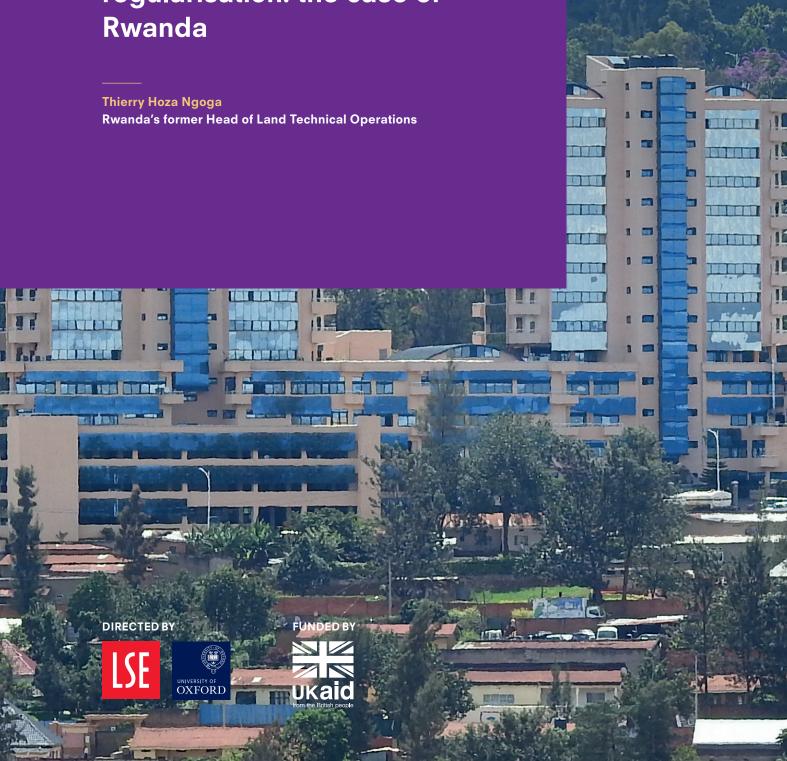
Cities that Work 🖳



CASE STUDY

A quick, cost-effective approach to land tenure regularisation: the case of Rwanda





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Secure, legally enforceable and marketable land rights are critical for cities in developing countries to be able to ensure that urban land is allocated to its most productive use. However, often these cities grapple with multiple overlapping as well as informal tenure systems that ultimately hinder sufficient public and private investment from taking place. The challenge, therefore, is how to undertake large scale land reform in a participatory (that is, there is overall buyin) and cost-effective way, to unleash land to realise its highest potential overall.

One country that has successfully managed large-scale land reform is Rwanda, through their Land Tenure Regularisation (LTR) programme conducted between 2009 and 2013. This case study looks at why the programme was introduced, the process of reform, anticipated and actual challenges experienced, the impacts and benefits of the LTR programme, the future plans for land reform, and concludes by summarising the key success factors of the programme.

The challenge is how to undertake large scale land reform in a participatory (that is, there is overall buyin) and cost-effective way, to unleash land to realise its highest potential overall

Genesis of land tenure reform in Rwanda: why was the programme introduced?

The Rwanda LTR programme was introduced for a number of historical, sociopolitical, economic and development reasons. A central catalyst was the April-July 1994 genocide against the Tutsi, which resulted in the deaths of over one million people and also led to widespread internal and external displacement. There was total devastation and a complete breakdown of the state and its structures, including those for land management. The situation was then exacerbated by the influx of Rwandans returning to the country, including those who fled the country in earlier waves, particularly in 1959, 1963 and 1973¹. These large-scale migrations into Rwanda increased land and housing scarcity, adding enormous pressure onto an already weak land tenure and management system.

During the emergency post-genocide phase, the Government of Rwanda (GoR) introduced various provisional measures to resettle new and old case refugees: some of them had to occupy land that had been abandoned by those who fled the country in 1994, and others were resettled on government or public land². In order to deal with the large waves of new-case returnees in 1995, the government also introduced a land sharing policy. In 1996, other measures

¹ Daley, E., Dore-Weeks, R. and Umuhoza, C. (2010) Ahead of the game: land tenure reform in Rwanda and the process of securing women's land. *Journal of Eastern African Studies* 4(1), 131–152. Van Hoyweghen, S. (1999) The Urgency of Land and Agrarian Reform in Rwanda. African Affairs 98 (392), 353–372.

² GoR (2004) National Land Policy. Government of Rwanda, Kigali.

such as the Tent Temporary Permanent³ (TTP) programme and the so-called 'Imidugudu policy'⁴ were introduced in the urban and rural areas respectively⁵.

As land scarcity drastically increased over the years, an active informal land market emerged to meet the demand, causing a significant rise in land prices and land conflicts. Land price inflation reached rates of up to 25% per year in both rural and urban areas6, while in 2001, more than 80% of court cases involved land disputes. Urban areas were particularly challenging, with city developers increasingly encroaching on low-income and informal settlements, causing widespread evictions and uncertainty for residents. Although individual land holders held a range of legal and extralegal documents to support their claim of rights in land, they did not provide enough protection against aggressive developers. There was thus a pressing need for the processes of development and planning to be clarified, particularly with regard to expropriation procedures. The demand for a formal land market and registration was so clear that some districts and sectors across the country had already started the process for themselves: setting up their own ad hoc registration and recording systems, completely independent of central government.

In Rwanda, land price inflation reached rates of up to 25% per year in both rural and urban areas, while in 2001, more than 80% of court cases involved land disputes

In the late 1990s, the national long-term development strategy, Vision 2020, highlighted both urban development and agricultural transformation as pillars of the country's development⁸. It envisaged that all Rwandans should live in social harmony where landholders would have secure and unchallenged possession of their property, all contested claims to land would be clarified and brought to an accepted resolution, and there would be transparency and good governance in the development of all land in Rwanda. The same strategy outlined that urban land development would be funded by land security credit (where land is used as collateral to acquire bank loans), while urban infrastructure development would be supported by property taxes. In order to achieve agriculture transformation, it stipulated that diversification of rural

- 3 The TTP was a temporal housing scheme under which people were allocated small plots and iron sheets to settle temporarily before a long-term solution was found.
- 4 Villagisation of grouped settlements was used as settlement policy where grouped settlements were built to encourage land management, ensure security and promote an integrated development scheme.
- 5 Bruce, J. (2007) Drawing a line under the crisis: Reconciling returnee land access and security in post conflict Rwanda. Working paper, Humanitarian Policy Group and Overseas Development Institute. Musahara, H. and Huggins, C. (2005) Land reform, land scarcity and post-conflict reconstruction: a case study of Rwanda. In: From the Ground Up: Land Rights, Conflict and Peace in sub-Saharan Africa, Pretoria, South Africa: Institute for Security Studies. Available at:https://www.academia.edu/835629/Land_reform_land_scarcity_and_postconflict_reconstruction_A_case_study_of_Rwanda (accessed 26 July 2017).
- 6 MINIRENA (2007) Phase 1 of the National Land Tenure Reform Programme (NLTRP) in Rwanda. ANNEX I: Results of preparatory field consultations in four trial districts, March–October 2006, Final Report, February.
- 7 Wyss, K. (2006) A thousand hills for 9 million people: land reform in Rwanda. Swiss Peace Foundation Working Paper (online). Available at: https://repositories.lib.utexas.edu/bitstream/handle/2152/4923/4029.pdf?sequence=1 (accessed 12 July 2017).
- 8 GoR (2000) Rwanda Vision 2020. Government of Rwanda, Kigali.

livelihoods by purchase, sale and rental of land would play a key role. Vision 2020 provided the strategic grounding for a programme of reform to take place.

The process of reform

To meet the challenge of changing conditions and increasing pressure on land, in 2003, the Ministry of Natural Resources MINIRENA (formerly Ministry of Lands and Environment - MINITERE) started a long process of consultation on land tenure, revealing broad popular support for reform. Thus, in 2004, Rwanda commenced an ambitious land tenure reform programme with the predominant aims of increasing tenure security for landowners, reducing land-related disputes, improving land-use management and investment, and introducing an efficient land administration system and transparent land market system. The overarching objective was to reduce poverty and ensure ongoing peace and social stability in the country. At the time that the land policy was adopted, land was a means of livelihood for 90% of the population, while concurrently, more than 90% of land was unregistered with very poor land administration services and land management systems in place9.

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1. Setting the legal framework

To initiate the process, the National Land Policy (NLP) was passed in 2004, followed by the enactment of the Organic Land Law (OLL) of 2005. The NLP (later amended in June 2012), set out new arrangements for land tenure and titling, for registering and administering land and land titles, and for the guidance of land use and land development. The OLL was an overarching piece of legislation that set out the framework and principles on which the law would be implemented. It required 20 pieces of secondary legislation that could be adopted through Presidential or Ministerial orders to enable its effective implementation. One of the OLL obligations was to have mandatory registration of all land in Rwanda.

2. Testing the process

Following the enactment of the law, the Ministry undertook additional field consultations in 2006 in urban, peri-urban and rural settings to conduct a detailed feasibility and determine the scope of tenure reform envisaged under the OLL. Field trials were then designed accordingly and conducted in 4 out of 30 districts in Rwanda in 2007. Sector and cell¹¹ land committees were set up to support with the implementation of the NLP and the OLL by promoting proper land use management and sensitising local communities to participate in the land registration programme. They were also part of the Land Adjudication Committee (LAC), which carried out land registration at the community level.

9 GoR (2004) *National Land Policy*. Government of Rwanda, Kigali.
10 A cell is the second smallest administrative entity in Rwanda. There are 2100 cells in Rwanda and each cell typically has over 12000 households.



Left: a young parasurveyor explains to the state minister and a DFID representative how parcel demarcation is done.

Source: Ngoga, H.T. (2018) Rwanda's Land Tenure Reform: Non-existent to best practice, CABI.

The Ministry asked the sector and cell land committees, as well as other local leaders, to dedicate up to 10 weeks of their time to identify every land parcel in their cell using satellite images, confirming the ownership of each, and recording it in formal record books. The land parcels were marked out on satellite images using 'General Boundary'¹¹ principles, which avoided the expensive and cumbersome process of physically measuring boundaries or surveying on the ground. Despite the fact that the committees had no relevant previous experience, the process moved swiftly and efficiently in all four trial districts. Both local institutions and individual households were also asked to participate fully in this first step towards land registration. The information was then captured in a database, providing details on ownership, type of land use and size of parcel with consistent geographical control.

During this trial phase, individual claims were recorded on 14,900 land parcels in three diverse rural districts (Musanze, Karongi and Kirehe) as well as in Kigali City (Gasabo District). Claims were registered in the claim register books, and claimants were given a claim receipt as evidence of lodging a claim. The trials demonstrated that local communities with basic training could use modern technologies to successfully identify and demarcate land parcels on the ground. The key insights from the pilot phase can be summarised as follows:

- Local capacity should be used to the full to ensure a strong sense of community;
- Creating public awareness of the programme processes and benefits is critical to enhance buy-in;
- The lessons learnt from the field trials are extremely useful for informing the **legal and regulatory framework** of the full project roll-out;

11 General boundary principles are internationally used in cases where the exact line of the boundary has not or cannot be determined. These boundary lines are useful to signify title of a plot to an owner, but leaves the exact line of the boundary that is registered open to discrepancy on the ground.

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— **Aerial photography and satellite images** are an efficient and cost-effective method for land demarcation.

The results of both the consultations in 2006 and the field trials in 2007 provided a good basis to believe that tenure reform could be successful across Rwanda. Participants were keen to be proactive so that the rights and obligations of both individuals and the State could be clarified. In light of this, the Ministry of Lands and Environment prepared a programme which balanced the needs of communities with available resources and capacity. It intended to adopt a flexible approach, based on popular participation using simple, replicable, robust and transparent procedures, as had been conducted in the trial phase.

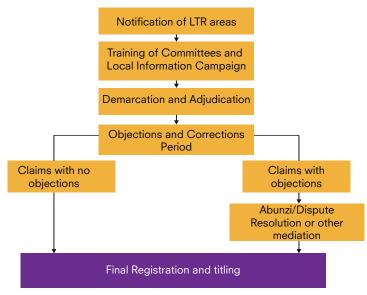
3. Full LTR roll out

After the necessary preparatory work for LTR had been carried out, including public consultations and the development of the legal, institutional as well as policy frameworks, the country embarked on a fully-fledged Systematic Land Registration (SLR). The full roll out of SLR involved nine stages that are described in the *Land Tenure Regularisation Operational Manual*¹² and are summarised as follows:

- Stage 1: Notification of LTR area and local information campaign all stakeholders were notified of when SLR activities were to commence in each cell or area in the relevant sector. In rural areas these were mostly conducted through community meetings such as at the local church and with posters and flyers, while in urban areas this was extended to communication via television as well.
- Stage 2: Recruitment and training of local staff once an area had been declared as a registration area, local staff were recruited and trained, including Land Adjudication Committee (LAC) members and parasurveyors;
- Stage 3: Parcel demarcation existing boundaries of land parcels were identified using satellite images to the satisfaction of the claimants, after which they were drawn on the parcel maps of the cell and a unique parcel number was given, provided there were no disputes. In urban areas, this had to be conducted over the weekend when the owners were not at work, as well as in cases where tenants occupied the plot and the owners had to travel in from elsewhere.
- Stage 4: Land adjudication claims were recorded on a parcel and any disputes to that claim were resolved by the LAC and any available local witnesses. Where the LAC could not resolve the disputes, they were recorded in a dispute register and the parties were advised to seek legal redress via the Abunzi¹³;
- $12\,$ MINIRENA (2011) Operational Manual for the Implementation of Systematic Land Tenure Regularisation.
- 13 Abunzi are locally trained mediators that operate across the country on a voluntary basis. Abunzi help the local community resolve disputes (including land disputes) which have a value not exceeding RwF 3,000 (approximately US\$3,800).

- Stage 5: Data entry and checking after the claimants' data and parcel boundaries had been collected from the field, they were manually checked and digitally stored in a pre-designed database known as the Land Tenure Regularisation Support System (LTRSS), a database created for large-scale recording of LTR claims data and high-volume lease production;
- Stage 6: Parcel digitisation the geographic features on an analogue map were converted into digital format, involving on-screen tracing of scanned maps. Activities also included geo-referencing and error checking;
- **Stage 7: Objections and corrections** objections included airing and registering a dispute against the claim captured at the initial adjudication phase; and corrections involved the process of correcting inconsistencies in both the written and spatial data collected during demarcation and adjudication (D&A). At this stage, additional disputes raised were recorded in the dispute register for resolution, and where they were not resolved by the LAC, they remained in the register;
- **Stage 8: Lease preparation** since most land is held under long term lease of between 3 and 99 years, lease contracts were prepared where a complete lease file included four documents: the original and duplicate lease contracts containing rights and obligations of the lessees and the lessors, a certificate of emphyteutic lease¹⁴, and a cadastral extract showing the parcel measurement;
- **Stage 9: Lease issuance** legally recognised lease documents were finally issued to the claimants.

The LTR process



Source: adapted from Ngoga, H.T. (2018) Rwanda's Land Tenure Reform: Non-existent to best practice, CABI.

14 An emphyteutic lease specifies that the lessee is required to maintain and improve the property.

The SLR process was used systematically to demarcate and register over 10 million land parcels, with over 7 million titles issued in less than five years. This was done at a cost of just US\$7 per parcel. The land tenure regularisation programme was used to clarify the rights of the existing landowners and occupants of land, and to convert those rights into a legally recognised form that would allow rightful owners to transact their land and use their land titles as collateral to access investment capital from banks.

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Left: digitised parcel demarcation. Source: adapted from Ngoga, H.T. (2018) Rwanda's Land Tenure Reform: Nonexistent to best practice, CABI.

4. Funding the programme

The LTR programme was a large and costly exercise and its funding needs required a concerted effort from a wide range of partners including the Government of Rwanda, and a number of development partners who created a basket fund which was led and managed by the UK Government Department for International Development (DFID). This ensured that the funding process could be wholistic, streamlined and effective, rather than a piecemeal approach of each party paying for different aspects of the programme.

The total cost of the project at the end of the SLR in 2013 was around £50 million, with more than 50% (£26 million) contributed by DFID and £6.5 million from the GoR. However, these figures do not include the operational costs of the LTR, such as the registration campaign, which was contracted by the GoR on a separate project basis. Since 2013, DFID has provided an additional £5.5 million, bringing their total investment up to £31.4 million, and the total cost of the programme to around £55.4 million to date. Although the GoR did not contribute the majority of the funding, their commitment to the programme was evident through consistent allocation of funds, even at times when the development partners where hesitant to take the project forward.

Challenges of reform

1. Anticipated challenges

Before the roll out of the systematic land registration, a number of challenges were anticipated regarding the implementation of the OLL, as summarised below:

Urban land involuntary resettlement (registration, expropriation and compensation procedures) – large-scale informal settlements were established in Rwanda as a result of poor urban planning and increased urban migration - an estimated 70 percent of people were living in informal settlements in Kigali in 2009. As a result, the OLL required that all settlements that were either unauthorised or below standard were to be expropriated. However, importantly, it also required that the GoR would have to relocate and rehouse the settlers. All reasonable claims to occupancy in most settlements would be accepted, and the GoR would facilitate their upgrading to decent standards. Despite these provisions, it was expected that involuntary resettlement of those living in informal settlements would face some level of resistance, as it has in many cities around the world.

Use and management of wetlands – wetland areas had to be delineated and mapped, with distinctions made between protected areas (i.e. state land in the public domain) and non-protected areas (i.e. state land in the private domain). Guidelines had to be drawn up for the use and management of those lands deemed for agricultural use and the conditions for leasing such land.

Land consolidation and sub-division of land – the GoR was concerned about the increasing fragmentation of land and sought to limit this issue going forward. The OLL prohibits agricultural land being subdivided into less than one hectare. Land use consolidation, on the other hand, was encouraged. In the past, subdivison of land was sanctioned by the State for the purpose of land sharing, resulting in parcels of land that were very small in certain localities (varying from 0.06 ha in Northern Province to 0.025 ha in Western Province). Households often held more than one parcel, and these were disjoint and scattered. The GoR was therefore concerned that such fragmentation led to inefficient land use, leaving households with holdings too small to support them.

Family rights and the law – the GoR was aware that the rights to land conferred by the OLL would require extensive education campaigning for individuals to understand them. This was particularly necessary for women and vulnerable groups, such as widows and orphans. The education campaign also covered navigating intra-family relationships, how to register rights and interests in the land, as well as principles of inheriting land as set out in the succession law and how it relates to the OLL. This campaign was enacted in several forms, such as via radio messages, leaflet distribution and posters, ensuring provision for both the literate and illiterate.

Land related revenues and taxation – setting the appropriate level of land taxes, sales taxes and land administration fees was a significant challenge for the GoR. These taxes and fees have a direct impact on people's willingness to register

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their land and keep the register up to date. If set too high to be affordable, land administration systems quickly fall into disuse and the public will revert to informal arrangements.

2. Actual challenges encountered

In addition to the anticipated challenges, others, which were actually encountered during the LTR process are outlined below:

Difficulties in formulating an adequate land policy – the uniqueness of the socio-political situation of the country post-genocide meant that it proved very difficult to formulate adequate policy and legal tools (specifically the National Land Policy), which resulted in the creation of the OLL. The GoR had very limited resources and insufficiently qualified staff, which resulted in significant delays and required multiple revisions to establish an appropriate framework which sufficiently catered for all necessary reforms.

Complexities around determining land rights – there were numerous complexities observed when determining who had rights to land, for example, how the rights of polygamous families should be registered, especially where there was no legally married wife present.

Unclear satellite imaging - in some areas, this was encountered due to low resolution and cloud cover, made worse where there were small parcel sizes, such as in dense urban informal settlements where boundary visibility was very poor. In such cases, satellite imaging had to be replaced by high-resolution aerial photography. Parcel accessibility and terrain also caused challenges, particularly during the rainy seasons.

Insufficient staff capacity - critical skills such as land administration and management, land valuation, land surveying, mapping, photogrammetry and other related disciplines such as record management and documentation were lacking at both central and decentralised government levels. This meant that some areas of the programme suffered because there were no relevant skills to deal with them, or otherwise more resources were required to cater for the skills vacuum. For instance, in the early days of the SLR, all parcel digitisation work was done in Nairobi because there was no local capacity to deal with it. At the same time, there were no training institutions in Rwanda to impart land administration skills to staff, other than the postgraduate diploma course in land administration that was being designed at the National University of Rwanda in 2010.

Registration of wetlands and islands – by law, all land categorised as wetland belong to the State. However, wetland boundaries are not always clear and this meant that some wetland areas were claimed to be owned by people other than the State. This led to a number of exercises to determine wetland boundaries. These boundaries then needed to be re-demarcated, causing delays in registering the right claimants to the land. In some cases, people who claimed ownership of land in swamp areas were compensated if they rightfully occupied the land. There was also a legal vacuum on how to register islands (such as those on Lake Kivu), and the OLL had to be amended to cater for this category of land.



Left: Data entry. Source: Adapted from Ngoga, H.T. (2018) Rwanda's Land Tenure Reform: Nonexistent to best practice, CABI.

Errors using paper-based data collection systems – since manual entries were required during the SLR process, errors were inevitably present. This was exacerbated by the fact that the process from demarcation to titling of land was a lengthy one. Today, the improved technology available means that data can be collected electronically from the outset to minimise errors and cost, and to make the process more efficient.

Insufficient communication and public awareness raising – although the GoR had access to good communication materials and tools mainly developed during the pilot phase, communication and awareness, especially of the OLL, was limited during the roll-out phase. The expected targets, cost and speed of the programme meant that adequate time was not always afforded and certain issues were not discussed at sufficient length during the awareness meetings that took place.

The Land Tenure Regularisation Support System (LTRSS) database, that was used to record claims, was not linked to the GIS system – this meant that a manual transfer of data was required from one database to the other. It also had few data entry validation procedures, which made it prone to numerous errors, especially when recording claimants' details such as ID and names. This was particularly challenging because LTRSS was not linked to the national ID system. Linking the LTRSS database to the GIS database would have reduced the waiting time of data extraction as well as subsequent requests from one department to another.

Benefits of the LTR programme

The LTR programme has had a significant impact on the country, and its success has been observed internationally. Rwanda is ranked 4th in the world for the 'property registration indicator' in the World Bank *Doing Business* report covering 2012–2017, a very significant jump from 61st. This is because SLR has made registering property quicker and more efficient (only three steps

compared to the average 6.2 steps in sub-Saharan Africa). In 2017, the World Bank gave the overall quality of the country's registry a score of 28 out of 30.

The successes resulting from the LTR programme are clearly extensive within Rwanda, with wide-ranging impacts beyond the well-functioning formal land registration system in operation. Some of these benefits are outlined below:

Land tenure security: The most obvious impact of land registration across the country was the associated increase in land tenure security, with particular benefits being observed vis-a-vis the protection of women's rights to land as discussed below. In addition, with the comprehensive land disputes database in place, a web service is being developed to link the land register with the e-court system in order to facilitate information sharing. This allows the justice system to access the relevant land-based disputes that have been recorded in the land register when determining any resolution. This function clearly contributes to the maintenance of land tenure security.

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Women's land rights: For a long time, land ownership was the prerogative of men since land rights could only be inherited from father to son. Women were therefore excluded from inheriting land since, even as a widow, a woman only had beneficial rights to use the family land until her sons came to an age of maturity. However, this changed with the enactment of the Succession Law of 1999, which purported to ensure that "all legitimate children under the civil law shall inherit equally without any discrimination between male children and female children". Within this legal framework, research has shown that the clarification and documentation of rights in Rwanda reduced uncertainty of who would inherit land, with substantial benefits for female children who might otherwise have been discriminated against¹⁵.

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The land register data of July 2017 showed that out of 11,446,570 land parcels registered during the SLR, 2,191,963 parcels were registered to women as *de facto* owners, whereas those parcels registered to men as *de facto* owners stood at 1,267,066 parcels. Joint ownership (including wives and husbands registered as co-owners) represented 5,633,000 parcels¹⁶. Legally married women were significantly more likely to have their informal ownership rights documented and secured after registration, however, because of current laws, women who were not legally married saw diminished property rights¹⁷.

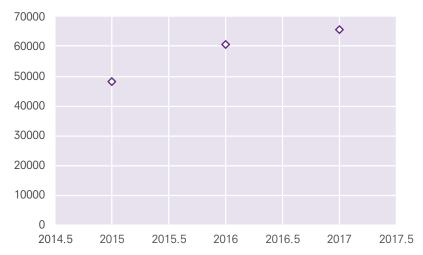
Access to formal credit: A further benefit of registered land is the enhanced ability for that land to be used as collateral by landowners to access finance from banks. This can then be used to invest in various economic ventures. The figure below shows how mortgage numbers have increased in the last few years.

¹⁵ Deininger, K., Ali, D. and Goldstein, M. (2011) Environmental and gender impacts of land tenure regularisation in Africa: pilot evidence from Rwanda. Policy Research Working Paper 5765. The World Bank.

¹⁶ RLMUA (Rwanda Land Management and Use Authority) (2017) Land Registry Statistics

¹⁷ Deininger, K., Ali, D. and Goldstein, M. (2011) Environmental and gender impacts of land tenure regularisation in Africa: pilot evidence from Rwanda. Policy Research Working Paper 5765. The World Bank.

Number of mortgages registered



Source: Ngoga, T (2018)¹⁸

Benefits of the Land Administration Information System (LAIS) database: LAIS, the newly created digital database which overcomes some of the issues with LTRSS database, is already playing a crucial role in a number of ways:

- Easy access to land information is provided since it is accurately recorded, checked and maintained. Interoperability between the land register and the national ID project ensures that claimants to land are genuine and land leases and certificates are allocated appropriately.
- The mortgage register is also linked to LAIS, which facilitates the verification of land ownership by mortgagees.
- Land-based revenue collection has increased as a result of the database, namely land lease fees and a fixed asset tax.

Improved land management: By allowing policy-makers improved access to information, as well as greater legal and financial levers with which to work, the LTR process has significantly improved land management practices. This has been particularly noticeable in urban areas, where the LTR results are already providing support to various city development projects.

Over the last decade, Rwanda's urban areas underwent fairly rapid economic growth. However, this was never matched with appropriate and timely planning, thereby leading to rapid, haphazard sprawling of the cities into the surrounding local areas. Now, with the cadastral data produced for the whole country, Kigali city as well as secondary cities are using the data and land administration systems for land use planning, land valuation and surveying, and monitoring land-use changes. For example, landowners are now able to check online what plans may affect their parcels, and city authorities are also able to determine whose rights are going to be affected when planning and building big urban infrastructure. They are also able to improve efficiencies in the allocation and use of space, as well as enhance municipal revenues through land lease fees and taxation.

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18 Ngoga, H.T. (2018) Rwanda's Land Tenure Reform: Non-existent to best practice, CABI.

Natural resource and agriculture management: The cadastral land information produced through the SLR is also considered as the backbone and key baseline tool in the development and management of the agricultural sector and other natural resources including forestry, water and mining. This applies to both privately owned land as well as public land such as lakes and waterways, national roads and feeder roads, land with public buildings, natural reserves and parks, and wetlands – all of which were successfully registered under SLR.

For example, in its efforts to increase agriculture productivity, the Ministry of Agriculture is currently using the outputs from the LTR process to distribute agriculture inputs such as fertilisers. Whereas it was previously difficult to know whether all farmers who received fertilisers were owners of the land they claimed, today the Ministry can use land certificates to verify the information. A web-based portal (Agricultural Land Information System - ALIS) has also been set up as a resource to support any investor interested in investing in agriculture. The platform currently provides information on land that is available for investment, as well as its size, tenure status and the rights associated with it. It is also envisaged that the conditions and requirements for land acquisition, as well as information on the lands soil composition, will be added to the platform.

Land governance monitoring: With all land parcels mapped and registered, a land governance monitoring system is currently being developed. This will support various sectoral plans, increase accountability and transparency, respond to data gaps that have characterised the land administration sector, facilitate information exchange and assess the role of land in the country's economic development. Various indicators on land ownership, such as proportion of land owned by men/women, land market data (land prices), land use types (residential, commercial, agriculture, industrial), and proportion of land under disputes are all available, and these are being analysed to inform policy formation.

Land market development: One of the observed positives of the LTR programme is the creation of a vibrant land market which is proving to be critical to urban economic growth around Kigali and other secondary cities. Increased confidence in buying and selling land is evident as a result of a functioning system in place to support and legitimise land transactions. LTR has also generated clear guidelines and standard operating procedures related to land transactions. All processes including requirements, time, fees and steps involved in transactions are publicly known. Institutions dealing with land transactions have been set up and are serving those interested. Clear policy and legal frameworks on land transactions are also in place and are being followed. All of these facilitate land transactions through instilling confidence in the market.

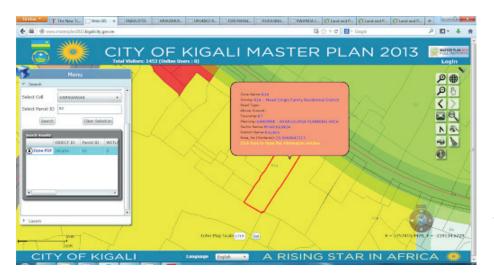
Looking forward: the focus post-SLR

While the LTR programme's focus has mainly been on registration as a first crucial step, the LTR programme needs to further evolve to unlock additional benefits. The second part of the programme therefore focusses on building the institutions and systems to provide land administration services, which has already shown substantial progress. This involves maintaining the land registry, and ensuring the effective use of land information to support development objectives and accountability; building and decentralising sustainable land administration services; enhancing the accessibility of the system such that more sectors can benefit from it; and finally, to ensure that the system becomes self-financing.

Despite the substantial progress the country has achieved in reforming the land administration system, there continue to be challenges that require attention to enhance its efficiency and broaden its impact, as well as to ensure future sustainability. Thus, the main areas of focus for the second phase include:

- Enhancing uptake of the formal registration system: In some rural areas, the flat transaction fees are high compared to the value of the land and this may jeopardise the formal registration system as some landowners may prefer to sell/buy their land informally. This is also an issue when it comes to land subdivision costs, especially in rural areas. Land surveying is a relatively new profession and there are not many surveyors in the country, hence the high cost. Gaining a better understanding of the uptake of the formal system will allow policy-makers to fine-tune the strategic approach.
- Increasing awareness of the importance and processes of registering land transactions: Most people in Rwanda, particularly in rural areas, are traditionally used to selling and buying land informally. Changing this culture requires concerted efforts and regular awareness campaigns. The current approach has been through the land week campaign, which was created as a way to encourage land owners to register their land transactions post SLR, often with land transaction services directly offered. The period is also used to disseminate new land related laws and

The land week campaign was created as a way to encourage land owners to register their land transactions post SLR, often with land transaction services directly offered. The period is also used to disseminate new land related laws and procedures



Left: cadastral information supporting land use planning. Source: Ngoga, H.T. (2018) Rwanda's Land Tenure Reform: Nonexistent to best practice, CABI. procedures. This has already shown positive results in terms of raising awareness, and needs to be continued and expanded.

- **Financial independence of the land administration system:** Currently, most of the land administration services are still funded largely by the government, and in some cases, by development partners. To ensure sustainability of the land administration system, there is an urgent need to see how current revenues generated from land administration services can be used to self-finance the land administration system. This will require fine-tuning the pricing for land registration where it is justified, as well as the creation of a business plan to guide service definition, development and delivery.
- Knowledge and skills of land administrators: Moving from first time registration to cadastral maintenance requires a different skillset and knowledge base. There is therefore a need to equip land administration managers with adequate skills and knowledge to deliver effectively what is expected of them and prepare for future types of land administration services.
- Cleaning and maintenance of high-quality data: Maintaining standardised and high-quality data remains a high priority for the second phase. Checks, validation and continual improvement should be sought. Provision of reliable management data and monitoring feedback upon which to make policy decisions has also proved to be invaluable, and will need to be ongoing. This may include reviewing existing laws to accommodate new findings.
- IT security, communications and support services: LAIS is linked to other services such as the mortgage registration system, city planning authorities, the Ministry of Agriculture, the national identification programme and the tax authority (RRA). Attempts to ease access to land information by putting some data online are currently underway. This will hopefully enable many other sectors to benefit from the land registration data collected.
- Knowledge information system: Continuing the development of the knowledge information system will be important to coordinate existing information and to integrate new inputs and identify gaps that require further research. There are also ongoing initiatives to improve access to and decentralise this information down to the sector level.

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In summary: the key factors of Rwanda's LTR success

Rwanda has set an unprecedented benchmark in land reform by formally registering the entire countries land in a highly ambitious timescale and at a very low cost by international comparison. This has been achieved using an innovative methodology incorporating a great degree of citizen involvement as well as continually upgrading satellite and digital technologies. This case study concludes by outlining the key success factors of Rwanda's LTR programme.

Strong political will and ownership: The Government of Rwanda showed strong political will and ownership throughout the implementation of the programme. From top government officials, to technocrats and local leaders, the programme received full support and this was vital to ensure successful and effective implementation of the LTR programme. Political will and ownership were both demonstrated in various ways. Required laws and regulations were expedited, infrastructure and resources were provided, partnerships were sought, land owners who required subsidies to register their land received them, and facilitation necessary to run awareness campaigns through meetings was provided. The government also showed strong commitment and willingness to learn from others.

Affordable land registration techniques and value for money: Quick, cost effective and simple land tenure regularisation techniques, coupled with the use of open source and modern technologies were used. This made the registration process cheap and accessible for the majority of land owners. The cost of registering one plot of land was US\$7. Those who could not afford and were part of the national poverty category, were exempt to pay the registration fees and were issued with their respective land titles.

Stakeholder engagement and communication: Concerted efforts from a wide range of actors (government, development partners, private sector, NGOs and local communities) all worked together to deliver the programme. Roles and responsibilities of each actor were clear and this helped to harmonize efforts. Engagement and partner consultations were done both during the design and implementation of the programme, leading to a mutual accountability process between all actors. Development partners also worked together and pooled their resources for a more effective approach.

The nature of land tenure system, size of the country and its homogenous character: Unlike in many other countries, Rwanda has a very straightforward land tenure system. Land is held either under a long-term lease or under a freehold tenure system. Location of the land and its designated use determine what tenure regime a piece of land would be under. The majority of land (rural agriculture land) is held under a long term 99-year lease whilst residential, commercial and industrial land can upgrade from leasehold to freehold subject to meeting specific land use conditions. Rwanda, being small and having the same language across the country, meant that it was easier to have the LTR programme effectively implemented.

Piloting the SLR and implementing it on a project basis: Piloting the SLR, which was one major component of the LTR programme before its full national rollout, was very important. The trials gathered information that helped to understand the prevailing situation on the ground in four distinctive regions of the country. They also helped to design secondary legislation that guided the LTR processes. Secondary legislation (ministerial orders, laws etc.) was developed based on the results from field consultations and land registration exercises. In this case, the legal framework was based on real issues and informed by solutions that had been tried. Piloting the SLR also helped assess the magnitude of the task and define the type of resources that would be needed to implement the programme throughout the country. The pilot phase documented lessons learned during the trials that were then used to design the full roll out through then Strategic Road Map (SRM). This SRM guided the roll out of the SLR programme across the country. Implementing the SLR on a project basis meant that resources were focused on one specific objective of bringing all land onto the register.

A decentralized land administration institutional framework: The decentralised land institutional arrangement set up in Rwanda played a key role in the successful implementation of the SLR. Land committees operating at the grassroots levels were within reach of every land owner. SLR's participatory approach made people feel empowered and there was a sense of ownership amongst the community. As they participated through SLR process, the community showed confidence given their active role, especially during the adjudication, demarcation, objection and correction phases.

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