This report has been produced by HTSPE Limited for Evidence on Demand with the assistance of the UK Department for International Development (DFID) contracted through the Climate, Environment, Infrastructure and Livelihoods Professional Evidence and Applied Knowledge Services (CEIL PEAKS) programme, jointly managed by HTSPE Limited and IMC Worldwide Limited.

The views expressed in the report are entirely those of the author and do not necessarily represent DFID’s own views or policies, or those of Evidence on Demand. Comments and discussion on items related to content and opinion should be addressed to the author, via enquiries@evidenceondemand.org

Your feedback helps us ensure the quality and usefulness of all knowledge products. Please email enquiries@evidenceondemand.org and let us know whether or not you have found this material useful; in what ways it has helped build your knowledge base and informed your work; or how it could be improved.

DOI: http://dx.doi.org/10.12774/eod_hd.march2014.gillingham
# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acronyms</td>
<td>ii</td>
</tr>
<tr>
<td>Report Summary</td>
<td>iii</td>
</tr>
<tr>
<td>The Context</td>
<td>1</td>
</tr>
<tr>
<td>Project Objectives and Coverage</td>
<td>3</td>
</tr>
<tr>
<td>Project Cost</td>
<td>4</td>
</tr>
<tr>
<td>Beneficiaries: Communications and Targeting</td>
<td>5</td>
</tr>
<tr>
<td>Communications</td>
<td>5</td>
</tr>
<tr>
<td>Gender</td>
<td>6</td>
</tr>
<tr>
<td>Project Delivery</td>
<td>9</td>
</tr>
<tr>
<td>Innovations</td>
<td>10</td>
</tr>
<tr>
<td>Employment and training: using local resources</td>
<td>10</td>
</tr>
<tr>
<td>Use of Open Source Software</td>
<td>11</td>
</tr>
<tr>
<td>Project Achievements</td>
<td>12</td>
</tr>
<tr>
<td>Lesson Learning</td>
<td>14</td>
</tr>
<tr>
<td>Flexibility</td>
<td>14</td>
</tr>
<tr>
<td>Geographical Scope</td>
<td>14</td>
</tr>
<tr>
<td>Government Ownership and Political Will</td>
<td>14</td>
</tr>
<tr>
<td>Sustainability of the LAS</td>
<td>15</td>
</tr>
<tr>
<td>Financial Sustainability</td>
<td>15</td>
</tr>
<tr>
<td>Capacity of the Justice Sector to Address Land Disputes</td>
<td>15</td>
</tr>
<tr>
<td>Replicability and Scalability of Approach taken in Rwanda</td>
<td>16</td>
</tr>
<tr>
<td>Bibliography</td>
<td>17</td>
</tr>
</tbody>
</table>

## List of Annexes

<table>
<thead>
<tr>
<th>Annex</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annex 1. Rwanda Land Tenure Regularisation Timeline</td>
<td>19</td>
</tr>
<tr>
<td>Annex 2. Contributions to LTR Rwanda by Donor as of July 2013.</td>
<td>20</td>
</tr>
<tr>
<td>Annex 3. Claimants’ FAQs</td>
<td>21</td>
</tr>
<tr>
<td>Annex 5. Activities carried out under the M&amp;E component of LTR</td>
<td>23</td>
</tr>
</tbody>
</table>
### Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFID</td>
<td>Department of International Development</td>
</tr>
<tr>
<td>DLBx</td>
<td>District Land Bureaux</td>
</tr>
<tr>
<td>DLOs</td>
<td>District Land Offices</td>
</tr>
<tr>
<td>FAQs</td>
<td>Frequently Asked Questions</td>
</tr>
<tr>
<td>GBV</td>
<td>Gender-based Violence</td>
</tr>
<tr>
<td>GoR</td>
<td>Government of Rwanda</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographic Information System</td>
</tr>
<tr>
<td>ID</td>
<td>Identification</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>LAS</td>
<td>Land Administration System</td>
</tr>
<tr>
<td>LAIS</td>
<td>Land Administration Information System</td>
</tr>
<tr>
<td>LTR</td>
<td>Land Tenure Regularisation</td>
</tr>
<tr>
<td>LTRSP</td>
<td>Land Tenure Regularisation Support Programme</td>
</tr>
<tr>
<td>LTRSS</td>
<td>Land Tenure Regularisation Support System</td>
</tr>
<tr>
<td>M&amp;E</td>
<td>Monitoring and Evaluation</td>
</tr>
<tr>
<td>OLL</td>
<td>Organic Land Law</td>
</tr>
<tr>
<td>PM</td>
<td>Prime Minister</td>
</tr>
<tr>
<td>PRSP</td>
<td>Poverty Reduction Strategy Paper</td>
</tr>
<tr>
<td>RNRA</td>
<td>Rwanda Natural Resources Authority</td>
</tr>
<tr>
<td>RwF</td>
<td>Rwandan Franc</td>
</tr>
<tr>
<td>SIDA</td>
<td>Swedish International Development Agency</td>
</tr>
<tr>
<td>SRM</td>
<td>Strategic Roadmap</td>
</tr>
</tbody>
</table>
This case study has been produced in response to a request to the Evidence on Demand Helpdesk. The objective of the request was to provide a detailed case study on the approach taken to land tenure reform by the DFID-funded Land Tenure Regularisation Programme (LTRSP) in Rwanda. The case study should provide the reader with an understanding of how land tenure reform can work under particular social, political and economic conditions, as well as the approach taken to ensure gender equality in land rights.

The LTRSP registered all the land in Rwanda (10.3 million parcels) for the first time. It involved a one-off, low-cost, community-based process of land tenure regularisation (LTR), costing UK£3.42 (US$5.47) and UK£4.05 (US$6.48) per parcel. As well as identifying key success factors (political commitment; a detailed LTRSP developed in an earlier phase of the programme; flexibility), the case study also identifies some of the threats to the sustainability of the LTR process – namely, the sustainability of the Land Administration System (LAS), as well as financial and judicial sustainability.

This case study provides an example of rural LTR. Rwanda has only one significant urban centre (Kigali), but the vast majority of land within the province labelled ‘Kigali City’ is rural.
The Context

Rwanda is a small, land-locked country with a population of 10,537,222 (NISR, 2012). It has one of the highest population densities in Africa, averaging 416 people per square kilometre (ibid), covering 26,338 square kilometres in total. Rwanda has a large and steadily growing population, with 2.8% population growth recorded in 2013 (index mundi, 2013). It is one of the poorest countries in the world, ranking 167 out of 172 (2012 estimate) countries in terms of human development. Population growth has resulted in increased scarcity and marketisation of land, tenure insecurity, and declining agricultural productivity. Land holdings have also been increasingly fragmented – the average household possesses five plots of land (Musahara & Huggins, 2005, cited in Pritchard, 2013).

Land itself has historically been a source of dispute and conflict in Rwanda, compounded by the social unrest which resulted in the 1994 genocide. Up to one million people were killed and three million fled to neighbouring countries, leading to weakened political institutions, infrastructure and human capital. Traditional land allocation systems also suffered. In the aftermath of the genocide there was a lack of clarity over legal status and rights to land, with landowners returning to Rwanda to find their land occupied by others (GoR, 2002).

By the late 1990s, the Government of Rwanda (GoR) recognised land as a critical issue in the country’s long-term development. The GoR’s Vision 2020 (2000) and 2002 Poverty Reduction Strategy Paper (PRSP) list land as a priority. In 2003, the New Constitution for Rwanda stated ‘Every person has the right to private property’ (Article 29). The National Land Policy (2004) and 2005 Organic Land Law (OLL) followed. The OLL outlined new procedures for land tenure and titling, registering and administering land and land titles, and guidance for land use and land development (LTRSP, 2012a). Land tenure regularisation (LTR) was to be the tool to implement the new provisions. A timeline of key events in Rwanda’s LTR process since 2003 is given in Annex 1.

By supporting the land sector, GoR was aiming to achieve two things: increased productivity (through the consolidation of land holdings and greater incentives to invest in agriculture) and hence economic development; reduced social tensions following the genocide (LTRSP team members, personal communications). At the same time, the donor community was advocating for investment in the land sector as a ‘good thing’.

It is generally considered that government and authority in Rwanda is highly centralised, with the president taking a personal interest in the LTR process (ibid). Booth and Golooba-Mutebi (2012) describe Rwanda as having restricted political competition (in order to prevent any exacerbation of ethnic tensions), with ministerial posts shared between political parties in proportion to the number of seats held in the House of Deputies. Since 2000, GoR policy has been driven by the view that economic and social transformation is the only feasible route to preventing future ethnic conflict.

Since 2000, GoR has implemented a decentralisation policy to strengthen local government structures responsible for implementing reforms driven by the Office of the PM and the Presidency, such as LTR. This has been associated with establishing performance innovations and platforms for community mobilisation, accountability and participation, such

“While development partners led by the UK Department for International Development have provided funding in the range of US$40 million, the success of the program[me] in terms of speed, coverage, and impact is clearly due to the government’s commitment to improve land administration and avoid land conflicts.”

Frank F. K. Byamugisha
World Bank, 2013
as the *imihigo*¹ and Annual National Dialogue. Under this system, ministers, civil servants and local government officials are called publicly to account (and often dismissed) for their performance in relation to policy targets. This performance contract produces powerful incentives from the cabinet downwards to deliver on agreed commitments (ibid).

⁠¹ *Imihigo* is a performance based assessment approach whereby officials are publically held accountable for their performance. Reintroduced to Rwanda in 2006, it is based on a traditional (pre-colonial) system that was used to hold Chiefs accountable.
Project Objectives and Coverage

The LTR process in Rwanda can be divided into two phases. In both cases, DFID was the main donor, and the implementing agency (through competitive tender) HTSPE Limited (UK) in consortium with Matrix (Kenya) and PCG (Rwanda).

Phase I, Support to the Land Reform Process in Rwanda, was a 3.5-year programme which ran from November 2005 (when the OLL was introduced) until May 2009. The main objective of the programme was to develop and test a feasible approach to LTR in Rwanda, leading to the development of the Strategic Roadmap (SRM). This was a comprehensive document which set out GoR’s plans for land management and administration, with LTR as the main component. The main (interlinked) objectives of the SRM were to:

i. improve land tenure security (particularly for women);
ii. facilitate economic growth;
iii. encourage good land use practices and soil conservation;
iv. contribute significantly to land conflict management (GoR, 2009).

The SRM was adopted by the cabinet in March 2008, and largely defined the scope of the second phase of support from DFID.

Phase II, Support for Land Tenure Regularisation (LTRSP), which ran from February 2010-August 2013, had two primary objectives (DFID, 2009). Firstly, to register all land in Rwanda for the first time. This required surveying all land parcels in Rwanda and providing land titles to all rightful claimants nationwide. This meant registering 7.9 million parcels, later revised to 10.3 million, through a one-off, low-cost, community-based LTR process over five years. Secondly, it sought to support the design and implementation of the new Land Administration System (LAS) under the 2005 OLL. The programme provided capacity-building support, training, expertise in land administration, and refurbished and equipped the majority of the 30 District Land Offices (DLOs).
The total final cost of Phase II (LTRSP) was UK£42,206,324 (the original cost was set at UK£36.68 million). DFID provided UK£21.9 million; the European Commission UK£3.97m; the Netherlands UK£7.7m; SIDA UK£4.79m; GoR UK£3.9m. Detailed figures are listed in Annex 2 along with an estimated pipeline of funds to support further LTR work (mainly focusing on the Land Administration Systems) (LTRSP, 2013). These are still to be confirmed, but are estimated to total UK£6.6m from the donor community and UK£1.4m from GoR.

Prior to LTRSP, DFID funded a land policy specialist based in the GoR ministry responsible for lands (up until 2004) and provided UK£3 million for Phase I (2005-2009). As such, DFID has been the principle donor supporting land tenure reform in Rwanda since 2002.
Beneficiaries: Communications and Targeting

National LTR required mass participation in order to ensure that people understood what the process meant for them; the fairness and accuracy of information recorded; quick resolution of disputes; public buy-in. Achieving mass participation was based on a comprehensive communications strategy. The programme also had a specific gender strategy to ensure the equal rights of men and women were recognised and put into practice.

Communications

Effective and innovative communication strategies were required to ensure that the public were aware of the programme, of how it would work, of how to make a complaint, and of how it would affect them. A number of methods were used to appropriately target different audiences in different areas including GoR, LTR staff and district offices, urban and rural populations; youth; vulnerable groups; women; orphans; widows. Traditional methods of mass media (TV, press, internet and radio), posters, flyers and booklets were used but, in order to reach the most marginalised groups, greater innovation was needed. Here the programme recorded songs, performed plays and dances to illustrate the LTR process (LTRSP, 2010). The programme also established a ‘helpline’ to assist with any queries that claimants might have had. Based on this experience, a poster of ‘Frequently Asked Questions’ (FAQs) was produced in the Kinyarwanda language to be displayed at every Cell Office. These questions have been reproduced in English in Annex 3 to give an idea of the breadth of issues raised by the general public.

This blend of traditional and innovative communication proved very effective in disseminating information. By 2012 the vast majority of people in Rwanda had a good awareness of LTR and knew about the process from a range of different sources (LTRSP, 2012b; LTRSP, 2013). Just over 70% had attended a public meeting, and almost 100% of those who had attended found the meeting informative (LTRSP, 2011). Anecdotally, LTR television coverage appears to have performed an important function of communicating both horizontally and vertically to officials in Kigali that the Rwanda Natural Resources Authority (RNRA) was making progress in land registration, rather than merely driving attendance at lease issuance events.

Administratively, Rwanda is divided into Provinces, Districts, Sectors, Cells and Villages. Each Cell consists of a cluster of villages.
Gender

The 2004 National Land Policy and 2005 OLL provide for: equal rights to daughters and sons to inherit property belonging to their parents; protection of women’s property rights under legally registered marriages subject to the provisions of family law; requirements for both women and men to provide consent in the case of sale, mortgage, or exchange of matrimonial property by any of the partners.

LTRSP therefore included a specific focus on ensuring gender equality and strengthening women’s ability to assert their land rights. In Rwanda, the man is traditionally the head of the household and has control of all the assets of the family – including land – leaving women without any substantive rights to their own land (Carpano, 2011). In public meetings and other communications, the equal rights aspect of the OLL was made clear, plus the fact that second wives cannot be termed as a wife on the lease (polygamy is illegal in Rwanda). This leaves second wives vulnerable to a loss of land rights, although they could be termed as a friend on the lease should this be in agreement with all concerned parties. Meetings also covered the Inheritance Law, which stipulates that the surviving spouse inherits all the land. When they die, the land is split evenly among their surviving children, again regardless of sex.  

As part of the LTR process, both husbands and wives names were included on the claimant’s register, along with the names of their children. Widows were treated in the same way as married women to ensure their property rights were accounted for. Women’s participation in the LTR process was further encouraged by the fact that approximately half of LTRSP staff were women (Baldwin, 2012).

Gender disaggregated LTR figures from 2012 showed that 81% of land was owned jointly by men and women (ibid); 11% was owned by women only; 6% by men only. Various reviews and studies of gender in the LTR process in Rwanda have generally attributed the registration of women’s land rights as a result of the positive steps taken under the LTRSP to implement gender equality policy objectives. For example, the Gender Monitoring Office of Rwanda recognised the significant contribution that land registration had made to bringing about gender equality and this was noted in its 2011-12 Annual Report:

*Land registration has provided some gender equality best practices, including the increased awareness of women of their land ownership rights, that parents are secure in the knowledge that their children can inherit their land, land registers have increased knowledge of gender principles, and the process itself has reduced land related conflicts among the population, hence reducing GBV [gender-based violence] cases (GoR, 2012).*

Similarly, a World Bank-commissioned study of the short-term impacts of pilot LTR undertaken during Phase I found that it: (a) improved access to land among legally married women; (b) prompted better gender-neutral recording of inheritance rights; (c) led to increased investment and maintenance of soil conservation measures, particularly among female-headed households (Deiniger et al, 2011).

Despite this, one key challenge remains – non-formally married wives (or husbands)/multiple wives. Without a definitive marriage certificate, there was no formal requirement to include a

---

3 In rural areas, parcels below one hectare cannot be subdivided. This is to prevent what GoR considers to be unsustainable fragmentation of land parcels. Inheritance successors may jointly own shares of parcels below one hectare or, if possible, may agree to inherit different parcels within a multi-parcel holding.

4 The remaining 2% accounted for ‘non-natural entities’ such as churches and other institutions.
cohabitant on the lease. Widows from non-formalised relationships were also found to be at particular risk in traditional societies as the deceased husband’s family would claim the land title.

It should also be noted that there has not been any longer-term initiative to track the impact of the LTR process on the welfare of women and children, including those in polygamous relationships.5

Questions have been raised about the number of intra-family disputes that may have arisen as a result of the adjudication and titling process (LTRSP, 2013; Adams, 2013). The programme team reported that most intra-household conflicts tend to be inheritance related, and often where women have not received rightful inheritance. Monitoring and Evaluation (M&E) studies show that there is good awareness among women of their inheritance rights, but that this does not always translate into actual inheritance.

It is in this area of intra-family dispute resolution that clashes between legal provisions and traditional laws and customs are most likely to occur. The importance of customary law has been recognised in the legal process. The 2005 OLL took customary land law as its starting points – Article 3 states: ‘Land is part of the public domain of all Rwandans; ancestors, present and future generations’.

Therefore, land in Rwanda fundamentally belongs to everybody – including long-dead relatives and those Rwandans not yet born. This principle is key to understanding the relationship which most Rwandans have with their land, and reflects how customary ideals are present at the heart of formal law. Where there are clashes between customary law and legal provisions, it is up to local leaders and abunzi (local dispute resolution) to make sure that the legal provisions are obeyed – but only as far as their understanding of the law goes.

Anecdotally, Adjudication Committees are working to resolve issues of land rights within polygamous households both locally and within the law. In this way, polygamy is tacitly acknowledged, but not recorded, as it is illegal. For example, most cases involving polygamy include multiple plots, as men need to have the economic means to acquire a second wife. Therefore, some of the husband’s plots will be registered jointly with his first wife, and other plots registered solely in the name of the second wife, naming the children of the second marriage as persons of interest. This process means that the father maintains his interest in the land through his offspring. Where an agreement such as this cannot be reached, it is recorded in the dispute register.

In terms of how intra-household disputes, particularly over inheritance, can be resolved, communications aimed directly at men which address the issue from the perspective of children may help. A recommendation on resolving intra-household disputes from the

5 It is one of the recommendations of Adams, 2013, that DFID support an in-depth study into the impact of LTR and women’s land rights.
LTRSP implementation team was that *abunzi* need proper training to resolve legally clear cut cases, perhaps through the use of a range of case studies (LTRSP team members, personal communications).
**Project Delivery**

LTR was conducted using an eight-step process which was designed to bring land owners, including the state, to first register and title of their land. These eight steps are listed below and elaborated in Annex 4, which is an English version of a leaflet produced by the National Land Centre to explain the LTR procedure to landowners.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Demarcation of land using aerial photography(^6) to produce an index map</td>
</tr>
<tr>
<td>2</td>
<td>Adjudication and recording details</td>
</tr>
<tr>
<td>3</td>
<td>Issuing claims receipts</td>
</tr>
<tr>
<td>4</td>
<td>Recording objections and disputes</td>
</tr>
<tr>
<td>5</td>
<td>Publication of Records</td>
</tr>
<tr>
<td>6</td>
<td>Mediation Period</td>
</tr>
<tr>
<td>7</td>
<td>Final Registration</td>
</tr>
<tr>
<td>8</td>
<td>Title Issuance</td>
</tr>
</tbody>
</table>

**Step 1: Demarcation of land using aerial photography**

Landowners were encouraged to make themselves available to identify the boundaries of their land, preferably in the presence of their neighbours so they could verify the boundaries were accurate. The boundaries were then marked on an aerial photograph.

**Step 2: Adjudication and recording details**

Details of the claim were written in the adjudication record book, with the land owners name and names of other people with an interest in that land. Landowners need to bring with them their ID card and other documents and/or witnesses that they may have to support their claim to the land.

**Step 3: Issuing claims receipts**

A claims receipt is provided for each land holding to confirm that a claim has been made. The land holder signs this to confirm they have identified their land parcel(s) in the presence of witnesses. It is countersigned by the Chairperson of the Land Cell Committee and a para-surveyor, both of whom verify the claim was properly made.

**Step 4: Recording objections and disputes**

If anyone has an objection to or disputes the claim to land they should bring this to the attention of the Adjudication Committee. If the dispute cannot be resolved on that day, the dispute will be entered in a separate dispute record book. The disputant is given an objection receipt, and the dispute referred to local judicial authorities.

**Step 5: Publication of Records**

The objections and corrections period (60 days) allows for the adjudication record and index map to be inspected by the public and any further corrections or objections made. The record and maps were posted at the Sector or Cell office in the registration area.

**Step 6: Mediation Period**

Sixty working days. If a claim is contested during the mediation period, the claimants and the other contesting party present their case to local judicial authorities (*abunzi*). Their decision is final and the land is assigned to the rightful owner.

**Step 7: Final Registration**

Final records are submitted to the District Land Bureaux (DLBx) for checking and posted to the Office of the Registrar for registration and titling. Any claims still in dispute cannot be registered until a ruling has been made.

**Step 8: Title Issuance**

If no dispute has been made, or any disputes have been resolved, the claimant can collect their lease from the Cell Office for a fee of RwF1000 (approximately UK£1).

---

\(^6\) Aerial Photography was procured by GoR and carried out by SIDA.
The programme used the ‘General Boundary Principle’ to demarcate plots. This method uses natural landscape features to record approximate boundary positions – which could be revised if necessary – rather than formal surveying.

Landowners were involved at each stage. They were strongly encouraged to make themselves available for the demarcation process so they could guide para-surveyors and committees to the location and boundaries of their land, recording objections and disputes. Neighbours and communities were also involved when individuals’ plots were being recorded to verify the accuracy of boundaries. Claimants were then free to check the details of these records at any time to ensure the claim had been recorded properly, and they were permitted to file an objection at any point.

Cell Land Committees were established at the village and cell level using pre-existing local government structures. This committee represented GoR at the local level in adjudicating who the owner of the land was and in registering any disputes or objections raised.

Innovations

In terms of the geographical spread of the LTR process, GoR requested that LTRSP work in all 30 Districts simultaneously, with the target of registering 50% of plots in each district by the end of Year 1. The programme therefore had to upscale its operations very quickly within a limited budget. This was achieved by a combination of innovative and traditional techniques to achieve targets quickly and efficiently. Two key areas of innovation to achieve this were the employment and training of local ‘para-surveyors’, and the use of open source software.

Employment and training: using local resources

In order to achieve scale, LTRSP harnessed the local capacity of community groups and workers by recruiting and training para-surveyors from the villages where LTR was operating. Para-surveyors who were demarcating the land were therefore known to the claimants, which assisted in building trust with the public for the process. It also meant that there was an individual in every village with a working knowledge of LTR which assisted in improving understanding among the local populous. Although difficult to measure, the value of word-of-mouth dissemination of LTR messages was often cited in visits and studies as the main source of communication activities, particularly in rural areas.

Training for locally recruited para-surveyors and Adjudication Committees needed to be practical and hands-on. Para-surveyors were shown how to demarcate parcel boundaries on a fieldsheet according to the general boundaries principle; Adjudication Committee members were introduced to the claims register, the disputes register, the claims receipt, the objections receipt and the fee receipt. Para-surveyors were trained by para-surveyors from cells where demarcation had already been completed. This process was ongoing, using the most competent para-surveyors from one cell to train
another, and so on. This technique was useful as it enabled workers to use the knowledge and skills gained to train others and also worked as an efficient mechanism for training a large number of people over a large area.

Over the lifetime of the programme, 110,000 people were employed, of which 99% were drawn from the communities in which the work was being carried out. This equates to approximately 1% of the Rwandan population. Employment of women was also high, with 70% of staff field managers and 40% of para-surveyor positions filled by women.

Use of Open Source Software

Traditionally, the creation of digital land records has required significant investment in licensed commercial software packages. LTRSP adopted a mix of commercial software and open source solutions. While the GIS unit used predominantly commercially licensed software, the Land Tenure Regularisation Support System (LTRSS) and Land Administration Information System (LAIS) were developed solely using open source solutions. LTRSP was the first large-scale land registration programme to demonstrate the use of open source software for data processing, and is the first of its kind to use the technology for systematic registration. The use of Open Source software provided the cost-effective option for data processing required for such a large-scale programme. The estimated cost saving of using open source software was UK£147,950 (LTRSP, 2013).

There are pros and cons to the use of either commercial software or open source software. The pros of commercial software are that it is usually a slicker product with better documentation; technical support should be available (although not always in some African countries); it is usually familiar to technicians as it is often used in universities. However, commercial software is usually expensive (and often even more expensive to purchase in Africa); it is harder to customise; there are issues around piracy, which is especially relevant in developing countries. A reliance on commercial software means that counterfeit versions are often deployed when funds are not available. These can be disruptive to IT systems and servers, and can introduce viruses and other malware which threatens both productivity and security. This is not a problem with open source software which is easily and freely distributed.

Open source software, by contrast, is free; customisable; nimble (changes can be made very quickly by the open source community – bugs are usually fixed within days); open (there is usually another user who has the same problem as you – by sharing information you can fix it together). However, the supporting documentation is often poor; little training is available; quality is sometimes poor (but there are ‘market’ leaders); no technical support is available; it is rarely designed to be used on a large scale (but as it is customisable, it can be rolled out on a large scale with little effort).

The decision to use a mix of open source and commercial software on LTRSP was based on breaking down data-processing activities into small component tasks, and choosing the most appropriate software or combination of software to complete the task.

It should also be noted that the open source approach is being replicated in Ethiopia, where it will be applied to all geographic information system (GIS) and database functionality, negating the need for commercial GIS software.
Project Achievements

In line with the SRM, M&E activities were focused on monitoring LTR progress to ensure that it was being implemented in line with the OLL. Therefore, the data available on programme achievements tends to focus on numbers of parcels registered and customer satisfaction with the LTR process itself. There is little reliable data on the impact of LTR in Rwanda on livelihoods (Adams, 2013). An impact assessment is scheduled for 2014.

At this point, it should also be noted that there is also very little information about the impact of other GoR agricultural and land-related initiatives – of which there are several – and the inter-relationship with the impact of LTRSP. Although none have the same geographical scope as the LTR programme, these programmes have included land consolidation, crop intensification, and rural settlement, which would have had an impact on the security of tenure and livelihoods of title holders who were required to participate (ibid; Booth & Golloba-Mutebi, 2012; Pritchard, 2013).

The primary achievement of the programme was that between February 2010 and August 2013, 10.3 million land parcels were demarcated and adjudicated with 81% being approved to title. 7.8.4 million leases and freehold titles were prepared with over 5.7 million collected by landowners. This was achieved at a cost estimated at between UK£3.42 (US$5.47) and UK£4.05 (US$6.48) per parcel. A similar programme in Lesotho achieved US$69 per lease; in Kyrgyzstan, US$10 was achieved.

In terms of the LAS, all data was uploaded; 23 of the 30 DLBx were refurbished and all 30 were equipped; training programmes in land administration, GIS, surveying and on the Land Law were carried out (a future training programme has been prepared but is awaiting funding); the LAS has been

---

7 The vast majority of the 19% are cases where claimants could not or did not give complete information given during registration and the owner has not come forward to provide complete details (14%). The main reason (estimated to be about 6%) for incomplete information was that the owner was absent (a refugee, out of the country, living elsewhere in Rwanda). The second most common reason was that the owner had no ID, or lost their ID (around 5%). The third reason was that the owner was in prison or on community service. Most of the 5% of remaining parcels not approved to title are wetlands. Under the law, wetlands are state land either in the public or private domain. This has been an area of debate, and during LTRSP there was not a legal means of titling them, although this may change. The challenge of wetlands is discussed in detail in the LTRSP final report (LTRSP, 2013). 0.1% of unapproved parcels are due to unresolved disputes.

8 The picture on the right-hand side of this page shows Rwanda LTR progress up until the end of July 2013.
standardised through the Land Administration Manual and sets out the blueprint for Rwanda’s LAS for the future.

In general, when the performance and impact of LTR is discussed with government officials and civil society, it is considered that the impact on the lives and economic prospects of the poor have been favourable. Adams (2013) found that, in these general responses, while the programme was costly, ambitious and politically sensitive, it was in the interests of the tenure security of the majority of rural land right holders.

That said, there are on-going challenges to the LTR process (ibid; LTRSP, 2013): the sustainability of the LAS, and ensuring that landholders collect their lease documents (to which there is a cost attached, which is unaffordable for many households). These challenges are discussed below.
Lesson Learning

A number of lessons were learned over the course of LTRSP. Some, such as flexibility (on the part of both government and donor) and political commitment, had a positive impact on the programme. Others, such as capacity of the LAS, financial sustainability, and capacity of the justice sector, could have a detrimental impact on the long-term sustainability of the LTR process. Without addressing these issues in the near future, there is a risk that landowners will lapse back into using informal systems of land tenure.

Flexibility

From the outset, the Rwanda LTR programme was ambitious given its timescale, coverage and cost. The 2012 Annual Review found that the initial expectations of the LTR programme were unrealistically high. The realities of implementation required amendments to be made and flexibility on the part of development partners, beneficiaries and implementing agents. The programme was subject to a number of contract amendments during implementation to account for changes in time, scale, cost and targets. Future programmes should be mindful of the flexibility needed on all sides.

Expectations and targets need to be discussed, understood and agreed on by all stakeholders before contract commencement. There was some confusion regarding the wording of the original contract, where definitions were not mutually accepted by government and donor in terms of targets (‘titles issued’ versus ‘titles delivered’). Clarity is needed over fundamental concepts from the outset and adequate communication to resolve misunderstandings.

Geographical Scope

The programme may have benefited from a more regional approach before national roll-out (Baldwin, 2012). This would have provided an opportunity to iron out any problems or issues before countrywide implementation. However, there was strong political pressure from GoR to conduct the LTR process as a one-off, nationwide activity. Because of the history of conflict, it was requested that all districts had to benefit from LTR simultaneously, and that there had to be an even distribution of work. The unique scale and speed of the Rwanda LTR process would neither have been achieved without the framework established and pilot work carried out in Phase I of the programme, nor without strong government ownership.

Government Ownership and Political Will

Government buy-in, ownership and political will were essential for the success of the programme in order to ensure that the necessary legal reforms were undertaken in time. The performance accountability systems and governance structures in place in Rwanda also contributed to the programme’s success. Central government was able to mobilise local administrative structures to support the LTR process, such as the Cell Land Committees. Additionally, the RNRA demonstrated dedicated leadership and ownership. It closely monitored LTRSP team performance and attended weekly LTR management meetings. This gave them the opportunity to discuss any issues; it was noted that they took quick decisions based on lessons learned in the previous week’s field and back office operations.
Sustainability of the LAS

The sustainability of the LAS has yet to be ensured organisationally, operationally or financially (LTRSP, 2013). It needs to capture any transfer and changes of use made to the 10.3 million parcels that are now legally recorded, and deliver a fast and accurate information service. The LAS and institutions have been developed to an extent but substantial work is still required. Seven District Land Offices (DLOs) still require full construction. DLOs are not yet sufficiently integrated into the management of the LAS and are lacking operationally in terms of staff, skills, IT and survey equipment, and transport. This constraint has been recognised by development partners; future support for 2014 and 2015 is to be geared towards LAS and improving the efficiency of the system.

The key lesson is that, for large-scale systematic LTR programmes, appropriate investment needs to be made for the LAS at the same time that LTR is occurring, i.e. if by the end of year 1, one million leases have been registered, then the LAS needs to be efficient enough to manage change for 1 million leases.

Financial Sustainability

GoR aims to make DLBx financially self-sufficient by covering all of their costs through transaction charges on the transfer of land rights; GoR policy states that members of the public should contribute to the cost of services. However, experience from the field has found that current fee levels are not affordable for the rural population. By June 2012, only 42% of leases had actually been collected. The main factor preventing the collection of leases was the payment of fees. The fee for collecting a lease document is RwF1000 (approximately US$1.5). Other factors included queues at the cell offices and fears of taxation. In the later stages of the programme, the poorest households were exempt from paying the fee, which resulted in an increase in collection, with up to 99% of those on waiver lists collecting their lease (ibid). By July 2013, 68% of leases approved had been collected.

The risk is that, if the fees are not lowered, the population will opt out of the formal LAS and revert to informal forms of land tenure. The current policy debate in Rwanda is to move the LAS from a paper-based deeds system to a Torrens. The Torrens system does not consider the contract or certificate as the legal proof of ownership but simply records the details on an electronic register. If a claimant makes a claim which is approved, their details are then added to the database and confirmed as the legal owner. This is the current practice in most countries. Other income streams are also being considered, such as selling digital land information to private planners.

Future land registration programmes, therefore, need to give detailed consideration to the levying of fees and charges on individuals for registration, as well as payment options. There is little literature on pro-poor approaches to levying fees and charges in LTR programmes, but options might include applying fees and charges to those who can afford it (large urban households) and use these to cross-subsidise other areas, or charge no fees at all. For land transactions, either a means-tested or area-based approach could be used (i.e. charge substantial fees on large holdings or valuable properties) (LTRSP team member, personal communication).

Capacity of the Justice Sector to Address Land Disputes

The sustainability of LTR requires sufficient capacity in the justice sector to address land disputes. The LTR process registered very few disputes in comparison to the number of parcels registered (0.1%) (LTRSP, 2013). However, as transactions occur, it is likely that disputes will increase. Courts may also be needed for other land-related disputes, such as
disagreements between borrowers and lenders when land has been used as collateral. Santos et al (2012) suggest that landholders have little faith in the institutions which are in place to uphold and protect their land rights. Key lessons from the LTR programme in this respect are that:

- Efficient monitoring of disputes is key;
- Training staff appropriately in dispute resolution is extremely important;
- Data collection on how disputes are resolved, and which disputes have not been resolved, could have been better;
- Dialogue with the Ministry of Justice is essential to ensure that it is ready for the disputes occurring from LTR now and in the future (LTRSP, 2013).

**Replicability and Scalability of Approach taken in Rwanda**

We conclude this case study by considering how replicable and scalable the approach taken in Rwanda might be in other countries.

In terms of replicability, things to consider in other contexts are:

- Local implementing institutions – these were critical to success in Rwanda. In applying the methodology to another country it would be necessary to first identify local institutions that would legitimise the work.
- Political will – GoR demonstrated strong political will from the top down.
- Adequate legal reforms – laws need to be clear, realistic, equitable and enforceable.
- Level of accuracy required – using general boundary approaches as in Rwanda reduced costs considerably, but some governments may expect greater precision in the surveying process. Full survey methods are costly and time consuming.

In terms of scalability of the approach elsewhere, key elements to consider are:

- Survey technique: General boundary principles enable large-scale LTR to happen quickly, but surveyors may recommend more detailed and time-consuming methods.
- Keeping a large scale mentality while conducting pilots – it is not possible to do the same things which worked successfully in smaller pilots on a larger, national scale (for example, more highly skilled staff, better supervision, etc.). Therefore, mechanisms for scaling up (e.g. use of para-surveyors) need to be trialled in pilot areas.
- Breaking down processes into smaller components to make them simpler and easier to repeat quickly and consistently – many of the titling processing and production operations in Rwanda were influenced by research on manufacturing processes (e.g. Rwanda National ID cards, car manufacture, etc.).


---

It should be noted that the research for this paper was undertaken over a three-month period in the summer of 2009. This was after Phase 1 of DFID support had been completed, but prior to the start of Phase 2 (LTRSP), which began in early 2010.
### Annex 1 Rwanda Land Tenure Regularisation Timeline

<table>
<thead>
<tr>
<th>Year</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>New Constitution for Rwanda - Article 29: Every person has a right to private property.</td>
</tr>
<tr>
<td>2005</td>
<td>Parliament passes the 2005 OLL (15 September 2005). This sets 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.</td>
</tr>
<tr>
<td>2008</td>
<td>Strategic Road Map for Land Tenure Reform in Rwanda is accepted by cabinet (March 2008). Last revision dated April 2009.</td>
</tr>
<tr>
<td>2008</td>
<td>Development of the LAIS begins.</td>
</tr>
<tr>
<td>2009</td>
<td>Low Aerial Photography is completed in Rwanda with 99% of the country covered.</td>
</tr>
<tr>
<td>2010</td>
<td>Development Partners provide financial and technical support to RNRA. Implementation of LTR is intensified. Consultants appointed to support the LTR process.</td>
</tr>
<tr>
<td>2012 June</td>
<td>Demarcation and Adjudication complete for the whole country (10.3 million parcels).</td>
</tr>
<tr>
<td>2012 June</td>
<td>LAIS operational and commencement of transfer of sectors with completed lease issuance form the LTR database to the LAS.</td>
</tr>
<tr>
<td>2013 Dec-projected</td>
<td>Leases printed and available for all those who have registered with complete information and are eligible for title (anticipated to be 8 million).</td>
</tr>
<tr>
<td>2013 Dec-projected</td>
<td>All 10.3 million parcels transferred to the LAIS, thus establishing the Rwanda Land Registry.</td>
</tr>
</tbody>
</table>
**Annex 2 Contributions to LTR Rwanda by Donor as of July 2013**

<table>
<thead>
<tr>
<th>LTR Support</th>
<th>Contributions until end of July 2013 (UK£)</th>
<th>Further Commitments until 2015 (UK£)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basket Fund</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFID</td>
<td>21,900,000</td>
<td><strong>Pipeline: up to 4,100,000</strong></td>
</tr>
<tr>
<td>Netherlands</td>
<td>7,700,000</td>
<td>2,500,000</td>
</tr>
<tr>
<td>SIDA</td>
<td>4,793,385</td>
<td></td>
</tr>
<tr>
<td><strong>Sub-Total</strong></td>
<td>34,393,385</td>
<td></td>
</tr>
<tr>
<td><strong>Other DPs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC</td>
<td>3,900,000</td>
<td></td>
</tr>
<tr>
<td><strong>GoR</strong></td>
<td>3,912,939</td>
<td><strong>Pipeline: up to 1,366,581</strong></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>42,206,324</td>
<td>7,966,581</td>
</tr>
<tr>
<td></td>
<td>50,172,906</td>
<td></td>
</tr>
</tbody>
</table>

Basket fund spend until July 2013: **33,551,602**
Annex 3 Claimants' FAQs

- Why do we register land?
- What is land registration?
- What are the advantages or benefits of registering land?
- How do those that missed out on systematic first registration get their land registered?
- How does one go about registering land that is under recorded dispute once the dispute has been resolved?
- Why do husband and wife have equal shares in the rights to land (50%)?
- What happens in the case of husband and wife that are not legally married?
- How do polygamous cases get handled?
- How are the cases of those Rwandese that got married abroad, under a different legal system, register their land in Rwanda?
- Why are children not registered on the lease or title documents?
- Do a husband and wife have equal rights on land?
- Who are those that have right to inherit land?
- Who inherits?
- When does inheritance occur?
- When both parents die what are the procedures of inheriting their land?
- In the above case how does one go about registering the inherited land?
- What is a land transaction?
- What must one present to ensure a land sale is accepted legally?
- What about in the case of inheritance?
- Can small pieces of land be sold?
- When is it legally forbidden to transact in land?
- How much are the transfer fees?
- How does one go about splitting his or her land into more than two parcels?
- How about in the case of merging parcels?
- What does one need to present to have his/her land merged?
- What land is not legally allowed to be split or specifically sold?
- What land is liable to annual lease fees?
- Agriculture land
- Forest land
- Residential and Commercial land
- Why do people pay lease fees on their individual land?
- Who pays the lease fees and when is it payable?
- What happens when payment is made past the deadline date?
- What is the difference between lease fees and property tax?
- What is the length of a land lease?
- What does one need to present to get lease documents?
- What does one need to present to get a construction permit?
- What does one need to present to get freehold title documents?
- Why is land in village settlements (Umudugudu) recorded as belonging to Districts, yet some of this land was acquired on purchase and others gave out their land parcels in compensation for the land?
- Why do wetlands get registered to government yet those exploiting them have had it that way through generations?
Annex 4 Land Tenure Regularisation: The Procedures Explained
REPUBLIC OF RWANDA

National Land Centre (NLC)
Office of the Registrar of Land Titles
PO Box 6618
Kigali

LAND TENURE REGULARISATION

The Procedures Explained

Managing and Administering Land for the Benefit of all Land Owners
LAND TENURE REGULARISATION (LTR)

Land Tenure Regularisation is a set of procedures designed to bring land owners, including the State, to first registration and titling of their land. It is a systematic process that requires all land owners in an area designated for LTR to participate.

The LTR Procedures

The LTR procedures take place in designated land registration areas.

There are seven procedures that have to be undertaken under LTR for the registration of land holdings:

(1) Demarcation of land using aerial photography to produce an index map

(2) Adjudication of recording details

(3) Issuing claims receipts

(4) Recording objections and disputes

(5) Publication of records in the objection and correction period

(6) Mediation period

(7) Registration

(8) Title Issuance
This work involves an adjudication committee made up from the Cell Land Committee, Umudugudu Leaders and a team of para-surveyors. If a land owner owns one or more pieces of land in a land registration area, they may make a claim to that land by identifying their land parcel to the adjudication committee and showing the boundaries of their land to the team of para-surveyors.

(1) DEMARCATION OF LAND

All land owners are encouraged to make themselves available to guide the committees and para-surveyors to the location and boundaries of their land. This will be done in the presence of their neighbours so they can verify the boundaries are accurate. The land will not be formally surveyed but the agreed boundaries must be identified by the land owner with the field officers on the day of making the claim. The para-surveyors will then mark the boundaries of the land parcel on a photographic enlargement and give it a number.
(2) ADJUDICATION - RECORDING DETAILS

When the land parcel has been given a number on the photographic enlargement, the adjudication committee will then record this number in the adjudication record book, and write the land owners name and other details pertaining to the land beside that number. Also included in the record book will be people with an interest in that land and all neighbouring parcel numbers.

Land owners must bring with them their ID card and any other documents and / or witnesses that they may have to support their claim to the land.
(3) ISSUING CLAIMS RECEIPT

When the recording of the details is complete a claims receipt will be prepared to confirm that a claim has been made on that land. The Adjudication Committee will provide a claims receipt for each land holding. If a land owner has five pieces of land he / she will receive five claims receipts.

When demarcation and adjudication is completed the landowners will then be asked to sign the claims receipt confirming they have identified their land parcels in the presence of witnesses and the adjudication committee, and that their land is currently being occupied / used with their consent.

When the land owner has signed his / her receipt it will then be countersigned by the Chairperson of the Land Cell Committee and a para-surveyor, both of whom will verify their claim was properly made. This receipt does not confer legal rights but will enable land owners to formally register their land and obtain legal title at the end of the LTR process.
(4) RECORDING OBJECTIONS AND DISPUTES

If anyone present at the demarcation and adjudication has an objection to, or disputes / contests the claim to land they are free to bring this to the attention of the adjudication committee. The adjudication committee will then try to resolve the issue on the day of the claim with the disputants.

If the dispute cannot be resolved by the adjudication committee on that day, the dispute will be entered in a separate dispute record book that indicates the nature of the dispute and the name of the objector / disputant. The disputant will then be asked to sign an objection receipt, countersigned by the Chairperson of the Cell Land Committee and the para-surveyor. These records will then be referred to the abunzi.

When all of these steps are completed there will be:

- An index map showing land holdings and their numbers
- An adjudication record linked to the land holdings
(5) PUBLICATION OF RECORDS

The objections and corrections period allows for the adjudication record and index map to be inspected by the public and any corrections or further objections made to the adjudication record and the index map.

This period will run for sixty working days from completion of the demarcation and adjudication.

The adjudication record and index maps will be posted at the Sector or Cell office in the land registration area.

If claimants live outside the land registration area or have relatives owning land they are encouraged to invite claimants to visit the area to inspect the records.
Making Corrections

Anyone is free to check the details of these records at any time to ensure that their claim has been properly recorded. They can submit or request correction to any information relating to their claim if necessary. The adjudication committee will provide assistance where necessary.

When the correction period has ended, the records will be sent to the Office of the Registrar for preparation and issuing of the land title.

Filing Objections

Any person is free to file an objection to a claim through the adjudication committee. He/she must inspect the record and index map and advise the adjudication committee why they object or contest the claim.
(6) MEDIATION PERIOD

If a claim is contested within the mediation period the claimants and the other contesting party are allowed to present their cases at a hearing through the abunzi.

The abunzi team will conduct hearings in the land registration area. Disputants must attend the hearing with someone to represent them if they wish.

The abunzi decision is final and the land is assigned to the rightful owner.
(7) FINAL REGISTRATION

Following completion of the objections and corrections period, the final records will be submitted to the District Land Bureau for checking and then posted to the Office of the Registrar for registration and titling.

For those claims in the adjudication record that were not contested, and for disputed claims where the dispute was resolved, this will take place after the completion of the objections and corrections.

For those claims still in dispute, no registration of titling can be made until a ruling has been made.

(8) TITLE ISSUANCE

Any person is free to file an objection to a claim through the adjudication committee within sixty working days. He / she must inspect the adjudication record and index map and advise the adjudication committee why they object or contest the claim. The claimant should also file a counter-claim to the objection within ten working days, failure to which the objection will be upheld.

After the sixty working days mediation period have elapsed, any objection to the adjudication register will be filed in a court of law.
PROCEDURES FOR LAND TENURE REGULARISATION

1. Notification of LTR Areas
2. Training of Committees and Local Information Campaign
3. Demarcation and Adjudication
4. Objections and Corrections Period
   - Claims Without Objections
   - Claims With Objections
     - Abunzi / Dispute Resolution or Other Mediation
5. Final Registration
6. Title Issuance
National Land Centre (NLC)
Office of the Registrar of Land Titles
PO Box 6618
Kigali

Prepared by the Office of the Registrar of Land Titles
National Land Centre
Annex 5 Activities carried out under the M&E component of LTR

<table>
<thead>
<tr>
<th>Activity</th>
<th>Results Based Monitoring Link</th>
<th>Timeline</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline survey</td>
<td>Baseline for LTR process to assist future process monitoring.</td>
<td>August 2010-February 2011</td>
<td>£336,769.00 (actual)</td>
</tr>
<tr>
<td>Customer satisfaction and mystery client survey</td>
<td>Qualitative survey to collect opinions of recipients on the LTR process in an anonymous manner</td>
<td>October 2010-January 2011</td>
<td>£96,886.00 (actual)</td>
</tr>
<tr>
<td>Qualitative process monitoring and indicator tracking</td>
<td>Monitoring of the LTR process against the baseline</td>
<td>April-June 2011</td>
<td>£79,598.00 (actual)</td>
</tr>
<tr>
<td>Qualitative process monitoring and indicator tracking</td>
<td>Monitoring of the LTR process against the baseline</td>
<td>April-October 2012</td>
<td>£70,287.00 (actual)</td>
</tr>
</tbody>
</table>

(Source: LTRSP, 2013)