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# RURAL SETTLEMENT IN RWANDA

An assessment of land management and livelihoods

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# RURAL SETTLEMENT IN RWANDA

# An assessment of land management and livelihoods

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# Abbreviations

CS0	Civil society organisation
DLO	District land officer
DPO	District programme officer
EDPRS	Economic Development and Poverty Reduction Strategy
IDP	Integrated Development Programme
LA	Local authority
MINAGRI	Ministry of Agriculture
MINALOC	Ministry of Local Government
MINECOFIN	Ministry of Finance and Economic Planning
NGO	Non-governmental organisation
NISR	National Institute of Statistics of Rwanda
RHA	Rwanda Housing Authority
RISD	Rwanda Initiative for Sustainable Development
RNRA	Rwanda Natural Resources Authority
RWF	Rwandan francs
SFCG	Search for Common Ground
USAID	United States Agency for International Development

## **Executive summary**

Human settlement in Rwanda has been a challenge for a long time, and, prior to 2004, the country had never had a coherent policy in place. Residential land is scarce due to hilly terrain, a high population and a focus on agricultural growth to address food security concerns. Various other factors, including low incomes, absence of support from government structures and incentive mechanisms, contributed to the expansion of unplanned, health-endangering residential areas in urban centres, bad management of land and environmental degradation.<sup>1</sup> The situation worsened following the 1994 genocide in Rwanda, which brought about, among other things, extensive destruction of houses and infrastructure, leading to thousands of Rwandans becoming homeless.

To address these concerns, the government embarked upon a resettlement programme to regroup people into planned residential areas, 'imidugudu', the aim of which is to provide improved quality of life for the population through the satisfaction of basic needs, such as employment, adequate housing, access to water and energy, a cleaned-up environment, access to basic facilities such as markets and health services, as well as safety and order in public places and in households.<sup>2</sup>

The aims of Rwanda's resettlement initiative are broadly in line with International Alert's outcomes of peace-conducive development:<sup>3</sup>

- **Decent livelihoods**: people are gainfully employed in decent work, earning enough to live with dignity and are treated fairly;
- **Capital**: people can accumulate economic assets securely to provide a cushion in time of need, to improve their income, to invest in and improve the economy, and to do so in a way that is fair to others;
- **Revenue and services**: through revenue collection, the government invests in providing the infrastructure and services needed for the economy to flourish; and
- Environmental and social sustainability: economic development enhances (or at least avoids damaging) the environment, and peace-positive attributes in society.

It is against this background that International Alert and partner organisations, mainly IMBARAGA and Pro-Femmes/Twese Hamwe under their project building Partnership for Peaceful Rural Transformation with support from the American people through USAID, commissioned this study. The study seeks to understand some of the issues faced by imidugudu residents and explore ways in which various partners can support them through community dialogue to solve the problems they are currently experiencing.

#### Summary of key findings

Research findings are broadly positive regarding views of local authorities and residents with respect to human settlements in Rwanda, both of whom state the benefits of imidugudu settlements and how they have generally improved livelihoods. Many imidugudu residents have a strong preference for living in imidugudu compared to living in scattered houses and are hopeful for better livelihoods going forward, with high expectations for employment, access to finance and basic amenities.

<sup>1</sup> Republic of Rwanda, National Human Settlement Policy in Rwanda, May 2009 (updated version)

<sup>2</sup> Ibid.

<sup>3</sup> International Alert, Peace through prosperity – integrating peacebuilding into economic development, June 2015

That said, it is evident that imidugudu residents have a strong sense of reliance on the government and other stakeholders to supply what is needed to improve livelihoods, rather than to take ownership for improving their own situations. Residents should be empowered to take responsibility to work together within imidugudu to engage in activities that do not require financing such as: digging water trenches; planting trees; forming associations and cooperatives; cleaning streets/roads, etc. In this regard, there is a need to encourage developing resilience and a more independent outlook.

On a policy level, well-planned and serviced rural settlements are required. Although the National Human Settlement Policy provides a clear national vision to develop settlements in Rwanda, it lacks practical actions and strategy on how they should be created. Considering that imidugudu settlements are built on private land, there needs to be clear direction on how land required for imidugudu will be acquired, how poor families will be assisted, and how badly needed social economic infrastructure will be provided.

In this regard, adequate infrastructure such as roads, transport facilities, water boreholes, affordable energy, as well as facilities such as education, health and markets, need to be in place prior to residents moving in, or else such amenities need to be prioritised.

Although the government is the main driver in rural settlements, buy-in is needed from the local community through a consultative process in advance of choosing a site. This allows concerns raised during the research study, such as long distances from agricultural land, crop intensification and land-use planning to be addressed in advance, incentivising residents to optimise productivity. Practical and/or financial support from non-governmental organisations (NGOs) is also highly desirable, particularly with respect to providing technical vocational training and capacity building for youth and women. Further, an awareness campaign and capacity development in agriculture development and soil control would be of significant benefit to residents more generally. Assistance, buy-in and investment from the private sector would also be beneficial.

There is a strong need for all stakeholders to work hand in hand to improve the scheme. This would lead to designing an integrated planning system that is more sustainable in the long term.

Alternative solutions and further research of imidugudu settlements are required to determine the extent of improvements needed before further settlements are created. Rational use of land, increased agriculture production and improved food security, climate change resilience and better livelihoods for imidugudu residents will then result.

#### Key recommendations

The main recommendations are provided for the following audiences:

#### For government

• To ensure optimum sites are selected for imidugudu (for example, land is unreserved for agricultural use, is physically accessible and can provide basic amenities), all relevant organisations as well as the local community should be involved in the process. To address concerns by local authorities that the local community is not involved in the site-selection process until the last minute, a community mapping process should be put in place, where, prior to validation of the site, the relevant organisations consult with imidugudu residents.

- To avoid land exchange<sup>4</sup> between residents, the government should instead purchase land selected for imidugudu. Those individuals who are to reside within a site would then purchase the land directly from the government.
- To address concerns that some imidugudu do not have basic infrastructure and/or amenities, physical plans for all selected imidugudu sites and their expansion should be developed in advance, and basic infrastructure such as roads, schools, health facilities, food storage and markets should be ensured. Resolution of complaints by some residents who say that imidugudu are located far away from their fields should be considered during the consultation process.
- A 'one size fits all' approach in land use consolidation and one-crop intensification programmes should be avoided where landscape across the country clearly differs.

#### For NGOs

- NGOs should work collaboratively with the private sector and the government to engage in imidugudu planning and design, and provide basic amenities, which would further improve livelihoods in imidugudu.
- NGOs should work hand in hand with the government to provide the required agricultural training to farmers living in imidugudu to increase productivity.
- To deal with the high cost of energy and the lack of such resources in some imidugudu, training should be provided for residents to create biogas from animal dung.
- To improve unemployment issues and meet high expectations of residents (particularly women and youth) that more opportunities will result from living in imidugudu, training should be provided to imidugudu residents in various vocational skills and job creation (i.e. weaving, tailoring, light industry, etc.).
- NGOs that build imidugudu settlements for those in need should be clear on who owns the property in question. This should be communicated to the beneficiary and government in writing to avoid issues that have previously arisen during land tenure regularisation where both the NGO and the resident of the property claimed ownership of the houses.

#### For imidugudu residents

- To improve livelihoods, residents should participate fully in the development process of imidugudu, which would both improve the plans at specific sites, and also their own ownership of those plans.
- To preserve longevity of housing, infrastructure and amenities, residents should be responsible for taking basic care of these facilities built for them.
- Following training and capacity building provided by NGOs to understand and address soil erosion, imidugudu residents should adopt these measures around their houses to avoid damage and erosion.
- The youth and women should be encouraged to be proactive in job creation, e.g. by forming cooperatives and associations through which they could receive training from NGOs in vocational skills and job creation.
- To maximise imidugudu land and improve livelihoods, residents should create '*akarima k'igikoni*' (kitchen garden) to grow vegetables for consumption.

#### For private sector

Although the private sector was not consulted as part of this research, it is recommended that views are sought from private sector actors to determine whether there are ways in which they can invest in the development of imidugudu, for example, by working with NGOs and the government to provide basic amenities to improve livelihoods.

<sup>4</sup> Land exchange occurs when the site identified for imidugudu is privately owned and residents who will live on an identified umudugudu site give to the owner of the land an equivalent plot of land located elsewhere. This leads to fragmentation of imidugudu land and informal land transaction occurring, where often the land is subdivided into parcels of less than one hectare (not allowed by law).

# 1. Research background

Rwanda is a small, densely populated country of 26,338 km2 located in central east Africa. According to the 2012 housing and population census, there are 11 million people in Rwanda, where the country has a density of 416 inhabitants/km2.<sup>5</sup>

Rwanda's economy is predominantly reliant on rain-fed agriculture for both rural livelihoods and agriculture exports. The GDP per capita is USD 644 of which one-third comes from agriculture.<sup>6</sup> Land is scarce, with an average landholding of less than 0.5ha per household. The high population growth rate of 2.6%,<sup>7</sup> inheritance practices and the rapid economic development stimulate a high demand for land. This has led to intensive land use, with marginal land also being brought under intensive cultivation, while the continuous subdivision of land results in increasingly smaller holdings. However, agriculture productivity is still low considering the number of people involved in developing this sector. Further, the majority of rural residents live in scattered houses, which does not help the efficient use of the scarce land.

This land scarcity issue was exacerbated by the unstable socio-political situation that culminated in the 1994 genocide in Rwanda. The social unrest that characterised Rwanda created extensive internal and external displacement of people. In the aftermath of the genocide, many internally displaced people and refugees returned to their homes. Some of these refugees, especially those who had left the country since 1959, found that their land had been occupied by others or had been reallocated by the government.

In order to provide an interim solution to the land and housing issue, the government introduced a land-sharing programme and a grouped settlement programme commonly known as umudugudu<sup>8</sup> (villagisation) as a way of resolving the issue of land scarcity. Land sharing occurs when, for example, owners of a plot of land returned to the country (commonly after the 1994 genocide in Rwanda) to find that the government had given the land to a new owner. To address this conflict of ownership, the government required that the land be shared between current and previous owners.

For the government, "umudugudu settlement represented a solution to population pressure, poor land management and impoverishment of the masses". Further, the government believed that, in the long run, umudugudu settlement would become "the mode of use and development of the national territory"<sup>9</sup> and would subsequently develop into urban centres. However, imidugudu settlements still face difficulties in achieving the expected outcome, hence the ongoing initiatives of improving the imidugudu strategy, creating frameworks and designs that will help the government and its people attain the imidugudu objectives. Some of the difficulties include lack of financial resources, difficult landscape to build adequate imidugudu settlements, etc.

The government also introduced a land tenure reform programme to guarantee tenure security for all landowners. The land tenure reform also aimed at establishing land use planning regulations to ensure effective use of the limited land in Rwanda. Currently, 11,327,414 parcels have been

<sup>5</sup> National Institute of Statistics of Rwanda (NISR), preliminary results of the housing and population census, 2012

<sup>6</sup> NISR, 2013

<sup>7</sup> NISR, 2012, Op. cit.

<sup>8 &</sup>quot;UMUDUGUDU is defined as a mode of planned settlement made of between 100 and 200 houses by site in rural areas. Measurements of plot reserved for 'UMUDUGUDU' range from 10 to 20 hectares with a possibility or capacity of extension and as far as possible a space provided for various non-agricultural activities so as to allow the population to earn their lives. The combination of all these elements constitutes the UMUDUGUDU" (Ministry of Infrastructure, 2009).

<sup>9</sup> Republic of Rwanda, National Human Settlement Policy in Rwanda, May 2009 (updated version).

demarcated and adjudicated across the country and 7,164,230 land leases issued to landowners.<sup>10</sup> In terms of land use, a national land use and development master plan has been adopted and detailed district land use plans are under development in all districts.

To address land scarcity issues with respect to agricultural land, a land use consolidation programme was set up in 2008 where farmers are requested to grow a single priority crop that is identified by the government to be best suited to local conditions and consistent with Rwanda's overall agricultural strategy. The rationale is that, by joining small plots together to form a single unit, this would deliver important economies of scale in agricultural production, resulting in improvements to efficiency and sustainability, which would in turn boost household wellbeing and promote greater equity.<sup>11</sup> While assessing the economic, social and environmental impacts of land use consolidation of the crop intensification programme in Rwanda, the research team from the University of Rwanda concluded that:

- "• most but not all farmers are satisfied with Land Use Consolidation (LUC) and believe it has brought them benefits, including increased yield;
  - while both satisfaction and agricultural productivity of land are high, food insecurity, vulnerability to shocks, and poverty remain a serious problem for LUC farmers;
  - participation in LUC provides farmers with important access to inputs, such as improved seed and fertilizer, as well as frequent visits by extension agents and these aspects should be emphasized;
  - although LUC is voluntary by law, many farmers felt some degree of pressure to participate and initially exhibited resistance to the program. Working with farmers to understand and address these concerns when rolling out the program to new areas should receive greater emphasis; and
  - farmers lack access to storage and post-harvest processing for crops, which should be emphasized to maximize benefits from increases in productivity."<sup>12</sup>

<sup>10</sup> Rwanda Natural Resources Authority, Land Tenure Regularisation Support Programme, Quarterly Report for 6th Quarter, April to June 2015, July 2015

<sup>11</sup> Nyamulinda Birasa et al, Farm Land Use Consolidation in Rwanda, 2014; and Assessment of the Economic, Social and Environmental Impacts of the Land Use Consolidation Component of the Crop Intensification Program in Rwanda, Final Report, USAID Land Project, 2014

# 2. Research objectives and scope of work

As described in the terms of reference, the research objectives are to:

- Explore thoroughly the current status of rural settlements in Rwanda with a particular focus on Ngororero, Rutsiro, Ngoma and Huye districts;
- Analyse the linkages between current rural settlements and sustainable land management in terms of policy and community practices;
- Examine opportunities associated with the imidugudu settlements;
- Assess the implications of imidugudu settlements to vulnerable groups including women, youth and landless; and
- Identify gaps in rural settlement (policy and implementation); and draw key policy recommendations.

In order to ensure that all the above objectives are attained, the following were designed as the expected research outputs:

- What is the status of the rural settlements (imidugudu) in the four focal districts? How many sites in each district, how many people live in imidugudu, what kind of infrastructure?
- What are the reasons for establishing imidugudu?
- What opportunities and risks are related to land management in imidugudu?
- What is the status of access to goods and services including health, education, water, sanitation, energy in imidugudu?
- Did the household income increase or decrease, and why?
- What is the role of imidugudu in preserving the environment and promoting climate change resilience?
- What are the gender dimensions of imidugudu settlements and the implications this has for gender-based violence and women's empowerment as well as that of young generation?
- What is the impact of imidugudu settlements on food security: increased productivity; storage facilities?
- What are the linkages between imidugudu and other land reform programmes' policies, including land use consolidation, crop intensification and environment policy?

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# 3. Research methodology

#### 3.1 Primary data sources

Qualitative research methods were used to gather the data needed. Primary data was obtained through semi-structured interviews, key informant interviews and focus group discussions in the four districts (Ngororero, Rutsiro, Huye and Ngoma). A dedicated questionnaire was administered to a selected sample of people including vulnerable groups such as women, orphans, widows and disabled people in two sectors from each of the four districts. In total, 223 semi-structured interviews were carried out, discussions were held with 275 people divided into 14 focus groups,<sup>13</sup> and 18 sector and cell leaders were interviewed. Key informant interviews were also held with various government departments, including the Ministry of Finance and Economic Planning (MINECOFIN), Rwanda Natural Resources Authority (RNRA), Rwanda Housing Authority (RHA), three district land officers (DLOs) and civil society organisations (CSOs) working on land, rural development and settlement including IMBARAGA, Pro-Femmes/Twese Hamwe, Rwanda Initiative for Sustainable Development (RISD) and RCN Justice et Democratie. International Alert's staff including managers and field staff was also interviewed. A list of all interviewed people can be found in the annex.

Fieldwork was carried out from Monday, 1 June 2015 to Thursday, 4 June 2015. The field team comprised six enumerators and two survey supervisors. Field teams were subdivided into two teams. One team worked in Ngoma and Huye in Eastern and Southern provinces, respectively, while the other team was deployed in Ngororero and Rutsiro districts in Western Province. Survey enumerators carried out all 223 semi-structured interviews, while survey supervisors interviewed local authorities (LAs), led focus group discussions and collected all the GPS coordinates. Due to time constraints, workload for the field team proved very demanding as each enumerator had to do seven interviews on average per day, as well as the necessary preparation, write-up and logistics handling. This had an impact on the data quality.

The overall research was led by the lead consultant who also carried out all key informant interviews.

<sup>13</sup> In the focus group discussions, there were the following categories of people: In Ngoma and Huye districts there were 70 males and 55 females including 17 vulnerable people (widows, disabled, poor and orphans) and one youth, whereas in Ngororero and Rutsiro districts, there were 76 males and 60 females, out of whom 70 were categorised as vulnerable. There was no youth in the focus group discussions held in Rutsiro and Ngororero districts. In terms of presenting the results for the focus group discussions, the majority views of members making up each focus group were taken, such that dissenting views are not captured.

Province	District	Sector	Cell
Western	Ngororero	Matyazo	Gitega
			Rwamiko
		Sovu	Kagano
			Rutovu
	Rutsiro	Musasa	Gisiza
		Manihira	Tangabo
Eastern	Ngoma	Rukumberi	Rubona
			Ntovi
		Rurenge	Akagarama
			Muhurire
Southern	Huye	Simbi	Mugobore
			Kabusanza
		Gishamvu	Nyumba
			Sholi

#### Table 1: Research areas

#### 3.2 Secondary data sources

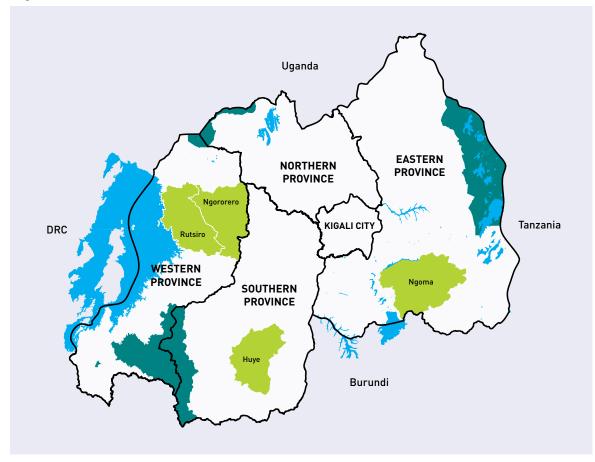
The primary data sources included working level information such as opinions, perceptions and concerns of individuals residing in imidugudu settlements, policy-makers, LAs and CSOs. In terms of secondary data, the study also looked at various literature available on the subject, such as research conducted, including government and non-government reports, statistical records; socio-economic datasets and maps to ensure the spatial analysis element would be included in the research. The policy and legal review was drawn from Rwanda's legal and regulatory framework on land, housing and land use planning.

#### 3.3 Research sites

Research sites were selected based on districts and sectors where Alert operates. Alert's 'Partnership for Peaceful Rural Transformation' (PPRT) project operates in four sectors in each of the following districts: Ngororero, Rutsiro, Huye and Ngoma. In one sector out of four in each district, Alert deems there to be a 'model village' where most of its operations take place. The survey covered two sectors in each district, one of which included the 'model village'.<sup>14</sup> Figure 1 shows the research sites.

<sup>14</sup> The model village is one 'umudugudu' selected by Alert and partner organisations including IMBARAGA and Pro-Femmes/Twese Hamwe, where their field activities on peacebuilding take place.

#### Figure 1: Research sites



#### 3.4 Research limitations

There were a number of limitations to the study:

- Insufficient time and resources allocated to the study;
- Research objectives concerning the impact on food security and climate change resilience were not explored;
- The research was only conducted in eight sectors out of 416 across the country. This undermines the statistical significance and accuracy of the statements made within the study. Given the small sample size, the study may have benefited from a more detailed assessment (for example, interviews with a wider range of people, targeted imidugudu, etc.);
- The questionnaire was designed to collect descriptive data as required by the terms of reference but its content was insufficient to determine challenges and the impact of living in imidugudu;
- Extent of data and potential quality undermined by hefty workload of enumerators carrying out numerous interviews over a short period of time;
- Lack of documentation for the literature review as there is little research carried out on rural settlements in Rwanda; and
- Information from private sector was not collected due to time and resource constraints.

# 4. Literature review on rural settlements and land use

#### 4.1 Brief history of rural settlements in Rwanda

The history of human settlement in Rwanda can be summarised over three different periods: pre-colonial; during colonisation; and post-colonisation. During the pre-colonial era, human settlements in Rwanda were dominated by agro-pastoral activities. According to the National Human Settlement Policy:

"The social life activities of the Rwandan family were completed during the daytime inside the family enclosure composed of inzu (the house proper), urugo (the most important outside space), igikali (the yard behind the house), the granaries for rich families and a boundary made of a hedge or fig or euphorbium hedge, or else a fence made of reeds. Each family had its enclosure in the centre of its plot of land to ease cultivation, and planted different crops all around in concentric zones depending on priorities and the intensity of the agricultural activities to be carried out. The building materials used were for the most wood and reeds, straw, clay soil and soil from termite's nests. Partitions inside the house were made of plant fibre-woven mats."<sup>15</sup>

During this period, the land tenure systems and land ownership had some influence on settlements development, as political management in pre-colonial Rwanda was based on the control of the economic system, which was founded on three pillars: land ownership for agricultural purposes; livestock; and security. These rights were enjoyed under the supreme protection of the king and had a feudal character. The main aspects of land tenure in pre-colonial Rwanda were:<sup>16</sup>

- 'Ubukonde' or clan rights, held by the chief of the clan, who was the first land-clearer. The chief could own vast tracts of land on which he would resettle several families, known as 'Abagererwa'. The latter enjoyed land rights, subject to some customary conditions.
- 'lgikingi' or right to grazing land, granted by the king or one of his chiefs, known as 'Umutware w'umukenke', to any family that reared livestock.
- 'Inkungu' or custom, enabling and authorising the local political authority, on his own or on others' behalf, to own abandoned or escheated land. These lands were considered a sort of land reserve, which the ruler of the time could grant to anybody who needed one.
- 'Gukeba' referred to the process of settling families onto the grazing land or fallow land. Gukeba was an exercise within the province of the LA.

Responsible for good management were the chief in charge of the land, 'Umutware w'ubutaka', and a chief in charge of livestock, 'Umutware w'umukenke', both considered at the same level as the chief of the army, 'Umutware w'ingabo'.

<sup>15</sup> Republic of Rwanda, May 2009, Op. cit.

<sup>16</sup> Republic of Rwanda, May 2009, Op. cit.

During colonisation, the trend to human settlement changed as colonisers brought in a different perspective of what settlement should look like, partly because they were coming from a different culture, but also because they had to find ways to have control and impose their rule easily. In this regard,

"colonisation and evangelisation brought about the appearance in the country of urban centres born out of some small population clusters where lived the local staff employed by the colonial administration, and rural boroughs around places of worship as well as schools and small business centers".<sup>17</sup>

This period saw the introduction of different types of building materials including adobe and burnt bricks, tiles and corrugated iron sheets. By the time colonisation ended in Rwanda, there was a mixture of pre-colonial and colonial settlements in Rwanda, as well as urban areas and commercial centres.

The post-colonial era was characterised by two main periods: 1962 to 1994; and 1994 to date. According to the HSP, "the establishment of infrastructure and other public utilities in urban centres attracted labour in search of employment and social progress and led to rural migration which created considerable housing needs".

The HSP suggests that, although the country had regained its sovereignty, the human settlement approach inherited from the colonialists was still dominant. Low-income families lived in unplanned urban areas and housing demands far outstripped supply as the government could meet the housing needs of only 10% of households.<sup>18</sup> This housing shortage was worsened by the lack of community infrastructure and facilities, which led to unfavourable hygiene conditions and environmental degradation. Soil erosion and land degradation are serious problems that Rwanda has faced. In particular, due to heavy rainfall exposure and a hilly landscape, the country is vulnerable to soil erosion. Extensive environmental degradation occurred due to an increasing rural population and the overexploitation of soil caused by increased pressure of agricultural activities on small plots of land.<sup>19</sup>

In order to respond to the housing demand in rural areas, the government attempted to introduce grouped settlements. The first attempts were made in 1978 in the villages of Gashora and Sake, the pilot village of Rango in Butare: "Unfortunately, these attempts at regrouping settlements in villages failed due to lack of supervision and follow up and inadequate basic infrastructure" (HSP, 2009).<sup>20</sup>

After the 1994 genocide, the housing shortage became more apparent. Many returnees who had fled the country over the previous 30 years were back in a short period of time. Urban and rural areas needed more houses to accommodate these people as well as internally displaced people. The housing issue was exacerbated by the shortage of land for resettlement. In order to resolve this issue, in 1996, the Ministry of Public Works adopted instructions on regrouped settlements (imidugudu). The instructions aimed at encouraging the development of rural centres through imidugudu by transforming them into planned settlements, which would improve livelihoods of residents over time.<sup>21</sup> As a result, many imidugudu settlements were built by the government and some NGOs for vulnerable groups, mainly orphans, widows, returnees, disabled and homeless people.

<sup>17</sup> Republic of Rwanda, May 2009, Op. cit.

<sup>18</sup> Republic of Rwanda, May 2009, Op. cit.

<sup>19</sup> See L. Berry, J. Olson and D. Campbell, Assessing the extent, cost and impact of land degradation at the national level: findings from seven case studies, 2003, http://global-mechanism.org/edocman/cost-of-land-degradation-case-studies.pdf/, accessed 28 September 2015

<sup>20</sup> Republic of Rwanda, May 2009, Op. cit.

<sup>21</sup> Republic of Rwanda, May 2009, Op. cit.

#### 4.2 Policy and regulatory framework

The Land Use Planning Law governs the planning of land use and development in Rwanda and states as a fundamental principle that it must "prioritise higher density, multi-family residential settlements either located in an urban or rural area". Moreover, the land use "must focus on integrated land uses like residential, commercial...in settlement areas in which people live and work to minimise physical distances".<sup>22</sup>

Vision 2020<sup>23</sup> emphasises the need for Rwanda to pursue a "harmonious policy of grouped settlements based on economic activity". It states that:

"...rural settlements organised into active development centres will be equipped with basic infrastructure and services. This system will service as an entry point into the development of non-agricultural income generating activities. Land will be reorganised and consolidated so as to create adequate space for modern living and viable farming."<sup>24</sup>

Economic Development and Poverty Reduction Strategy (EDPRS)2<sup>25</sup> promotes the efficient use of land for settlement and is a key factor in determining growth in rural areas. Its stated 'Priority 1' for rural development is to ensure that "rural settlements are revisited to ensure greater access to economic opportunities and basic services".<sup>26</sup> It notes that, when making a settlement decision, "the economic and social benefits of living in a formal settlement must outweigh those of living in a scattered settlement".<sup>27</sup> The stated benefits are: access to economic opportunities, access to safe water and sanitation and electricity, and access to social services such as schools and health centres; but these must be weighed against the cost of moving location, distance to farmland, construction of new housing, and possible social difficulties in the new location.

In its National Human Settlement Policy,<sup>28</sup> the Government of Rwanda's stated commitment is to establish:

"...sustainable human settlements in both urban and rural areas which are economically viable and socially integrated, where the rights of each and everyone are recognized, especially women, children, persons with disability, persons living in poverty, and those who belong to vulnerable and disadvantaged groups".<sup>29</sup>

With respect to rural areas, its stated main objective is the "improvement of the existing system of human settlements for sustainable socio-economic development". More specifically, it consists of the

"...rationalization of land use, the establishment of new homes, the improvement of their quality, the rational management of land, the improvement of the agricultural production, the creation of other income generating activities, the establishment of basic facilities closer to the population, the strengthening of the role of local communities in the management of human settlement and the organization of the human settlement financing system".<sup>30</sup>

<sup>22</sup> Law No.24/2012 of 15/06/2012 relating to the Planning of Land Use and Development in Rwanda, Article 4(4) and 4(6)

<sup>23</sup> Vision 2020 is Rwanda's long-term development horizon that outlines key priority development areas the country should focus on. There was broad consensus on the necessity for Rwandans to define clearly the future of the country. This process provided the basis upon which this Vision was developed. Among the Vision 2020 priority development pillars are "good governance and efficient State, skilled human capital, vibrant private sector, world-class physical infrastructure and modern agriculture and livestock, all geared towards national, regional and global markets" (Republic of Rwanda, Rwanda Vision 2020, July 2000).

<sup>24</sup> Republic of Rwanda, Rwanda Vision 2020, para 4.4

<sup>25</sup> Republic of Rwanda, EDPRS2, 2013–2018

<sup>26</sup> Ibid., Thematic Area Priorities, Rural Development, Priority 1

<sup>27</sup> Ibid., para 3.21

<sup>28</sup> Republic of Rwanda, May 2009, Op. cit.

<sup>29</sup> Ibid., Chapter III, para 3.2

<sup>30</sup> Ibid., para 4.2

Although the policy spells out challenges that human settlements face and provides a clear national vision to develop the sector, it lacks practical actions and strategy on how the desired economically viable and socially integrated settlements will be created. In particular, it does not also provide clear guidance on implementation such as the responsibilities of the ministries and agencies dealing with human settlements in urban and rural areas to ensure these agencies do not have overlapping functions (whether vertical or horizontal). Moreover, given the relevance of other policies and programmes, such as land use consolidation and one-crop intensification, it is surprising that the policy is silent on providing clear coordination mechanisms between these instruments for more effective and efficient implementation.

Considering that imidugudu settlements are built on privately owned land, the policy should have set out strategies on how the land needed for imidugudu will be acquired, how poor families would be assisted and how badly needed social economic infrastructure would be provided.

Further, the policy does not provide any costing in terms of financial resources needed, where they will come from and how much land is needed for sustainable human settlements. Ministerial order No.001/07.05 of 19 May 2009 relating to the implementation of the national programme on regrouped settlement in imidugudu defines umudugudu as

"a mode of planned settlement of between 100 and 200 houses by site in rural areas. Measurements of plot reserved for umudugudu range from 10 to 20 hectares with a possibility of capacity of extension and as far as possible a space provided for various non-agricultural activities so as to allow the population to earn their lives..."

#### 4.3 Towards rural settlement improvement

As stated above, under EDPRS2, the government envisaged rural settlements to facilitate people to be well settled, while accessing economic and social services easily. To be able to reach this objective, the government introduced the concept of 'model village' (see Figure 2), which was considered to be an important foundation to achieve the Integrated Development Programme (IDP).<sup>31</sup> According to the Ministry of Local Government (MINALOC), a model village would have all basic socio-economic facilities such as roads, health and education facilities, markets, etc.

In this regard, the government piloted the model village concept in 2010, which, according to RHA, "was successful in the five pilot sites and as a result the government decided to expand".<sup>32</sup> Each district was then asked to develop one model village each year. According to RHA staff interviewed, there are now 65 model villages across the country. It is envisioned that an additional 60 model villages will be built with each district building one model village by the end of 2015.<sup>33</sup>

<sup>31</sup> MINALOC, Effective Rural Settlements to Realize Rural Development for EDPRS2, 2012

<sup>32</sup> Interview with officials from RHA

<sup>33</sup> Ibid.

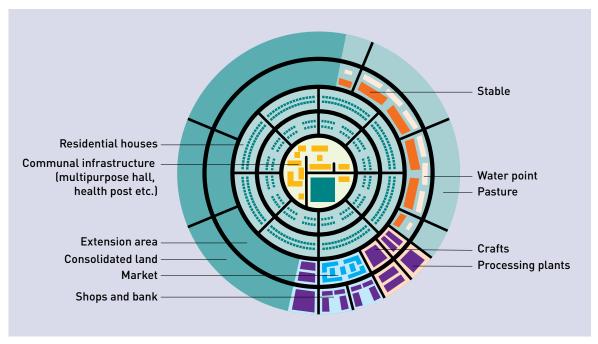


Figure 2: Integrated Development Programme model village

There are many positive benefits observed in these model villages: communication between communities is facilitated, providing basic infrastructure is made easier, accessibility is improved, there is an ability to replicate the model elsewhere, hygiene and sanitation are improved, high-risk zones are avoided, there is greater security, space is released for agriculture, and social cohesion and livelihoods are bettered.<sup>34</sup>

Although the model village concept presents positive results, its rollout has been hampered by various challenges. According to key informants interviewed, the main challenges are the lack of sufficient financial resources, land scarcity, land exchange, expensive infrastructure development, a lack of coordination among various partners, a lack of ownership from the local community, insufficient commitment from LAs, and a lack of skilled personnel.<sup>35</sup> Left unaddressed, these issues could jeopardise the effectiveness of the imidugudu scheme.

To address some of these issues, the government is currently considering the introduction of a 'four in one model' as a way of managing land in a more efficient way, where each house would be designed to accommodate four households instead of one. This initiative is expected to minimise land needed for settlement, with additional advantages including: increased social cohesion; promotion of unity and reconciliation; integration of people; and improvement of livelihoods through easy access to basic amenities.<sup>36</sup> This model is still in a conceptual phase, however. In addition, and to address the high cost involved in setting up imidugudu sites, it has been suggested that stakeholders, development partners and NGOs support the government to provide basic infrastructure, amenities or capacity building to enable residents to solve some of the issues themselves.<sup>37</sup>

Government through the RHA has recently initiated a programme to record the status of all rural settlements captured in a 'rural settlement database'. This aims to assess the condition of each settlement and identify what support or improvement is needed to make that settlement more

36 Ibid.

Model village layout plan. Source: RHA

<sup>34</sup> Interviews with officials from Search for Common Ground (SFCG); RNRA; and IMBARAGA

<sup>35</sup> Interviews with officials from RHA, RNRA, SFCG and IMBARAGA

<sup>37</sup> Interview with officials from RISD

viable and attractive. RHA is currently looking at how this database can be comprehensive by containing all variables needed.<sup>38</sup>

There are ongoing plans to do further research to understand what needs to be done to develop rural settlements on a long-term national basis. Objectives such as those in the EDPRS give hope that the government will prioritise improving further the living conditions in imidugudu settlements.<sup>39</sup> MINECOFIN believes that having rural settlements under the wider integrated development programmes will not only improve livelihoods but will also spur economic growth in imidugudu.<sup>40</sup>

38 Comments from RHA's representative during the report validation on 27 October 2015

39 Interview with DLOs of Huye, Ngoma and Ngororero districts and officials from RNRA

40 Interview with officials from MINECOFIN

# 5. Presentation of key findings

As stated earlier, this research was conducted in four districts where Alert operates. Table 1 presents the proportion and number of households (HHs) within imidugudu sites in each of the four districts:

District	HHs within imidugudu	Total HHs within district	Percentage (%)
Huye	67,000	77,915	85.9
Ngororero	55,139	74,613	73.8
Rutsiro	60,536	_41	-
Ngoma	79,528	79,647	99.8

Table 2: Number of households	within imiduaudu s	ites by district
	J	

Source: DLOs from Huye, Ngororero, Rutsiro and Ngoma districts

What is clear from the table is that nearly all households live in imidugudu settlements in the Eastern province. Perhaps this is unsurprising given that the terrain suits imidugudu living (the land is relatively flat), landholdings per household are larger in this district than elsewhere, and given the government's focus on this area as a result of there being a great deal of land sharing taking place post-1994 genocide. This figure has significantly increased since the fourth population and housing census that took place in 2012, where the Eastern province was recorded as having the highest number of houses categorised as imidugudu, with 77.6%. The Southern province followed with 46% and the Western province with 40%.<sup>42</sup>

On a national level, the same census notes that, in 2012, 49.4% of houses in Rwanda were within imidugudu settlements (against 34% of scattered houses countrywide). This figure has almost doubled since 2002, where only 25% of houses comprised imidugudu. It is expected that this percentage has substantially increased further over the last three years.

#### 5.1 Demographics of the respondents

Of the 224 valid responses to the survey provided, 67% of those interviewed were male. As a whole, the vast majority of respondents were married (82%), with 15% single, 3% separated and less than 1% divorced. Those interviewed were mainly of the younger generation: 33% were between the ages of 21 and 30; 16% were within the 31–35 age category; and 22% were between 36 and 40. The remaining 29% were between 40 and 50 years old.

With respect to the level of education of the 152 people who responded to the question, the overwhelming majority had a maximum of secondary education (98%). The remaining respondents stated that they never attended any school. Unsurprisingly for this rural umudugudu, 98% were farmers, with the remainder being teachers. Prior to moving to this umudugudu, most of the respondents did not live far away: 57% stated that they previously lived in the same cell; 40% lived in the same sector; and 3% lived in the same district.

<sup>41</sup> Rutsiro district was unable to provide relevant data.

<sup>42</sup> NISR, Characteristics of Households and Housing, Thematic report, January 2014

#### 5.2 Selection of umudugudu site

Of the 215 valid responses, 65% of people interviewed said that they were not consulted during the umudugudu site-selection process, while 35% said that they were. However, those who said they were consulted said they were not asked their views on whether or not the site selected would be convenient. This may jeopardise imidugudu policy if people who are supposed to live in imidugudu are not properly consulted in imidugudu site selection.

The same question was put to LAs interviewed. In the Western, Eastern and Southern provinces, LAs stated that the process of choosing an umudugudu site is community-led. Public meetings were held and the public chose the most appropriate location in terms of the most opportunities/ infrastructure available. All 21 LAs confirmed that the public was consulted during this selection process. It was stated that settlement committees are set up to choose an appropriate umudugudu site, comprising representatives from district, province, sector and cell level. These committees identify the site, submit the site selected to district council for approval, a layout plan is then developed, and only then is the local community informed when the layout plan is presented to them to ask for their input.<sup>43</sup> A further interviewee emphasised his concern that the local community does not take part in site selection until the last minute.<sup>44</sup>

It is evident from the above that messages are mixed between LAs and the majority of individuals interviewed. The government and institutions involved in imidugudu site selection should review the selection process and ensure that all those affected are consulted prior to finalising an umudugudu site.

Given that most sites selected are in areas ideal for agricultural projects because of land fertility, it was suggested that institutions such as MINALOC, REMA, RAB, RNRA, the Ministry of Agriculture (MINAGRI) and MIDIMAR should be part of the team that select the site.<sup>45</sup>

#### 5.3 Health services

Respondents considered the quality of local health services to be very poor or poor (79% and 21%, respectively). The majority of respondents considered that services in this umudugudu settlement are worse than where they lived previously (82%).

Using GPS coordinates where the research was conducted in imidugudu sites to existing health facilities from the national base map (developed in 2011), results show that the average distance to health facilities in Huye district is 3km; 2.5km in Ngoma district; 8km in Ngororero district; and 5km in Rutsiro district. Although it may be the case that, since 2011, further health facilities have been built in these districts, on the basis of the data available, even the shortest distance of 2.5km in Ngoma represents significant travel time for imidugudu residents to access basic health amenities. Future imidugudu sites selected should be centred around such facilities to ensure accessibility of these services.

Respondents considered that there is a need to provide health insurance<sup>46</sup> for residents living in imidugudu. They also felt that the government should support residents to build their own clinics and health centres, or else build these facilities for them. In any event, they believed that the number of community health workers should be increased and more capacity building should be provided.

<sup>43</sup> Interview with official from RHA

<sup>44</sup> Interview with official from IMBARAGA

<sup>45</sup> Interview with official from SFCG

<sup>46</sup> In Rwanda, it is a requirement for every citizen to pay an annual contribution for health insurance. Families that cannot afford these expenses have their insurance paid for by the government, NGOs or by other individuals.

Undeniably, the quality of health services will be related to the availability of other infrastructure and amenities such as water and electricity. If these basic resources are not accessible every day at health facilities in villages, inevitably, such services will suffer.

#### 5.4 Education

A somewhat mixed answer was given to the question of whether there are any schools within the umudugudu: 89% thought there were not any, but 11% thought there were. Of the 31 people who thought there were schools, most people said there were primary schools (48%), with others considering there was nine-year basic education (19%) or 12-year basic education (19%). In terms of the quality of the educational buildings available, respondents considered that the infrastructure available is moderate (77%), although some people thought it was poor (19%). One person even ranked the building quality as good. Similar views were given about the quality of education provided in these establishments: 74% considered teaching to be of moderate standard; 16% considered these services to be poor; but 10% thought the teaching was good. However, views were mixed about whether education facilities were better in the place where respondents previously lived: 51% thought they were better in this umudugudu; whereas 49% considered they were not.

In terms of distance required to travel to school, the overwhelming majority of respondents stated that they have to walk more than 30 minutes to school (94%, representing 210 out of 223 people who responded to this question). An even greater number of people believed that the quality of education in this umudugudu will not improve (99%). One respondent went on to say that "we have been living here for the last ten years and the education facilities have not been upgraded".

Using GPS coordinates where the research was conducted in imidugudu sites to existing education facilities (primary and nursery schools) from the national base map (developed in 2011), results show that the average distance to primary schools in Huye district is 1km; 1.5km in Ngoma district; 2km in Ngororero district; and 3km in Rutsiro district. Although this may have been the case, since 2011, further education facilities under the nine-year basic education scheme have been built in these districts. Base map data show that all four districts especially Ngoma and Huye districts are well serviced in terms of primary schools and the distance presented above may have been reduced.

Respondents felt that the infrastructure available is not of good quality and that the government should support the umudugudu to help build their own schools. The establishment of vocational schools was particularly stressed. They also considered that teacher training should be provided to improve the quality of teaching in the area, and that children should receive food and clothing for school. With respect to those who have completed secondary school, respondents felt that they should be encouraged to reintegrate into further education.

#### 5.5 Access to water

There were some mixed beliefs in terms of whether there is water infrastructure (that is, piped water or boreholes) in the umudugudu. Of the total 226 respondents, 68% thought there was, but 32% did not think such infrastructure existed. In terms of availability of running water, 99% of respondents stated they had no access to running water in their households; 95% said that this was also the case with respect to their previous place of residence. In terms of fetching water for their households, 27% of respondents travel less than 30 minutes, 46% travel between 30 minutes and an hour, and 28% stated that they have to travel over an hour to collect water (see Figure 3). Interestingly, every respondent stated that they have to walk the same distance to fetch water as they did before moving to this umudugudu.

Respondents believed that the quality of water should be assured and be sufficient and available at all times. They also felt that water should be available nearer to their homes.

Figures from the fourth housing and population census of 2012 show that only 73% of people in Rwanda had access to improved sources of water, most of whom lived in urban areas. This suggests that people in rural areas, including imidugudu residents, are still dealing with water shortages. This may also be an obstacle to some development projects (i.e. light industries) in imidugudu that require sufficient water to function.

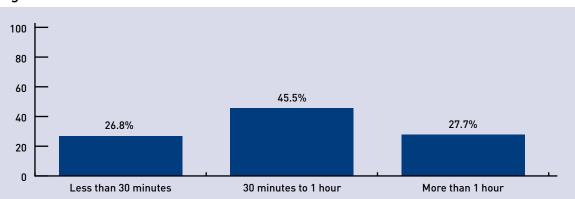


Figure 3: Time taken to walk to collect water

#### 5.6 Sanitation

With respect to sanitation and overall hygiene in the umudugudu (that is, type of toilet, cleanliness of communal areas such as roads, rubbish collection, trenches, personal hygiene, etc.), 77% of respondents (177 out of 231 valid responses) considered sanitation to be moderate, with 13% believing it is poor, and 10% thinking it is good. Nearly all respondents (97%) considered that sanitation is better in this umudugudu than where they lived previously. One respondent said:

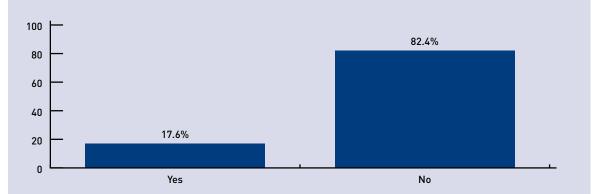
"Here in this village people live close to each other and it is very easy to imitate each other especially when someone is doing something really well. Everyone wants to look like him/her. That is why I think that hygiene and sanitation are better here."

With regard to the type of toilet used, people interviewed stated they had an individual pit latrine (per household). The fact that shared pit latrines were not common in the umudugudu may also contribute to a sense of improved sanitation. On a national level, 87.9% of households have pit latrines.<sup>47</sup>

#### 5.7 Access to energy

There were 216 responses in total to the question of whether interviewees have electricity in their umudugudu; 41% said they had power, whereas 59% said they did not. In terms of whether respondents have electricity in their homes, 18% stated they had power, but 82% said they had none (see Figure 4). Of those that had power, the majority used electricity. Very few used alternative means, such as biogas or a generator.

Respondents considered that electricity prices are high, although electricity sources are available.



#### Figure 4: Number of respondents who have electricity in their households

Although the survey was carried out on a small scale, the 82% figure of those who stated they do not have electricity in their households is broadly indicative of the situation at national level, where only 308,326 households have access to electricity nationally. It is doubtful that rural settlements will have improved access to electricity in the near future considering that this is not a priority of EDPRS2, since its objective is to "give preferential access to electricity...to priority sectors of the economy and/or large investors".<sup>48</sup> The insufficient supply of electricity is reflected by the high cost of the small quantity that exists compared to other regional countries. In Rwanda, the cost is at \$0.24/kWh compared to Kenya's \$0.15/kWh, Uganda's \$0.17/kWh and Tanzania's \$0.05/kWh. The current installed capacity is 110MW against an anticipated minimum demand of 563MW in the medium term.<sup>49</sup>

With the above challenges, significant delays are likely for rural settlements to have access to electricity given its shortage, cost and lack of financial capacity. This could jeopardise other development projects within imidugudu given the importance of electricity to perform basic tasks such as construction, lighting, power, etc. Alternative energy solutions such as solar energy should be explored to limit the impact of this deficiency.

#### 5.8 Livelihood sources

Of the 222 valid responses provided, 65% considered that living in this umudugudu offers more job opportunities than where they lived previously. In terms of income, 95% said they earned less than 10,000 Rwandan francs (RWF) per month.<sup>50</sup> Only 5% earn between RWF 10,000 and 50,000. This tended to be broadly the same as the income respondents received in their previous place of residence: 88% saying they earned less than RWF 10,000; 11% saying they earned between RWF 10,000 and 50,000; and 1% stating they earned over RWF 100,000.

With respect to overall standard of living, the majority of respondents believed their situation had improved since they moved to this umudugudu: 74% of respondents believed their income had increased, and 84% considered their household's quality of living had improved. Respondents were also optimistic in terms of future prospects in their umudugudu: 93% believed employment opportunities would increase in the future and that this would therefore increase their revenue; and 79% considered that living in this umudugudu would improve their quality of life going forward.

49 Ibid.

<sup>48</sup> Republic of Rwanda, EDPRS2, Shaping our development, 2013-2018

<sup>50</sup> At the time of writing, RWF 10,000 is equivalent to around US\$13, €13 or £9.

Residents were optimistic about employment opportunities because they believed they will have basic infrastructure quicker than before, and therefore opportunities will be available to create their own jobs or to become employed through various development projects. They also stated they believed access to finance would become easier as financial services reach their village.

#### 5.9 Women and youth

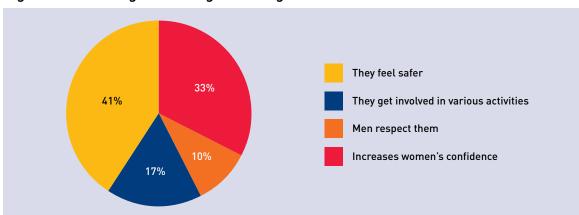
These groups were selected for interview because of their roles in community development. Women have historically not received equal treatment as compared to men. For example, until 1999, women had no rights to inherit land or property. However, women clearly have an important role to play, particularly within households in rural settlements, and, as such, can improve livelihoods within imidugudu. As for youth, they were indoctrinated during the genocide to destroy their own society. Yet they are the future. If they were given opportunities, and training in basic skills that are needed for the country's development, they could make a positive contribution to building a prosperous and peaceful society.

In this regard, the government has made both groups a priority in the EDPRS2 under the rural transformation theme.

#### 5.9.1 Women

Females were interviewed to determine gender equality issues in the umudugudu. Most respondents (79%, or 179 women out of 228 in total) considered that living conditions were better in this umudugudu than in their previous place of residence. It was not commonplace for them to hear violent domestic quarrels between husband and wife in their locality, with 88% saying that they either never heard such disagreements, or they were rare. These women also claimed that, over the last 12 months, they had little or no violent conflicts with their husbands, although it would seem they had slightly less arguments in their previous place of residence (81% saying they had no disputes, but this figure was 84% at their previous residence; 17% claiming they had arguments at least once a year, whereas in their previous home the figure was 15%; and only 2% saying their disputes occurred at least twice a year, but the figure was 1% before they moved to the umudugudu).

Out of 167 valid responses, most women believed that the main benefits of living in this umudugudu were the feeling of security (41%) and the confidence this brings (33%) (see Figure 5). This sense of feeling safer is due to living in a less scattered community and, as a result, increased freedom to move around without fear. A small proportion of women believed that men in the umudugudu respected them (10%). Some women also felt that the umudugudu allowed them to get involved in many activities (17%).



#### Figure 5: Advantages of living in imidugudu for women

Respondents considered that women should be taught how to come up with income-generating projects, that they should be established and financed. They felt that young women should be encouraged to join vocational training schools to become job creators in the future.

#### 5.9.2 Youth

As presented above, 49% of interviewed people are under 35 years old, which falls under the 'youth' category as defined in Rwanda. A sample were interviewed to understand their experience in terms of both employment and income as compared to where they lived before and to determine what their perceptions are in terms of livelihood. With respect to the amount of earnings they received per month: 56% stated they earned between RWF 10,000 and 50,000; 2% stated that they earned between RWF 50,000 and 100,000; 1% earned more than RWF 100,000; but 41% said that they earned less than 10,000. When asked how much they earned per month where they lived before, 73% stated that they earned less than RWF 10,000; 25% earned between RWF 10,000 and 50,000; 1% said that they earned between RWF 50,000 and 100,000; 73% said that their income has increased since they moved to the umudugudu.

Asked if their living standards have improved since moving to the umudugudu, 49% of those who answered the question said their living standards have improved in terms of quality of life. This is mainly due to improved income. In terms of future prospects for youth, 42% of those who responded said living in the umudugudu gives them hope that more employment opportunities will be created for them and will therefore improve their quality of life. They felt that living in the umudugudu gives them opportunities to join efforts and exchange ideas on how to develop themselves, and believed that, if they come up with a good project, they are likely to be funded. One of the youth respondents said:

"Here we are many youth with different entrepreneurial ideas, somehow competitive. When we put our ideas together through our youth cooperatives it gives us hope that we can develop. We need stakeholders to support us and finance our projects."

Although 65% of youth who responded to the question believed that at some point they will be able to afford to build their own houses, 87% thought that it would either be difficult or very difficult for other youth to build houses in this umudugudu; 7% even thought there was no land in the umudugudu to build houses.

Respondents felt that income-generating projects (i.e. carpentry, tailoring, modern farming, etc.) should be established for the youth and that there should be access to finance opportunities without collaterals. An RHA interviewee stated that there is land for expansion in the new model village plan, where the youth would be required to buy land in the expansion area. He noted that the four in one concept (described in Section 4.3 above) would facilitate loan acquisitions with the bank, and the youth would be facilitated to purchase houses at cost (construction) price.

LAs in the Western, Southern and Eastern provinces considered that training should be provided to the youth in job creation and project management. They thought that the youth should be invited to form cooperatives and associations and that vocational training should be provided. Others felt that various stakeholders and donors should be invited to support the youth in creating jobs.

It is evident from the above that the 'youth' category constitutes a significant proportion of people living in imidugudu. Going forward, plans to build imidugudu should give due consideration to this category. Further to providing technical skills through vocational training programmes, imidugudu plans should provide space for leisure activities. This would not only motivate young people to live in imidugudu and stay away from hooliganism, but would also limit rural to urban migration by encouraging the youth to remain in the umudugudu, as necessary facilities would be within the locality.

#### 5.10 Distance to farm land

Of the 226 people who were surveyed, 95% of the respondents claimed that they have not registered their land.<sup>51</sup> That said, 123 people stated that they had land title documents.

In terms of distance travelled to get to respondents' respective farms, 69% stated they walk less than 30 minutes; and 32% said they walked between 30 minutes and one hour. When asked whether there is food storage in this umudugudu, 95% of those 219 respondents stated that there is none. This would indicate that productivity is not optimal as significant time is spent travelling to/from work, which adversely impacts livelihoods.

Respondents felt that there is a need for more soil fertilisers to be provided. Those involved in animal husbandry believed that existing policy should be revised to allow for outdoor grazing. Respondents stated that farming land is often far away from where they reside. With respect to land use consolidation, respondents noted that harvests have increased following the introduction of terraces. They were also content that they were able to get sufficient land.

#### 5.11 Housing

In terms of whether respondents currently live in houses that are their own, 88% stated that they did (representing 191 out of 218 people in total). This is consistent with the number of people living in rural areas who declared that they own houses during the 2012 national housing and population census, with 87% of rural residents declaring that they own houses. In terms of how they acquired their houses, 175 people responded, of which 78% said they built it themselves; and 10% said they bought it. With respect to the construction materials used on houses, 82% (representing 168 people out of 206) used adobe bricks; 13% used burnt bricks; and 6% used cement blocks. Respondents seemed to prefer their current houses to those they lived in previously, with 76% claiming that their houses were more solid than before. However, 70% of respondents stated that they have no water harvesting/retention systems on their houses. That said, 58% said they had soil control measures around their houses.

Respondents complained that there are insufficient soil control mechanisms currently available and that ineffective traditional methods are being used. However, those who had previously been residing in high-risk zones noted that they were now resettled into safer areas.

Considering that only 49% of houses are in imidugudu at national level and that 87% of rural residents own their houses, it is likely that there is a high proportion of homeowners who currently live in scattered areas that need to have their houses demolished and rebuilt within imidugudu settlement areas. With no financial support, this represents a real burden for those who cannot afford to build new homes in imidugudu. Even for those who can afford the capital, many will find it burdensome to deflect money away from income-generating investments.

In any event, the government needs to study thoroughly the economic impact and cost of demolishing existing houses in scattered settlements against the gains and benefits of building new homes in imidugudu sites that are not currently serviced with basic amenities.

<sup>51</sup> Note that the Land Tenure Reform programme was successful in registering all land in Rwanda. The explanation for the high figure of individuals who claim that they have not registered their land is as follows: Article 17 of the Organic Land Law stated that all umudugudu land is state owned. This has changed under the amended land law of June 2013, which now states that umudugudu land should be registered under the individual names of those who reside in umudugudu houses. It is therefore assumed that, for those individuals who claim that their land is not registered, the land is (at least) registered as state land until full reregistration is done. It is understood that this process is ongoing.

Of the 11 LAs interviewed in the Southern and Eastern provinces, 10 stated that residents of the umudugudu came to live in the area as a result of government policy (the remaining LA stated that people built houses in the area individually). This is broadly consistent with the Western province, where all eight LAs said the same. However, eight out of nine LAs also stated it was because people exchanged their land; four stated that the government built houses for the residents; and one even said that NGOs were involved in building houses in the area for residents.

#### 5.12 Advantages and challenges of living in imidugudu

#### 5.12.1 Benefits of living in the umudugudu

When asked what are the benefits of living in the umudugudu, 43% (out of 205 valid responses) stated that it encourages integration; 27% similarly believed it encourages harmony; 15% said it improved togetherness; and 12% claimed it increased trust. Further positivity is demonstrated with respect to the umudugudu in that an overwhelming 96% (210 out of 220 respondents) believed that the umudugudu would improve social harmony among residents.

Focus group discussions in the Western, Eastern and Southern provinces were generally very positive about rural settlement. With respect to the focus group discussions in the Western province, four out of six focus groups considered the government policy of settling people in an umudugudu to be very good, with the remaining two groups thinking it was good. In the Eastern and Southern provinces, all eight focus groups thought the policy was very good. Across all 14 focus groups in these provinces, they considered that the umudugudu would improve social harmony among the residents, and that those living in the settlements have better livelihoods than those living in scattered areas.

The focus group discussions in the Western province yielded further positive results, with five out of six groups considering that the umudugudu increases trust among community members; encourages social harmony; encourages integration; creates togetherness among people; increases agricultural productivity; and creates a strong belief of livelihood improvement. Four out of five groups thought that it improves land use management, and all six groups felt that the umudugudu increases safety and provides basic amenities close by. In the Eastern and Southern provinces, two out of eight groups thought that the umudugudu increases trust; five thought it encourages social harmony; seven out of eight thought it increases safety; and five thought it provides basic local amenities. Only one group thought it increases agricultural productivity.

From an LA perspective, benefits of the umudugudu included living closer to infrastructure and the ability to develop quicker, improved security, ease of management and communication between residents and LA, improved sanitation and the ability to combat disease, and increased agricultural production.

#### 5.12.2 Challenges of living in the umudugudu

In terms of challenges, five out of six focus groups in the Western province thought that amenities were too far away (this figure was three out of eight in the Southern and Eastern province focus groups); fields were far away (seven out of eight in the Southern and Eastern provinces); and houses were in a bad condition (one out of eight in the Southern and Eastern provinces).

LAs in the Western, Southern and Eastern provinces thought that challenges of imidugudu settlement are: inadequate rainwater harvesting systems leading to damaged housing and roads; risk of disease spreading across villages more easily; lack of markets and other basic amenities in the locality; old or unfinished houses; long distances from fields and therefore difficulties in carrying fertilisers to the area; insufficient land for grazing or housing of farm animals; difficulties in controlling the youth and resolving other forms of social conflict; acute prostitution; problems with social integration; and land exchange.

Failure to compensate former landowners is something raised from our regular field report.

It has been noted by some that land exchange for imidugudu settlement is a significant problem (particularly in the Eastern and Western provinces) and not in line with the law.<sup>52</sup> Land law does not allow subdivision of land under one hectare yet land exchanged for a parcel in imidugudu villages has to be subdivided from existing agricultural land. This subdivided parcel cannot be registered.

One of the said benefits of IDP villages is the availability of 'IGIKUMBA' (common grazing space). However, it has been suggested by one informant that this space is inadequate for the number of cattle kept on the land. Others were concerned that imidugudu houses occupied by vulnerable groups such as widows, disabled people and genocide survivors are not being maintained as these groups have little capacity to rehabilitate their homes.<sup>53</sup> It was also noted that settlements built post-genocide are informal and lack any form of planning. They comprise old structures in need of redevelopment and upgrading especially in the Eastern province. Moreover, some imidugudu do not have basic infrastructure despite these having been planned.<sup>54</sup> This general lack of appropriate planning was observed such that imidugudu sites often do not ensure land management, soil control and waste management. Not having multidisciplinary teams involved in the planning process was the key underlying criticism.<sup>55</sup>

#### 5.13 Improvements to livelihood

To improve livelihoods in the umudugudu, focus groups in the Western province thought that training should be provided on small financial projects and job creation; SMEs should be encouraged in the area; the market for green agriculture products should be constructed; electricity should be available; health centres and water retention systems should be created; and a small local market should be constructed. The Eastern and Southern province focus groups felt that having basic infrastructures closer by would help improve livelihoods in the umudugudu, such as electricity, schools, water and healthcare. They also felt that assistance should be given to finishing houses, as many are in a bad condition, as well as providing training or creating job opportunities.

LAs in the Western, Eastern and Southern provinces felt that livelihoods could be improved by getting involved in the IDP, which helps residents to live according to what they can do (imyuga). Others felt that the private sector should be mobilised to invest in various socio-economic infrastructure in the umudugudu. LAs felt that increased job creation and providing training in vocational skills would improve livelihoods. Some stated that developing gardens and agroforestry would also help.

- 53 Interview with official from RNRA
- 54 Ibid.

<sup>52</sup> Interview with official from SFCG

<sup>55</sup> Interview with officials from IMBARAGA

#### 5.14 Improving land use management

With respect to improving land use management in the umudugudu, focus groups for the Western province thought that soil control measures should be adopted around houses such as water harvesting, planting trees and other methods to prevent destruction from water, and constructing rainfall water storage facilities. The focus groups for the Eastern and Southern provinces were more concerned about providing more fertilisers and irrigation for the dry seasons. They also considered electricity, biogas and water harvesting to be important improvements needed.

LAs felt that imidugudu have facilitated land use management. They stated that they focus on encouraging residents to grow only one crop, so that efforts are not scattered. They also noted that, where there are animals that encroach on crops, it is much easier to address the issue.

Although LAs seem to suggest that imidugudu residents are happy about various land management programmes introduced by the government as a way of improving their livelihoods, they seem to overlook the required amount of investments and resources from imidugudu residents to attain the envisaged results. Challenges are not given enough consideration, even though they might hamper the full implementation of various land management programmes.

#### 5.15 Land use consolidation and crop intensification

In terms of the implications of living in an umudugudu with respect to crop intensification and land use consolidation, the Western province focus groups thought that the increase in agriculture production should be facilitated; seasonal agriculture should be respected; and the poor should be assisted to have fertilisers and seeds by the government. The Southern and Eastern province focus groups considered that people should be helped to understand government policy and that land should be increased in size for farming or divided for farming use only (as houses are located in the same area). They also felt that fertilisers used in land use consolidation would increase agriculture production.

LAs in the Southern, Eastern and Western provinces generally considered that imidugudu settlements have improved the distinction between agricultural and residential land and that it has therefore become easier to focus on agricultural land and to keep the government informed about how much land there is available for agricultural use. They thought that it helped to facilitate soil erosion control, terracing, etc. In terms of crop intensification and land use consolidation, LAs felt that imidugudu improve production and space for farming, and that bigger fields for farming are available.

This has been supported by key informant interviews that said that land use consolidation and one-crop intensification programmes are good policies but suggested that further thought and assessment should be invested. For example, they noted the differences in landscape across the country mean that these schemes should not be applied wholesale, and that alternative solutions should be sought. For them, land scarcity issues could be sorted if both programmes were effectively implemented.<sup>56</sup> In this regard, the recent USAID report on citizen vulnerability suggests that some of the solutions that would equally address climate change mitigation include:

"promotion of crop diversification, inter-cropping and crop rotations that help buffer against disease and total crop failures; livelihood diversification; erosion and flood control technologies; cold and dry storage facilities to enable off-season sales and reduce supply gluts; packaging, infrastructure and information channels that enable reliable and efficient transport of produce to markets offering higher prices; and climate change mitigation and adaptation measures".<sup>57</sup>

<sup>56</sup> Interview with officials from SFCG and RNRA

<sup>57</sup> USAID Land Project, Policy Research Brief: Assessment of citizen vulnerability and knowledge of land related law in Rwanda, September 2014

### 6. Conclusions and recommendations

This study sets out recommendations for the government, NGOs and the local community in Rwanda following data collection from these sources. Although the private sector was not consulted as part of this study, it is recommended that input is also sought from this sector, for the reasons set out below.

#### 6.1 For government

- To ensure the optimum sites are selected for imidugudu (for example, ensuring that land is unreserved for agricultural use, is physically accessible and can provide basic amenities), all relevant organisations (cell, sector, district, MINAGRI, Rwanda Agriculture Board, RHA, RNRA, Ministry of Disaster Management and Rwanda Environment Management Authority) as well as the local community should be involved in the process. To address concerns by LAs that the local community is not involved in the site-selection process until the last minute, a community mapping process should be put in place, where, prior to validation of the site, the relevant organisations consult with imidugudu residents. The consultation should be provided for free, a presentation should be given for residents to raise concerns and necessary challenges. While the views of the local community should be taken into account before final site approval, this consultative process should not be considered as a collective decision-making one. Rather, the government, having been provided with feedback from the relevant organisations and residents, should take the final decision.
- To avoid land exchange between residents, the government should instead purchase land selected for imidugudu. Those individuals who are to reside within a site would then purchase the land directly from the government. To ease affordability, this could be done in instalments, where necessary.
- To address concerns that some imidugudu do not have basic infrastructure and/or amenities, physical plans for all selected imidugudu sites and their expansion should be developed in advance, and basic infrastructure such as roads, schools, health facilities, food storage, recreational and leisure space and markets should be ensured. For imidugudu that are close together, infrastructure such as schools, health facilities and markets could be shared to minimise cost and land space. Resolution of complaints by some residents who say that imidugudu are located far away from their fields should be considered during the consultation process. For those farmers whose agricultural land is particularly far away, where feasible, affordable transport facilities could be provided. For example, should the landscape allow, the government could provide bicycles as payment to those who also assist in the construction of various infrastructure.
- A 'one size fits all' approach in land use consolidation and one-crop intensification programmes should be avoided where landscape across the country clearly differs.
- To address concerns of potential conflicts between different communities moving to imidugudu settlements, there is a need to carry out research on community integration alongside imidugudu planning.

#### 6.2 For NGOs

- NGOs should work collaboratively with the private sector and the government to engage in imidugudu planning and design, and provide basic amenities, which would further improve livelihoods in imidugudu. For example, one NGO could focus on providing rainwater harvesting facilities or soil control, another could provide training related to job creation, and yet another could support various cooperatives for the youth/women residing in imidugudu.
- NGOs should work hand in hand with the government to provide the required agricultural training to farmers living in imidugudu to increase productivity. Where possible, they could provide training on how to produce manure and fertilisers from locally available materials and products.
- To deal with the high cost of energy and the lack of such resources in some imidugudu, training should be provided for residents to create biogas from animal dung.
- To improve unemployment issues and meet high expectations of residents, particularly women and youth, that more opportunities will result from living in imidugudu, training should be provided to imidugudu residents in various vocational skills and job creation (i.e. weaving, tailoring, light industry, etc.).
- NGOs that build imidugudu settlements for those in need should be clear on who owns the property in question. This should be communicated to the beneficiary and government in writing to avoid issues that have previously arisen during land tenure regularisation where both the NGO and the resident of the property claimed ownership of the house.

#### 6.3 For imidugudu residents

- To improve livelihoods, residents should participate fully in the development process of imidugudu, which would both improve the plans at specific sites, and also their own ownership of those plans.
- To preserve longevity of housing, infrastructure and amenities, residents should be responsible for taking basic care of these facilities built for them.
- Following training and capacity building provided by NGOs to understand and address soil erosion, imidugudu residents should adopt these measures around their houses to avoid damage and erosion.
- The youth and women should be encouraged to be proactive in job creation, e.g. by forming cooperatives and associations through which they could receive training from NGOs in vocational skills and job creation.
- To maximise imidugudu land and improve livelihoods, residents should create '*akarima k'igikoni*' (kitchen garden) to grow vegetables for consumption.

#### 6.4 For private sector

As noted above, although the private sector was not consulted as part of this research, it is recommended that views are sought from private sector actors to determine whether there are ways in which they can invest in the development of imidugudu by, for example, working with NGOs and the government to provide basic amenities to improve livelihoods. Taking ownership of building certain infrastructure, such as energy, water supply, etc., or providing access to finance by microfinance institutions/mobile money, etc. would both promote the organisation's corporate social responsibility as well as directly impact the quality of residents' livelihoods.

This research has not provided exhaustive results, as there are still gaps in understanding the current status of imidugudu settlements, socio-economic dynamics of imidugudu residents and the challenges they face, land use management and productivity, etc. In this regard, below is a list of potential research topics that may shed further light on issues outlined above:

- Cost benefit analysis economic impact and cost of demolishing existing homes in scattered settlements versus socio-economic gains of building new homes in imidugudu sites;
- Correlation study between imidugudu policy and agricultural development programmes such as one-crop programme of land use consolidation scheme and food security;
- Socio-economic impact of transferring imidugudu ownership to imidugudu residents during LTR (change of Article 17 of the Organic Land Law). This should focus on imidugudu where ownership was previously held by the state;
- Benefits and drawbacks of livelihoods of imidugudu residents what does the future look like?; and
- Assessment of imidugudu policy and green settlements development in Rwanda.

# Annex: List of key informants

Names	Position	Organisation
Aimable Mugabe	DPO Ngororero	IMBARAGA
Angelique Umulisa	Programme Manager	Pro-Femmes/Twese Hamwe
Annie Kairaba	Director	RISD
Augustin Kampayana	Head of Human Settlement	RHA
Benoit Joannette	Country Director	RCN Justice et Democratie
Betty Mutesi	Country Coordinator	International Alert
Emmanuel Nuwamanya	Research, Evaluation and Analysis	MINECOFIN
Frank Kagame	Monitoring and Evaluation Officer	RHA
Gloriosa Bazigaga	Great Lakes Senior Advisor	International Alert
Guillaume Bucyana	Governance specialist	USAID
Hakizimana Jean de Dieu	DPO Ngoma	IMBARAGA
Jackson Furaha		RISD
Jacqueline Muhongayire	Coordinator one stop centre	Huye district
Jean Paul Nzeyimana	Media Coordinator	SFCG
Joas Tugizimana	DPO Rutsiro	IMBARAGA
Juliette Rosine Umuhire	DPO Ngoma	IMBARAGA
Juvenal Musine	General Secretary	IMBARAGA
Laetitia Umukobwa	Project Officer	IMBARAGA
Leonard Kayonga	Director of spatial planning and land management	RNRA
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