Cover photo: Colorful hillside homes in Kigali, Rwanda

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<td>Central Business District</td>
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<tr>
<td>CHUB</td>
<td>Butare University teaching hospital</td>
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<td>CHUK</td>
<td>Kigali Teaching Hospital</td>
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<td>CoH</td>
<td>City of Huye</td>
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<td>CoK</td>
<td>City of Kigali</td>
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<td>CPA</td>
<td>Complementary Package of Activities</td>
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<td>DDP</td>
<td>District Development Plan</td>
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<td>DEMO</td>
<td>District Environment Management Officer</td>
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<td>DHS</td>
<td>Demographic and Health Survey</td>
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<td>DLUP</td>
<td>District Land Use Plans</td>
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<td>DRR</td>
<td>Disaster Risk Reduction</td>
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<td>EDPRS</td>
<td>Economic Development and Poverty Reduction Strategy</td>
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<td>EAC</td>
<td>East African Community</td>
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<td>EE</td>
<td>Energy Efficiency</td>
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<td>EESD</td>
<td>Environmental Education for Sustainable Development</td>
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<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<td>EICV</td>
<td>Integrated Household Living Conditions Survey (Enquête Intégrale sur les Conditions de Vie des Ménages)</td>
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<td>Environment and Natural Resources</td>
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<td>Environmental Pulse Institute</td>
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<td>ESIA</td>
<td>Environmental and Social Impact Assessment</td>
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<td>Energy Sector Strategic Plan</td>
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<td>Environmentally Sound Technologies</td>
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<td>Energy Water and Sanitation Authority</td>
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<td>FRW</td>
<td>Franc Rwandais</td>
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<td>FONERWA</td>
<td>Rwanda National Climate and Environment Fund</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GGCR</td>
<td>Green Growth and Climate Resilience National Strategy for Climate Change and Low Carbon Development</td>
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<td>GGGI</td>
<td>Global Green Growth Institute</td>
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<td>GHG</td>
<td>Greenhouse Gas (es)</td>
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<td>GIS</td>
<td>Geographical Information System</td>
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<td>GoR or GOR</td>
<td>Government of Rwanda</td>
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<td>HHs</td>
<td>Households</td>
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<td>HIV/AIDS</td>
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<td>ICT</td>
<td>Information and Communication Technology</td>
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<td>IPCC</td>
<td>Intergovernmental Panel on Climate Change</td>
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<td>KCMP</td>
<td>Kigali City Master Plan</td>
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<td>KSEZ</td>
<td>Kigali Special Economic Zone</td>
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<td>Acronym</td>
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<td>MDG</td>
<td>Millennium Development Goals</td>
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<td>MIDIMAR</td>
<td>Rwanda Ministry of Disaster Management and Refugee Affairs</td>
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<td>MINAGRI</td>
<td>Ministry of Agriculture of Rwanda</td>
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<td>MINALOC</td>
<td>Rwanda Ministry of Local Government</td>
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<td>MINECOFIN</td>
<td>Rwanda Ministry of Finance and Economic Planning</td>
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<td>MINEDUC</td>
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<td>MININFRA</td>
<td>Rwanda Ministry of Infrastructure</td>
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<td>MINIRENA</td>
<td>Rwanda Ministry of Natural Resources</td>
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<td>MPA</td>
<td>Minimum Package of Activities</td>
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<td>LAIS</td>
<td>Land Administration Information System</td>
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<td>LED</td>
<td>Light Emitting Diodes</td>
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<td>LODA</td>
<td>Local Development Authority</td>
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<td>LPG</td>
<td>Liquefied petroleum gas</td>
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<td>LTRP</td>
<td>Land Tenure Regularization Program</td>
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<td>NAEB</td>
<td>Rwanda National Agriculture Export Board</td>
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<td>NC</td>
<td>National Communication</td>
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<td>NGO</td>
<td>Non-government organization</td>
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<td>NISR</td>
<td>National Institute of Statistics of Rwanda</td>
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<td>NLUMP</td>
<td>Rwanda National Land Use and Development Master Plan</td>
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<td>NPDRR</td>
<td>National Platform for Disaster Risk Reduction</td>
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<td>NPP</td>
<td>Nyungwe National Park</td>
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<td>NR</td>
<td>National Roadmap for Green City Development</td>
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<td>NST</td>
<td>National Strategy for Transformation</td>
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<td>NUA</td>
<td>New Urban Agenda</td>
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<td>NWRMP</td>
<td>National Water Resources Master Plan</td>
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<td>OSC</td>
<td>One Stop Centre</td>
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<td>PPP</td>
<td>Public Private Partnership</td>
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<td>PRSP</td>
<td>Poverty Reduction Strategy Paper</td>
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<td>PSDS</td>
<td>Private Sector Development Strategy</td>
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<td>PSTA</td>
<td>Rwanda Strategic Plan for the Transformation of Agriculture</td>
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<td>PSUP</td>
<td>Participatory Slum Upgrading Program</td>
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<td>PV</td>
<td>Photovoltaic</td>
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<td>QR</td>
<td>Quick Response</td>
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<td>RDB</td>
<td>Rwanda Development Board</td>
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<td>REC</td>
<td>Rwanda Energy Company</td>
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<td>RECP</td>
<td>Resource Efficient and Cleaner Production</td>
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<td>REG</td>
<td>Rwanda Energy Group</td>
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<td>REMA</td>
<td>Rwanda Environment Management Authority</td>
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<td>RHA</td>
<td>Rwanda Housing Authority</td>
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<td>RBS</td>
<td>Rwanda Bureau of Standards</td>
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<td>RNRA</td>
<td>Rwanda Natural Resources Authority</td>
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<td>RoR</td>
<td>Republic of Rwanda</td>
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<td>RRECPBC</td>
<td>Rwanda Resource Efficient and Cleaner Production Centre</td>
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<td>RUDP</td>
<td>Rwanda Urban Development Plan</td>
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<td>RURA</td>
<td>Rwanda Utilities Regulatory Authority</td>
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<td>Rwf</td>
<td>Rwandan franc</td>
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<td>RWH</td>
<td>Rainwater Harvesting</td>
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<td>SDGs</td>
<td>Sustainable Development Goals</td>
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<td>SEA</td>
<td>Strategic Environmental Assessments</td>
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<td>SEZ</td>
<td>Special Economic Zone</td>
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<td>SE4ALL</td>
<td>Sustainable Energy for All</td>
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<td>SEOR</td>
<td>State of the Environment and Outlook Report</td>
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<td>TFR</td>
<td>Total Fertility Rate</td>
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<td>UNEP</td>
<td>United Nations Environment Programme</td>
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<td>UNHCR</td>
<td>United Nations High Commission for Refugees</td>
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<td>UN</td>
<td>United Nations</td>
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<td>WHO</td>
<td>World Health Organization</td>
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Executive Summary

Rwanda is one of the most densely populated countries in Africa, with 394 persons per km² in 2008 (NISR 2012; MININFRA 2013). Rwanda is labelled ‘the land of a thousand hills’ due to the hilly topography. This means that although land is a prime resource, much of it is too steep or too wet to build on. The Rwandan climate is conditioned by the topography: the further west, the lower the altitude, which entails warmer temperatures and lower levels of precipitation. The majority of the country is suitable for agriculture. Land has been the central issue of the political economy in Rwanda for centuries; since at least the 17th century, Rwanda’s traditional kingdom has been based on intensified agriculture, and political leaders have continuously intervened in the distribution of land (Vansina, 2001). Rwandan land tenure has been mainly conditioned by three factors: the natural environment, population, and politics. Twenty-four years after the genocide against the Tutsi, the Government of Rwanda (GoR) has clearly embraced urbanisation, seen as a vehicle for post war reconstruction in Rwanda. Indeed, the urban development agenda is seen as a possible resource to unlock the transformative economic opportunities for growth and poverty reduction through which Rwanda could make significant progress in its national development. Rwanda’s national overarching goal is to attain a 35% urbanisation rate by 2020 from 16.5% (Census, 2012).

The first waves of urbanisation were caused by returning refugees and internal migration precipitated by fear of conflict and insecurity in the post genocide Rwanda. In this perspective the first focus of the post genocide government became the establishment of grouped settlements ‘imidugudu’ as an alternative means of housing the population much closer together that would in turn catalyze reconciliation. Besides the grouped settlements, the post genocide period also saw a significant rise in unplanned urban settlements; uncontrolled urban expansions and inefficient use of land (MININFRA 2013) all of which impact heavily on the urbanisation trajectory.

As a consequence, Rwanda has consistently taken exemplary strides in terms of urban governance including land management and administration.

For instance, the Law No. 24/2012 of 15/06/2012 on land use and land use planning in Rwanda recognizes urban areas as entities for urban development activities. Rwanda is urbanising rapidly as well as proactively planning for it. Urbanisation in Rwanda is catalyzed by demographic growth, migration to urban areas and installation of returnees after the 1994 genocide against the Tutsi. The urban population was 4.6% in 1978, to 16.5% in 2012 and is expected to reach 35% by 2020. The average urban density is 1871 inhabitants per square kilometer. The current annual growth rate of the urban population is 4.1%. Almost 80% of the city’s residents live in unplanned settlements. The capital city, Kigali, accommodated about half of the urban population in 2012. The government of Rwanda believes that urbanisation is an opportunity for socio-economic growth (MININFRA 2013). The infrastructure (housing, roads, sanitation and energy, among others) is currently unable to keep pace with this growth. Rwanda has thus taken a strategic approach to plan and master its urbanisation; hence the national urbanisation policy (MININFRA 2015), of which the main goal is to promote urban development that enhances local and national economic growth and ensures good quality of life for everyone. Six secondary cities have been selected to promote urban development outside Kigali. These are Rubavu, Musanze, Huye, Rusizi,
Nyagatare, and Muhanga. The main pressing challenges that Kigali is facing currently are: lack of affordable housing, inadequate infrastructure, encroachment of environmentally sensitive areas and urban sprawl.

Rwanda has made great strides on almost all development indicators in the last two decades. The country’s Vision 2020 has guided national development strategies toward five broad targets: rapid economic growth to middle income status, increased poverty reduction, more off-farm jobs and urbanisation, reduced external dependency, and private sector as the engine of growth. The National Economic Development and Poverty Reduction Strategy, EDPRS2, has the overarching goal to accelerate progress toward a middle-income status and better quality of life for all Rwandans. It focuses on four thematic areas: Economic transformation, rural development, Productivity and Youth Employment, as well as Accountable governance.

The City of Kigali, which is one of the two case studies of this project, is comprised of 3 districts, namely Gasabo, Nyarugenge and Kicukiro as illustrated in figure 1.1. According to the Census of 2012, Kigali had 10.7% of the population of Rwanda, and by 2020, its population is projected to almost double. According to the 2012 census, Gasabo District had the highest population (274,342 males and 256,565 females) and Nyarugenge (148,242 males and 136,578 females) and Kicukiro (162,755 males and 156,906 females). About 27.7% of the households in City of Kigali are female headed, 10.3% are headed by people with disabilities, while 19.3% are headed by widows.

Figure 1: Kigali city map showing the three districts and surrounding areas

Source: REMA 2017
Historically, Rwanda was a German protectorate from 1896 to 1916 and a Belgian colony from 1916 to 1962. Kigali city started afresh after independence in 1962. The shift of administrative capital from Kigali to Huye in 1916 by the Belgian administration made Kigali not grow as fast as it could have.

The City of Huye, the second case study, was previously known as Butare, a name that is still in use today. As illustrated in figure 1.2, Huye is located about 135 Km south of Kigali. Before 1965, Huye remained the largest and most important city in Rwanda. It is currently among the 6 secondary cities under development. It is uniquely positioned to be developed into knowledge, culture and agribusiness hub. This is because the tradition of Huye (then Butare) as an academic centre dates back to 1900 when it hosted the first Catholic missionaries and then later in 1963, it was selected to host Rwanda’s first university- the national university of Rwanda. Huye is also seen as a cultural city as it hosts museums that showcase a good source of information on the cultural history of the country and the region. Thirdly, agriculture is the backbone of Huye district, presenting the city with major opportunities for resource-based manufacturing (GoR 2015).

Figure 2: Huye District administrative map, showing the Huye urban area boundary

With respect to health, in the last two decades in Rwanda there has been tremendous improvement following the 1994 genocide against the Tutsi that also destroyed the health system of the country. Since 2000, steps have been taken towards restructuring and decentralizing healthcare. Now the district health offices operate as autonomous entities, providing services to well-defined populations in either urban or rural zones. The public
sector dominates the service provision at all levels and serves most of the population with 70% of the country’s health facilities. However, there is a good collaboration between Ministry of Health (MOH) and private and non-profit (religious) structures working in Health sector. The percentage of the national budget allocated to health has been increasing from 9.1% in 1999 to 18.8% in 2007, thus putting Rwanda among very few African countries which have reached and exceeded the benchmark set by the Abuja Declaration of allocating at least 15% of government budgets to health. Rwanda has policies and mechanisms to ensure minimum standards and guarantees. It is also important to note that in Rwanda different policies choices have shaped opportunity at the level of neighbourhood. These include, but are not limited to the very successful community health workers, community-based health insurance and sports development policy (World Health Organization, 2011).

In Rwanda, there are no health policies devised specifically for the City of Kigali or Huye and their neighbourhoods. Health policies are general for the whole country. The approach to planning for health provision is same in both City of Kigali and Huye. It is a mix of top to down and bottom up approaches where cities utilise both national orientations and priorities suggested by the local population to develop their own plans.

Despite many achievements recorded in education, there are still challenges that must be tackled to halt the threats to the education system. Challenges include insufficiency of school infrastructures, namely classrooms, and textbooks in various schools to meet the student’s demands. Lack of equipment for science, technology obstruct the use of ICT among the students. There is also the problem of high illiteracy rates among adults who have either not attended school or have dropped out of school. Poverty is another challenge to education. Huye district is among the districts with a high percentage of extreme poverty. About 53% of the population of Huye district is identified as ‘non-poor’, 21.4% and 25.2% as poor and extremely poor respectively. The district ranks sixteenth among all districts, with a high percentage of extreme poverty (NISR, 2010). It also faces the problem of school dropouts which stands at 10.9% in primary, 13.1% in secondary and 2.4% in upper secondary. In addition, class repetition rates stand at 12.7% in primary, 5.8% in secondary and 1.6% in upper secondary. (Huye District, 2013b).

The distance to school facilities for students is also a challenge to quality education delivery. The mean walking time to primary school stands at 23 minutes in Huye District compared to the national average of 28.6 minutes in rural areas, 19.4 minutes in urban areas (NISR, 2010).

In response to all the challenges highlighted above, various plans, programs and activities were adopted and endorsed in the district development plans. They mainly focus on the improvement of school system through mobilisation of district partners (Huye District 2013a), extending ICT infrastructure up to the cell levels with help from private sector as well capacity building and training of education personnel.
1 National Policy Framework

1.1 Introduction

Rwanda is a small landlocked country located in Central-East Africa covering an area of 26,338 km². It shares borders with Burundi in the South, Uganda in the North, Tanzania in the East and the Democratic Republic of Congo in the west. The Fourth Rwanda Population and Housing Census (RPHC4) of 2012 confirmed the population of Rwanda to be 10,515,973 residents of which 52% are women and 48% men. The population density in 2012 was 415 inhabitants per km². Since the third census of 2002, the population has increased by 2.4 million, which represents an average annual growth rate of 2.6 %. The large majority of the Rwandans live in rural areas and only 17% of the total population live in urban areas, so this makes Rwanda to be among the less urbanised countries in Africa. The Government recognises that planned urbanisation creates opportunities for socio-economic growth and is now promoting urbanisation policies. The current average growth rate of the urban population is 4.5%, which is well above the world average of 1.8%. This growth is largely concentrated in Kigali, the capital city, which has an annual population growth rate of 9% (GGGI, 2015).

1.2 The cities and towns of Rwanda

There are different criteria to define a city, a town or an urban area. Each country has its specific definition. In Rwanda, Law No. 24/2012 of 15/06/2012 on land use and land use planning recognizes urban areas as area entities for urban development activities (RR, 2012). In order to make the de facto urban areas clear and to distinguish them from rural areas, the Rwanda Natural Resources Authority has taken into consideration the following three criteria:

- Built up / urbanized areas or agglomerations;
- Densely populated areas;
- Functional regions encompassing areas with access to basic services and infrastructure.

Thus, the city was defined as an agglomeration of more than 20 km²; populated by more than 10,000 inhabitants, with a population density of 500 inhabitants per km². Based on these criteria, 33 urban areas have been identified at the national level (MININFRA, 2013). However, the main urban areas are 14. They include the City of Kigali - the biggest, the most rapidly urbanising, the capital and the gateway of the development of the country - the six secondary cities and other seven towns (table 1).

The first cities were created during colonial period. Three cities were formed from German military posts including Ruhengeri (1909), Gisenyi (1907) and Cyangugu (1913). Kigali was founded in the centre of the country as an administrative and military post in 1907, and Butare was created in 1927 under the Belgian Mandate. Kigali was declared the capital of Rwanda at independence, on July 1st, 1962.

After the independence, different administrative reforms introduced many changes to the extent that even some cities/towns and all provinces changed their names in the recent reform of 2005 (Table 1). The Decree-Law No. 11/79 of 20thApril 1979 declared other urban
areas as capitals of the then prefectures of Byumba, Gikongoro, Gitarama, Kibungo and Kibuye. Other existing urban areas were Rwamagana, Nyanza, and Ruhango. Nyagatare and Kabuga respectively became the capitals of the then Umutara and Kigali Rural provinces since 2000 by the organic Law n° 29/2000 of 19/12/2000 determining national administrative entities (RR, 2000). However, Kabuga does not exist as a town because it has been later absorbed by the city of Kigali through its spatial expansion. Following the Law No. 29/2005 of 31st December 2005 determining the Administrative entities of the Republic of Rwanda, the 11 provinces were reduced to five including the City of Kigali. They were named according to the four cardinal points namely; the provinces of North, South, East and West. In addition, nine cities had changed their names as indicated in Table 1 below. Apart from Kigali, which has the status of a province, and the cities of Nyanza, Rwamagana, Karongi and Musanze that serve as provincial capitals, the other cities are now district capitals (RR, 2005). Rwanda has only 14 cities and each of the 30 districts does not necessarily have an urban centre. In order to provide each district with an urban centre, it was necessary for each to designate an urban area of approximately 45 km². These areas were generally determined around small pre-existing centres of commerce or rural development hubs (RR, 2012a).

**Table 1: Location of cities and towns of Rwanda and their population in 2012**

<table>
<thead>
<tr>
<th>No</th>
<th>New name after 2005</th>
<th>Name before 2005</th>
<th>Current province</th>
<th>Former province</th>
<th>Date of Creation</th>
<th>Population 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Huye</td>
<td>Butare</td>
<td>South</td>
<td>Butare</td>
<td>1927</td>
<td>52,768</td>
</tr>
<tr>
<td>2</td>
<td>Gicumbi</td>
<td>Byumba</td>
<td>North</td>
<td>Byumba</td>
<td>1979</td>
<td>34,544</td>
</tr>
<tr>
<td>3</td>
<td>Rusizi</td>
<td>Cyangugu</td>
<td>West</td>
<td>Cyangugu</td>
<td>1913</td>
<td>63,258</td>
</tr>
<tr>
<td>4</td>
<td>Nyamagabe</td>
<td>Gikongoro</td>
<td>South</td>
<td>Gikongoro</td>
<td>1979</td>
<td>24,946</td>
</tr>
<tr>
<td>5</td>
<td>Rubavu</td>
<td>Gisenyi</td>
<td>West</td>
<td>Gisenyi</td>
<td>1907</td>
<td>149,209</td>
</tr>
<tr>
<td>6</td>
<td>Muhanga</td>
<td>Gitarama</td>
<td>South</td>
<td>Gitarama</td>
<td>1979</td>
<td>50,608</td>
</tr>
<tr>
<td>7</td>
<td>Ngoma</td>
<td>Kibungo</td>
<td>East</td>
<td>Kibungo</td>
<td>1979</td>
<td>15,236</td>
</tr>
<tr>
<td>8</td>
<td>Karongi</td>
<td>Kibuye</td>
<td>West</td>
<td>Kibuye</td>
<td>1979</td>
<td>22,756</td>
</tr>
<tr>
<td>9</td>
<td>Musanze</td>
<td>Ruhengeri</td>
<td>North</td>
<td>Ruhengeri</td>
<td>1909</td>
<td>102,082</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No</th>
<th>New name after 2005</th>
<th>Name before 2005</th>
<th>Current province</th>
<th>Former province</th>
<th>Date of Creation</th>
<th>Population 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Kigali</td>
<td>Kigali</td>
<td>Kigali</td>
<td>Kigali</td>
<td>1907</td>
<td>859,332</td>
</tr>
<tr>
<td>11</td>
<td>Nyagatare</td>
<td>Nyagatare</td>
<td>East</td>
<td>Umutara</td>
<td>2000</td>
<td>47,480</td>
</tr>
<tr>
<td>12</td>
<td>Nyanza</td>
<td>Nyanza</td>
<td>South</td>
<td>Butare</td>
<td>1979</td>
<td>25,417</td>
</tr>
</tbody>
</table>
### 1.3 Urbanisation and urban policies

#### 1.3.1 Late and slow urbanisation

Like many African countries, urbanisation in Rwanda dates from the colonial period. It has been late and slow for the following five reasons (Sirven, 1984; Montclos, 2000):

- During the pre-colonial period, there was no grouped settlement or commercial centre which could emerge or grow as an urban nucleus. Settlements were scattered while commercial activities were done through barter trade system.
- The colonial leadership did not put much interest on urban development.
- The catholic church was septic to urbanisation which was presumed as contributing factor to the behavioural changes of the Christians,
- Migration to the urban area required the authorisation of local leaders and a payment of a living permit. Only Rwandans who had formal employment were allowed to live in the cities.

The influx of people into the city started after independence in 1962. This coincided with the beginning of industrialisation in Rwanda, especially in city of Kigali where work force was in high demand. Despite high rural–urban migration during that time, urbanisation remained slow because the Government was promoting rural development.

#### 1.3.2 Rapid urbanisation and government vision

Rwanda started to experience rapid urbanisation from the 1990s onwards. This urbanisation is associated with an influx of repatriated refugees because the majority of whom converged in urban areas after 1994, internal migration, the natural population increase, and the administrative reforms that repeatedly extended the city limits to encompass the surrounding population (see under 1.3.4). From 3% in 1970, the urban population had increased to 4.6% in 1978, to 5.6% in 1991, to 16.5% in 2012 (NISR, 2012) and it is envisaged to reach 35% by 2020 (MININFRA, 2015). The Government Vision 2020 reports the current growth rate of urban population at 4.1%.

According to the National Urbanisation Policy of 2015 by the Ministry of Infrastructure, the government puts several measures in place to position the city of Kigali as a centre for investment and business growth and at the same time promoting balanced and transformative urbanisation through development of six secondary cities (MININFRA, 2015).
The Rwanda Vision 2020 document indicates that the government objective is to have urban master plans that are regularly updated, as well as specific land management plans, and to develop basic infrastructure in order to provide better living conditions for the growing urban population (Government of Rwanda, 2000). Therefore, Kigali’s conceptual master plan has been greatly elaborated on as part of that trend.

1.3.3 The factors of urbanisation in Rwanda

Urbanisation is generally analysed in terms of the proportion of people living in urban areas in the country. In Rwanda, it results from three major components: the reclassification of rural areas to become small towns; natural population increases in the urban areas and migration to the urban areas.

Reclassification to small towns

Rwanda has embarked on the holistic process of development in both rural and urban areas. This development can be framed as a modernization characterised by various changes in terms of settlement, infrastructural development, distribution of socio-economic and political services and population lifestyle.

Concerning the administration, the Government has initiated a decentralisation policy since 2000s. This policy contributed to the creation of decentralised administrative headquarters from which the population gets all services. The presence of social services contributed to settlement development around the areas and the expansion of other social economic activities.

In addition, during the same period, the government adopted the “Villagisation” policy, which promoted grouped settlement and therefore the process of reclassification (MININFRA, 2009). In fact, each of 416 administrative sectors and 30 administrative district headquarters are likely to be surrounded by a health centre, a market place, a large settlement, and permanent and various business activities.
In the framework of promoting urbanisation, each district of Rwanda has defined urban areas that are progressively being developed in terms of infrastructures and planned settlement to become regional towns. Now all districts, including the rural ones have a specific proportion of urban population living in the reclassified towns. Table 2 provides the distribution of Rwandan urban population over the provinces and districts across the country. According to the Rwandan national census of 2012, the City of Kigali accounts roughly 75% of inhabitants in urban areas while 25% are still rural areas of Kigali city. Conversely, the urban population decreases drastically in other provinces where the rates are

Table 2: Distribution of urban population by 5 provinces and 30 districts in 2012 (%)  

<table>
<thead>
<tr>
<th>Provinces &amp;Districts</th>
<th>Urban population</th>
<th>Rural population</th>
<th>Total</th>
<th>Percentage urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Kigali</td>
<td>859,332</td>
<td>273,354</td>
<td>1,132,686</td>
<td>75.9</td>
</tr>
<tr>
<td>Gasabo</td>
<td>365,371</td>
<td>164,190</td>
<td>529,561</td>
<td>69.0</td>
</tr>
<tr>
<td>Kicukiro</td>
<td>279,941</td>
<td>38,623</td>
<td>318,564</td>
<td>87.9</td>
</tr>
<tr>
<td>Nyarugenge</td>
<td>214,020</td>
<td>70,541</td>
<td>284,561</td>
<td>75.2</td>
</tr>
<tr>
<td>Southern province</td>
<td>229,766</td>
<td>2,360,209</td>
<td>2,589,975</td>
<td>8.9</td>
</tr>
<tr>
<td>Gisagara</td>
<td>5,011</td>
<td>317,495</td>
<td>322,506</td>
<td>1.6</td>
</tr>
<tr>
<td>Huye</td>
<td>52,768</td>
<td>275,630</td>
<td>328,398</td>
<td>16.1</td>
</tr>
<tr>
<td>Kamonyi</td>
<td>39,035</td>
<td>301,466</td>
<td>340,501</td>
<td>11.5</td>
</tr>
<tr>
<td>Muhanga</td>
<td>50,608</td>
<td>268,533</td>
<td>319,141</td>
<td>15.9</td>
</tr>
<tr>
<td>Nyamagabe</td>
<td>24,946</td>
<td>316,545</td>
<td>341,491</td>
<td>7.3</td>
</tr>
<tr>
<td>Nyaruguru</td>
<td>5,922</td>
<td>288,412</td>
<td>294,334</td>
<td>2.0</td>
</tr>
<tr>
<td>Ruhango</td>
<td>26,059</td>
<td>293,826</td>
<td>320,885</td>
<td>8.1</td>
</tr>
<tr>
<td>Western province</td>
<td>301,312</td>
<td>2,169,927</td>
<td>2,471,239</td>
<td>12.2</td>
</tr>
<tr>
<td>Karongi</td>
<td>22,756</td>
<td>309,052</td>
<td>331,808</td>
<td>6.9</td>
</tr>
<tr>
<td>Ngororero</td>
<td>12,245</td>
<td>321,468</td>
<td>333,713</td>
<td>3.7</td>
</tr>
<tr>
<td>Nyabihu</td>
<td>40,673</td>
<td>254,067</td>
<td>294,740</td>
<td>13.8</td>
</tr>
<tr>
<td>Nyamasheke</td>
<td>6,137</td>
<td>375,667</td>
<td>381,804</td>
<td>1.6</td>
</tr>
<tr>
<td>Rubavu</td>
<td>149,209</td>
<td>254,453</td>
<td>403,662</td>
<td>37.0</td>
</tr>
<tr>
<td>Rusizi</td>
<td>63,258</td>
<td>337,600</td>
<td>400,858</td>
<td>15.8</td>
</tr>
<tr>
<td>Rutsiro</td>
<td>7,034</td>
<td>317,620</td>
<td>324,654</td>
<td>2.2</td>
</tr>
<tr>
<td>Northern province</td>
<td>160,808</td>
<td>1,565,562</td>
<td>1,726,370</td>
<td>9.3</td>
</tr>
<tr>
<td>Burera</td>
<td>6,205</td>
<td>330,377</td>
<td>336,582</td>
<td>1.8</td>
</tr>
<tr>
<td>Gakenke</td>
<td>9,347</td>
<td>328,887</td>
<td>338,234</td>
<td>2.8</td>
</tr>
<tr>
<td>Gicumbi</td>
<td>34,544</td>
<td>361,062</td>
<td>395,606</td>
<td>8.7</td>
</tr>
<tr>
<td>Musanze</td>
<td>102,082</td>
<td>266,185</td>
<td>368,267</td>
<td>27.7</td>
</tr>
<tr>
<td>Rulindo</td>
<td>8,630</td>
<td>279,051</td>
<td>287,681</td>
<td>3.0</td>
</tr>
<tr>
<td>Eastern province</td>
<td>186,466</td>
<td>2,409,237</td>
<td>2,595,703</td>
<td>7.2</td>
</tr>
<tr>
<td>Bugesera</td>
<td>28,786</td>
<td>333,128</td>
<td>361,914</td>
<td>8.0</td>
</tr>
<tr>
<td>Gatsibo</td>
<td>23,914</td>
<td>409,106</td>
<td>433,020</td>
<td>5.5</td>
</tr>
<tr>
<td>Kayonza</td>
<td>34,008</td>
<td>310,149</td>
<td>344,157</td>
<td>9.9</td>
</tr>
<tr>
<td>Kinhe</td>
<td>10,083</td>
<td>330,285</td>
<td>340,368</td>
<td>3.0</td>
</tr>
<tr>
<td>Ngoma</td>
<td>15,236</td>
<td>321,692</td>
<td>336,928</td>
<td>4.5</td>
</tr>
<tr>
<td>Nyagatare</td>
<td>47,480</td>
<td>418,375</td>
<td>465,855</td>
<td>10.2</td>
</tr>
<tr>
<td>Rwamagana</td>
<td>26,959</td>
<td>286,502</td>
<td>313,461</td>
<td>8.6</td>
</tr>
<tr>
<td>Rwanda</td>
<td>1,737,684</td>
<td>8,778,289</td>
<td>10,515,973</td>
<td>16.5</td>
</tr>
</tbody>
</table>

Source: Fourth Population and Housing Census (NISR, 2012)
respectively at 8.9%, 12.2%, 9.3% and 7.2% for Southern, Western, Northern and Eastern provinces.

**The natural growth of the population**

This is the difference between the birth rate and the mortality rate. Birth and death rates as well as the natural increase are generally high in Rwanda. Different censuses reveal for the urban population, a natural increase of 26.7‰ in 1978, of 22 ‰ in 1991 and of 23.5‰ in 2002. It decreased to 16‰ in 2012 but this rate remains also high. Although the fertility rate remains high in urban areas, it showed a decline from 6.9 children per woman in 1978 to 4.7 in 1991 while in 2002 it had increased to 4.9 children and then decreased to 3.1 children in 2012. The increase observed in 2002 is related to the need to procreate after the genocide that has causes loss of lives for many families. The decrease in 2012 can be attributed to the current population policy of birth control and the socio-economic living conditions that are getting more demanding.

**Migration**

Migration includes both international and internal migration. Generally, international migration does not contribute much to the rapid urbanisation in Rwanda. The effect of international migration has only been significant during a four-year period of 1994 and 1998 because of the repatriation of Rwandans who had fled the country since 1959 due to the political conflicts. This is the period when the national political and administrative system was shifting from monarchy to the Republic. About 700,000 returnees settled in the urban areas; the majority in Kigali city (MINITERE, 2000). Therefore, internal migration is the most significant driving force to the urbanisation. The reasons for migration to urban areas happen for the following reasons: security, land scarcity and poverty.

The security issue has been particularly noticed during 1990-2000 decade. Between 1990 - 1994 people fled from war regions in the Northern Province to search for security in the cities, mainly in Kigali. After the genocide against the Tutsi, there was extensive rural exodus because of post-conflict social disputes and judicial regulations (Gazel, Harre & Moriconi-Ebrard, 2010).

Land scarcity is the second issue. In Rwanda, agriculture is the mainstay of subsistence for about 85% of the working population where it accounts for over one-third of the national GDP. However, rapid population growth results to progressive decrease of land ownership per household. Indeed, the household share decreased from 2 hectares in 1960 to 1.2 ha in 1984, to 0.89 ha in 1990, to 0.5 hectares in 2001 and to less than 0.4 hectares in 2014 (NISR, 2011 & 2015; World Bank, 2016). This is a serious challenge that contributes to rural exodus especially of youths. In fact, there is a big range of income-generating activities, both formal and informal, in cities that occupy a big majority of the population.

Finally, the poverty index is higher in rural areas than in urban and this also justifies the rural-urban migration. In 2011, the rate of poverty was 48.7% in rural areas against 22.1% in urban areas while it was 44.9% at national level in 2010-11 (NISR, 2011). The indicators for poverty showed a positive decline, with poverty at 39.1% in 2013-14. During the same period, extreme poverty dropped from 24.1 to 16.3% (NISR, 2016b). However, it remains much lower in urban than in rural areas, that is 15.9% in urban compared to 43.7% in rural areas. In fact, urban areas are more privileged to have more economic potentials and opportunities that contribute to reduce poverty compared to rural areas.
1.3.4 Urbanisation policy framework

Rwanda does not have sufficient natural resources to rely on for its development. Therefore, the government decided to shift from internal to external economic based strategies and focus on developing the tertiary sector. In that context, rapid and well-managed urbanisation is set to be an engine of sustainable development and poverty reduction. The government has launched a series of policies and legal frameworks to promote urbanisation and guarantee everyone a safe living environment anywhere in Rwanda, especially in the cities. This is specified in Articles 22 and 53 of the 2003 constitution of the Republic of Rwanda.

The importance of urbanisation is emphasised in the National urbanisation policy and different strategic plans. For example, the Economic Development and Poverty Reduction Strategy 2013-18 (EDPRS II) emphasizes this role of urbanisation to the economic development, and in the Vision 2020, which is the road map for Rwanda's development elaborated since 2000 (Government of Rwanda, 2000). The Government expressed its ambition for well organised, rapid and coordinated urbanisation. It is in this framework where the National Roadmap (NR) for Green Secondary City Development falls. The NR for Green Secondary City Development aims to provide enough economic incentives and encourage urban growth away from the main city of Kigali by developing six secondary cities as poles of growth. Those secondary cities include: Huye, Muhanga, Nyagatare, Rubavu, Musanze and Rusizi (GGGI, 2015). The box below presents at a glance the main Policies and Legal Frameworks that tackle sustainable urbanisation in Rwanda as highlighted by the Ministry of Infrastructure.

**Box 1: Main policy and legal instruments guiding sustainable urbanisation**

1. National Urbanisation Policy

The National Urbanisation Policy was adopted in December 2015 and sets the framework for the governmental, non-governmental and private interaction in the country’s urbanisation process in support of sustainable development. It sets the principles for coordinated strategies and actions supported by urban planning documents, development of urban areas at high density, inclusive urban areas providing quality of life and conditions for economic growth.

2. The Vision 2020

The vision 2020 emphasises the positive side of urbanisation and its contribution to economic growth and the well planned and efficiently laid out and serviced rural settlement. Its 4th pillar is related to infrastructure management and focuses broadly on the interaction between urbanisation, the environment and sustainable natural resource management. Concerning urban planning, it stipulates each town to have an updated urban master plan with coordinated implementation of the plans by 2020, with the aim that the proportion of those living in towns and cities will increase from 10% in 2000 to 35% in 2020.

3. The Seven Years Government Program (2011-2017)

The 7-year government program guided the principal activities until 2017. It emphasized the target of infrastructure and utility provision and maintenance throughout the country and thus acknowledges the importance of access to infrastructure for people in order to lead a dignified life. The program further emphasizes affordable housing in rural and urban areas, friendly environment, and effective collaboration with the private sector.

Overarching goal of EDPRS 2 is “Accelerating progress to middle income status and better quality of life for all Rwandans through sustained average GDP growth of 11.5% and accelerated reduction of poverty to less than 30% of the population”. Urbanisation is a fundamental part of the EDPRS2. The aim of priority areas 4 and 5 of the economic transformation pillar is to “transform the economic geography of Rwanda by facilitating urbanisation and promoting secondary cities” as centres of non-agricultural economic activities, and to pursue a “green economy” approach to economic transformation by favouring the development of sustainable cities and villages.

5. The Urbanisation and Rural Settlement Sector Strategic Plan (2013-18)

The Sector Strategic Plan of the Urbanisation and Rural Settlement Sector develops the objectives of good development management and of spatial distribution of growth, and translates them into two high level priorities to develop a good urban and rural settlement management cross-cutting all development sectors and to create a hierarchical network of urban and urbanizing centres providing services and attracting economic activities countrywide.


The National Land Policy from 2004 aims at establishing a land tenure system that guarantees tenure security for all Rwandans and giving guidance to the necessary land reforms with a view to good management and rational use of national land resources. A revision process has begun for the update of this policy.

7. National Housing Policy

Adopted in March 2015, this policy has a vision of enabling everyone independent of income, base of subsistence, and location to access adequate housing in sustainably planned and developed areas reserved for habitation in Rwanda. It enables the private sector to satisfy the current and growing demand for housing in terms of quantity and access costs offered to clients and supports the purchasing power among population through savings, pooling of individual resources and support to financing models accessible to the full range of residents including low income levels. It combines land use and urban planning principles in order to achieve the efficient use of land and resources when developing housing.

8. National Investment Strategy

The National Investment Strategy emphasizes the support of the private sector in infrastructure development. The consolidation of efforts of the Government and various development partners ensure the realization of sector programs. The activities include: the development of urban Master Plans and the construction of basic infrastructure in planned human settlements, support commercial and industrial investment, investment into touristic and recreational activities and in Economic Development Zones.


It provides general directives for sustainable land use development and presents guiding principles for the future development of the country with regard to socio-economics, infrastructure, environment and land administration. Based on its provisions, District Land Use and Development Plans were developed in 2014/15.
10. The Kigali City Master Plan (2013)

A Detailed Master Plan has been adopted for the City of Kigali, comprising planning and land use strategies as well as zoning regulations for the three districts of the city. It is integrated with the Land Administration Information System (LAIS) and the online building permitting system.

11. Local Physical Detailed Plans

All 30 District have Local Urban Development Plans for portions of their main urban areas, and detailed physical plans are under finalization to support urban land management. Rural settlement layout plans are also being formulated as a prerequisite for new planned rural settlements.

12. Rwanda Building Code

The Rwanda Building Code is published as Annex 2 of the Ministerial Order N° 04/Cab.M/015 of 18/05/2015 Determining Urban Planning and Building Regulations. It is a performance based code, integrating any technology and material for use in construction when fulfilling minimum performance requirements. It establishes such minimum requirements to safeguard the public health, safety and general welfare by regulating and controlling the design, construction, quality of materials, sanitation, lighting and ventilation, energy conservation, and safety to life and property from fire and other hazards attributed to the built environment, use and occupancy, location and maintenance of all buildings and structures in Rwanda. The Building Code makes reference to requisite national, regional and/or international standards and/or code of practice.


The Urban Planning Code of the Ministerial Order N° 04/Cab.M/015 of 18th May 2015 determine urban planning and building regulations. It lays out the principles for the sustainable development and management of land used for human settlement. It is binding for all categories of land within urban areas for any development and investment project, public institutions, tourist, public spaces, urban renewal and infrastructure servicing. It provides a basis for forward planning, development management and plan implementation.

14. Vision 2050: The Rwanda We Want

The blueprint has five main areas, one of which refers to modern infrastructure and livelihoods, including Green/Eco-friendly cities and neighbourhoods powered by renewable energy and featuring recycling.


14 Urban health policies

In the last two decades, Rwanda’s health sector has undergone tremendous improvements. Since 2000, steps have been taken towards restructuring and decentralizing health management. Currently, the district health offices operate as autonomous entities, each providing services to populations in its respective urban or rural target catchment area. Decentralization of financial and logistic resource management has also been implemented.
universally while the Ministry of Health (MOH) defines the package of activities for each level of healthcare provision.

The public health sector which constitutes 70% of the health facilities in Rwanda, dominates the service provision at all levels and serves most of the population (Maurice, J., 2015). There is good collaboration between MOH and private and non-profit (religious) entities working in the Health sector. The MOH regulates and provides support to all these actors. The percentage of the national budget allocated to health has been increasing from 9.1% in 1999 to 18.8% in 2007, thus putting Rwanda among very few African countries which have reached and exceeded the benchmark set by Abuja declaration of allocating at least 15% of government budgets to health (World Health Organization, 2011).

Furthermore, Rwanda has policies and mechanisms to ensure minimum standards and guarantees for all medical and pharmaceutical products on the market. In this respect, Rwanda Bureau of Standards (RBS) (Since 2013: Rwanda Standards Board) is charged with the standardization and conformity assessment of a wide range of products and services. Since 2017, in partnership with MOH, RSB has a medical and pharmaceutical testing laboratory which analyses medicines imported or locally manufactured. The optimal situation is that substandard or counterfeit medicines do not enter the Rwanda market or are identified during production or importation process (Rwanda Standards Board, 2018).

Finally, in Rwanda, different policies shape opportunity at the level of neighbourhoods. These include community health workers, community-based health insurance and sports development policy.

1.4.1 Overview of the Rwanda health system

Before 1994, the Rwandan vision for health care was aligned with the Bamako Initiative of 1988 (National Institute of Statistics of Rwanda, 2008), which was adopted by many Sub-Saharan nations and aimed to revitalize health care strategy and strengthen equity in access to health care via decentralization to the local level. Just after the 1994 genocide against Tutsi, Rwanda’s health care system was in desperate straits, with only 198 healthcare professionals in the country to serve thousands of people. With the advent of peace, the government began working to restructure health care and to decentralize management to the most local levels in order to increase utilization rates and improve overall health. To achieve this and improve health outcomes, one of the different strategies adopted was to introduce the community-based health insurance scheme (CBHI). The health insurance became mandatory for all individuals in 2008, and in 2010 over 90% of the population was covered. In 2012, only about 4% were uninsured (Brookings, 2007). The following are some reasons that explain the high CBHI coverage in Rwanda: strong government leadership, political commitment, good governance and stewardship; Synergy between reforms in health sector; Culture of solidarity and mutual assistance and/or aid; Inclusion of CBHI enrolment in districts’ performance contracts between local governments and the President of the Republic of Rwanda (Imihigo) (Nyandekwe, M. et.al, 2014).

The healthcare service provision is organized according to the following administrative structure of the country.

<table>
<thead>
<tr>
<th>Levels</th>
<th>Admin Structures</th>
<th>Health Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Villages / imidugudu</td>
<td>14,837</td>
<td>community health workers</td>
</tr>
</tbody>
</table>
Among the health care service providers, are the community health workers (CHWs), of whom there are at least three in every village, making a total of 45,516 CHW’s countrywide. These serve an average target catchment area of 250 people, carrying out community-based prevention, screening and treatment of malnutrition; Integrated Management of Child Illness (CB-IMCI); provision of family planning (FP); Maternal Newborn Health (C-MNH), DOT HIV, TB and other chronic illnesses, as well as sensitization for behaviour change.

At Cell level there are 471 health posts for the 2,148 cells in the country, established in areas which are far from HCs enabling people in these areas easy access to the health services. Services provided here are similar, albeit reduced from those by HCs. They include curative out-patient care, certain diagnostic tests, child immunization, growth monitoring for children under five years, antenatal consultation, family planning, and health education. At the sector level, HCs constitute the first level of care within the referral system and are expected to provide the full range of basic services “minimum package of activities” (MPA) at the peripheral level, which include outpatient services for sick children and for sexually transmitted infections (STIs), family planning services, antenatal care, immunisation, and child growth monitoring. In the 416 sectors in the country, there are 499 HCs, each covering a target catchment area population of 23,000 people.

At District level, there are 42 Districts Hospitals (DHs) for 30 Districts. DHs constitute the second level within the referral system and rarely provide preventive services. Hospitals usually have an adjacent health centre that is responsible for providing these types of services. Covering an average catchment area population of 255,000, each DH provides government defined “Complementary package of activities” (CPA) which include treatment of complicated cases, intensive care and long-term care. They also provide care to patients referred by the primary health centres as well as carrying out planning activities for the district health and supervise district health personnel.

Lastly, there are 6 National Referral Hospitals (NRHs) including University teaching hospitals which provide tertiary care. The University Teaching Hospitals provide both specialized referral and University teaching services. Apart the Butare University teaching hospital and Butaro Hospital respectively located to Southern and Northern Provinces, the remaining NRHs are located in Kigali City (Kigali University teaching hospital, Kanombe military hospital, Ndera hospital and King Faisal hospital).

Rwanda has 19,951 workers in the health sector including 14,482 health and medical workers, 1,080 General Practitioners, 303 Specialists, 10,795 Nurses, 752 Midwives and 1,543 Lab technicians. Rwanda’s physician-to-population ratio is 1/10,055 against 1/10,000 World Health Organization (WHO) standards; nurse-to-population ratio stands at 1/1,094 against 1/1,000 recommended by WHO; midwife-to-population ratio is 1/4,064 against 1/3,000 prescribed by WHO, laboratory technician-to-population is 1/7,653 against 1/5,000 recommended by WHO (office of the Prime Minister, 2017).
Rwanda has achieved MDGs for MCH in 2015. CHW program has played an important role in expanding coverage of basic services, particularly community based FP services and treatment of childhood malaria and pneumonia. From 2012 to 2015, CHWs tested 1,694,695 under-five children for malaria; and treated 414,629 of them. In the same period they treated 967,072 cases of malaria, pneumonia and diarrhoea combined; referred 525,363 pregnant women for antenatal care (ANC) during the first four months of pregnancy; and, identified and accompanied 40,107 women with high risk pregnancy (Rwanda Governance Board, 2017).

Achievements and challenges

Widely forsaken as a failed state two decades ago, Rwanda has undergone a remarkable transformation. Between 2000 and 2011, Rwanda experienced perhaps the steepest declines in premature mortality ever recorded. The numbers are striking: life expectancy, a shocking 28 years in 1994, has more than doubled to 58 in 2012 and 66.7 years in 2015 due to improvement in many spheres of health. HIV treatment has become universally accessible for those in need, and AIDS-related mortality fell by over 82% since 2000. Likewise, mortality from the other major infectious killers, tuberculosis and malaria, plummeted by over three-quarters. The ratio of women dying in childbirth fell by 59.5%, and the probability of a child dying by the age of five years decreased by 70.4%, the world’s steepest rate of reduction during this period. Even mortality related to non-communicable diseases, such as heart disease and cancer which collectively now cause a greater burden of disease and disability than infectious diseases declined by 49% in the last decade (Naughton, 2014).

Looking ahead, many challenges remain. A temporary spike in malaria cases that followed a supply chain disruption of mosquito nets in 2010 underscores the fragility of the country’s health gains. Sustained focus and investment, even in the face of diminishing global health aid, are imperative (Naughton, 2014). Moreover, progress is not uniform. Chronic malnutrition and food insecurity remain stubbornly high, and 38 percent of children have stunted growth (the World Bank, 2018). Also the country faces an increasing burden of complex chronic diseases.

Rwanda is endeavoring to tackle these challenges using the same recipe for success: smart partnerships, relentless innovation, results-oriented governance, and an insistence on leaving no one behind (Naughton, 2014).

1.4.2 Responsibilities and level of autonomy in the health units delivery system

Rwanda adopted a health development strategy based on decentralized management and district-level care, following the 35th session of the African Regional Committee of the World Health Organization held at Lusaka in 1985. The decentralization process began with the development of provincial-level health offices for health system management. Progress was made towards decentralizing management to the province and, ultimately, to the district level (National Institute of Statistics of Rwanda, 2003).

Since 2000, steps have been taken towards restructuring and decentralizing the management. The district health offices have operated as autonomous entities, providing services to well-defined populations in either urban or rural zones. The district health offices are responsible for the health needs of the population in that zone and for the health facilities
and services, whether provided through the governmental or private sector. Decentralization of financial and logistic resource management has been implemented universally.

1.4.3 The relationship and balance in health provision between public and private sector

In Rwanda, the healthcare provision can be grouped into three main actors: Public, Private and Faith-based. The public sector dominates the service provision at all levels and serves most of the population. However, private and Faith-based health providers play also important role in meeting the gap of needs that public services are not able to supply enough. Private health sector in Rwanda has grown in recent years although the private sector investment in health is still small and fragmented. The private sector comprises 177 for-profit health facilities including hospitals, polyclinics, clinics, dispensaries and 216 pharmacies and wholesalers, most of which are in the capital city, Kigali. Rural and remote regions of the country are left underserved by the private sector. In Rwanda, private health care providers rely heavily on out-of-pocket payments for operating costs. The MOH continues to strengthen its relationship with the private sector. In January 2017, the MOH introduced the first set of Rwandan Private Healthcare Service Packages. It is the first description of health care service packages for the private sector in Rwanda. This demonstrates an effort to facilitate partnerships between public and private health care providers to strengthen the healthcare structure and services provided. The document describes each level of the private healthcare system in Rwanda in terms of the principal types of services offered, the description and qualifications of staff required to provide the services and the basic equipment needed to carry out the services. However, the role of the private sector is not only in service provision, but also in the production, promotion, management of health facilities and social marketing of different medical products and of generic drugs. A formal agreement (convention) detailing the nature of cooperation between the Ministry of Health and the private sector has been established (Ministry Of Health, 2017). Government-assisted health facilities (GAHFs) are to fulfil all the functions of publicly owned facilities (as defined by the MOH) and have official management structures. They are fully integrated into the structure of the district health.

The not-for-profit sector adheres to a convention (formal agreement) that determines the respective obligations and rights of those working in the sector. The faith-based health facilities are non-profit structures led by religious working in health sector under the agreement signed with Ministry of Health. There are currently 277 faith-based organizations registered with the Rwanda Governance Board, of which 85 include health in their mission agendas. Today, church-based organizations own and operate 30% of Rwanda’s health facilities (Maurice, 2015). Their health facilities serve mostly local communities in rural areas and work closely with the MOH. The collaboration established in recent years between the faith-based organizations and MOH has been enshrined in memoranda of understanding, each signed by the head of the Church of the faith based organization and by the MOH. Under these formal agreements, the faith-based organizations committee provide the same range of health services and at the same costs as in the public sector facilities. In addition, as part of the agreement, the MOH pays 50% of the wages of the staff at faith-based organization health facilities. The government also provides services to both public and

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1GAHFs in Rwanda are conventional nonprofit facilities aided by the Government and are completely integrated into the public health system. The government provides services to both public and GAHFs, irrespective of their resources (human, equipment, or operating budget). GAHF staff and government staff are equally eligible for government-sponsored in-service education. GHAF representatives participate integrally in the work group (district management team) of each district and have a formal agreement to follow the policies of the MoH

13
Conventional non-profit organizations are also called Government-assisted health facilities (GAHFs). GAHF staff and government staff are equally eligible for government-sponsored in-service education. GHAF representatives participate integrally in the work group (district management team) of each district and have a formal agreement to follow the policies of the MOH.

1.4.4 Overview of health financing in Rwanda

Rwanda has been successful in improving resource mobilization from both domestic and external sources. The key achievements in health financing include revenue collection, revenue pooling and purchasing of services.

In terms of revenue collection, there has been increased revenue mobilization from domestic sources, mainly organized in Community-Based Health Insurance (CBHI) scheme and other private insurances; from public funds (from tax-based funding); and from external funding channeled through general budget support, sector budget, and project support.

In terms of revenue pooling, health insurance coverage in Rwanda has increased over the years. CBHI scheme now cover the entire country in all 30 districts. Funds from Government of Rwanda (GOR), donors, and mandatory contributions from other insurance schemes directly supporting the CBHI initiatives are useful in helping to cement CBHI implementation.

The Performance-Based Financing (PBF) funding model has now taken root. It has been rolled out to the entire country’s health centres and gradually to other levels of the health system. PBF, as a mechanism for purchasing services, is the second largest expenditure item and represents 10 percent of the total Medium-Term Expenditure Framework (MTEF) for health. The PBF allocation is more than double the planned public expenditure on human resources for health, including salaries and wages. It introduces an incentive for facilities to maintain an optimum staffing level in order to maximize financial income and incentives for staff. PBF also has a significant impact on institutional deliveries, preventive care visits by young children, and improved quality of prenatal care and it encourages voluntary counseling and testing for HIV by individuals and married couples (Ministry of Health, 2012).

In Rwanda, the share of domestic resources allocated to health rose from Rwf 157.5 billion in 2013/14 to Rwf 193.6 billion in 2017/18, representing a 22.9% increase in four years (Figure 3).
1.4.5 The existence of minimum standards and guarantees

Rwanda Standards Board (or Rwanda Bureau of Standards before 2013) is a public institution in charge of standardization and conformity assessment of a wide range of products and services including, Quality Management Systems, Auditing and Inspection skills, Food Safety and Hygiene as well on customer satisfaction standards. A number of calibration and testing laboratories are in place including Water Meter Calibration, Essential Oils, Antibiotics Residues and Illegal dyes Laboratories as well as mycotoxins, food contaminant and fungal toxins laboratories to improve on the assurance of health and safety. RSB and the Rwanda Natural Resources Authority (RNRA) have started to develop a standard for safe potable water for wider public use. The focus is also on availability of safer food, education and dissemination of information on the role of Good Agriculture Practices (GAP) in processing and production of safe and healthy food and non-food agricultural products. RSB in partnership with MOH has set up a Medical and pharmaceutical laboratory that analyzes imported and locally manufactured medicines and ascertain their quality and efficacy (Rwanda Standards Board, 2018). Water supply and sanitation in Rwanda is characterized by a clear government policy and significant donor support.

1.4.6 Water supply

The 4th Integrated Household Living Conditions Survey (EICV – 4) 2013/14 indicates that 84.8 per cent of Rwanda’s population use an improved drinking-water source. About 90% of the urban population are using an improved water source, but only 60.5% have access to it within 200 meters, which is the maximum distance considered to be acceptable for urban habitat in Rwanda. Only 39.4% of urban households have piped water within their dwelling or yard.

In rural areas, most household do not have sanitation installation, they use communal borehole with hand pumps that in some cases is shared by up to 150 families, they sometimes have to wait for more than four hours before they can get water (National Institute of Statistics of Rwanda, 2015). In rural areas: Since 2000 districts are owners of rural water infrastructure and have revenues and decision-making authority. They develop their capacity to plan and execute infrastructure projects. They contract out service provision to the local private sector in a form of public-private partnership (PPP).
In urban areas, the Water and Sanitation Corporation (WASAC) is in charge of water supply. In March 2015, the government signed a 27-year contract with a private company to invest $75 million in order to provide 40,000 cubic meters/day of bulk water from a well field next to the Nyabarongo River to the capital Kigali.

**Water supply and sanitation sector: roles and responsibilities**

The Ministry of Lands, Environment, Forests, Water and Mines (MINITER) is in charge of determining water policies and strategies in Rwanda. It is also in charge of monitoring drinking water quality and promoting user awareness. The Ministry of Infrastructure (MININFRA) is supporting districts in the construction of water supply systems, latrines and hygiene promotion with the support of UNICEF. The Ministry of Local Government, Good Governance, Rural Development and Social Affairs (MINALOC) is in charge of accompanying local participatory planning processes, applying the government’s Community Development Policy.

The regulatory agency Rwanda Utilities Regulatory Agency (RURA) is responsible for the economic regulation of the telecommunications, electricity, water, sanitation, gas and transportation sectors. Districts have the main responsibility (project ownership) for the implementation of rural water supply projects. Oversight of urban water services is carried out by MININFRA with technical support by the Agency, regulatory control by RURA. WASAC does not hold a monopoly, hence other private companies do also provide urban water supply services.

RURA, the Rwanda Utilities Regulatory Agency, ensure regulation in two respects: vis-à-vis the public, by ensuring adequate and affordable services and protecting the interest of the consumers; and vis-à-vis the service providers, by monitoring contract management, financial viability and accountability and ensuring effective competition. RURA thus covers four complementary aspects of regulation: (i) technical; (ii) economic; (iii) legal; and (iv) consumer relations.

**Sanitation**

The main responsibilities of the State for individual sanitation are with MININFRA (through the Agency) and MoH, sharing the responsibility with the Districts to promote environmental health awareness and to provide and support technical and financial solutions for upgrading or replacing half of the countries household latrines.

The technical and financial responsibilities for institutional sanitation improvements in schools, health facilities and public places are shared among MINEDUC, MoH and Districts who count on the technical support from the Agency. MININFRA holds the main responsibility for promoting collective sanitation services, storm water and solid waste infrastructure and management. MININFRA counts on the support from MoH (environmental health) and cooperate with WASAC (for urban sewerage), the Districts and the private sector for planning, implementation and operation and maintenance. The private sector is encouraged to contribute technically and financially as service provider, constructor, operator or real estate developer. Households and communities (e.g. villages) participate in a variety of ways for sanitation, storm water prevention and solid waste management.

In all areas, the district administrations and Kigali City Council (KCC) assume a leading role in the execution and supervision of activities within their territory and must develop the
appropriate management capacities. RURA, Rwanda Environment Management Authority REMA and RSB are the main independent national regulating bodies while the subsequent enforcing functions and responsibilities have to be defined carefully by the Taskforces of each area. Roles of REMA are authorizing water abstractions, setting water quality and discharge standards as well as environmental impact assessments (Ministry of infrastructure, 2010).

1.4.7 Health services

Administratively, the public sector is organized into three levels (central, intermediate and peripheral), with each having a defined technical and administrative platform called a minimum package of activities. Each level coordinates with each other, to prevent overlap and to improve use of resources and services. With regard to the healthcare services provision, the health system is also a pyramid with three levels: central, intermediate and peripheral. A package of activities has been defined for each level: the peripheral level comprises mainly of services provided through health centres and community health workers. However, recently the health posts were also introduced at this level. Community health workers have clear guidelines detailing what they are requested to do and how. At the health centre level, the minimum package of activities (MPA) is also defined. These include promotional, preventive and curative activities. District hospitals receive patients referred by Health centres, and there is a clear complementary package of activities (CPA) for this level. Finally the districts hospitals refer patients to national referral hospitals, and similarly, there is a complementary package of activities for national referral hospitals. Recently, a new level called Provincial Hospitals was introduced between District hospitals and Referral hospitals (Ministry of Health, 2011).

The Health Sector Policy gives general orientations for the sector which are further developed in the various sub-sector policies guiding key health programs and departments. The Health Sector Policy is the basis of national health planning and the first point of reference for all actors working in the health sector. The overall aim of the health sector policy is to ensure universal accessibility (in geographical and financial terms) of equitable and affordable quality health services (preventative, curative, rehabilitative and promotional services) for all Rwandans.

It sets the health sector’s objectives, identifies the priority health interventions for meeting these objectives, outlines the role of each level in the health system, and provides guidelines for improved planning and evaluation of activities in the health sector. A companion Health Sector Strategic Plan (HSSP) elaborates the strategic directions defined in the Health Sector Policy in order to support and achieve the implementation of the policy, and more detailed annual operational plans describe the activities under each strategy (Ministry of health, 2014).

1.4.8 Policies and health delivery at the level of neighbourhoods

Many policy choices in Rwanda shape opportunity at the level of neighbourhood. The following are the few examples:

- Community-based health insurance: Recently the government of Rwanda has authorized all community health insurance (CBHI) members to get healthcare from any authorized health facility, regardless of the geographic location, as long as the referral system in this health insurance is respected (health centre→district
hospital→national referral hospital). This was not possible a few years ago because patients were obliged to use only health facilities in their catchment areas. With this change, now patients walk less distance to get healthcare services. Similarly, insured patients under Rwanda Social Security Board (RSSB) are allowed to get healthcare from any authorized healthy provider of their choice (including private health providers). Both CBHI and RSSB cover health insurance for at least 95% of the Rwandan population.

CBHI offers access to basic yet comprehensive primary health services in return for a small annual premium and modest user fees, administered on a sliding scale.

For the poorest (25 percent of the population), premiums are paid by the government (in part through external aid), thereby reducing the economic barrier of user fees. Key services, such as HIV and tuberculosis care and malnutrition treatment, are free. Though CBHI is far from adequate to fully finance the public health system, it provides a critical safety net that has dramatically increased uptake of high-value health services and reduced catastrophic household spending due to illness.

- **Community health workers:** The Rwanda community health policy is one of the most effective community health services in Africa. In Rwanda, this policy allows trained and well-coordinated community health workers to perform in their villages a number of activities particularly foremothers and children under five. These include treatment of malaria and diarrhoea, immunization, administration of some family planning products. This policy has availed some of healthcare services at the level of neighbourhood and thus has largely contributed to the reduction of maternal and child mortality and morbidity.

- **Sports:** Sports in Rwanda are supported by the Rwandan Government Sports Development Policy of October 2012. This argues that sport has a number of benefits, including bringing people together, improving national pride and unity, and improving health (Ministry of Sports and Culture, 2012). In this context, some strategies are implemented, including allowing civil servants two hours of sports on Fridays, and the “Car free Day” on first Sunday of the month has been designated as a day where city residents park their cars to engage in sports, meet their neighbours whilst they protect the environment because of reduced car emissions (City of Kigali, 2016).

### 1.5 Education policies

Since its inception, Rwanda has gone through different social, political and economic changes which significantly impacted its education system. This subsection on education therefore outlines major education changes and education policy frameworks that characterized the Rwandan education sector for the past twenty years with reference the historical context of Rwanda. Particular attention will be put on the provision of education services in two urban case studies, Kigali and Huye Cities.

#### 1.5.1 Historical changes in education policies in Rwanda

Prior to contact with the western civilisation, Rwandans educated their children through an informal education delivered both in families and Itorero, the latter being a sort of cultural school where, apart from military training participants also benefited from receiving other
cultural values including patriotism, wisdom, heroism, unity, taboos, eloquence, hunting (NIC, 2009). The indigenous education ended with the arrival of the Europeans. Germans, who were far more concerned with political matters than education (Hoben, 1989), left the newly introduced education in the hands of missionaries. In addition to religion, Rwandans were taught French culture and language (Adekunle, 2007). Later on, following the First World War and the defeat of Germany, Rwanda was given to Belgium as a trustee territory under the authority of the League of Nations (Republic of Rwanda, 2012). The Belgian’s main educational objective was to train clerks, aides, and technicians to fill low-level posts in the colonial administration (Hoben, 1989 & Mathisen, 2012). It was the beginning of an ethnic-elitist education system which favored children from Tutsi chiefs and created and became a tool for perpetuating social injustice among Rwandans. In 1959, ethnic tensions led to the mass killing of Tutsis, the exile of a good number of them and the establishment of a Hutu government in 1962 which, in a relative revenge, instituted an ethnic and regional quota system which barred many of the Tutsis from the school system (Mocham, 2015). In 1962, the constitution of Rwanda declared primary school education to be free and obligatory, and imposed national standards on the six-year primary curriculum. The objective of the educational reform in 1962 was to adapt education to Rwanda’s cultural context and to make schooling accessible to all (Hoben, 1989). Statistics show that, at the time of independence, Rwanda had 217,000 students in primary schools, the number which rose to 1.7 million by early 1994. Classrooms increased from 5,059 in 1965 to 18,826 by 1990. The transition rate from primary to secondary shifted from 7% in 1972 to 10% in 1992 (Obura, 2003).

The structure of education was 6 years for primary, 6 years for secondary, 3 or 4 for higher education except during the 1970s and 1980s when an eight year primary school was tried and then abolished. Rwanda achieved gender parity in access to school in 1990 with less than 1% gender gap (Hoben, 1989). However, with the occurrence the Genocide against the Tutsi in 1994, the school system was almost totally destroyed.

1.5.2 Educational policies after 1994

Since 1994, different education policies have been adopted and reviewed to respond to the mission of the Ministry of Education of “transforming the Rwandan citizen into skilled human capital for the socio-economic development of the country” by ensuring equitable access to quality education focusing on combating illiteracy, promotion of science and technology, critical thinking, and positive values” (MINEDUC, 2013). Education Policy documents formulated by the government of Rwanda were all aligned to the Millenium development Goal 2 of achieving universal primary education (UNESCO, 2017) and later on to the sustainable development goal 4 which aims to ensure inclusive and equitable quality education and promote life-long learning opportunities for all (UNESCO, 2018). Policy documents which endorsed in education include the 2003 constitution of Rwanda with its 2015 amendments. In article 20 emphasis is put on the right, freedom, compulsivity and gratuity in primary schools (Republic of Rwanda, 2015). Education is also provided with the focus on Rwanda Vision 2020 challenges in quality of education, matching of skills to labour market needs and entrepreneurial mindset shift with major emphasis being placed on vocational, technical and ICT (Republic of Rwanda, 2012). Educational aspirations were also formulated in the two EDPRS strategies (2008-2012 & 2013-2018). EDPRS 1 concentrated on nine year basic education, Technical and Vocational Education and Training (TVET) as well as the quality of tertiary education (MINECOFIN:2007) while the second one, which is still on track focuses quality of education in primary schools, twelve year basic education, early childhood education and early childhood development (MINECOFIN, 2013). Education
was also endorsed in Education Sector Strategic Plans (2006-2010, 2010-2015, 2013-2018) considered as roadmaps for the Ministry of Education to achieve its mission making education accessible and more relevant to national needs.

More than fifteen other specific policies linked to national polices were adopted. They include among others the Early Childhood Development Policy (MINEDUC, 2011), Technical and Vocational Education and Training (TVET) Policy (MINEDUC, 2008). Other policies include Teacher Development management Policy, ICT in Education Policy, Girls education policy, Early Childhood Development Policy, Special Needs Education Policy, the HIV/AIDS Policy, and the Nine-Year Basic Education later on upgraded to Twelve year basic education policy (MINEDUC, 2016).

1.5.3 Responsibilities and autonomy of institutions in education delivery

The education sector in Rwanda embeds different activities that call upon the involvement of different public and private institutions. The Education Sector Strategic Plan 2013/2014-2017/2018 detailed roles and responsibilities of each concerned institution. The Ministry of Education takes the overall lead with responsibility to formulate policy, to set norms and standards, to plan, monitor and evaluate education program and activities at national level. Other ministries playing important roles include MINECOFIN, MIFOTRA, MINALOC, Ministry of health, MYICT and the Ministry of Gender and family promotion (MINEDUC, 2013). There are also semi-autonomous institutions affiliated to MINEDUC with particular mandates to implement specific education policies, such as Rwanda Education Board, Higher education council, the National commission for science and technology, and the National Commission for UNESCO (CNRU) (MINEDUC, 2013). Different institutions at local level (District, Sector and cell levels) also participate in the provision of education services in line with the MINALOC decentralisation Plan 2011-2015 (MINALOC, 2011). The district directorate of education plan implements, monitors and evaluates the delivery of education services at district level. Sector and cells have roles of collecting data and information needed by higher levels for development planning whereas schools participate in the implementation of policies with support of Parent-Teacher Associations. Other stakeholders in education include NGOs, the private Civil Society organisations (MINEDUC, 2013).

1.5.4 Education organisation in Rwanda

Education in Rwanda is organised at six levels (Table 4) where the majority of the students are enrolled in Primary level (72%). Those levels are Pre-primary for 3 years from 3 to 6 years of age, Primary Education for six years from 7 to 12 years of age, Secondary Education for six years from 13 to 18 years, Technical and Vocational Education and Training (TVET) organised for young and unemployed, Tertiary Education organizes on a credit accumulation and modular scheme (CAMS) and adult literacy Education organized for adults to acquire the basic writing and reading skills (MINEDUC, 2016).

<table>
<thead>
<tr>
<th>Table 4: Levels of education in Rwanda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levels of Education</td>
</tr>
<tr>
<td>Preprimary-</td>
</tr>
<tr>
<td>Primary</td>
</tr>
<tr>
<td>Secondary (General)</td>
</tr>
</tbody>
</table>
Regarding school enrolment, the Net Enrolment Rate in pre-primary increased from 12.7% in 2012 to 17.5% in 2016 leading to an increase of 4.8%. In primary schools, the enrolment rate has been steadily increasing from 78.3% in 2003 to 96.5% in 2012 and 97.7% in 2016 (MINEDUC, 2003 & MINEDUC 2016) (MINEDUC, 2003). The number of schools at national level increased from 2,752 in 2015 to 2,842 in 2016 and most of them were established in rural areas. The increase was due to efforts put in promoting access to nine and twelve basic education in Rwanda. In secondary schools, the net enrollment evolved from 28% in 2012 to 32.8% in 2016. On the contrary, secondary school gross enrolment rate has decreased, both in lower and upper secondary: respectively from 45.9% in 2015 to 42.5% in 2016 and from 33.2% in 2015 to 31.2% in 2015 (MINEDUC 2016). In tertiary education, enrolment increased from 76,629 students to 86,315 in 2015 and 90,803 in 2016 generating 787 higher education students per 100,000 inhabitants. In adult literacy, the number of learners, instructors, and centres has increased, respectively from 95,829 in 2015 to 126,165 in 2016, from 5,240 in 2015 to 5,725 in 2016, from 4,313 in 2015 to 4,654 in 2016 respectively(MINEDUC 2016).

### Table 5: Pre-primary schools, Classrooms, pupils and staff by status in 2016

<table>
<thead>
<tr>
<th>Status</th>
<th>Schools</th>
<th>Classrooms</th>
<th>Students</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Public</td>
<td>527</td>
<td>701</td>
<td>16,836</td>
<td>17,498</td>
</tr>
<tr>
<td>Government aided</td>
<td>947</td>
<td>1,243</td>
<td>30,242</td>
<td>31,884</td>
</tr>
<tr>
<td>Private</td>
<td>1,283</td>
<td>2,483</td>
<td>44,278</td>
<td>44,947</td>
</tr>
<tr>
<td>Total</td>
<td>2,757</td>
<td>4,427</td>
<td>91,356</td>
<td>94,310</td>
</tr>
</tbody>
</table>

Source: UNICEF, 2016

1.5.5 The relationship and balance between public and private education sectors

Both public and private institutions play important roles in the provision of education. This is highlighted by school ownership: from 2003 to 2016, pre-primary schools increased from 257, of which 2 schools only were public( MINEDUC 2003), to 2,757 of which 527 were public, 1,283 private and 943 Government aided.

By 2016, 12.2% of Primary schools were private, 25.5% public, and 62.3% government aided. For secondary schools, statistics show that in 2016, 16.1% of schools were private, 29.2% public and 54.7% government aided while in tertiary education there were 45 Institutions of which 10 were public and 35 private. Regarding student’s enrollment (Table 5), the majority of pre-primary students were enrolled in private schools at a rate of 48.1%, 33.5% in government aided schools and 18.5% in Public schools. In primary schools, there were 30% in public schools, 65% in Government aided schools and 5% in private schools, 31% of secondary school students are enrolled in public schools, 54.5% in Government aided schools and 14.5% private schools. In tertiary education, public institutions enrolled 43% and 57% in private schools. With regard to ratio, the pupils per class ratio in private schools is 34:1, 45:1 in public schools, and 44:1 in Government aided school (MINEDUC, 2016). Financial incomes coupled with distance from school constitute the main determinants for parents to choose between public or private schools for their children, and the private schools being more expensive but offering relevant quality education.
1.5.6 Education Budget allocation

Concerning budget allocation, from 1994, the national budget allocated to education has been increasing consistently with the aim to produce significant results in the sector. The education budget increased from 12% in 1996 to 21.3% in 2006. As a result, positive changes in school infrastructure and students data were noticed and appreciated. For example, the net enrolment rate (NER) at pre-primary school level increased from 10.1% in 2011 to 17.5 per cent in 2016 (UNICEF, 2017). The number of primary schools increased from 2093 in 2000 to 2650 in 2013, that is an increase of around 27%. In the same period, the net enrolment rates in primary schools grew from 72.9% to 96.9% with a gender ratio shifting from 50.4% (boys) and 49.6% (girls) to 49.3% (boys) and 50.7% (girls) (MINEDUC, 2015). However, from 2006, the situation changed and the budget fell from 21.3% in 2006 to 12.3% in 2015/16 (Claire Kumar, 2016), and continued to decline to reach 11.5% in 2017/18. The decrease was due to the reduction of external finance as shown in figure 3. In the meantime, the budget allocated to secondary education declined from 36.5% in 2012/13 to 26.5% in 2017/18, while within the same period, the share of the budget allocated to pre-primary and primary education levels set as priorities for education funding increased from 27.8% to 41.7% (UNICEF, 2017).
Figure 4: Size of government spending in education

Figure 5: Sources of education finance

Source: UNICEF 2017
The execution of the budget is decentralised; more than 50% of the education budget is allocated and executed at district levels. The share of the budget executed by districts has increased from 46.3% in 2013/14 to 54.7% in 2017/18 (UNICEF, 2017).

Due to the limited budget allocated to education and the decreasing funding from external donors, the government of Rwanda, through the Ministry of education embarked on a sensitization campaign toward its affiliated public and private institutions to maximise the use of available internal resources and look for additional strategies to come up with home grown solutions to meet the targeted education agenda. The adoption of standards on quality education, the nine year basic education, later on upgraded to twelve year basic education facilitated students to access both primary and secondary education at limited travel distances from their homes. The community work, commonly refered to as Umuganda in the Rwanda tradition, contributed in the construction of schools infrastructure which would otherwise have consumed millions of Rwandan Francs. Additional education home grown solutions include the school feeding programs adopted to reduce malnutrition, school dropout and increase student attention. One is a MINAGRI-funded school milk program, called One Cup of Milk per Child per week, dedicated to pre-primary and primary school students in grades 1-3, the second one is a MINEDUC-funded program referred to as the Secondary School Feeding Program and the third program implemented by World Food Program which provide a cooked lunch to primary and lower secondary school children in food-insecure districts of Rwanda (Kabera, 2015). Those programs are already being credited by teachers for increased concentration in class and improved attendance rates but also drop out students in poor family households were enabled to re-join school (WFP, 2018).

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3 Umuganda is a practice where, every last Saturday of the month members of the neigbourhood community come together to work on a particular task for the good of the entire community, like cleaning, farming, or building houses for those who are unable to do so due to either physical handicap or old age.
2 City of Kigali Profile

2.1 Historical growth and planning trend of city of Kigali

Kigali was found in 1907 by the German Dr. Richard Kandt from a small German colonial outpost and trade centre. Kigali eventually developed into a significant commercial centre because of its central position. Kigali was a convenient transportation hub for commercial activities taking place between Bukoba, Kigoma (Tanzania) and Bujumbura (Burundi), and between Kisangani (Democratic Republic of the Congo) and Kampala (Uganda) (REMA, 2013). This development attracted many Arab and Indian traders to move from Nyanza, the site of the King’s palace, to Kigali. At that time, the seat of the King (Umwami) in Nyanza was the traditional capital, while Butare (formerly Astrida) was the colonial seat of power. In 1916, Belgian troops defeated the Germans and Belgium occupied Rwanda until independence in 1962 (Manirakiza, 2012). At that time, Butare was the preferred option for the new nation’s capital city, but after the Second World War, the Belgians maintained Kigali as the administrative centre for the whole country. Through this period from 1918 until 1962, Kigali city grew and development took place (Nduwayezu, 2015).

During the colonial period, Kigali grew at a slow pace, as settlements were primarily contained at the top of Nyarugenge hill. When Rwanda gained independence on 1st July 1962, Kigali was just a small village with primarily administrative functions. Around that time, Kigali was around 2.5 km² in size, but then expanded to 112 km² in 1990. After the genocide of 1994 against the Tutsi, which was a defining moment in the city’s history, Kigali has continued to grow due to an influx of repatriated refugees the majority of who settled in Kigali after 1994. Internal migration, the natural population increase, and administrative reforms repeatedly extended the city limits to encompass the surrounding population. This spatial extension has impacted the demographic statistics (Manirakiza, 2014). The administrative reforms of 2000 and 2005 extended the city’s boundaries respectively from 314 km² to the current size of 730 km² (REMA, 2013).

Kigali’s urbanisation followed a concentric urban land use model, from the Central Business District (CBD) to low- and medium-class residential areas, to modern, high-class housing in the suburbs. The first urban plan of Kigali was elaborated in 1964. The rapid expansion of the city obliged the elaboration of a new plan in 1982, which was updated in 2001. The Kigali Conceptual Master Plan projected up to 2040 was elaborated in 2007, two years after the formal extension of the city up to 730 km². It is designed to contain the informal urban expansion that the city is experiencing since 1960s. In fact, after independence, and particularly since the 1990s, the city began growing rapidly in a spontaneous, uncontrolled and haphazard way. Urban extension occurred into wetland areas, as well as onto steep slopes. Around 19% of Kigali’s built environment is on land that is not ideal for development (Manirakiza, 2012). The urban mosaic is characterised by modern businesses, luxury dwellings and neighbourhoods which co-exist with low-income squatter houses and settlements that spring up virtually overnight (SURBANA, 2013).
2.2 Physical characteristics of City of Kigali

2.2.1 Physical features

Kigali city is situated between 29°43′0″E and 29°44′0″E of Longitude and 2°35′0″S and 2°37′0″S of Latitude. The city is built on hilly landscape sprawling across four ridges, separated from each other by large valleys in between. Kigali city is one among five provinces which compose the country of Rwanda. Kigali city is surrounded by the Northern Province on the North, Eastern Province on the East and South and Southern Province on the West. The elevation of the lower part is roughly 1400 m and the higher hills are at over 1845 m above the sea. The highest hill is Mount Kigali with 1850 m of latitude. Over time, the city of Kigali has evolved by leaps from one hilltop to another (Michelon, 2009). This discontinuity is due to various constraints, namely the existence of flood plains, swamp and steep slopes. The slopes of the city’s hills vary in steepness from inclines of up to 45 or 50%, to those in valley wetland areas with slopes of less than 2%.

The angles of slopes in Kicukiro District are somewhat less steep compared to those in the other two Districts. Where housing is built on steep, sandy slopes, the soil is subject to serious erosion and there is the risk of landslides during the rainy season (REMA, 2013).

Figure 6: Topography of the city of Kigali

Source: Nduwayezu, 2015
Concerning the hydrography, Kigali’s underlying hydrology is governed by 25 watersheds within the city limits and is part of the Lake Victoria Basin. In central and northern Kigali, the topography is relatively steep and drained by the Nyabogogo River, which is the main watercourse in the northwest quadrant of Kigali flowing south to join the Nyabarongo River. Other rivers and streams within the city, such as the Yanze, Kibumba, Rwazangoro and Ruganwa also flow into the Nyabugogo. There are other streams that flow directly into the Nyabarongo River from the city’s southern hills. The Nyabarongo River is the main watercourse that borders the western and southern edges of the city limits (REMA, 2013). The Nyabarongo River itself is joined by the Akanyaru river tributary to become the Akagera River that flows into and through Lakes Rweru and Mugesera and into Lake Victoria and eventually the Nile River. Lake Muhazi is the largest natural lake in Kigali; it borders the north-eastern edge of Gasabo District and is currently more-or-less undeveloped (REMA, 2016). Wetlands are another of Kigali’s key hydrological features, located mainly in the river valleys of the rivers described above; they presently cover about 12.5% of the city’s total area. These wetlands have important environmental functions, such as storing and releasing water and buffering the impacts of floods. They have been threatened by human activities including the conversion to agriculture, human settlements and industrial uses, and when used for livestock activities and sand quarries. As a result of such impacts, by 2006, only 24% of Kigali’s original wetland areas remained (REMA, 2013).

2.2.2 Land use in Kigali city

Land use is a vital element for understanding urban activities. Land use typology of Kigali city is grouped into urban and rural clusters. Till 2013, the total area occupied by urban areas was 12.1% (88.40 km²) and the remaining portion 87.9% (642.60 km²) was rural. Built-up areas are a collection of different land use types like mixed use, commercial, industries, some infrastructures, public facilities, residential and governmental areas. Public facilities include education institutions, religious, civic, health facilities as well as cemeteries. The high-rise, medium-rise, low-rise and single family residential land can be distinguished. Commercial patches are mainly scattered in the core of the city. In past years, industrial sites which were closed to the wetlands were displaced currently on the new proposed sites. Governmental land use combines government offices and military camps. Mixed use encompasses all vertical apartments containing more than one urban land use activities. Agriculture land occupies the biggest portion of the city’s area followed by wetlands and forests respectively.

<table>
<thead>
<tr>
<th>Land use type</th>
<th>Area in Km²</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed use</td>
<td>0.19</td>
<td>0.03</td>
</tr>
<tr>
<td>Wetland</td>
<td>78.07</td>
<td>10.68</td>
</tr>
<tr>
<td>Agriculture</td>
<td>478.46</td>
<td>65.45</td>
</tr>
<tr>
<td>Commercial</td>
<td>3.00</td>
<td>0.41</td>
</tr>
<tr>
<td>Industries</td>
<td>4.14</td>
<td>0.57</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>21.19</td>
<td>2.90</td>
</tr>
<tr>
<td>Forest</td>
<td>53.57</td>
<td>7.33</td>
</tr>
<tr>
<td>Recreational/Vacant spaces</td>
<td>7.38</td>
<td>1.01</td>
</tr>
<tr>
<td>Public Facilities</td>
<td>14.10</td>
<td>1.93</td>
</tr>
<tr>
<td>Residential</td>
<td>67.20</td>
<td>9.19</td>
</tr>
<tr>
<td>Governmental</td>
<td>2.20</td>
<td>0.30</td>
</tr>
<tr>
<td>Rivers/Lakes</td>
<td>1.50</td>
<td>0.21</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>731.00</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

*Source: (Ndwayezu, 2015)*
The proposed land use was highlighted from the city of Kigali Master plan elaborated in 2013. Kigali Master Plan 2013 is the final product of a long planned route started in 2007. It is based on the previous completed 2007 (Kigali Conceptual Master Plan). KCMP includes the Detailed Districts Master Plans for Nyarugenge, Gasabo and Kicukiro. It contains detailed proposed land use and zoning plans that will guide the city’s urban development. Zoning of each district is composed of a zoning map and a set of zoning regulation. KCMP is designed in a way that the zoning map identifies specific zoning districts within a planning area based on its predominant land use in that area. KCMP provides proposed zoning maps for Kigali city's future growth in 2025 and 2040 as per Figure 8 and Figure 9.
Figure 8: Proposed 2025 zoning land use map

Figure 9: Proposed 2040 zoning land use map

Source: Nduwayezu, 2015
2.2.3 Settlement and city neighbourhoods

The spatial occupation of Kigali has been influenced by its hilly topography: the site is covered with multiple marshlands, floodable zones and steep hills. There are no clear guidelines on the planning and distribution of neighbourhood at the city level. However, the planned settlements were mostly developed on gently sloping hillsides and on flattened hilltops. The current city morphology is characterised by three categories of neighbourhoods namely planned, informal and mixed neighbourhoods. Planned neighbourhoods are characterised by clearly separated and demarcated plots and an organised road system. They are equipped with basic infrastructure: accessible tarmac or stone paved roads. Buildings are constructed with bricks or cement blocks; and with roofing of industrial tiles or metal sheets. Moreover, buildings are constructed according to a certain standard. Its inhabitants are generally from the higher economic class. Population density lays around 2000 to 5000 people per km². Houses are either of High or Medium standing.

Informal neighbourhoods which are less precarious than other shanty towns or slums identified in other different developing countries. They can be classified as ‘spontaneous neighbourhoods’ which are, according to (Manirakiza, 2015), neighbourhoods with full of small individual houses made with bricks (often of the adobe type) or with breeze blocks but without any modern comfort and equipment. Kigali’s spontaneous neighbourhoods are – in comparison to the planned ones less rich and less attractive in terms of urban infrastructure, and are commonly referred to as Akajagari. Houses are not built on neatly organised plots in line with an overall development plan. Roads are generally unpaved and mostly only accessible for pedestrians. Population density may be well over 10,000 inhabitants per km²; and sites are characterised by a strong scarcity of land.
Mixed neighbourhoods are planned and informal that have progressively merged, or informal gradually upgraded with paved roads and new houses (housing with more modern architecture). The upgrading of such neighbourhoods is mostly progressing in a gradual way, when plots are bought by new owners who replace the old buildings with houses that respect the 2013 Kigali city master plan official guidelines.

Further, the current neighbourhoods were given names on base of three main elements: First, names came from the type of trees that the first people in Kigali found in place. To give an example, the name Kinyinya comes from the trees called “iminyinya” that were abundantly found in Kinyinya area; the name Nyarugenge because of the trees called Imigenge; even Rugenge- the area between the Sainte Famille and Kimicanga- was named after the Imigenge trees found there until the late 1970s. Other examples are like Kimironko named after Imironko trees; Kimisagara was named because of Imisagara trees found there, and many other examples (Pauwels, 1953).

Second, there are names which came from powerful men who lived at the sites. For example, Rwarutabura was named after a man called Rwarutabura who lived there in the past; Kabusunzu, the name came because of a man called Gasunzu who lived there. At the beginning the place was called “Kagasunzu” but later it became Kabusunzu. Other places are like Katabaro named after Tabaro; Kamuhoza or Kacyiru named after a man named Cyiru.
Third, we have names related to cattle and herding. For example Kicukiro means a hill full of cow dung. In the past, Kicukiro was known for the large number of cows found in place. Other example is Niboye which was the name of the cow herd (Inyambo); there is also Mwijuto which was a water source (salty water: Amakera) used by some herders in the area to draw water for their cattle.

Figure 13: Some of city of Kigali’s neighbourhoods

Source: adapted from Michelon (2009)
2.3 Political and administrative context

The 2005 Organic Law No. 10 established the City of Kigali as a local government with administrative, legal and financial autonomy. According to the administrative organisation of Rwanda, Kigali is one of the five provinces of Rwanda. It is subdivided into three districts; Gasabo, Kicukiro and Nyarugenge. Those 3 districts are also subdivided into 35 sectors and into 161 cells. The cells also comprise a total number of 1061 imidugudu literally villages (REMA, 2017).

Figure 14: The political and Administrative map of City of Kigali

Source: Manirakiza, 2015
Kigali is a provincial-level city governed by a City Council made up of 31 Councillors who are elected for a term of five years.

The Kigali City Council (KCC) establishes regulations and laws to govern the city in alignment with the Constitution. A Bureau composed of a Chairperson, a Deputy Chairperson and a Secretary runs the Council.

An Executive Committee, composed of a Mayor and two deputies, runs its day-to-day operations.

A Minister in charge of local government coordinates collaboration between the Bureau and the Executive Committee.
In addition, there is an Executive Secretariat made up of the Secretary of the City of Kigali and staff members and a Security Committee (REMA, 2017).

**Figure 16: City of Kigali organizational chart**

Currently, the urban perimeter of Kigali is defined by its administrative boundaries. Until independence, the city was limited to the urban area. However, since then, it underwent several territorial expansions in line with the different city plans and administrative reforms that were realised in order to standardise the administration of urbanising areas and to limit informal settlement in Figure 7 (Manirakiza, 2014). This is contrary to the historical definitions of Kigali’s boundaries. In 1975, for example, the Commune Urbaine de Nyarugenge was created after a spontaneous expansion of Kigali’s borders in post-colonial times. In 1990, the Commune Urbaine de Nyarugenge was replaced by the Préfecture de la Ville de Kigali (PVK), created to ensure an efficient way of organising the capital city (République du Rwanda, law no 53/90). In 2000, in line with the decentralisation ambitions of the authorities and to deal with the spread of population over the hills around the original 112 km² of what constituted the Préfecture de la Ville de Kigali, its boundaries were redefined and its administrative entities restructured. The Préfecture de la Ville de Kigali became the Mairie de la Ville de Kigali, on a territory of 314 km² (République du Rwanda, law no 47/2000). The recent administrative reform of 2005 gave the city its current entities. City of Kigali actually covers a zone of 730 km², including additional urban and rural zones in comparison to the pre-2005 situation (Republic of Rwanda, Organic law no 29/2005) in Figure 7.
2.4 Demographic characteristics of the city of Kigali

2.4.1 Social demographic indicators

Over the last twenty years, the population of the City of Kigali has increased tremendously. Between 1996 to 2008 the Kigali city population grew from 358,200 to 771,691 inhabitants. As shown in figure below, the number has significantly risen where in 2015 Kigali city accounted for more than 1.3 million people.

Figure 17: Evolution of Population Kigali city (1996-2015)

Sources: NISR, National Censuses, 2002; DHS-2010; EICV2-2006, EICV4-2015

Administratively, the City comprises three districts: Gasabo, Kicukiro and Nyarugenge. Of these, Gasabo has the largest share of the population of Kigali City, at 44%. The remaining 56% of the population is shared equally between Kicukiro and Nyarugenge, around 28% each. As is the case with the Rwandan trends, more women than men inhabit Kigali City, 49 and 51%, respectively (REMA, 2017). Kigali city is among the fastest growing cities in Africa with an average annual growth rate of 4.0% (REMA, 2013). A breakdown of the population density for the three districts aggregated at cell level is shown in Figure 18. Gasabo district is the most populated and fastest growing (5.2% growth rate) of the three districts while Nyarugenge is the least populated with 1.9% average annual growth rate. Figure 18 further shows that the high density areas are located around the city’s core, hence the highest population density is found in Nyarugenge district (average 2,127 persons per km2) and there is a noticeable decrease moving to the hinterlands. This population density is lower in Kicukiro district (average 1,918 persons per km2) and relatively lower in Gasabo district (average 1,237 persons per km2).
The proportion of households in rural and urban areas in the three districts is shown in Figure 10, with Gasabo district having the most rural population at 32.3%. Around 79.1% of the population of Kigali City is categorized as urban dwellers, with only 20.9% living in rural areas. Conversely, the rest of Rwanda has 85% of its population in rural areas and only 15% urban as shown in Figure 19 (REMA, 2017).
Additionally, as indicated by Figure 20, the city accounts roughly 11% of total national population within which youth inhabitants represent important part of the dwellers (where 50.3% of population are youth), an indication of natural dynamic of population growth. The age structure of the population in Kigali City conforms to national trends as shown in Figure below. Almost half of the population (48%) is aged 19 years or younger while less than two (1.4%) percent of the population in Kigali City is aged 65 years and above.

In the City of Kigali neonatal, infant, and under-5 mortality rates are as shown in Figure 21 based on the Rwandan Demographic and Health Survey (RDHS 2014/15). Neonatal mortality is 12 deaths per 1,000 live births compared to 20 deaths per 1,000 live births at national level. Twenty nine of every 1,000 babies born in City of Kigali do not survive to their first birthday compared to 32 deaths per 1,000 at the National level. The Under-5 mortality in City of Kigali is 42 deaths per 1,000 live births compared to 50 deaths per 1,000 live births.
at the national level. By district, Nyarugenge has the highest under five mortality rate of 46 deaths per 1000 live births and Kicukiro has the lowest rate of 40 deaths out of 1,000 live births for the five years preceding the survey.

**Figure 22: Distribution of early childhood mortality rates per 1000 live births in Districts of Kigali City**

![Distribution of early childhood mortality rates per 1000 live births in Districts of Kigali City]

Source: Rwanda, Demographic and Health Survey (RDHS) 2014/15

### 2.4.2 Education, learning and teaching

Kigali, as the capital city of Rwanda, has the privilege of hosting the best school infrastructures, students, teachers and school support materials. However, challenges linked to constant mobility of families and difficulty life conditions constitute the bottlenecks to the provision of quality services in the city. Considering the fact that most of education services in Kigali City are provided at district level, a comparative analysis between Kigali and its districts Nyarugenge, Gasabo and Kicukiro will help us to have a clear understanding.

As previously documented while discussing the national education policy frameworks, different institutions at local level participate in the provision of education services in line with MINALOC decentralization Plan 2011-2015 (MINALOC, 2011) and we learned that more than 50% of the education budget is allocated and executed at district levels. Therefore, the role of Kigali city in education is limited to carrying out school inspections to ensure quality of education is maintained in the schools (Kigali City 2013). In the current city development plan 2017-2018, priorities of the City (Figure 23) which target education were captured in Districts of the city namely Nyarugenge, Gasabo and Kicukiro (Kigali City, 2013)
Figure 23: Education priorities for Kigali City

**Schools in Kigali City**

Kigali City hosts different categories of schools from pre-primary to higher education. The reference is Gasabo and Kicukiro District. In Gasabo District, there are 45 pre-primary schools, of which 37 are public, 5 private schools, and 3 Government Aided. Gasabo also hosts 83 primary schools of which 33 are government Aided, 32 private schools, and 16 public schools. There are also 42 Upper Secondary schools of which 17 are private, 13 Government Aided and 12 Public. Kicukiro district has 65 nursery schools; 65 primary schools; 36 secondary schools; and 9 Vocational training schools called Youth Training Centres (Kicukiro District, 2013). Kigali also hosts international schools like EcoleBelge de Kigali, Riviera High school, Green Hills Academy, Hagos International, Hope Academy Rwanda, etc. Students attending those schools mainly from diplomats and expatriate families established in Rwanda. For Higher Education, Kigali hosts 3 Colleges of the University of Rwanda and 6 other private national or international universities.

**Net school enrolment**

In Kigali City, the net enrolment rate (NER) at the pre-primary level is 37.5% compared to 17.5% at national level (UNICEF, 2017). In primary schools, the net attendance is in Kigali City is 93.3% which is not quite different from the net attendance rates at national level (91.7%), Kicukiro District (91.2%), Gasabo District (95%) (Gasabo District, 2013) and Nyarugenge (91.4%) (Nyarugenge, 2013). In secondary education, Kicukiro District scored the highest percentage with 48%, 40% for Nyarugenge District, 40.9% for Gasabo District and 37.4% in Kigali City (Kicukiro, 2013).

**Issues related to provision of education**

The main key education issues the City of Kigali is facing include constant immigration of people who cannot be easily accommodated with the existing school infrastructure in the city, constant mobility of families which lead to uncontrolled students transfers and sometimes causing school dropout. All the above issues are associated to high poverty level in some families in Kigali: the poverty level is high in Gasabo (poverty 26% and extreme poverty 13.2%), Nyarugenge (10.1% and 3.6%) and Kicukiro (8.3% and 2.8%). They provide both opportunities and challenges for the development of City of Kigali (Kigali City, 2013). There is also the problem of illiteracy especially among the youth. While the literacy rate is
69.7% at national level and 86.7% in Kigali City, Kicukiro is ranked first with 89.5%, Nyarugenge 86.7% and Gasabo district at 88.6% respectively (Gasabo District, 2013 & Nyarugenge, 2013). Kigali City and its districts are largely considered as ICT driven environment. They therefore consider computer literacy as a vital added value to simple reading and writing literacy. In a survey showed that Kicukiro District was ranking top with 25.7% of people who can use a computer. Nyarugenge and Gasabo districts stranded at 22.1% and 7.4% respectively. In addition to this, 14% of the population aged six and above in Gasabo district have used a computer before and would feel confident using one again (Gasabo, 2013).

For a city where the population is essentially composed of youth, the issue of school attendance was also highlighted in plans and programs of Kigali districts. For the general population of Kigali City, 89.6% of individuals aged six and above have at some time attended school in Gasabo District, 90.7% in Nyarugenge District and 94.4% in Kicukiro District considered as the best performer (Gasabo, 2013). For young people, those who never attended school in Nyarugenge District represent 5.3%. This rate is almost similar to 5.6% of Kigali City in Total, but largely diverges with 12.4% at national level (Nyarugenge District, 2013).

2.4.3 Social economic and spatial indicators

In the city of Kigali, the majority households are headed by males (77.4%) while the rest (22.6%) are headed by females. Among the households, a larger proportion of the poor are headed by males (11.5%) compared to female headed (5.4%) (EICV4, 2013/14). The per capita Gross Domestic Product in Kigali city is heterogenous among the districts with Kicukiro having the highest (804 USD per annum) and Nyarugenge the lowest GDP per capita at 748 USD per annum. Nevertheless, as expected, the per capita GDP of Kigali city is relatively higher at USD 767 than the national average of USD 718. This results further suggests that the urban households in Rwanda are economically, relatively better off than their rural counterparts.

Figure 24: Per capita Gross Domestic Product across the district in Kigali City

Source: EICV4, 2013/2014
Nevertheless, like other emerging cities in developing countries, the accelerating population density goes hand in hand with some structural constraints, among which is a high level of unemployment. As indicated in Figure 2.20, according to the Rwanda labour Force Survey (NISR 2017), unemployment is higher among females (24.4%) than their male counterparts (17.1%). This disparity in unemployment is also reflected among the youth. This indicates that there is significant need for effectively implementing existing and new job creation strategies. It is noteworthy to mention that the labour market of Rwanda is not only subject to regional variations in different parts of the country but also subject to seasonal variations over different periods of the year, particularly, the high and low season of agricultural activities.

**Figure 25: The distribution of rate of Unemployment (Female/ Men) in Kigali City during 2017**

Housing types in the City of Kigali have been categorized based on the structure of the housing stock and the type of dwelling of the inhabitants as shown in Figures 2.21 and 2.22. With respect to the housing stock, there are houses in good condition which account for 19.1% of total houses in city. These are the houses that are constructed according to the City of Kigali master plan. The next are the houses to be upgraded and comprises 32%. These include houses which are still under construction and the houses for which repairs were requested fitting the master plan specific location. The last group are the houses that have to undergo demolition. This category includes houses which are old, in risky areas, and are not in accordance with the Kigali master plan.
There are five categories of dwelling units in the city of Kigali as shown in the Figure below. Many fall in the category of single house dwelling covering more than 65% while multiple households building account for less than 1%.

### Figure 27: Housing and Types of dwelling in Kigali City

<table>
<thead>
<tr>
<th>Type of Dwelling</th>
<th>EICV4</th>
<th>EICV3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group of enclosed building: single HH</td>
<td>4.3</td>
<td>4.5</td>
</tr>
<tr>
<td>Group of enclosed building: multiple HH</td>
<td>12.9</td>
<td>20.6</td>
</tr>
<tr>
<td>Storied building with one or more HH</td>
<td>0.4</td>
<td>0.3</td>
</tr>
<tr>
<td>Multiple HH building</td>
<td>15.3</td>
<td>9.7</td>
</tr>
<tr>
<td>Single house dwelling</td>
<td>67.1</td>
<td>65.6</td>
</tr>
</tbody>
</table>

Source: NISR and EICV 3-4 final reports

### 2.5 Health profile of the city of Kigali

The City of Kigali (CoK) is composed of 3 Districts: Nyarugenge, Gasabo and Kicukiro. The main public health institution in City of Kigali (CoK) is the Kigali Teaching Hospital (CHUK), located in District of Nyarugenge. It was built in 1918. In 1928, it functioned as a health centre and later, in 1965 as a hospital. From April 1994 to 1996, CHUK has served as a
health centre, a district hospital and as a referral hospital. Tables 2.2 and 2.3 show geographical distribution of health professionals in 2010 and the number and type of health facility respectively, in the CoK.

Table 7: Geographical distribution of City of Kigali health professionals in 2010

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasabo</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>6</td>
<td>43</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>66</td>
</tr>
<tr>
<td>Kicukiro</td>
<td>13</td>
<td>3</td>
<td>1</td>
<td>7</td>
<td>30</td>
<td>0</td>
<td>3</td>
<td>6</td>
<td>63</td>
</tr>
<tr>
<td>Nyarugenge</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>31</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>53</td>
</tr>
</tbody>
</table>


Table 8: Number and type of City of Kigali health facilities

<table>
<thead>
<tr>
<th>District</th>
<th>Referral Hospital</th>
<th>District Hospital</th>
<th>Military/Police Hospital</th>
<th>Health Centre</th>
<th>Dispensary</th>
<th>Prison Dispensary</th>
<th>Health Post</th>
<th># of Health Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasabo</td>
<td>2</td>
<td>1</td>
<td>15</td>
<td>1</td>
<td>1</td>
<td></td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Kicukiro</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Nyarugenge</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>2</td>
<td>1</td>
<td></td>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>

Source: Ministry of Health, 2011b: N.B. This table excludes private health facilities.

2.5.1 Approaches to planning for health provision in the City of Kigali

In Rwanda, there are neither specific healthcare nor public health policies devised for the CoK, its districts (Nyarugenge, Kicukiro and Gasabo) and its neighbourhoods. The following approach to planning for health provision is used not only in CoK but also in the remaining parts of the country. The planning for healthcare issues is mainly inspired by the national orientations. Indeed, in addition to global/international orientations such as Millennium Development Goals (MDGs), now Sustainable Development Goals (SDGs), the Central Government defines national orientations regarding health which are reflected in different documents. These include Vision 2020, Health Sector Strategic Plan (HSSP), National health sector policies, National urbanisation policy, Economic Development and Poverty Reduction Strategy (EDPRS) (City of Kigali, 2013; Ministry of Finance and Economic Planning, 2013). However, it is important to note that the CoK, districts as well as other stakeholders depending on the nature of the policy, are consulted during national policy development.

2.5.2 Translating critical health issues into City of Kigali plans

At the CoK level, critical health issues to be retained as priorities in the City planning documents come from two main sources: on one hand, national orientations reflected in some documents such as vision 2020, HSSP, 7 year government program and EDPRS (City of Kigali, 2013; Ministry of Finance and Economic Planning, 2013). On the other hand,
during the planning process, the City takes into consideration ideas of the local population through a mechanism where ideas are transmitted from the lowest level (village or umudugudu in local language) to the City or District level. Therefore, the final health priorities retained in the City/District plans are the mix of national orientation and ideas of local population. One Director of planning and Monitoring and Evaluation at District level explained this planning process as follows “priorities from the population start at village level/umudugudu, then cell level/Akagari where the Management Committee (Njyanama) of this level collect and select the priorities to be brought to Sector level/Umurenge. After, the District compiles all priorities from all Sectors and try to conciliate them with the national guidelines”.

In the CoK, the health key issues are identified and considered in the planning process at two levels: the level of the City as a whole and the level of district (Nyarugenge, Gasabo and Kicukiro districts) so that strategies/interventions can be devised to ensure that the EDPRS health priorities are realized. The main planning documents used at the above levels include the City of Kigali development plan and the District Development Plans (DPPs) respectively. However, this translation of critical health issues into city/district level planning documents was not possible until EDPRS were decentralized at District level and this happened in 2008. So far there have been two District development plans: 2008-2012 and 2013-2018 corresponding respectively to EDPRS1 and EDPRS2 (City of Kigali, 2013).

Community-Based Health Insurance (CBHI) is financed both by the state and individuals’ contributions through insurance premiums and direct user-fees for services. Members pay annual premiums according to categories of Ubudehe (classification of Rwandans based on economic status) while a 10 per cent service fee is paid for each visit to a health centre or hospital. The Government pays the community health insurance premiums for the first category (the poorest) worth RWF 2,000 for each member. This first category includes people without houses, hardly earning, and those affected by food insecurity, with a total of 376,192 households comprised of 1,480,167 people.

The second and third categories pay for themselves RWF 3,000. The second category include people living on hard labor, masons, people paid for completed temporally jobs and those capable of renting houses or have their own houses among others. It has 703,461 households comprised of 3,077,816 representing 29.8% of all Rwandans. The third category includes citizens who don’t need government’s support, depend on their incomes; farmers who sell excess produce, and private investors with healthy businesses. It has 1,267,171 households comprising 5,766,506 citizens representing 53.7% of Rwandans while the 4th category has 11,664 household with 58,069 citizens representing 0.5% of Rwanda’s population. The fourth category pays RWF 7,000 for each member, this category includes leaders from directors in public institutions up to the President of the Republic. It has 11,664 household with 58,069 citizens representing 0.5% of Rwanda’s population (Ministry of Local Government, 2016).

The system operates under a decentralised community-based health system. Holders of CBHI can receive services from private health posts and public and semi-public (faith-based) health facilities which include dispensaries for primary healthcare, outpatient, prison dispensaries and health posts for outreach activities for immunisations, antenatal care and family planning; HCs for prevention, primary healthcare, inpatient, maternity; DHs for inpatient and outpatient and NRHs for specialised inpatient and outpatient treatment.
2.5.3 Main policy documents and key ideas and policies

As already explained, the planning approach of health issues in the CoK is detailed in a number of different documents. The key ideas contained in these documents, which shaped the healthcare delivery, can be summarized as follows:

Millennium Development Goals

The United Nations (UN) Millennium Development Goals (MDGs) are eight goals that all 191 UN member states agreed upon to achieve by the year 2015. Three of the eight goals specifically focus on health, including reducing child mortality (MDG 4), improving maternal health (MDG 5) and combating HIV/AIDS, malaria and other diseases (MDG 6) (Ministry of Finance and Economic Planning, 2013). The national orientations reflected in different policy documents such as Vision 2020, Health Sector Strategic Plan (HSSP), National health sector policies, National urbanisation policy, Economic Development and Poverty Reduction Strategy (EDPRS) take into consideration these global/international priorities.

Vision 2020

In this document, it is said that the country will “Control of population growth and major causes of death, including malaria, AIDS and epidemic-prone diseases, significant reduction of poverty and vulnerability” (Republic of Rwanda, 2012). Therefore, a number of health-related indicators to be achieved were set in the vision 2020 and those include but are not limited to infant mortality rate, maternal mortality rate, child malnutrition, HIV/AIDS prevalence rate, malaria-related mortality, ratios health professionals/population, water, sanitation and hygiene, etc. For each indicator, the baseline situation (year 2000), the targets for 2010 and 2020 as well as the international level where possible are also provided (Republic of Rwanda, 2012). However this is a high level policy document which gives general orientations. The details on services provision (including family planning and HIV), level in what these services are provided, and their financial accessibility to all categories of the population (free or covered by community-health insurance) are more developed into different strategic plan documents.

Health in Economic Development and Poverty Reduction Strategies (EDPRS)

The MDGs in Rwanda have been translated into the EDPRS I&II that provide the framework for the budget allocation of vital sectors and activities to ensure that the MDGs targets are met. Therefore, the following are some of key areas where indicators are set as targets to be achieved in EDPRS1 (by 2012) and EDPRS2 (2013-2018): water and sanitation, electricity, healthcare (infant mortality rate, births taking place in health facilities, maternal mortality ratio, under five mortality rate, women aged 15-45 using modern contraceptive techniques, percentage of sero-positivity for HIV among pregnant women attending ante-natal clinics, population covered by health insurance schemes, incidence of HIV among 15-24 year-olds, total Fertility rate) and others. For each of these indicators, the target for EDPRS1 and EDPRS2 are set (Republic of Rwanda, 2007; Republic of Rwanda, 2013).

The 7 year Government program

As for many other national level guidelines, also the 7 year Government program considers healthcare provision and healthy living in its priorities. Among others we have:

- Gender and social affairs where the following targets are found: increase of community health insurance, construction of news health facilities, increase of
number and quality of healthcare professionals, increase of equipments, and the special attention on the health of mother and child.

- Water and sanitation: increase of the amount of drinking water, rehabilitation of water infrastructure, recovery and good management of rainwater, increase of knowledge about water heritage, etc (Hope magazine, 2017).

**National urbanisation policy**

It is stated in the vision of the 2015 national urbanisation policy that “Rwanda’s urban agenda encourages multi-institutional cooperation, for the development of safe public space, quality education, medical and transport facilities, and friendly city ambiance offering public services and infrastructure. The government seeks to prevent unplanned growth in support of the urban development system and an increasing quality of life” (page 19). One of the four objectives of this policy is “to support quality of life and equity in human settlement” (page 20).

In different pillars of this policy, one can read different priorities including water and sanitation, waste management and urban quality of life, etc. A particular emphasize is put on:

- Access to infrastructure and utilities services, as well as Healthy environment
- Availability of adequate health services facilities;

A healthy environment refers to:

- quality of air, water, food, living and working environments:
- noise levels not acceding defined standards,
- cleanliness and sanitary conditions,
- proper management of waste disposal and treatment,
- availability, attractiveness and user-friendliness of public green spaces
- availability of recreational facilities
- well maintained public and green spaces
- upgrading and prevention of informal settlements
- adequacy of shelter

Furthermore, the policy talks also about disaster risk management, disaster resiliency and urban safety including road traffic safety, fire safety and flood risk (Ministry of infrastructure, 2015).

**City of Kigali Development Plan (2013-2018)**

The CoK development plan takes into consideration healthcare provision. Those include for example construction of new health facilities particularly in the quarters where they are most needed, HIV-AIDS (mapping the populations that are exposed to HIV-AIDS in order to put early preventive and protective measures), capacity building for health workers, both public and private, etc (City of Kigali, 2013).

**District Development Plans**

Each of the three districts that compose the CoK elaborates its own DDP where health priorities as well as strategies to achieve them are highlighted. As seen above, those priorities are directly linked with EDPRS and other national orientations.
The following are some examples of health priorities retained in DDPs of Nyarugenge, Kicukiro and Gasabo districts: improve quality of health Services (accessibility, training, medical equipment, supervision) and enhances the community health, increase access to electricity and increase the use of alternative sources of energy, increase access to clean water and sanitation, ensure protection of Environment and Natural Resources (Kicukiro District, 2013; Gasabo District, 2013).
3 Huye City Profile

3.1 Introduction

The information about the city of Huye is based on the information on Huye District. This prompted by the fact that the available data while separating urban from rural it does not distinguish Huye City profile from the district profile. Huye district is one of the eight districts of the Southern Province and it has a total surface area of 581.5 Km² with a total population of 328,398 inhabitants. It is the most densely populated district in the Southern Province with 565 inhabitants per Km² (NISR, 2012). Huye district is surrounded by Nyamagabe District in the West, Gisagara District in the East, Nyaruguru District in the South and Nyanza District in the North. It is composed of 14 sectors, 77 cells and 508 villages (See Figure below).

Figure 28: Administrative map of Huye district

Source: (DDP, 2013)
The population is composed by male and female in the proportion of 54% and 46% respectively. The age structure displays a population which is young with 58% of the population being in the category of under 25 years of age. In the education sector, 80% of the female population and 86% of male population have been to primary school.

There is a number of small scale industries in Huye District. These include the factory that produces drinking water, LABOPHAR which manufactures drugs and small agro-processing enterprises mainly for rice, cassava and sunflower seeds. The artisanal sector of Huye District has developed during the past five years. The most notable handcrafts include shoe manufacturing from animal leather, carpentry, metalwork, tailoring and ornamental objects’ production. The most strategic achievements in the artisanal sector are the Vocation Training Centre (VTC) opened in the District as well as the currently opened Integrated Polytechnic Regional College (IPRC).

Business activities have been improving in the district. This can be noted through different modern market buildings constructed in Huye district during the last five years as well as the visible improvement of commercial centres across the district. Between 2009 and 2013 there has been an increase in commercial centers, those known as Arreté center in Kinazi Sector, Rusatira Center, Rugarama Center and Gahenerezo, Gako and Karambi center have been improved. In addition to these centers, there are other centers in the local markets of the District including the market of Rugogwe, market of Mugogwe and Rango market, Busoro market.

The sector of Tourism and Hotel business have clearly improved and account for a great contribution in the economy of the District. The number of Hotels has increased because in addition to those already existing (IBIS Hotel, Credo Hotel, Four Steps Hotel, Barthos Hotel), there are new hotels that have been established in the district (MATER Boni CONSILLI, Galileo Stadium Hotel, Casa Hotel Ltd, Light House Hotel). In addition old hotels are also undergoing improvement through upgrading their buildings. Apart from hotels, there are motels and bars that have been also opened (Heroes Motel). The National Museum Institution available in this District is also a prime attraction of the Tourists in this District.

### 3.2 Social demographic characteristics of the City of Huye

The following indicators are used to give general picture of Huye district:
- **Urban Population and Growth: **Average annual growth rate of population during the last ten years; population density.
The 4th Rwanda Population and Housing Census (PHC4) enumerated 328,398 residents in Huye District, which represents 12.7% of the total population of the Southern Province (2,589,975 residents) while the 3rd Rwanda Population and Housing Census recorded 246,445 residents. The population of Huye district is predominantly female. The number of females in 2012 were 170,294 whereas the number recorded by the 3rd Census in 2002 was 131,836 females.
(ii) Basic City Demography: Percentage of males and females by age cohort

**Figure 31: Distribution (%) of the resident population by 5-years age group and sex**

Huye population is mostly young with 58% of the resident population of Huye aged under 25 years old, reflecting the high level of fertility in the recent past. The elderly (60 years and above) represent 6% of the total population of the District.

**Figure 32: Percentage of population identified by their level of wealth**

The poverty line used here is set with reference to a minimum food consumption basket, which was judged to offer the required number of calories required for a Rwandan who was likely to be involved in physically demanding work, along with an allowance for non-food consumption.

Source: *Rwanda 4th Population and Housing Census, 2012 (NISR)*

Source: *EICV3 District Profile - South Province - Huye District*
An extreme poverty line was also set as the cost of buying the food consumption basket if nothing was spent on non-food at all; this line corresponds to RWF 83,000 while the poverty line corresponds to RWF 118,000. The population classified into extremely poor and poor is high; 25% are extreme-poor and 21% are poor (excluding extreme-poor). There are three categories: non-poor, poor, and extremely poor. The last two categories are all considered as poor and combined they totalise 46%.

Figure 3.5 below presents the percentage of population classified into extremely poor, poor and non-poor. It shows that Huye district is among the districts with high percentage of extreme-poor and poor population categories. This category represents 47% of the total population of Huye. About 53% of the population in Huye district is identified as non-poor, 21.4% as poor (excluding extreme-poor) and a further 25.2% as extreme-poor. Huye ranks sixteen among all districts, with a high percentage of extreme poverty.

Source: EICV3 District Profile - South Province - Huye District
(iii) Main housing types and proportion in each sector

**Figure 34: Distribution of housing tenure units**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>76.5%</td>
<td>11</td>
</tr>
<tr>
<td>15%</td>
<td>8</td>
</tr>
<tr>
<td>2%</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Rwanda 4th Population and Housing Census, 2012 (NISR)

In Huye district, 76.5% of housing units are occupied by their owners, 14.5% by tenants and 7.9% are free lodging. The remaining housing units are either staff housing or for other unstated use.

**Figure 35: Distribution (%) by main material of the roof of the housing units**

<table>
<thead>
<tr>
<th>Material</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local tiles</td>
<td>67.9%</td>
</tr>
<tr>
<td>Iron sheets</td>
<td>30.3%</td>
</tr>
<tr>
<td>Other materials</td>
<td>2%</td>
</tr>
</tbody>
</table>

Source: Rwanda 4th Population and Housing Census, 2012 (NISR)

In Huye district, housing units are mainly covered by local tiles (67.9%) and iron sheets (30.3%).
In Huye district, walls of the housing units are mostly built with wood/mud (53.6%), sun-dried bricks (34.9%) and burnt bricks represent 4.9%.
The most common type of habitat in Urban Huye district is the spontaneous housing (68.8%). Overall 12.9% of the private households the clustered rural settlement (known as Umudugudu). It is followed by dispersed/isolated housing (9.1%) and planned urban housing with 7.8%).

- (iv) Unemployment

**Figure 38: Unemployment rate among the active population aged 16 years and above by sex**

Source: Rwanda 4th Population and Housing Census, 2012 (NISR)
About 4.0% of the total active population aged 16 years and above in Huye district were unemployed the week preceding the census. In Huye district, unemployment rate (UR) is higher in urban (6.3%) than in rural areas (3.6%). Unemployment rate among females is higher than among males (4.5% against 3.4%).

**Figure 39: Unemployment rate by sex**

![Unemployment rate by sex](image)

*Source: EICV3, EICV4*

- (v) Informal Employment

**Figure 40: Distribution of the currently employed youth aged 14-35 years by employment status**

![Distribution of the currently employed youth aged 14-35 years by employment status](image)

*Source: Rwanda 4th Population and Housing Census, 2012 (NISR)*
In Huye district, the majority of youth aged 14-35 currently employed are self-employed (46.5%), followed by employees (31%) and contributing family workers (15.9%).

**Figure 41: Employment to population ratio, by sex**

Source: EICV4 and EICV3

**Figure 42: Early childhood mortality rates**

Source: RDHS, 2014-15 Note: These rates computed as probabilities of dying within fixed period are expressed as deaths per 1,000 live births.

**Figure 43: Literacy rate of population aged 15 and above by sex, in Huye district and area of residence**

Source: EICV4 and EICV3
This section compares women’s and men’s adult literacy rates, defined as the percentage of the population aged 15 and above who can both read and write with understanding a short simple statement on his or her everyday life (This is based on the definition as used by UNESCO). Across all of Rwanda, about 65% of the female population aged 15 and above are able to read and write in at least one language compared to 72% of males. In all provinces and almost all districts, males are more literate than females. The literacy rate is generally higher in urban areas (82% for females vs. 83% for males) than in rural areas (61% for females vs. 70% for males), but there is also a large difference between females and males within urban areas and within rural areas. The difference in rural areas, of more than 5 percentage points between females and males, was observed in Huye district, where the literacy rate for females in rural areas is 65% compared to 70% for males.

**Figure 44: Net attendance rate in primary school by sex**

![Chart showing net attendance rates for both sexes, males, and females in both Rwanda and Huye District. The gender parity index is also shown.](source)

*Source: Rwanda 4th Population and Housing Census, 2012 (NISR)*

The net attendance rate (NAR) in Primary school in Huye district is (87.5%) is below the NAR at Province and National level (87.9% and 88.2%, respectively)

**Figure 45: Net attendance rate in secondary school by sex**

![Chart showing net attendance rates for both sexes, males, and females in both Rwanda, Southern Province, and Huye District. The gender parity index is also shown.](source)

*Source: Rwanda 4th Population and Housing Census, 2012 (NISR)*

As at the national level, school attendance at secondary level is not universal in Huye District. The net and gross attendance rates in Huye district are below 50%. There are
differences in both attendance rates (GAR and NAR) among males and females: the GAR is 44.2% for male versus 50.5% for female while the NAR is 21.9% for male compare to 27.1% for female.

**Figure 46: Net attendance rate in primary and secondary school by sex**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Primary</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both sexes</td>
<td>87.5</td>
<td>24.5</td>
</tr>
<tr>
<td>Male</td>
<td>86.0</td>
<td>21.9</td>
</tr>
<tr>
<td>Female</td>
<td>88.9</td>
<td>27.1</td>
</tr>
</tbody>
</table>

**Source:** Rwanda 4th Population and Housing Census, 2012 (NISR)

**Figure 47: Distribution of the resident population aged 3 years and above by highest level of educational attainment and sector (both sexes)**

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>No schooling</th>
<th>Pre-school</th>
<th>Primary</th>
<th>Post-Primary</th>
<th>Secondary</th>
<th>University</th>
<th>Not stated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both sexes</td>
<td>24.6</td>
<td>3.2</td>
<td>56.5</td>
<td>1.2</td>
<td>11.1</td>
<td>2.5</td>
<td>1</td>
</tr>
</tbody>
</table>

**Source:** Rwanda 4th Population and Housing Census, 2012 (NISR)

Among the population aged 7 years and above in Huye district, 24.6% have no education, 56.5% attained the primary level and 11% attained secondary level, while 2.5% attained university. Average time in minutes for a one-way work trip to work.
Figure 48: Average walking distance to basic services (in minutes): health centre and school

![Bar chart showing walking distances to health centers and schools.](source)

The walking distance to primary school in Huye district for the majority of the households (63.8%) is less than half an hour whereas 43.9% of the same households use between 30 min and 59 min to reach a health facility and there are (according to EICV 3) 31.7% of the households in Huye who have to walk for more than an hour to reach the closest health facility.

### 3.3 General health profile of the City of Huye

The City of Huye (CoH) has the second University teaching hospital (Butare University teaching hospital or CHUB). The CHUB is the main public health institution not only in CoH but also in the whole Southern Province. CHUB was created in 1928. By the time, as the Butare Hospital. The Butare Hospital became a University Teaching Hospital in 1966.

The CoH is located in Huye District which had one national referral hospital (CHUB) in 2010, one District hospital, 15 health centres, three dispensaries, and 2 health posts (Rwanda Ministry of Health (2011 b). During the same year, Huye District had one Dental Technician A1, two Hygienist A1, five Hygienist A2, two Lab Technician A1, thirty Lab Tech A2, one Nutritionist A1, two Nutritionist A2 and one Physio-therapist A1 (Rwanda Ministry of Health (2011a).

As explained above, in Rwanda, there are neither specific healthcare nor public health policies devised for the City of KIGALI (CoK), its districts (Nyarugenge, Kicukiro and Gasabo) and its neighborhoods. This is also the same for the City of Huye, and the approach to planning for health provision used in CoK is exactly the same not only in City of Huye but also in all other districts of the country.

### 3.4 Continuous learning and development policies

Huye City is located in Huye District and in line with MINALOC decentralization Plan 2011-2015(MINALOC, 2011), the city rely on plans and programs of Huye District where specifically, the provision of education services falls in District Directorate of education. Huye District has been putting education at the forefront of its strategic planning. A
reference is made to one of the objectives set in 2007 underlined as “by 2012 85% of the District population (had to be) literate, sensibly knowledgeable and have diversified their technical and professional capacities (with) an educational system adapted to its socio-economic problems (access, equity, quality)” (Huye District, 2007).

### 3.4.1 Education organisation in Huye

For long Huye District hosted many schools from nursery to higher education. In 2008, the District had a total of 9 nursery schools, 87 primary schools, 27 secondary schools, 4 professional training centres, 91 Literacy centres, 5 Higher learning institution and 2 Institutes of scientific research. In 2013, the district recorded 77 nursery schools, 93 primary schools and 51 secondary schools (Huye District, 2013a, Huye District, 2013 b)

With regard to school enrollment, the 2010/11 Integrated Household Living Conditions Survey (EICV3) highlighted the attendance net rate in primary school at 92.6% (slightly above the national average of 91.7%); the NAR in secondary school is 23.4% (NISR, 2010). As far as literacy is concerned, this district is ranked seventeenth at national level with a literacy 68% (the literacy rate at national level being, 69.7% (NISR, 2010). In ICT, EICV3 for Huye shows that 4% of the population aged six and above in Huye district have used a computer before and would feel confident using one again. It is ranked seventh top at national level for computer literacy. In the urban centre of Huye, 14% of the population are classified as computer literate, but this applies to only 2% of the rural population. As a comparison, 4% at national are classified as computer literate (NISR, 2010).

The School attendance is yet another variable to assess education background of the population in Huye. The district ranked ninth at national level with 84.5% of individuals aged six and above who have attended school in comparison to Kicukiro District ranked first with 94.4%. (NISR, 2010). It is important to note that 19.1 % and 15.9 % of men have never attended school (Huye District, 2013b).

### 3.4.2 Issues in relation to provision of education and healthcare

Despite many achievements recorded in education, there are still challenges that must be addressed to solve the threat of poor education system. Challenges include insufficiency of schools infrastructures such as lack of adequate classrooms, and of textbooks in various schools to meet student’s needs, equipment for science, technology, which obstruct the use of ICT among the students. There is also the problem of high illiteracy rate among adults who have not attended school or dropped out of school (Huye District, 2013a). Poverty is another challenge to education Huye district is among the districts with a high percentage of extreme-poverty. About 53% of the population of Huye district is identified as non-poor, 21.4% and 25.2% as extreme-poor and it ranks sixteen among all districts, with a high percentage of extreme poverty (NISR, 2010). Huye also faces problems of school dropout and repetition rates. Repetition rates stands at 12.7% in primary, 5.8% in secondary and 1.6% in upper secondary. Drop-stands at 10.9% in primary, 13.1% in secondary and 2.4% in upper secondary (Huye District, 2013b).

Students’ distance to school facilities is also a challenge to quality education. The mean walking distance to primary school stands at 23 minutes in Huye District. 64% of households walk half an hour or less to a primary school. At national level, the mean walking distance to a primary school is 28.6 minutes in rural areas, 19.4 minutes in urban areas (NISR, 2010)
In response to all the challenges highlighted above, various plans, programs and activities were adopted and endorsed in the district development plans. They mainly focus on the improvement of school system through mobilisation of district partners (Huye District 2013a), extending ICT infrastructure up to the cell levels with help from private sector as well capacity building and training of education personnel (Huye District, 2013b).
4 Critical Reflection

Having sustainable cities depends to a considerable extent on the population being healthy and have relevant learning opportunities and the overall quality of the environment. At the same time, having access to quality education and healthcare depends on the sustainable development of the cities and the neighbourhoods within them. Rwanda has embarked on rapid urbanisation and development of its cities. According to Interviewee NT3/RUPI, “The main driver of urbanisation in Rwanda in THE GOVERNMENT. Through policies, practices, systems. The government makes all decisions on the socio-economic development of Rwanda. The government has encouraged the growth of Kigali as an urban Centre. The government has been encouraging development with bias towards Kigali, until the conception of secondary cities idea in 2015”

Kigali, the capital largely remains the leading city, even though there are current efforts in city development are focused on the six secondary cities to Kigali. These secondary cities are Muhanga, Huye, Musanze, Rubavu, Rusizi and Nyagatare. Particularly, the city of Kigali is undertaking remarkable changes and undergoing a fast modernisation process. This is being achieved through the rejuvenation of commercial areas, new business buildings and roads, improvement of urban service delivery and quality infrastructures and industrial development (Kigali Special Economic Zone). In addition, there is a clean city policy, which has led the City of Kigali to be one of the cleanest cities in African. This has been effectively achieved through consistent integrated urbanisation policies.

In City of Kigali and Huye, urbanisation has been an important driving force for both healthy living and learning conditions in general, and the provision of health and education facilities in particular. According to interviewee INT 4/COK “Unlike education, for health there seems to be an even distribution of hospitals in the country even in the late 1990’s, largely because hospitals had already been established by missionaries in rural Rwanda”. He argued that Missionaries did not support city life and their investments in for example, the Kabgayi hospital in Muhanga district is still influential in the health landscape of Rwanda today.

Thanks to urbanisation, geographic accessibility of health services has been improved, and the population has enjoyed improvements in water and sanitation. However, this is much easier when neighbourhoods are planned ahead of time. Unfortunately, in many cases, neighbourhoods are spontaneous and this can be source of many health problems such as issues linked with risk zones or diseases due to poor environmental quality. Therefore, populating neighbourhoods should follow Cities’ master plans as much as possible.

Focusing on sustainable healthy and learning cities and neighbourhoods study of Kigali and Huye is not only interesting, but also a rich academic investigation. For instance, before fieldwork, Huye always seems a much smaller city than Kigali. In the post fieldwork, however, Huye has emerged as a city with full of complexities and dynamics worth an in-depth investigation. Eventually, the study brings a more comprehensive structure of the health and education livelihoods in Huye and Kigali Cities and the theory of neighbourhoods. These two cities have strong sustainable driving forces in common. First, these two cities are connected with many multi coloured strings. These include religion, trade, colonial, medical, educational, industrial, recreational, and touristic issues. In 1900 there was a religious corridor influenced by missionaries who settled at Save hill in Huye. Considering that at that time Mount Kigali was a stop for caravan trade, beginning to serve Huye and hence a trade corridor. Then a shift of administrative capital from German Kigali to Belgian Astrida/Huye
introduced a colonial corridor. In addition, hospitals such as the University Teaching Hospital of Butare (CHUB), University Teaching Hospital of Kigali (CHUK), Kabutare Hospital at Save hill and Kabgayi in Mahanga created a medical corridor. The National University of Rwanda (NUR) in 1967 attracted students and researchers, which eventually introduced an academic corridor. In addition, the botanical gardens and Museum such as Arboretum of Ruhande, Museum Huye and Kandt House Museum introduced recreational/touristic corridor.

The late urbanisation of Rwanda is a peculiarity in itself. Whereas other postcolonial cities in the region (for example, Nairobi, Kampala, Dar-es-salaam, Bujumbura, Kinshasa) inherited much infrastructure from the colonial masters, Kigali started afresh after independence in 1962. The Germans and Belgians used indirect rule, which did not favour infrastructural investment in Rwanda. The shift of administrative capital to Huye in 1916 also made Kigali not grow as fast as it could have done. The reconsideration of Kigali as capital in 1962 in a way can be considered as a fresh start for Kigali and at the same time the start of a decline for Huye, which had been the biggest town in Rwanda until 1965.

Independence in 1962 and encouragement for urbanisation by the then government catalysed a rush into the city of Kigali in 1962 and this leads to diverse informalities. Thousands of people swarmed into the city within a short span of time. The informality will be one of the difficulties in SHLC defining what a neighbourhood is. Or even what a city is. Sustainability in a Rwandan context is easy to study as there is considerable political will to promote sustainability. The government has put measure to implement MDGs and SDGs and pegged the various goals to ministries that are in charge of their implementation. All government employees and civil servants sign the performance contract known as “imihigo” yearly with strict performance evaluation. In this respect, Health and Education sectors are taken as core to the government agenda. There is heavy and consistent investment on both health and education facilities. A deep analysis, however, is needed, especially to examine the gap of the inter-, and intra, relations between urbanisation, health and education. Importantly there is need for an interpretation of how education and health can be used to sustainably promote urbanisation and vice versa. SHLC can respond to this.

Despite all these, however, urban plans did not always match with the rapid population growth that has sporadically impeded their implementation. This is because, in many cases, settlement preceded any possible establishment of infrastructure and road planning. For instance, in the city of Kigali, the first plan of 1964 failed because it did not take into account how fast the population would increase and spread over additional space in peri-urban zones. Also the 1982 plan aimed to correct the failures of the previous plan, and the one of 2001, were all never successfully implemented. What they had (and have) in common with the actual Kigali Conceptual Master Plan since 2007 is that they maintain the idea that vast tracks of land have to be reserved for future planned settlements. As a result, its inhabitants are ipso facto submitted to urban regulation to which they did not conform. Other key education issues the City of Kigali is facing include constant immigration of people who cannot be easily accommodated with existing school infrastructure once in the city, unsustainability of families which lead to uncontrolled students transfers and sometimes causing school dropout. All the above issues are associated to high poverty level in some families in Kigali. There are also the problems of illiteracy resulting from dropouts and non-enrolment for from poor households, which need to be timely resolved so as to ensure sustainable and better off city dwellers.
To address these challenges, master plans and urban development schemes should be more flexible and be guiding tools for all. Other instruments that may provide subsidized housing needs to be explored and low-income households should be facilitated to get access to sustainable homes which they can granted for long term repayments.


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Annex

Interview 1: Kigali

Causes of urbanisation

“The main driver of urbanisation in Rwanda is the government. Through policies, practices, systems. The government makes all decisions on the socio-economic development of Rwanda. The government has encouraged the growth of Kigali as an urban Centre. The government has been encouraging development with bias towards Kigali, until the conception of secondary cities idea in 2015” ...INT3/RUPI

“I was the director of urban services between 1994-1999 and participated in the formulation of TTP- (Tent Temporal Permanent) as a housing strategy to manage the huge number of people returning to Rwanda after the genocide. People had no land, no titles deeds and yet they needed shelter” ...INT3/RUPI

“My first contact with Kigali city was in 2007. I came to attend senior 4 at LNDC. Then I joined the then KIST in 2011. Kigali was very small then. Roads were very small. At the location of KCT, there was a big bus park, full of small minibuses that do not operate in the city today. I remember how I lost my suitcase on my first day of vacation as I travelled back to the village” ...INT1/UP student

“I have been living in Kigali since 1997 - when I was a primary school pupil” I have witnessed the disorder that war brought to Kigali city” ...INT4/COK

“Huye was the only big town in Rwanda until 1962” ... INT3/RUPI

“The educational character of Huye attracted research institutes such as RIST, RUBONA” ... INT3/RUPI

“Huye city is on a decline unless services are put into the city” ... INT3/RUPI

“Before 1994, Huye was limited to the downtown Ngoma and a small part of Tumba. Today, the city has grown towards Matyazo, Rango, Taba, Mbazi, Save” ... INT5/Geo

“The historic growth of Huye can be associated with the first missionary settlement in SAVE hill, where they build a church, hospital and school” ... INT5/Geo

“Former NUR has been the main employer in Huye for many years” ... INT5/Geo

Impact of urbanisation

“Urbanisation has had both positive and negative impacts; positives are economic growth, boom in the construction sector, new markets, better health, better education, etc. Negatives have been environmental degradation, loss of forests, encroachments into wetlands, etc.” ...INT4/COK

“People were moving to Kigali city mainly for job opportunities” ...INT4/COK
"From 1962 to 2015, Kigali has been the centre for business, administration, finance, technology, industrialization" ... INT3/RUPI

"The government policy of education for all in 2000 had a direct impact on urbanisation. The formation of KIST in 1997 with a focus on science and technology influences high schools' focus. Good schools were located in Kigali, which became a PUL factor catalyzing urbanisation of Kigali" ... INT4/COK

"Unlike education, for health there was an even distribution of hospitals in the country even in the late 1990s, this is because hospitals had been established by missionaries in rural Rwanda. Missionaries did not support city life and did not coddle in cities" e.g. Kabgayi hospital in Muhanga...INT4/COK

"I was the director of urban services between 1994-1999 and participated in the formulation of TTP- (Tent Temporal Permanent) as a housing strategy to manage the huge number of people returning to Rwanda after the genocide. People had no land, no title deeds and yet they needed shelter" ... INT3/RUPI

"I don't agree with expansion of boundaries! Compare Singapore to Kigali the difference in area is 27KM2. Singapore has 747km2 and 80 million people. Kigali has 720KM2 and 1.3 million people!" ... INT3/RUPI

Planning responses

"Since 2007 the Kigali conceptual masterplan presented a clear picture of Kigali's urban vision." ...INT4/COK

"I joined the university to study architecture when the school was formed in 2009 and ever since I have been keen to follow up on the urbanisation story. I am now the coordinator of upgrading projects in Kigali city" ...INT4/COK

"The decentralization policy of 2006 saw an extension of boundaries to more than double" ...INT4/COK

"Obviously HEALTH is very important in the planning process. If people are healthy, a city is wealthy. The government is investing a lot of funds in walkways, bicycle lanes to encourage healthy lifestyles. Several projects on introduction of public spaces are underway such as the car-free zone. Carfree days and Friday afternoons encourage sports and healthy living" ...INT4/COK

"In the KCM the provision of hospitals and schools has been emphasized and the location is defined geographically according to the population" ...INT4/COK

"The government is revising the concept of umuganda to include more activities which are career-related. E.g. doctors will be attending umuganda to offer free health checkups for the local residents. Architects will be allowed time to sit in offices to design concepts of plans for housing or architectural interventions that can benefit the communities around them" ...INT4/COK
“HUYE- There was a masterplan developed by a Kenyan firm in 2011 but it was not validated” … INT5/Geo

“To me neighbourhoods of HUYE are: Rwabuye, icyarabu, Taba, Tumba, Kabutare, Mtyazo, Madina, etc” … INT5/Geo

“The most successful neighbourhood in HUYE is TABA because: it is planned, has bog roads, good quality of housing availability of services” … INT5/Geo

“The least successful neighbourhood in HUYE is MADINA and RWABUYE; Madina is informal, on steep slopes, at a risk of hazards. Rwabuye is unplanned, is rapidly growing, has no roads and houses are not well services … INT5/Geo

Consequences to neighbourhoods

“To me, upcoming neighbourhoods of Kigali due to urban sprawl are such as Niboye, Kibagabaga, Gisozi, Kimironko, Kabuga, Rusororo’ …INT1/UP student

“To me, there are 3 types of NEIGHBOURHOODS in Kigali city: 1. High class such as Nyarutarama, Kibagabaga. 2. Middle class such as Kacyiru, Kcukiro. And low class such as Biryogo, Nyakabanda, Gitega, Cyahafi, Banyahe.” … INT3/RUPI

“The planning policy still shows concern for high class neighbourhoods and yet the biggest part of the population live in middle and low class neighbourhoods” … INT 3/RUPI

“There is no spatial balance and rational, there is no equal distribution of schools in Kigali. Eg Nyamirambo is a very densely populated neighbourhood but has only one public primary school –Camp Kigali Primary School!” … INT3/RUPI

“No neighbourhoods in Rwanda are sustainable. Nut yes, we can achieve SUSTAINABILITY if we focus on services” … INT3/RUPI

“The neighbourhood terms as sustainable are just their own enclaves” … INT3/RUPI

“In HUYE, TABA is seen as the neighbourhood for the ruch, where as Ngoma and Tumba are neighbourhoods for middle and low income populations, causing a socio-economic segregation” … INT5/Geo

“TABA is characterized by big plots and big houses, and seen as for the elite, whereas the other neighborhoods have smaller plots smaller houses, seen as for ordinary population” … INT5/Geo

What next

“The masterplan should strive to be inclusive, where by people feel like they own it and are part of it. The masterplan can aim to bring more heaing to Rwandans other than segregation” …INT1/UP student
“To achieve sustainable urbanisation, the city ought to focus on provision of services… the provision has to be guided by Questions of: what? Where? For who? When” what results? What challenges? How to deal with them? …INT3/RUPI

Kigali has to seriously consider the 3 C ‘s of urbanisation” compact (urban growth), connected (infrastructure), coordinated (governance)”… INT3/RUPI

‘ The cognitive advantage any city has is EFFECTIVE POLICY… and not technology or money or resources or human resource” … INT3/RUPI

“In HUYE. Neighbourhoods like Madina ought to be RELOCATED as soon as possible” … INT5/Geo

“If the current trend in HUYE continues, the population will decrease, which is a big risk for a city” … INT5/Geo

“The formulation of UR in 2013 and restricting of colleges has cause a loss of upto 8,000 campus students to Kigali. The student population used to be 12,000 now is 5,000” … INT5/Geo

“There has been a decline in industries in HUYE due to relocation or closure; e.g RAB moved to Kigali, ISRT moved to Kigali, National museums of Rwanda headquarters was moved from Huye to Kigali, SORWAL (for match boxes) closed down, LOBOTAR closed down”…. INT5/Geo

The relocation of the route to NYUNGWE forests as a tourism corridor from (Muhanga-Ruhango-Nyanza-Butare-Gikongoro- Nyungwe)to (Muhanga-Karongi- Rusizi) will have a negative impact on HUYE” … INT5/Geo

What else?

“The Kigali city master plan helped Rwandans to UNITE in a way. It came at a time when everyone was looking for a bright urban future and it attracted the interest of many stakeholders” …INT1/UP student

“Urbanisation needs to be seen as a collective role for STAKEHOLDERS: land owners, policy makers, planners, architects, engineers, politicians, media, NGOs, International organisations” … INT3/RUPI

Interview 2: Kigali

Can we talk about the city of KIGALI/HUYE first in general terms, particularly how it has been changing in the last 20 years?

What are the main causes of urbanisation in Kigali/Huye

What are the main trends of migration Kigali/Huye- movements/flows patterns

• There are significant level existing such as, and building infrastructure, telecommunication services, master plan etc.
• There are also:
• More Employment opportunities
• Market of different products

What are the features of urbanisation Kigali/Huye –Characteristics/  
• There are also a massive modernized physical infrastructure such as: Roads, Schools, Houses, Hospitals, Proper services

What have been the most important changes in the city’s economy?  
• Changes in civil servants working conditions (eg. Increased works hours, high salaries, except teachers)
• Modernized Transport services, Modernized Banking system and buildings
• Diversification of market products (eg. supermarkets)
• The development of private sector and ICT services.

What have been the most important drivers of city growth/ urbanisation? –
• Pull factors:
• Industrialization
• Availability of basic infrastructure e.g electricity, water, ICT etc
• Job opportunities and access to various services
• Push factors:
• Movement of population from rural areas within the country
• Regionalization and globalization/ free movement policies and strategies
• Population and Sustainable economic growth
• Infrastructure development, security, clearness and housing policies
• Employment opportunities
• Industry development, tourism development and community growth
• Have there been any key events, political or policy changes, or new investments that have changed the trajectory of city growth/ urbanisation or the city’s economy?

To what extent has public policy (at city or national level) played a part in encouraging urbanisation?
• Providing the basic infrastructures (water, roads, electricity)
• Master city plan, regulating the development of housing
• Security
To what extent has public policy on HEALTH (at city or national level) played a part in encouraging urbanisation? E.G. Referral hospitals

- The government is in charge of providing health facilities which are part of urbanisation when like hospitals are available with other related facilities

To what extent has public policy on EDUCATION (at city or national level) played a part in encouraging urbanisation?

Education is key in development of urbanisation first by producing the skilled people who are able to use the available opportunity to create job and who are able to provide the innovation with new things to improve wellbeing.

- Increasing the number of schools (primary, secondary and high education)
- Providing appropriate equipment
- Increase the qualified teachers
- Provide free education
- Scholarship for high education

2. Can we move onto how urbanisation has impacted on the city in the last 20 years?

How have cities developed under different development policies? In particular, how have sustainability debates affected planning practice and neighbourhood formation in the city and to what extent have planning and development policies promoted the integration of migrants into the city and particular neighbourhoods?

How has the city of KIGALI/HUYE developed under different development policies?

What are the most important challenges for the city thrown up by urbanisation? - economic, social, public services, infrastructure, including transport./ spatial problems/ socio-spatial inequalities/

- The most important one the economic and political where need to have resources and political willing of doing thinks at the same standards
- Slam houses, street children, adultery, thefts, high level of unemployment people in some economic sector
- Forceful migrants of endogenous city dwellers, limited public infrastructures such as transport cars, traffic congestion, water scarcity and electricity etc.

What HEALTH-related challenges have been caused by urbanisation of the city of KIGALI/HUYE?

- Lots of patients at hospitals and health centres,
- More diseases across households, including the ones related to poor sanitations,
- High level of HIV cases
- Luck of enough personnel (number of doctors per patients are still substandard according to WHO)
What EDUCATION/LEARNING-related challenges have been caused by urbanisation of the city of KIGALI/HUYE?

- The cost of study/tuition fees for pre-primary, primary and secondary education has increased
- The cost of living for higher education students has increased
- Learning outcomes/students’ performance are negatively affected by many causes of distractions
- Students are more exposed to a number of malpractices such as drug abuse
- Questionable quality of education
- Over-clouded classrooms
- Poor students unable to afford school materials
- High cost of living for teachers,
- Limited equipment in school
- Different education policies difficult to implement, say School feeding, due to limited family income to support the schools
- High cost of renting houses in Kigali for university graduated due to over-cloudiness of the city
- Food price are always increasing as a result of constant high demand

What have been the most important spatial changes in the city of KIGALI/HUYE? – CBD/urban/peri-urban/suburbs

- Land scarcity and expensive
- Poverty that leads to city dwellers to sell their plots
- Landless households who only survival for poor rents
- Limited houses for most average income households which leads to issue of poor housing in some areas of Kigali, eg, Biryogo, kimisagara, Nyamirambo, Bannyahe etc....

Which types of areas have been changing most dramatically?

- Transports, education, health services, telecommunication, housing etc

Has urban change resulted in the displacement of existing groups within the city? Which groups?

- Yes, so Called Kavukire have been forced to reallocate since they could not afford the standard of the city
- Some of the inhabitants have been reallocated or forced to move as results of public interest: Kiyovu cy’ abakene, Kimicanga,
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