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From Registration to Sustainability: Developments in Rwanda

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List of abbreviations

EICV	Integrated Household Living Conditions Survey
GDP	Gross Domestic Product
LAIS	Land Administration Information System
LTR	Land Tenure Regularisation
NISR	National Institute of Statistics
LTRSS	Land Tenure Regularisation Support System
RLMUA	Rwanda Land Management and Use Authority
SLM	Sector Land Managers



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Abstract

In this paper we are focusing on the additional reforms and necessary steps – post registration. Often in land reform projects, the emphasis is on the registration itself. The Rwandan experience shows that while careful planning is needed prior to the programme, there is an equally important post registration phase which ensures that all of the necessary infrastructure, human capacity and institutional and organisation issues are addressed.

LTR – setting up the nationwide systems to support transactions, informing and changing public behaviour so that they understand the need to register changes and discourage informal transactions. The big question is how to provide sustainable land administration and land use management that can be implemented in an affordable manner, yet meet the many diverse needs of the country and its citizens while promoting economic growth and social wellbeing. We focus on how Rwanda has tried to develop a sustainable approach, and what lessons can be drawn from this.



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Key Words: Land, registration, sustainability, integration, private sector

Introduction

Take away from The Land Tenure Regularisation project

1. The reform

In the last decade the land administration in Rwanda has focused on bringing the security of tenure through different legal and institutional reforms. Land reform is politically, economically, socially and technically complex¹ as it requires strong political will, the buy in of the population, civil society, other stakeholders and institution capabilities in order to make it happen. To succeed, there is the need for demand for land reform to be locally driven and in most cases, if not all, implemented by the local community. National governments and the public have to assess the need for land reform and work together for its success. When demand for land reform comes from within, the chances of successful implementation are naturally higher.

The Rwandan land reforms come in after a genocide was perpetrated against Tutsi in 1994 and where its population was mainly composed of women and orphans than men². This happened in a time when most of the land was managed under customary law and giving ownership right to men. The land would be passed on from father to son neglecting women in the process. Women's land rights were guaranteed by men, before the marriage women were under the protection of their father and after the father, their brothers had the obligation to look on their sisters in need. After the marriage, their husbands take the lead³. This and other national contexts (refugees coming back from exile, scarcest of land,...) gave rise to different disputes which had to find solutions in different reforms.

A National Land Policy has been adopted in 2004 and provides a platform on securing land rights. It guarantees a safe and stable form of land tenure and also puts an emphasis on the principle of equal rights between women and men relating to ownership of the land⁴. For the implementation of the land policy, an Organic Land Law was enacted in 2005 amended in June 2013. Both laws state that the registration of

¹ H. NGOGA, from groundless to grounded-Rwanda's land tenure reform, p. 7

² A. POLAVARAPU, procuring meaningful land rights for the women of Rwanda, Yale Human Rights and Development Journal, 2014

³ J. E. BURNET and the Rwanda Initiative for Sustainable Development, Women's land rights in Rwanda, www.law.emory.edu/wandl/WAI-Studies/rwanda.htm

⁴ National Land Policy, Rwanda Ministry of Lands, Environment, Forests, Water and Mines (MINITERE), February 2004.



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land is statutory and stress out the principle of equal rights to land. An institutional framework was put in place to implement both the land policy and the organic land law.

2. The pilot phase

Rwanda is divided in four Provinces and Kigali City, the land issues are different in urban and rural areas and there is some particularities linked to different regions which needed some particular attention, the prominence issue for example in Northern Province was the issue of polygamy, in Western small plot of lands, in Eastern big land for farming and livestock. This has led to a need of a pilot phase, which was to inform the program on the realities on the ground and to test the legislation and to estimate the cost of the program.

Trials work began in March 2007 and ended in December 2007 and during the period, claims were made to some 14,908 land parcels in all the four districts (three diverse rural districts: Musanze, Karongi and Kirehe and one urban district: Gasabo). All regularised land was registered and titled to claimants in accordance with the law.

The trial has been very useful in defining the scope of work and in understanding the mind-set on the ground. It has helped to respond in advance to several issues, which assured the homogeneity in the implementation as after the trial the program was launched at the same time at the country level. It has also given useful information, which was the base of drafting secondary legislations.

3. A strategic road map

The strategic road map has been developed to support the implementation of the program through giving detailed proposals, timeline and its cost. It also indicated the direction the country was taking through its specific objectives.

It had defined 5 objectives which was:

1. To improve land tenure security through an efficient, transparent and equitable system of land administration nationwide
2. To contribute to good governance by implementing the already existing programme of decentralisation through the decentralised land institutions
3. To play key role in facilitation of economic in both urban and rural sectors by encouraging multi sectorial growth through increase investment in the productive sectors of trade, infrastructure, agriculture, etc
4. To encourage good land use practices and sustainable resource and environment management and



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5. To contribute significantly to land conflict management.

From the trial which took place prior to the road map it was concluded that for the success of the program it is essential:

1. To use local capacity at the cell and Umugudugu level which required to the Ministry to provide clear guideline and training to the local community.
2. It was clear that the success of the program will depend on the perception of the program by the population (who at the first steps was thinking that the government is taking their lands) this required a lot of awareness and sensitization to make sure to receive the right information on land ownership
3. The use of aerial photograph and satellite images for land demarcation and to train local people to use those tools during the demarcation which was find to be a good decision as Rwanda at that time had only 3 surveyors who has to rain the par surveyors to help in doing the work.

The strategic road map have been implemented successful in most of its objectives, the one which was left behind is related to the rational use of land which is now the priority the country and the Ministry have and are working hard to put in place mechanism which will support the optimal use of land.

4. The implementation of the project

The launch of the program on a country level started in 2009. While the LTR first phase (2005-2008) involved drafting of the main decrees, establishing the institutions, field testing the laws, developing low cost methodologies, extensive public consultation and the development for a comprehensive national plan -- the Strategic Road Map (SRM) for the implementation of the national land tenure regularization (LTR) programme.

The second phase (2009-2013) then implemented the LTR programme resulting in most land parcels across the country being systematically identified, boundaries defined and claims adjudicated resulting in the issuance of more than 11.4 million emphyteutic leases. The main challenges encountered during this period were the low rate of collection of land titles and unclaimed land.

Finally, there has been a follow on phase (2013-2015) which has completed the registration and issuance of leases in certain areas (eg wetlands) and supported the establishment of the Land Administration Information System (LAIS), as well as developing institutional capacity, establishing a nationwide network of sector Land Managers (SLM) and conducting extensive outreach and public awareness in form of land weeks. The land week campaign is focusing on two main activities which are the awareness its self as we know continuous education is needed to prevent informal transactions but also people access land services in quick and efficient manner.



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5. Particular attention on vulnerable people

As it was stated earlier, one of the points of reform was to guarantee equal rights to all. All landholders had to register their land including the women and orphan. Strong awareness campaign have been planed and conducted to inform those particular groups about their rights. Despite the progress made, cultural barriers and lack of knowledge still negatively affect some women, especially those in rural areas. There are issues related to change of mindset and ignorance of various policies, laws and regulations. Some men still do not understand that women have equal rights to land as men. Moreover, some parents do not give inheritance to their female children precisely because of gender⁵.

The cultural behaviors are so strong in this matter, as the key principle in Rwandan traditional land rights system is the concept of filiation. This kind of regulation excludes girls from the property inheritance of her ancestors. Women can only claim weak inheritance rights with an unpredictable outcome. Moreover, their right to succession was characterized by indirect claims, which leave them with no choice then to rely on their association with male family members and their husband. The change in legal framework has to go together with the change in mindset for both men and women. They are rights guaranteed by the law but which need to be incorporated in the daily lives to bring its impacts in the perception of the society this will guaranty the full enjoyment of those rights.

As an example a couple came to register a transfer of ownership for the land registered on both husband and wife, at the time of signing the transfer agreement, the wife states that she will not sign as the owner of the land but as the witness of the sale, when asked why she says that she was forced to agree to came to sign because she was not willing to sale that property to anyone, and because of this she agrees to sign but as a witness not as the seller of the property.

This demonstrate that the registration on land titles has to be combined with other efforts which aim to change the mentality of the society in general in order to guaranty women land rights.

And another aspect of the issue which was encountered during the implementation of the program was linked to the registration of the properties owned by polygamous families or by informal couples in case they don't agree on the ownership which still depend right now on the good will of the man because there is no legal protection for women under informal marriages. This field need more attention because though polygamous union are few, there is a rise of cohabitation which can have some consequences on

⁵ The impact of gendered legal rights to land on the prevalence and nature of intra and inter-household disputes, USAID report, Sept 2015



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the ownership of land and it not catered for in adequate instrument it can bring disputes and one of the objectives of the LTR was to reduce land conflicts.

Post LTR

1. Maintenance

The success of the land tenure regularization program stands on its maintenance. The maintenance itself requires additional steps and reform—post registration. The land titles were issued and people have confirmed or acquired their land rights. But land is dynamic, the owner of today is not the necessary owner of tomorrow and this is also applicable to the spatial component of land. A need for infrastructure and staff to updates land information rise as soon as the first registration ends and if not prepared, there is a major risk of keeping information which are not reliable and up to date.

The Rwandan experience shows that while careful planning is needed prior to the programme, there is an equally important post registration phase which ensures that all of the necessary infrastructure, human capacity and institutional and organisation issues are addressed.

During the systematic land registration a system called Land Tenure Regularization Support System (LTRSS) was developed and supported the capture of the information from the demarcation and adjudication. The step, which was to be made after the systematic land registration was completed, was to develop a maintenance system that will record subsequent registrations.

1.1. Land Administration Information system

By 2013, Rwanda has a nation-wide system in place with a central Rwanda Land Management and Use Authority (RLMUA) established as an independent body reporting to the Ministry that have land in its mandate. RLMUA works through five provincial offices and oversees the land work of 30 district one stop centres and 416 sectors Land Managers (SLM). At the lowest administrative entities we have cell and sector land committees who attest ownership for the first registration transactions and support the land sector in giving the right information to the population.

A land administration information system is supporting the maintenance of the register which have also a digital archive. We have been recording transactions systematically since 2014, and by 2018 the total number of annual transactions will exceed 270,000 – some 2.4% of the total number of parcels. A land query notification system was linked to LAIS and serve to notify the clients on the status of their requests for transparency and monitoring. Having a land administration system, which is working, has encouraged



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the rise of a land market that is growing and with all the element in place will reach its maturity stage in a near future.

1.1.1. LAND MARKET

Land market growth correlate with the annual GDP increase and with the level of mortgage investments outstanding at year end (74,133 mortgaged registered in LAIS as of March 2019). The country has developed rapidly in the last 25 years with extensive economic reforms and a sustained GDP average growth rate of 8%⁶ over the period 2000-2017 while reducing poverty, inequality, increasing access to services such as health, education and building a cohesive national identity. The economic growth has been driven by the successful EDPRS (Economic Development and Poverty Reduction Strategy) programs and Vision 2020. According to the National Institute of Statistics (NISR), the Rwandan economy is 46% services, 31% agriculture and 16% Industry, however the bulk of the populace (more than 70%) make their living from subsistence level agriculture with a large number of rural households distributed across all of the 30 districts of the country. All the information needed for a vibrant land market are not all available now, like the land price information but the institution is working for greater transparency of land market information to reduce transaction costs, risk and promote information access and to reach the targeted vision which is to increase the real market contribution up to 50% of the value of GDP and be involved in up to 25% of economic activity (The Economist). To attract foreign investment up to 25-40% (World Bank) and to continue to secure real estate title which will continue to be used as security for mortgages which is the single largest financial lever for many individuals. Though the land market has not reached that stage, it is being development mostly as all the sectors of the country.

To summarise, the putting in place of the land administration system and the completion of the countrywide systematic land registration has provided the basic environment, which has allowed the formal land, market to gain traction across the country. This has then been fuelled by the overall economic growth, population growth, urbanization and by the land market itself which starts to generate its own impetus. We are expecting that the land market will continue to grow with the availability of the value of the land which is now being integrated in the land registry.

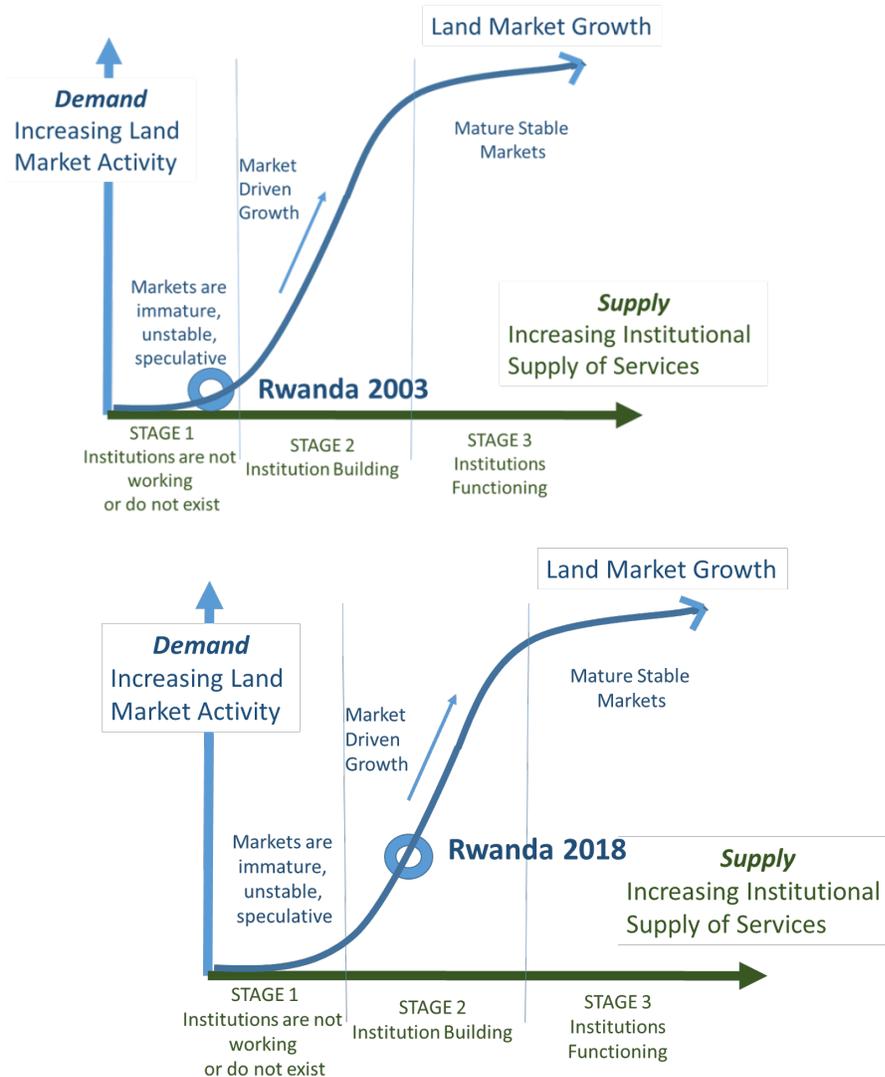
The figure below shows how we are now in stage 2 of the land market growth model.

⁶ See <http://www.statistics.gov.rw/publication/gdp-national-accounts-2017>



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1.1.2. TRANSACTIONS AND GENERATION OF INCOME

Different services related to land are being delivered through the institution framework in place, we have 35 forms linked to each services and indicate the required documents when requesting the service. After the systematic land registration people have started requesting services as mentioned before and those services are sources of revenues for the government. When we consider the transactions registered in 2018, and the fees linked to each transaction it give us the total fee income and the total value of property which has been subject to transfer. Both of these are quantifiable and reflect well land market activity within any given period. Using “mortgage loan outstanding” at year end is also a useful measure as it directly measures the financial volumes in the credit markets secured due to land market activity. The National Bank figures for 2018 were only available for nine months so we have used those.



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The figures show that a total value of loans outstanding in September 2018 was 637 million RwFr. This is equivalent to almost 12% of GDP.

DATE: 2018:09:30	RW FR	USD	Comment
1 Fee Income generated in 2018 (9 months)	3.01 billion	3.4 million	Calculated from fee rates and LAIS data
2 In nine months, secured transfer of property with value	330 billion	372 million	Calculated from LAIS data (nine months only)
3 facilitated an outstanding loan portfolio of	637 billion	720 million	Value of all loans outstanding secured by mortgage (data from National Bank)
Direct financial Benefit	970 billion Frw	1,095 million	Net financial benefits

Table One: Estimated value of benefits from Fee income and secured Mortgage

In the nine months of 2018, property with an estimated value of Frw 330 billion was subject to transfer – equivalent to almost 5% of GDP. During this time, it is estimated fees to the value of Frw3 billion Frw were generated by processing all types of transactions. Cumulatively the contribution is almost 1.1 billion USD – or one sixth of GDP for 2018. The most requested services are transfer by sale and land subdivisions.

Formal land transactions have been registered systematically in LAIS since 2014/15 and more consistently with the establishment of the District One Stop Centres and the appointment of the Sector Land Managers.

LAIS data shows that the yearly number of transactions has increased from around 40,000 in 2014 to around 270,000 in 2017/18, of which one third are transfer related (sale, inheritance, gift, etc)



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By 2018, the annual transfers represent almost 1% of the total number of parcels or around 3.6% of all households. Revenue that has been generated is estimated to be more than £21 million over the period 2011-2018.

Income has peaked during the first registration, reaching over \$6 million in 2011/2, declining to around \$1.75 million in 2014/215 before doubling through secondary transactions by 2017/8 to around \$3.4 million as indicated in the table below.

Row Labels	2011	2012	2013	2014	2015	2016	2017	2018
all districts	INCOME IN USD							
1 Boundary Change	34	0	0	85	53,169	68,407	49,593	61,356
2 Cancelling a caveat	0	6	203	2,791	24,169	15,040	28,548	44,460
3 Cancelling of Seizure	0	0	0	0	548	113	226	128
4 Change Parcel	4,864	103,655	550,096	634,718	82,068	214,254	239,051	177,137
5 Change Person	79	3,175	49,480	36,599	34,203	52,395	74,616	59,164
6 Convert to Emphyteutic Lease	0	0	0	0	0	0	0	0
7 Convert to Full Title	0	0	4,751	6,215	5,395	6,254	6,842	8,738
8 Court decision	0	0	0	0	0	0	0	0
9 Division of Parcels	136	22,746	72,746	132,729	256,322	348,610	405,356	812,701
10 Donation	0	31	214	5,125	30,875	47,868	66,783	72,529
11 Establishing a caveat	34	169	6,610	38,605	37,684	55,977	81,232	71,653
12 Establishing a Seizure	0	0	23	186	17	1,503	11,362	4,030
13 Exchange	0	0	305	1,007	6,773	8,268	9,366	13,749
14 Expropriation	0	0	0	0	0	0	0	0
15 First Registration	0	0	0	0	36,566	81,802	80,292	49,119
16 Merging of Parcels	0	542	2,542	3,288	6,017	9,966	6,864	6,282
17 Rectification by applicant	0	45	11	226	169	119	6	15
18 Rectification by registrar	0	294	23	186	215	486	339	535
19 Remove Dispute	0	124	1,395	2,288	774	525	1,249	1,130
20 Replacement of title	17	124	3,266	6,780	9,169	23,164	21,655	21,996
21 Transfer of conditional title	0	6	1,785	2,695	6,588	6,960	23,734	8,316
22 Transfer of full title	0	0	6,651	16,078	36,092	90,702	108,458	89,898
23 Transfer of Emphyteutic lease	0	111,295	331,475	931,241	1,125,427	1,839,417	2,238,285	1,888,841
24 Transfer of Emphyteutic Sub-lease	141	311	0	28	23	119	266	384
25 Transfer on title by death	237	475	73	1,023	6,282	10,768	15,689	10,825
26 Under Dispute	14,921	9,119	243	339	6	6	0	0
27 Split into condominium	0	0	0	0	102	322	475	90
28 Transfer of condominium rights	0	0	0	0	147	322	266	452
29 convert to Conditional title	0	0	0	0	0	0	0	0
	20,463	252,116	1,031,893	2,043,899	1,758,800	2,883,367	3,470,550	3,403,530

This is an indication that the land register can sustain itself if more services are delivered, and if the revenue from those services are injected in the system for more efficiency.

To ensure that clients have all required information before any transaction, a mobile application system have been development since 2016, which allow the population to access land information on their mobile phone if the parcel number is known, The number of enquiries was very high while the service was free and seems to have stabilized at around 10-11,000 completed enquiries per month. Around 40% of all enquiries are concerned with the three Kigali districts of Gasabo, Kicukiro and Nyarugenge. The charge



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for this service is very low (60 Frw per enquiry). This was a very important step, which supported the land market and doing business at the national level.

1.1.3. ONLINE SERVICES THROUGH IREMO PLATFORM.

There are now 17 transactions types supported on the Irembo platform where applicants can submit their applications electronically. Fees are paid directly and recorded by Irembo (who retain 30% of all income for recording the application electronically). In the first 8 months of 2018 Irembo recorded more than 145,000 transactions of all types (but note not all transactions are submitted on Irembo). Though 17 transactions are on Irembo platform, one transaction only is fully online which is the transfer by sale. Focus should be put on this areas as online services reduce the time taken in service delivery, increase transparency by reducing the number of people to interact with when requesting a service and reduce the cost of the service.

2. Capacity building

The sustainability of the land register depend on two main important points

2.1. Competent staff and adequate infrastructure

From the start of Land Tenure Regularisation Program, several training has been conducted in order to have people capable to maintain the system. Around 10 to 15 people have done their master degree in land administration system, among them 7 are still working in the land sector, 3 are teaching at the University in land related field and other are working for the government in different sectors. 416 sector land managers and District One Stop Centre officers have received training in 6 modules of land administration. The challenge in capacity building is the retention of the staff that has been trained. The turn over is high for that staffs that are looking for more opportunities in the private sector. The training has to go hands in hands with staff retention mechanism, which is not easy in a government institution settings but otherwise there will always be gaps between what have to be done the required personnel to execute the work.

2.2. The use of the system

The land administration information system is connected to all 30 Districts, as land is a cross cutting matter, it is also connected to different systems which use land information to implement their mandate. It



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includes the mortgage system, taxation system, and agriculture system. The important aspect of sustainability in the context of LAIS is the ability of the system to keep working over the long term. The system should be able to continue provide tenure security to registered landowners, facilitate future land transactions and be generally accepted by the population that engage in subsequent land transactions as a credible landownership database (Thierry Ngoga). LAIS should also be expanded to include other important land information which is necessary for a good land management; currently it is being connected with the information found on land use plans to support the monitoring of land use change trends. It is also planned to include the new address code in Kigali City and be able to indicate its surroundings.

3. Building sustainability

Rwanda is a relatively small country of approximately 26,338 sq.km and has the second highest population density in Africa (416 per sq. km). More than 70% of the country is focussed on subsistence level agriculture, while the population is expected to double by 2050. This places enormous pressure on land resources, and with the aim of raising living standards across the country and reducing the number of people involved in subsistence agriculture, there is a need to increase employment which means more urban development, densification of existing settlements and substantial infrastructure investment. Rwanda faces problems in how to support this growth while protecting agricultural land and other resources. To understand this better, RLMUA has commissioned Land Market Assessment that looked at existing patterns of development, identify determinants and help us to understand how these developments will proceed in the next few years.

4. Business plan

The land market assessment demonstrated that the demand for land services will continue to grow to respond to the increase of urbanization and economic growth, different recommendations have been made in order to strengthen the land administration in order to respond those needs. Among the recommendation highlighted is the development of a business plan to meet the costs of services and to launch additional services.

In terms of the Institutional and organisational model, at the time of writing RLMUA is a small organisation of 89 staff based in Kigali head quarters and also located at five zonal offices. The land administration services are delivered through a network of 30 One Stop Centres and 416 sectors. All staff at sector level and at district level are local government employees. This poses certain problems in terms



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of work organisation, communication and efficiency. Rwanda is now considering what institutional model best fits the needs and can be adequately financed – should it be the present system (devolved and decentralised), should it be an independent single agency including district and sector and HQ, and if so how will it be financed. Can additional services be developed that will help financial self sufficiency?

The adequate institutional model to be chosen should be able to provide an efficient system of land administration and land management that secures land ownership and promotes investment in land for socio-economic development and poverty reduction. It should support to monitor the land market, land use and professionalization of land related professions and lead in the development and deployment of NSDI to provide the common geoinformation platforms underpinning national and local development for both public and private sector purposes while achieving value for money and a reduction of dependence on the state budget through value added services and new initiatives in cooperation with other government and private sector actors and maintain the position of the authority as a world leader in the development of land administration in the developing world through regional and international cooperation, research and knowledge exchange.

On the financing side, the RLMUA is established as a state budgetary body with its own budget. As of March 2019, all land transaction fees, as well as land tax essentially goes to the Districts (less a small levy by the revenue collection agency), not to the RLMUA. Each District is independent and can choose how much importance to attach to its land activities, resulting in quite some variation in service delivery across the country. Even if additional services are established, and the Agency can recoup high levels of cost-recovery, this will not finance major investment or technology refresh, nor the considerable investment for LAIS upgrading or NSDI implementation. One option is to consider the establishment of a PPP, where the private sector provider will supply the investment and technology injection, while delivering land administration services according to an agreed service delivery model, with the Ministry retaining overall control.

We think that this option is the best as a new entity will be established whereby the GoR and a PSP enter into a contractual arrangement to provide countrywide land administration services and develop the NSDI framework and products/services for an agreed period of time. GoR retains control over setting fee levels for land administration services. The PSP provides the investment capital and the technical know-how. It can provide the required investment and support countrywide services independently from the state budget. It injects private sector know-how, innovation and capital which supports both efficient delivery and product/service innovation while protecting delivery of essential land administration services. But this option requires careful assessment of service delivery costs, investment needs, technology and service/product development and must have a clear underlying financial model acceptable to all parties



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and also it requires that there is an appropriate PPP legal framework in place and may require some legal changes which can take time to establish.

Another option that can be considered in case the PPP is not opted for is to have a single vertical institution including staff at District level and Sector level. Fee income is either allocated 100% to the RLMUA or split in some form with the collection agency (RRA) and the District. This option will overcome the deficiencies of the current framework by having strong lines of communication/control to district and sector level, direct control of human resources and capacity allocation at district and sector level, direct connection with the public and more opportunity to influence, supports flexibility across districts: resources and effort can be concentrated where needed and staff redeployment is easier and a better control of delivery/cost structures and stronger performance management with the only inconvenient that there will always be dependence on the national budget. Additional services will support the maintenance of the system but big project like upgrading the system will continue to depend on the government.

The development of additional services will start with having additional land information which will be accessed by the general public.

4.1. Develop Core Information services

The mobile app is receiving 10-11,000 queries per month providing very basic text data which can be upgraded to supply the basic graphic and legal data pertaining to a parcel for a fee. To promote usage, the Authority will continue to provide basic information at low cost, but should supplement this with a more advanced product at a higher fee.

Private sector estate agents, valuers and other professionals have indicated that they would be extremely interested to have access to LAIS information about sales. In many countries the Land Registry routinely provides that information freely to the public in an aggregated form, and on specific demand in return for a fee.

4.2. Develop NSDI and Geo information products.

Rwanda has taken another stride in digital economic planning and development following the introduction of Geographic Information Systems (GIS), raising her ranks as the fastest growing



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technology and investment hub in the region. The information is used by government and the private sector to plan effectively. GIS is a system used in resource management, development planning and scientific research and its introduction is facilitating institutions to easily allocate resources. Spatial Data Infrastructure (SDI) denotes the relevant base collection of technologies, policies, standards and institutional arrangements necessary to acquire, process, store, distribute, and improve the utilization of geospatial data – from many different sources and for a wide group of potential users.

The rationale of NSDI is to facilitate geospatial data use and/or reuse, additional information describing the data must be provided. The development and making metadata available ensures that users are aware of the existence of datasets; helps to avoid duplication of effort as all available geospatial and associated data relevant to an area of interest can be easily located. Collection of metadata builds upon and enhances the data management procedures of the geospatial community and the reporting of descriptive metadata promotes the availability of geospatial data beyond the traditional geospatial community.

RLMUA is the mandated body with responsibility for developing and providing geo information products including physical plans, land use, mapping, and geodetic control. This is core geographic data that underpins all geo-located thematic data collected and managed by other agencies. Currently an NSDI draft law was developed and provides for how geospatial data can be produced, licenced, included in value added products. RLMUA provides little geo spatial information to other government bodies free of charge. These geoinformation data sets, thematic layers and the manner of usage (licencing, payment, copyright) are all elements of a National Spatial Data Infrastructure (NSDI) and there is need to deploy and develop it to support the establishment of key geospatial data sets and services. This builds on the RLMUA existing datasets and provides for linkages with other agencies information systems and is especially relevant given the enormous focus there will be on land and resource management as the population and land pressures increase in the coming years. The first steps was to have comprehensive land use programme to better identify and maximise benefit of actual land use – and protecting against unauthorised incursion or development, those plans have been integrated in LAIS to monitor land use trends change and to inform policy makers for a better planning.

4.3. Support private sector led Value Added Information services.

Linking land administration data and core geo-information offers the opportunity of developing value added datasets that can be accessed on demand, by subscription, or with free viewing at an aggregated level. Monitoring, reporting and supporting queries and supplying information in connection with the



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land market where are sales taking place, is a good example. Other examples include location based services, access and use of CORS systems through Rwanda Geodetic system and integration of land use planning and other infrastructure.

4.4. Paperless land register

Rwanda has also further innovated in service delivery. We are moving to a paperless registry, we already made some steps towards that. We have **114,964** of applications submitted at Sector level electronically, and we have an on line mobile app query system that provides parcel information and had **849,638** sessions in the last year. Starting from January this year, we replaced the physical stamps by Q-R code, before Districts were used to bring files to be printed at the Zonal Offices, now it is possible to print land titles at the District level.

There are many positives to be gained from establishing a paperless and self-financing land register. The service times are generally lower, more transparent and more secure than in a paper-based process. The ambitions of Going Paperless are more difficult to achieve when laws and regulations require that hard copies must be produced for various processes and transactions. The Land Registration process is destined to be fully digitalized and there are many benefits in efficiency, security and improved service quality. It will, for sure, also have positive financial consequences if managed properly. Therefore, we are giving more attention to make laws and regulations more digitally friendly to be able to reach full potential.

It was noted that the trend of the use of digital submission of transfer by sale request is increasing and we are encouraging this to be extended to all suitable transaction types and highlighting the role of the SLM (point of entry of any transaction) in supporting and encouraging online services in general.



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5. Conclusion

The security of tenure is the base of a good land administration system but not the only objective to be attained for an effective land administration system. As by definition the land administration is the processes of determining, recording, and disseminating information about tenure, value, and use of land when implementing land management policies. Some of the component of a good land administration has been left behind, as the focus was first to guaranty land rights. Going ahead all the components of an effective land administration system that is based on good land governance must be our priority. Building a good land administration system is a project, which demand long-term intervention. It is important to understand that there are no quick fixes to land tenure issues. It have to stand on good Policy framework; legal framework; institutional capacity; primary geodetic network; education and training; funding and finance which create favorable circumstances, improvements in the field and can only be achieved in the long run. Mechanisms exist to ensure the system is maintained over time. Sustainability implies the organizational and management arrangements, procedures and technologies, and the required educational and professional levels are appropriate for the particular jurisdiction. Sustainability implies that the formal system is understood by and affordable to the general population.

The first registration has been a foundation that is making other steps possible. The success of the land tenure regularisation program will depend on its maintenance. There is a need to sustain all the successful achievement by taking right decision on the institution framework that will support the continuity and at the same time accepts innovations. As it have been said having a good and effective land administration is not an end in itself, it is a means to be used to achieve sustainable development.



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