubavu	60	48	23	12	3	146
Rulindo	51	28	10	3	1	93
Rusizi	29	15	32	0	1	77
Rutsiro	33	4	10	0	0	47
Total	793	450	420	126	26	1815

Table A34: Sources of information about procedures and requirements in LAS

District	Public meetings	Radio	Television	Billboards	Newspaper	Internet	Other people
Bugesera	46	30	3	0	0	2	18
Burera	68	61	7	5	3	2	40
Gakenke	56	46	6	4	1	0	29
Gasabo	89	90	48	9	4	2	26
Gatsibo	54	30	2	1	1	0	12
Gicumbi	73	56	7	3	1	0	42
Gisagara	46	34	4	2	1	0	26
Kicukiro	75	68	24	7	5	0	25
Kirehe	54	39	1	1	1	0	9
Muhanga	52	38	7	4	2	1	23
Musanze	66	60	17	5	6	0	39
Ngoma	50	36	4	2	2	2	19
Ngororero	59	34	2	4	3	3	7
Nyagatare	56	48	7	1	1	1	22
Nyamagabe	49	22	0	2	1	2	28
Nyamasheke	66	49	7	2	2	0	6
Nyanza	51	21	1	3	0	1	22
Nyarugenge	105	121	58	7	8	5	28
Nyaruguru	51	32	3	5	0	0	29
Rubavu	85	70	22	7	4	2	45
Rulindo	65	42	8	4	1	2	42
Rusizi	66	58	13	2	0	0	14
Rutsiro	56	38	3	2	0	0	5
Total	1438	1123	254	82	47	25	556

Table A35: Awareness of the procedures and requirements for registering different land transactions

District	Are you familiar with procedure requirements				
	No	Yes	Total	% No	% Yes
Bugesera	72	8	80	90.00	10.00
Burera	54	21	75	72.00	28.00
Gakenke	60	15	75	80.00	20.00
Gasabo	91	50	141	64.54	35.46
Gatsibo	61	15	76	80.26	19.74
Gicumbi	49	26	75	65.33	34.67
Gisagara	46	22	68	67.65	32.35
Kicukiro	108	33	141	76.60	23.40
Kirehe	61	15	76	80.26	19.74
Muhanga	56	21	77	72.73	27.27
Musanze	61	19	80	76.25	23.75
Ngoma	62	14	76	81.58	18.42
Ngororero	45	32	77	58.44	41.56
Nyagatare	62	21	83	74.70	25.30
Nyamagabe	61	13	74	82.43	17.57
Nyamasheke	35	42	77	45.45	54.55
Nyanza	56	19	75	74.67	25.33
Nyarugenge	97	52	149	65.10	34.90
Nyaruguru	58	20	78	74.36	25.64
Rubavu	61	29	90	67.78	32.22
Rulindo	57	18	75	76.00	24.00
Rusizi	37	38	75	49.33	50.67
Rutsiro	30	34	64	46.88	53.13
Total	1380	577	1957		

Table A36: Cross-tab Analysis of Reason for Never Using the LAS and Highest Education of Respondent

			Highest level of education of respondent					Total	
			Never attended school	Primary School	Secondary School	University	Technical School		Other
Reasons for never using the LAS	Not aware of its existence	Count	8	8	1	1	1	0	19
		%	42.1%	42.1%	5.3%	5.3%	5.3%	0.0%	100%
	Unable to comply with requirements/ procedures	Count	3	10	2	1	2	0	18
		%	16.7%	55.6%	11.1%	5.6%	11.1%	0.0%	100%
	Could not afford to pay fees	Count	0	3	1	0	1	0	5
		%	0.0%	60.0%	20.0%	0.0%	20.0%	0.0%	100%
	Too far away to reach	Count	0	0	1	1	2	0	4
		%	0.0%	0.0%	25.0%	25.0%	50.0%	0.0%	100%
	No formal land register office available	Count	1	1	0	0	0	0	2
		%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	100%
	Other	Count	9	20	8	0	0	1	38
		%	23.7%	52.6%	21.1%	0.0%	0.0%	2.6%	100%
	Total	Count	21	42	13	3	6	1	86
		%	24.4%	48.8%	15.1%	3.5%	7.0%	1.2%	100%

Table A37: Cross-tab Analysis of Use of LAS and Province

		Province Name					Total
		Eastern	Kigali City	Northern	Southern	Western	
Not used LAS	Count	17	30	38	71	23	179
	% (within Use of LAS)	9.5%	16.8%	21.2%	39.7%	12.8%	100%
	% (within Province)	11.7%	16.0%	17.2%	43.6%	8.9%	18.4%
Used LAS	Count	128	157	183	92	236	796
	% (within Use of LAS)	16.1%	19.7%	23.0%	11.6%	29.6%	100%
	% (within Province)	88.3%	84%	82.8%	56.4%	91.1%	81.6%
Total	Count	145	187	221	163	259	975
	%	100.0%	100.0%	100.0%	100.0%	100.0%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	89.710 ^a	4	.000
Likelihood Ratio	78.854	4	.000
N of Valid Cases	975		

0 cells (0.0%) have expected count less than 5. The minimum expected count is 26.62.

Table A38: Cross-tab Analysis of Use of LAS and Province

			Use of LAS		Total
			Not Used	Used	
Highest level of education of respondent	Never attended school	Count (%)	48 (28.9%)	154 (20.8%)	202 (22.2%)
	Primary School	Count (%)	85 (51.2%)	393 (53.0%)	478 (52.6%)
	Secondary School	Count (%)	19 (11.4%)	134 (18.1%)	153 (16.9%)
	University	Count (%)	4 (2.4%)	38 (5.1%)	42 (4.6%)
	Post-graduate	Count (%)	2 (1.2%)	4 (0.5%)	6 (0.7%)
	Technical School	Count (%)	6 (3.6%)	16 (2.2%)	22 (2.4%)
	Other	Count (%)	2 (1.2%)	3 (0.4%)	5 (0.6%)
Total		Count (%)	166 (100.0%)	742 (100.0%)	908 (100.0%)

Table A39: Cross-tab Analysis for Using LAS and Highest Education of Respondent

			Use of LAS		Total
			Not Used LAS	Used LAS	
Primary Occupation	Farmer	Count (%)	101 (62.7%)	450 (62.3%)	551 (62.4%)
	Casual Worker/Employee	Count (%)	12 (7.5%)	30 (4.2%)	42 (4.3%)
	Government Employee	Count (%)	5 (3.1%)	48 (6.6%)	53 (5.8%)
	NGO Employee	Count (%)	0 (0.0%)	15 (2.1%)	15 (1.7%)
	Self-employed	Count (%)	22 (13.7%)	141 (19.5%)	163 (18.5%)
	Student	Count (%)	1 (0.6%)	2 (0.3%)	3 (0.3%)
	Currently not employed	Count (%)	16 (9.9%)	21 (2.9%)	37 (3.8%)
	Retired	Count (%)	2 (1.2%)	3 (0.4%)	5 (0.6%)
	Part-time employed	Count (%)	0 (0.0%)	8 (1.1%)	8 (0.9%)
Other	Count (%)	2 (1.2%)	4 (0.6%)	6 (0.7%)	
Total		Count (%)	161 (100.0%)	722 (100.0%)	883 (100.0%)

Table A40: Cross-tab Analysis for Using LAS and Land Use Types

			Use of LAS		Total
			Not Used LAS	Used LAS	
Size of Property	Below 100 m²	Count (%)	27 (17.3%)	83 (13.9%)	110 (14.6%)
	101-300 m²	Count (%)	28 (17.9%)	115 (19.2%)	143 (18.9%)
	301-500 m²	Count (%)	36 (23.1%)	86 (14.4%)	122 (16.2%)
	501-700 m²	Count (%)	13 (8.3%)	89 (14.9%)	102 (13.5%)
	701-900 m²	Count (%)	14 (9.0%)	55 (9.2%)	69 (9.1%)
	901-1500 m²	Count (%)	24 (15.4%)	63 (10.5%)	87 (11.5%)
	Above 1500 m²	Count (%)	14 (9.0%)	108 (18.0%)	122 (16.2%)
Total		Count (%)	156 (100.0%)	599 (100.0%)	755 (100.0%)

Table A41: Cross-tab Analysis for Using LAS and Primary Occupation of Respondent

			Use of LAS		Total
			Not used LAS	Used LAS	
Year of Acquisition	Before 2004	Count (%)	86 (56.6%)	338 (45.4%)	424 (47.3%)
	After 2004	Count (%)	66 (43.4%)	407 (54.6%)	473 (52.7%)
Total		Count (%)	152 (100.0%)	745 (100.0%)	897 (100.0%)

Table A42: Distribution of citizens who used LAS to register a Land Transaction after First Time Registration by District

			Use of LAS		Total
			Not used	Used	
District	Bugesera	Count (%)	2 (20%)	8 (80%)	10 (100%)
	Burera	Count (%)	14 (26.4%)	39 (73.6%)	53 (100%)
	Gakenke	Count (%)	1 (2.5%)	39 (97.5%)	40 (100%)
	Gasabo	Count (%)	12 (18.5%)	53 (81.5%)	65 (100%)
	Gatsibo	Count (%)	4 (11.4%)	31 (88.6%)	35 (100%)
	Gicumbi	Count (%)	12 (25.5 %)	35 (74.5%)	47 (100%)
	Gisagara	Count (%)	4 (12.1%)	29 (87.9%)	33 (100%)
	Kicukiro	Count (%)	5 (10.2%)	44 (89.8%)	49 (100%)
	Kirehe	Count (%)	7 (16.7%)	35 (83.3%)	42 (100%)
	Muhanga	Count (%)	18 (60%)	12 (40%)	30 (100%)
	Musanze	Count (%)	6 (14%)	37 (86%)	43 (100%)
	Ngoma	Count (%)	2 (7.7%)	24 (92.3%)	26 (100%)
	Ngororero	Count (%)	10 (16.7%)	50 (83.3%)	60 (100%)
	Nyagatare	Count (%)	2 (6.5%)	29 (93.5%)	31 (100%)
	Nyamagabe	Count (%)	12 (35.3%)	22 (64.7%)	34 (100%)
	Nyamasheke	Count (%)	1 (2%)	48 (98%)	49 (100%)
	Nyanza	Count (%)	13 (54.2%)	11 (45.8%)	24 (100%)
	Nyarugenge	Count (%)	13 (17.8%)	60 (82.2%)	73 (100%)
	Nyaruguru	Count (%)	24 (57.1%)	18 (42.9%)	42 (100%)
	Rubavu	Count (%)	8 (15.4%)	44 (84.6%)	52 (100%)
	Rulindo	Count (%)	5 (13.2%)	33 (86.8%)	38 (100%)
Rusizi	Count (%)	0 (0%)	54 (100%)	54 (100%)	
Rutsiro	Count (%)	4 (8.9%)	41 (91.1%)	45 (100%)	
Total	Count (%)	179 (18.4%)	796 (81.6%)	975 (100%)	

Table A43: Average Transaction Costs to Register a Land Certificate by District in Rwf

District/Province	Transport costs	Other costs	Total costs
Musanze	7,982	9,777	10,233
Burera	15,429	12,962	14,500
Gakenke	2,500	5,750	5,600
Rulindo		5,500	5,900
Gicumbi	3,500	2,375	2,857
Northern Province	8,888	9,634	10,645
Nyagatare	8,325	6,000	10,067
Gatsibo	5,000		4,000
Ngoma	1,740	2,575	2,770
Kirehe	8,863	14,700	17,678
Bugesera	5,020		5,020
Eastern Province	11,645	12,650	17,638
Gisagara	1,800		1,800
Nyaruguru	9,750		16,250
Nyamagabe			
Nyanza			
Muhanga			
Southern Province	31,525	18,667	45,525
Rusizi	12,500		
Nyamasheke			
Rutsiro		2,500	5,833
Rubavu	5,500	6,700	7,117
Ngororero	4,963	5,357	8,578
Western Province	5,844	4,995	7,204
Gasabo	5,400	30,857	21,150
Kicukiro	16,780		19,980
Nyarugenge	5,000	28,000	22,000
Kigali City	9,393	28,667	22,041
TOTAL	9,911	12,222	14,142

Table A44: Average number of trips and days to complete a registration of a transaction by District⁹

District/Province	Average number of trips	Average number of days
Musanze	2.5	5.3
Burera	3	4.2
Gakenke	2.8	3
Rulindo	2.6	8.8
Gicumbi	2.5	12.4
Northern Province	2.7	6.7
Nyagatare	3.2	15.4
Gatsibo	2.7	7.4
Ngoma	2.2	5
Kirehe	4.1	6.1
Bugesera	3	18
Eastern Province	3	10.4
Gisagara	3.4	9.1
Nyaruguru	2.3	9.3
Nyamagabe	1.9	21.2
Nyanza	2.6	5
Muhanga	3	6.4
Southern Province	2.6	10.2
Rusizi	1.7	4
Nyamasheke	2.1	1.7
Rutsiro	2.3	2.2
Rubavu	2.6	4.1
Ngororero	2.5	4.3
Western Province	2.2	3.3
Gasabo	2.1	2
Kicukiro	3.2	14
Nyarugenge	1.8	2.8
Kigali City	2.4	6.3
TOTAL	2.6	7.4

Table A445: Use land title to apply for loan

District	No	Yes	Total
Bugesera	68	11	79
Burera	68	7	75
Gakenke	62	13	75
Gasabo	107	31	138
Gatsibo	58	17	75
Gicumbi	65	10	75
Gisagara	53	13	66
Kicukiro	116	25	141
Kirehe	59	16	75
Muhanga	57	15	72
Musanze	65	13	78
Ngoma	68	8	76
Ngororero	58	16	74
Nyagatare	58	25	83
Nyamagabe	65	9	74
Nyamasheke	59	18	77
Nyanza	57	11	68
Nyarugenge	107	40	147
Nyaruguru	69	9	78
Rubavu	75	13	88
Rulindo	65	9	74
Rusizi	63	11	74
Rutsiro	53	11	64
Total	1575	351	1926

⁹ Results in table A33 exclude outliers (e.g. more than 10 trips and time periods of more than 1 year)

Table A456: Approved loans among those who applied

District	No	Yes	Total
Bugesera	1	11	12
Burera	1	6	7
Gakenke	0	13	13
Gasabo	0	30	30
Gatsibo	1	17	18
Gicumbi	0	9	9
Gisagara	0	13	13
Kicukiro	1	24	25
Kirehe	0	16	16
Muhanga	1	14	15
Musanze	1	10	11
Ngoma	2	8	10
Ngororero	2	14	16
Nyagatare	2	25	27
Nyamagabe	0	8	8
Nyamasheke	0	16	16
Nyanza	0	10	10
Nyarugenge	1	38	39
Nyaruguru	0	9	9
Rubavu	0	12	12
Rulindo	1	8	9
Rusizi	0	11	11
Rutsiro	2	9	11
Total	16	331	347

Table A467: The ratio of approved loans among those who applied

District	100%	Less than 100%	Total
Bugesera	6	4	10
Burera	3	1	4
Gakenke	12	1	13
Gasabo	20	9	29
Gatsibo	11	5	16
Gicumbi	8	0	8
Gisagara	10	3	13
Kicukiro	20	4	24
Kirehe	12	4	16
Muhanga	12	2	14
Musanze	9	0	9
Ngoma	4	3	7
Ngororero	12	3	15
Nyagatare	14	10	24
Nyamagabe	5	3	8
Nyamasheke	13	4	17
Nyanza	7	3	10
Nyarugenge	26	11	37
Nyaruguru	7	2	9
Rubavu	11	1	12
Rulindo	8	0	8
Rusizi	7	4	11
Rutsiro	9	1	10
Total	246	78	324

Table A478: Incidences of land disputes per district

District		No	Yes	Total
Bugesera	Count (%)	69 (89.6%)	8 (10.4%)	77 (100%)
Burera	Count (%)	71 (97.3%)	2 (2.7%)	73 (100%)
Gakenke	Count (%)	65 (86.7%)	10 (13.3%)	75 (100%)
Gasabo	Count (%)	123 (91.8%)	11 (8.2%)	134 (100%)
Gatsibo	Count (%)	61 (84.7%)	11 (15.3%)	72 (100%)
Gicumbi	Count (%)	68 (94.4%)	4 (5.6%)	72 (100%)
Gisagara	Count (%)	49 (75.4%)	16 (24.6%)	65 (100%)
Kicukiro	Count (%)	127 (92.7%)	10 (7.3%)	137 (100%)
Kirehe	Count (%)	67 (90.5%)	7 (9.5%)	74 (100%)
Muhanga	Count (%)	66 (90.4%)	7 (9.6%)	73 (100%)
Musanze	Count (%)	71 (92.2%)	6 (7.8%)	77 (100%)
Ngoma	Count (%)	63 (82.9%)	13 (17.1%)	76 (100%)
Ngororero	Count (%)	66 (88%)	9 (12%)	75 (100%)
Nyagatare	Count (%)	75 (92.6%)	6 (7.4%)	81 (100%)
Nyamagabe	Count (%)	57 (79.2%)	15 (20.8%)	72 (100%)
Nyamasheke	Count (%)	71 (93.4%)	5 (6.6%)	76 (100%)
Nyanza	Count (%)	60 (83.3%)	12 (16.7%)	72 (100%)
Nyarugenge	Count (%)	133 (93%)	10 (7%)	143 (100%)
Nyaruguru	Count (%)	60 (76.9%)	18 (23.1%)	78 (100%)
Rubavu	Count (%)	82 (91.1%)	8 (8.9%)	90 (100%)
Rulindo	Count (%)	66 (88%)	9 (12%)	75 (100%)
Rusizi	Count (%)	71 (95.9%)	3 (4.1%)	74 (100%)
Rutsiro	Count (%)	51 (81%)	12 (19%)	63 (100%)
Total	Count (%)	1692 (88.9%)	212 (11.1%)	1904 (100%)

Table A49: Parties engaged in land disputes per district

District		Immediate family member	Other family member	A neighbor who is not family	Central government	Total
Bugesera	Count (%)	3 (37.5%)	2 (25%)	3 (37.5%)	0 (0%)	8 (100%)
Burera	Count (%)	1 (50%)	1 (50%)	0 (0%)	0 (0%)	2 (100%)
Gakenke	Count (%)	4 (44.4%)	1 (11.1%)	3 (33.3%)	1 (11.1%)	9 (100%)
Gasabo	Count (%)	5 (71.4%)	0 (0%)	2 (28.6%)	0 (0%)	7 (100%)
Gatsibo	Count (%)	4 (50%)	1 (12.5%)	3 (37.5%)	0 (0%)	8 (100%)
Gicumbi	Count (%)	3 (75%)	0 (0%)	1 (25%)	0 (0%)	4 (100%)
Gisagara	Count (%)	7 (46.7%)	4 (26.7%)	3 (20%)	1 (6.7%)	15 (100%)
Kicukiro	Count (%)	3 (37.5%)	2 (25%)	3 (37.5%)	0 (0%)	8 (100%)
Kirehe	Count (%)	2 (40%)	1 (20%)	2 (40%)	0 (0%)	5 (100%)
Muhanga	Count (%)	1 (16.7%)	1 (16.7%)	4 (66.7%)	0 (0%)	6 (100%)
Musanze	Count (%)	2 (40%)	0 (0%)	2 (40%)	1 (20%)	5 (100%)
Ngoma	Count (%)	6 (66.7%)	0 (0%)	3 (33.3%)	0 (0%)	9 (100%)
Ngororero	Count (%)	3 (60%)	1 (20%)	1 (20%)	0 (0%)	5 (100%)
Nyagatare	Count (%)	1 (25%)	0 (0%)	3 (75%)	0 (0%)	4 (100%)
Nyamagabe	Count (%)	6 (54.5%)	4 (36.4%)	0 (0%)	1 (9.1%)	11 (100%)
Nyamasheke	Count (%)	1 (33.3%)	1 (33.3%)	1 (33.3%)	0 (0%)	3 (100%)
Nyanza	Count (%)	5 (62.5%)	2 (25%)	1 (12.5%)	0 (0%)	8 (100%)
Nyarugenge	Count (%)	4 (50%)	1 (12.5%)	3 (37.5%)	0 (0%)	8 (100%)
Nyaruguru	Count (%)	8 (47.1%)	2 (11.8%)	5 (29.4%)	2 (11.8%)	17 (100%)
Rubavu	Count (%)	4 (50%)	0 (0%)	4 (50%)	0 (0%)	8 (100%)
Rulindo	Count (%)	4 (50%)	2 (25%)	2 (25%)	0 (0%)	8 (100%)
Rusizi	Count (%)	2 (66.7%)	0 (0%)	1 (33.3%)	0 (0%)	3 (100%)
Rutsiro	Count (%)	4 (50%)	2 (25%)	2 (25%)	0 (0%)	8 (100%)
Total	Count (%)	83 (49.1%)	28 (16.6%)	52 (30.8%)	6 (3.6%)	169 (100%)

Table A50: Gender distribution of response to seeking help from various institutions

Institution		Male	Female	Total
Family	Count	25	15	40
	%	62.5%	37.5%	100.0%
Neighbors	Count	13	10	23
	%	56.5%	43.5%	100.0%
Legal Assistants / CSO	Count	13	16	29
	%	44.8%	55.2%	100.0%
The Church	Count	0	1	1
	%	.0%	100.0%	100.0%
The Police	Count	0	1	1
	%	.0%	100.0%	100.0%
Local Mediators (<i>Abunzi</i>)	Count	0	2	2
	%	.0%	100.0%	100.0%
Court	Count	3	6	9
	%	33.3%	66.7%	100.0%
Total	Count	54	51	105
	% within	51.4%	48.6%	100.0%

APPENDIX 4: DISTANCES TO DISTRICT LAND BUREAUS (DLBS)

