



AHO RWAMAGANA IHEREREYE MU RWANDA  
LOCATION OF RWAMAGANA IN THE CONTEXT OF RWANDA

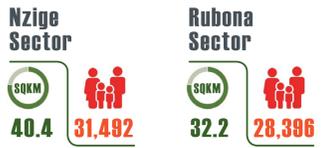
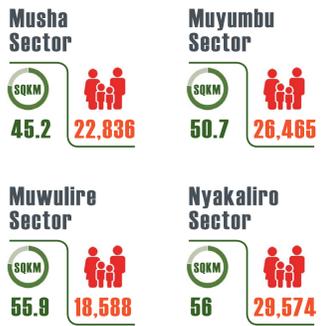
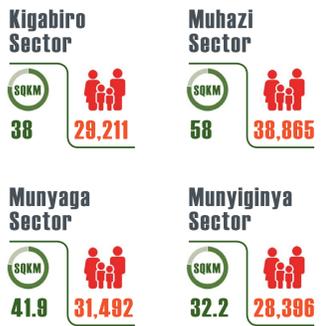
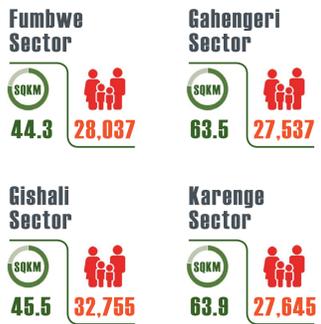


### ITANGIRIRO INTRODUCTION

Akarere ka Rwamagana ni kamwe mu turere 30 tugize u Rwanda, gaherereye mu ntara y'iburasirazuba. Akarere ka Rwamagana gakikijwe n'Akarere ka Kayanza mu burasirazuba, Umujyi wa Kigali mu burengerazuba, Gatsibo mu majyamburu, Akarere ka Ngoma na Bugesera mu majyepfo. Rwamagana ihereye muri Km 40 uturutse i Kigali, muri Km 110 uturutse ku mupaka wa Rusumo, muri Km 132 uturutse ku mupaka wa Kagitumba.

Akarere ka Rwamagana gafite ubuso bungana na Kilometro-kare 682, kakaba kabanyijemo imirenge y'ubutegetsi 14.

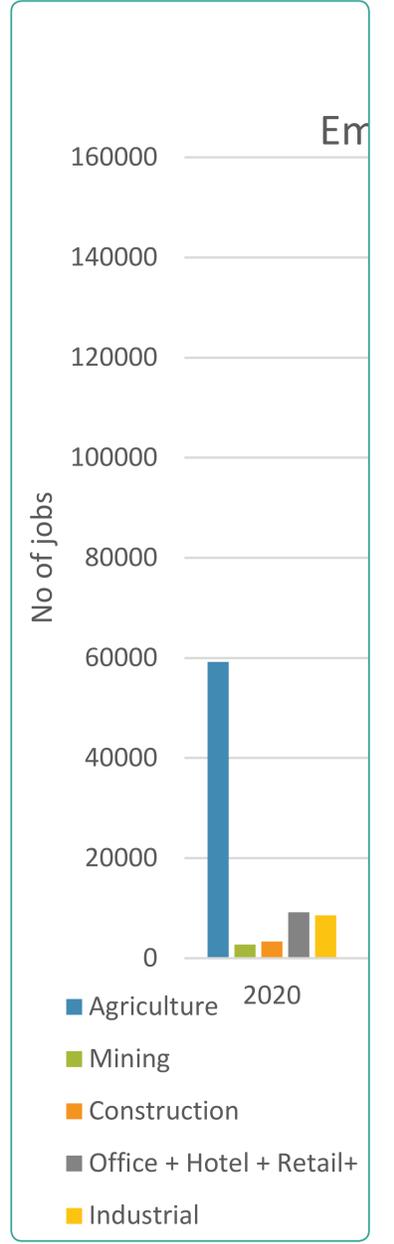
### IMIRENGE IGIZE AKARERE KA RWAMAGANA



IMBIBI Z'AKARERE KA RWAMAGANA  
ADMINISTRATIVE BOUNDARIES FOR RWAMAGANA



UMIRIMO 2050  
JOBS 2050



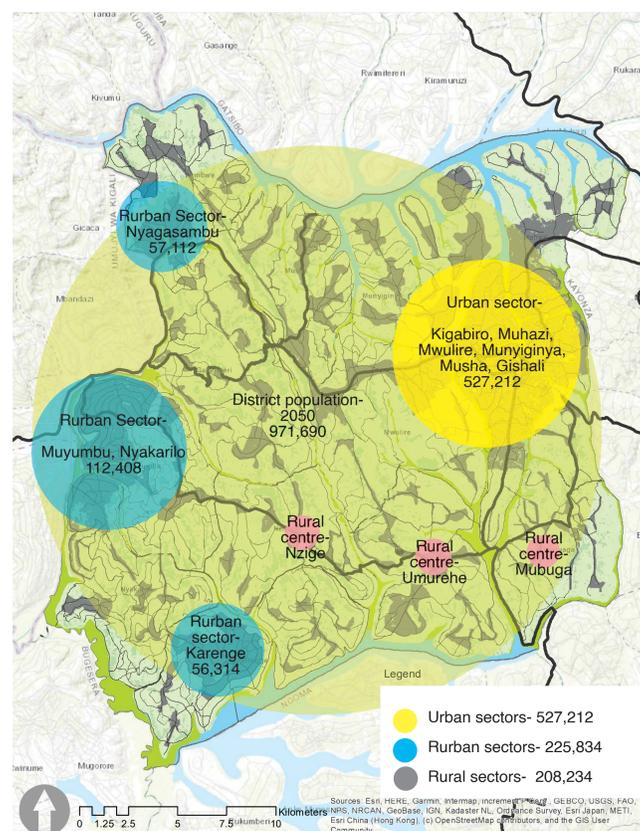
ABATURAGE BATUYE MU MUJYI /AKARERE



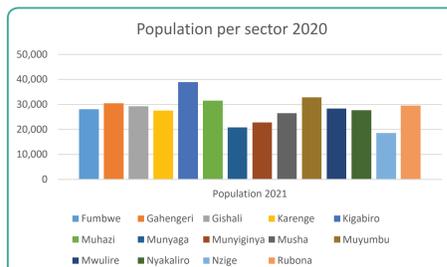
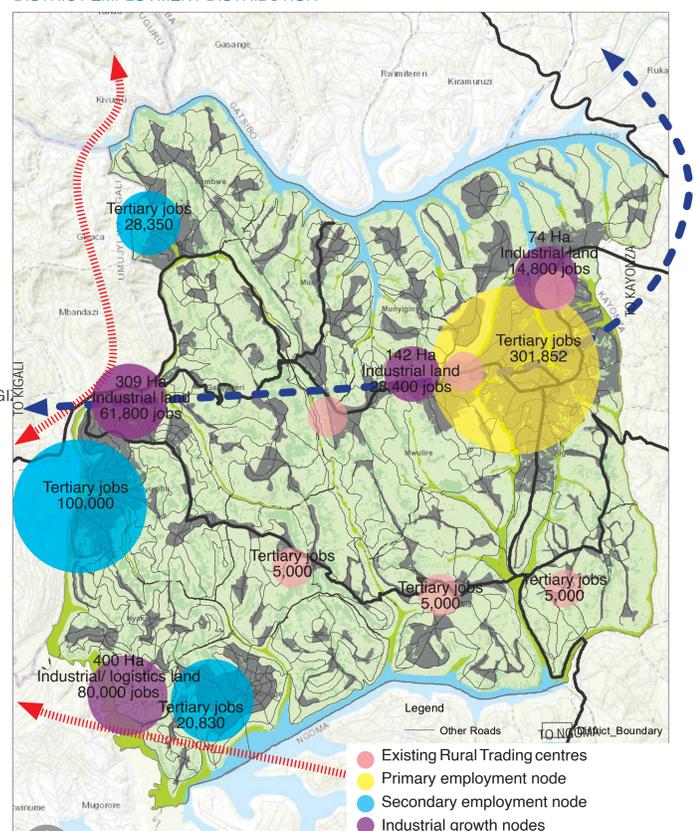
AKAZI KABONEKA MU MUJYI /AKARERE



UKO IMITURIRE ITENGASHIJE HASHINGIYE KU BATURAGE  
DISTRICT POPULATION DISTRIBUTION



ISARANGANYA RY'UMURIMO  
DISTRICT EMPLOYMENT DISTRIBUTION



### RWAMAGANA UYU MUNSI RWAMAGANA TODAY



## ISHUSHO Y'IMIBEREHO RUSANGE MU BY'UBUKUNGU I SOCIO ECONOMIC CONTEXT

ABATURAGE B'AKARERE 2020  
DISTRICT POPULATION 2020  
**392,513**

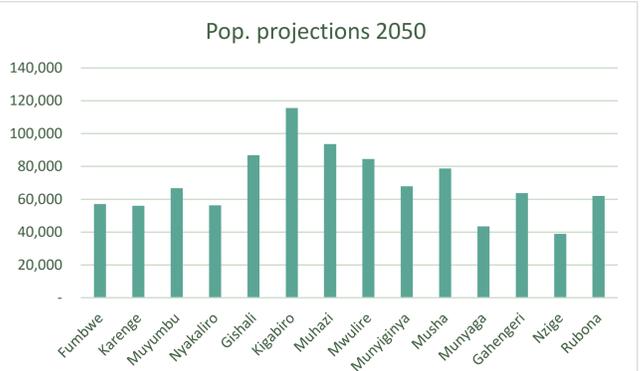
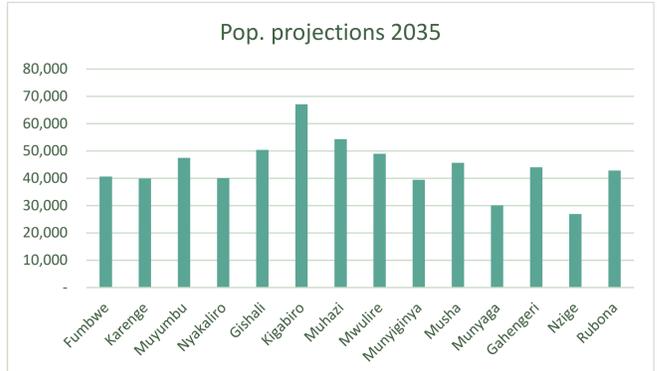
ABATURAGE B'AKARERE 2035  
DISTRICT POPULATION 2035  
**617,450**

ABATURAGE B'AKARERE 2050  
DISTRICT POPULATION 2050  
**971,690**

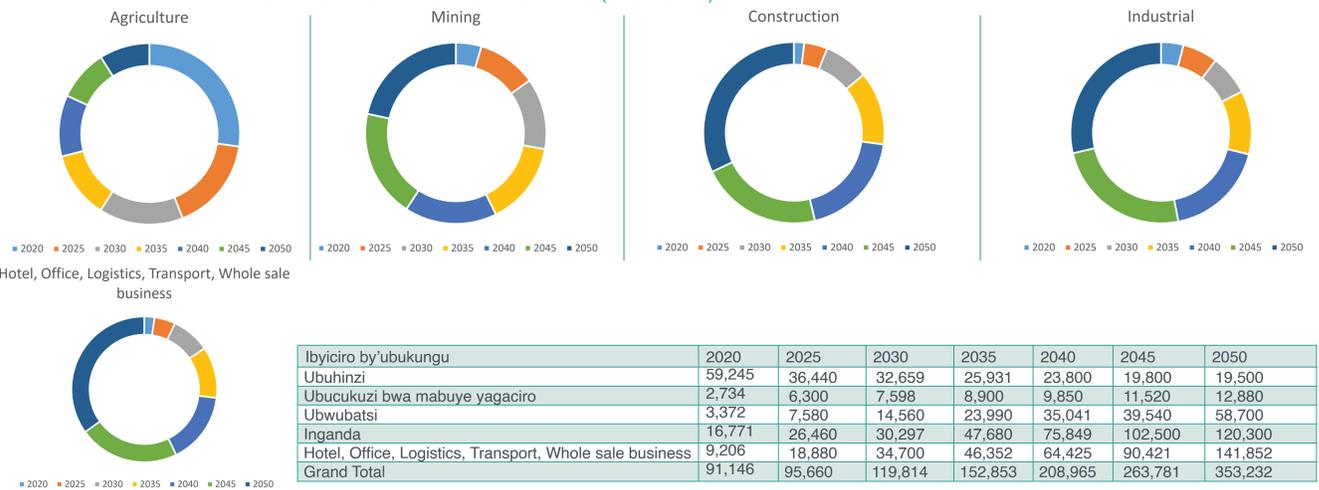
ABATURAGE B'UMUJYI 2020  
URBAN POPULATION 2020  
**177,265**

ABATURAGE B'UMUJYI 2035  
URBAN POPULATION 2035  
**305,706**

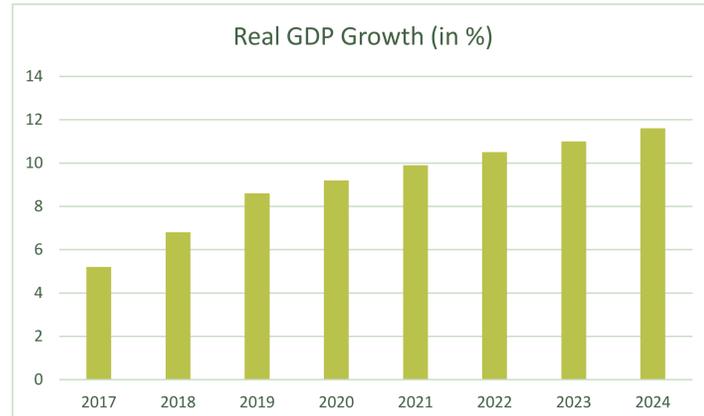
ABATURAGE B'UMUJYI 2050  
URBAN POPULATION 2050  
**527,212**



## URUHARE RW' IBYICIRO BY' UBUKUNGU MU GUHANGA NO GUTANGA IMIRIMO MU MUJYI WA RWAMAGANA (2020-2050) RWAMAGANA CITY SHARE OF EMPLOYMENT BY SECTOR (2020-2050)



## MUMUSARURO MBUMBE UTEGANIJE MURI RWAMAGANA GDP GROWTH SCENARIO FOR RWAMAGANA



SOURCE: (MINECOFIN, EDPRS2)

## IZAMUKA RY'UBUKUNGU 2020- 2050 ANTICIPATED ECONOMIC GROWTH SCENARIO

Three scenarios have been considered to predict Rwamagana's GDP till 2050.

### IZAMUKA RY'UBUKUNGU RYO HASI LOW GROWTH SCENARIO

This scenario is based on previous rates of GDP growth. GDP growth estimates for the next 30 years are based on Rwamagana's actual GDP growth rates for the last seven years. Rwanda's GDP has grown at a 4.18 percent annual rate over the last seven years.

### IZAMUKA RY'UBUKUNGU RIRINGANIYE MODERATE GROWTH SCENARIO

The moderate growth scenario is referenced on the IMF's conservative GDP growth predictions for Rwanda over the medium and long term of 6%. Here, a more traditionalist GDP growth rate of 6% has been applied to the GDP of Rwamagana City, starting with their 2013 base rates.

### IZAMUKA RY'UBUKUNGU RYO HEJURU HIGH GROWTH SCENARIO

The last GDP scenario is the high growth scenario, which implies an average GDP growth rate of 9.1 percent, which is required to meet Rwanda's ambitious growth ambitions outlined in the National Transformation Strategy. (NST1).

## URBAN SUSTAINABILITY FRAMEWORK UMURONGOFATIZO W'IMIBEREHO MU MUJYI MU BURYO BURAMBYE INTEGO PURPOSE

Umurongo fatizo w'umuji urambye washyizweho mu rwego rwo kugena amahame-shingiro ahuriweho kandi asobanutse ku bw'uburyo bw'igenamigambi rikurikiraho ruzafasha mu iterambere rirambye rya Rwamagana ry'igihe kirekire. Uyu murongo-fatizo wateguwe hashingiye ku bintu byihariye kandi byihutirwa byagaragajwe kuri Rwamagana. Umurongo fatizo w'umuji urambye wibanda ku bibazo by'ingenzi byagaragajwe mu ishusho-ngari y'ibintu bitatu (Ubukungu, imibereho rusange n'ibidukikije) kandi ushyiraho icyerekezo rusange n'ibiyifuzo byitezweho.

As Rwamagana City undergoes the direction to urbanize, revitalise, and finally transform to sustain its urban growth, it is important to establish an Urban Sustainability Framework (USF) for the city. This framework focuses on the fundamental economic, social and environmental issues in Rwamagana, determining the planning direction for the city's planning process and thus it is important to address them at the policy level to ensure long term sustainability. This will ultimately help provide strong underpinnings to all downstream master planning strategies.

SECTOR	IKIBAZO I PROBLEM	IBITEKEREZO I RECOMMENDATIONS
UBUKUNGU ECONOMY Employment	<ul style="list-style-type: none"> <li>Ihindagurika rikwiyeye mu bukungu, Abaturage bakora benshi bahugiyeye mu bikorwa by'ubuhinzi.</li> <li>Ibura ry'ishyirwaho ry'inganda mu gufasha urwego rw'ubucuruzi, mu itunganywa ry'ibikomoka ku buhinzi, ubukerarugendo</li> <li>Izamuka ry'ibiciro by'ibikoresho by'ubwubatsi</li> <li>Uburyo budahagije bw'izigama ry'ubutaka bukorwa na Guverinoma</li> <li>Ibura ry'abakozi bafite ubushobozi</li> <li>Ibura ry'uburyo rusange bw'uruhare baturage</li> </ul>	<ul style="list-style-type: none"> <li>Gushyiraho ibigo bifasha guteza imbere ubumenyi mu rwego rw'izamura ry'ubumenyi n'iyongera ry'umusaruro w'ubuhinzi.</li> <li>Iterambere ry'ikorabuhanga mu by'ubuhinzi, ibikorera mu nganda, ubwukorezi, ububiko rusange</li> <li>Ivugurura ry'uburyo bwo gutera inkunga n'izahura ry'ubufatanye mu bigo bya Leta n'aby'abikorera ku mishinga iterwa inkunga.</li> <li>Guha imbaraga iterambere ry'inganda zidahumanya, ni ukuvuga: Abakozi bahagije, Ikorabuhanga ritandukanye, igabanya ry'imyanda n'ihumanya ry'ikirere, n'ibindi</li> </ul>
IBIDUKIKIJE ENVIRONMENT Conservation of Nature, Natural Resources and Carbon Footprint	<ul style="list-style-type: none"> <li>Ukwiyongera kw'imiturire y'akajagari by'umwihariko mu bice bikikije umujyi</li> <li>Ibura ry'amabwiriza y'imitunganyirize n'ishyirwa mu bikorwa ry'ayo mu mujyi</li> <li>Imiterere mibi y'ubutaka bwo mu mujyi harimo n'ibice bihanamye cyane.</li> <li>Ibura ry'ibikorwaremezo byiza mu mujyi</li> <li>Imyanda yisuka mu Kiyaga cya Lake Muhazi and lake Mugesera</li> </ul>	<ul style="list-style-type: none"> <li>Establishing skills development centres</li> <li>Improving of agriculture technology; manufacturing, transport, logistics</li> <li>Promoting the local service sector</li> <li>Land banking to reserve land for industrial development, agro-processing, heavy and general industries, logistics, commercial</li> <li>Promoting polytechnic and vocational institutes as new economic driver with provide required infrastructure</li> <li>Improving access to finance and exploring PPP for projects funding</li> <li>Advocating for green industrial development i.e. resource efficiency, alternative technologies, minimizing waste and pollution etc.</li> </ul>
IMIBEREHO RUSANGE SOCIAL Living Conditions	<ul style="list-style-type: none"> <li>Mushrooming of unplanned settlements</li> <li>Lack of a proper and sound zoning ordinance</li> <li>Lack of quality urban infrastructure</li> <li>Constamination of Lake Muhazi and lake Mugesera</li> <li>Rudimentary mining techniques</li> <li>Deforestation</li> <li>Landslides</li> </ul>	<ul style="list-style-type: none"> <li>Adopting mixed use development agenda</li> <li>Conserve all natural forests, wetlands and water bodies with environmental management plan</li> <li>Ensure landslide mitigation measures through appropriate farming, mining and terracing techniques</li> <li>Adopt best practices for sustainable infrastructure development, waste and energy infrastructure, use of Renewable Energy</li> <li>Provide conducive environment for potential investors</li> </ul>

# VISION 2050

**RWAMAGANA:-  
“EASTERN CENTRE  
FOR HOLISTIC  
EXCELLENCE”  
“IGICUMBI  
CY'ITERAMBERA  
MBUMBE  
CY'UBURASIRAZUBA”**

**NAUTICAL TOURISM AND AGRO PROCESSING GATEWAY  
(AMAREMBO Y'UBUKERARUGENDO BUKORERWA KU  
MAZI N'INGANDA ZISHINGIYE KUMUSARURO UKOMOKA  
KUBUHINZI)**

**AGRO-PROCESSING AND LOGISTICS GATEWAY  
(AMAREMBO Y'INGANDA ZISHINGIYE KUMUSARURO  
UKOMOKA KUBUHINZI N'INGANDA Z'UBUBIKO  
N'UBWIKOREZI)**

**CITY OF CULTURE AND HERITAGE  
(ITERAMBERE RY'UMUJYI USHINGIYE K'UMUCYO  
N'AMATEKA)**

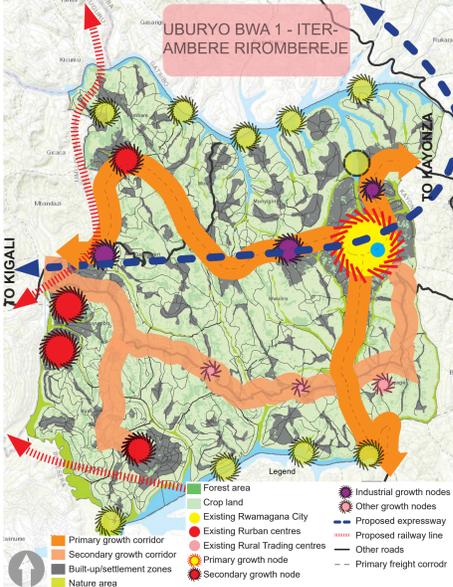
**BUSINESS AND ADMINISTRATIVE HUB OF THE EAST  
“IGICUMBI CY'UBUCURUZI N'UBUYOBOZI MU  
BURASIRAZUBA”**

**MANUFACTURING AND ADMINISTRATIVE HUB OF THE  
EAST  
(IGICUMBI CY'INGANDA N'UBUYOBOZI MU  
BURASIRAZUBA)**

**EASTERN FREIGHT GATEWAY TO RWANDA  
“AMAREMBO Y'UBWIKOREZI MU RWANDA”**

## INGAMBA ZIFASHA MU ITERAMBERE RY' UMUJJI- URBAN GROWTH STRATEGIES

Ishusho rusange y'akarere iyobora uburyo umujyi uzakuramo no kwaguka kwawo hashingiwe ku miterere n'igenamigambi ry' iterambere. Iki gishushanyo kigaragaza ibice bikura by'umujyi bisabwa kwitabwaho mu guha Akarere icyerekezo. Iki gishushanyo kigizwe n'ibikorwa bisanzwe, icyerekezo cy'ibiteganyijwe hagendewe ku mahame y'iterambere ry'umujyi. Uburyo bubiri bushoboka bw'iterambere bwatanzweho ibitekerezo n' abafatanyabikorwa b' Akarere. Uburyo bwo guhuriza hamwe ibikorwa by'iterambere nibwo bwatoranyijwe kuko imishinga y'ibanze mu iterambere ry'umujyi ari ishingiyeye ku bukerarugendo ndetse ikaba iri no mu murongo w'icyerekezo, ibiyifuzo ndetse n'umwihariko bya Rwamagana.



**OPTION 1- LINEAR POLYCENTRIC DISTRICT DEVELOPMENT CONCEPT- ITERAMBERE RIROMBEREJE**

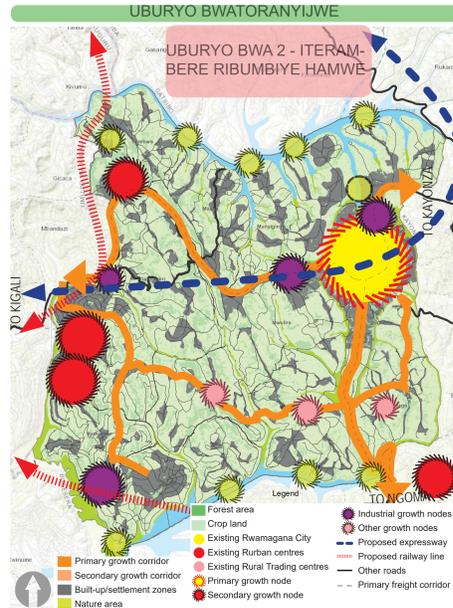
The idea behind the option for Linear Polycentric City is to focus on development of new urban corridor which will spur up the growth and develop the cities of Rwamagana-Nyagasambu- Musha-Ntunga-Nsinda as one. The existing Rwamagana city will be developed as the primary growth

node, with a secondary growth node at urban centres of Nyagasambu, Muyumbu, Nyakaliro and Karenge and rural nodes such as Nzige, Rubona and Munyaga which will serve as rural service centres providing local commercial services for fringe areas with low density.

The concept adopts the settlement hierarchy as proposed in the NLUDMP where settlements are subdivided into 3 types i.e. Urban, Rurban and Rural settlements. It further focuses on the approved Urban, Rurban and Rural settlements boundaries with 4 consolidated industrial parks for agro-processing and logistics, two along the Kigali Kayonza corridor, the other industrial parks located along proposed railway lines in Muyumbu sector and Karenge sector.

As prescribed in the NLUDMP, trading centres in Nyagasambu, Muyumbu, Nyakaliro and Karenge have been defined as Rurban growth node because of their importance due to existing internal trading center and concentration of social, economic and communications activities. Muyumbu is also an intersection for Railway line and an expressway making it a highway town which links Kigali to Mombasa-Kampala Railway line.

The existing Kigali-Kayonza road will act as the main link connecting Rwamagana City-Musha- Ntunga- Nyagasambu. There is also large amount of existing population travelling daily from Ntunga to the City and return for exchange of trade and agricultural activities mainly in Rwamagana town with the support of public transportation system. Also, there is existing settlement in Ntunga, Kabahima, Byange villages in Mwilire sectors which are expected to support and grow organically as a node as urbanization takes place in primary and secondary nodes of Rwamagana district.



**OPTION 2: RADIAL POLYCENTRIC DISTRICT DEVELOPMENT CONCEPT**

The plan is to establish Rwamagana City as an Eastern Centre for holistic excellence in water sports tourism, agriculture, industries, administration, logistics, culture, leisure and business

Akagera National Park and Lake Muhazi and Mugesera can be the potential gateway for tourism in this region.

The concept recommends to revitalize the existing urban area in Rwamagana with concentration of all the major activities, employment centers, facilities and infrastructure located within the city. Whereas Nyagasambu, Muyumbu, Nyakaliro and Karenge position themselves as rurban centres, re-imagining themselves as satellite towns providing local trade, services and light industry.

Similarly, Ntunga is envisioned to become peripheral centre and trade centres in Nzige, Rubona and Munyaga to become other growth centres providing local services. The steep slopes have been identified as Green Corridor zones outside approved imidugudu sites have been identified as cropland with Protected Potential Irrigation Area (PIA) for efficient agriculture and food security within the district.

Under this option Rurban centres will be restricted to medium density while the urban boundary will be predominantly high density to encourage optimal use of the land. This new growth node will also have opportunity to provide new link to Ngoma, giving commuters another option other than the possibly crowded current Kigali-Kayonza-Ngoma.

In general, this option intends to freeze further development to happen along the Kigali-Kayonza road and instead develop the settlements in their respective hierarchy to ensure. This concept perfectly conforms to the NLUDMP where anything outside approved settlements is considered unplanned and therefore no further expansion of these settlements.



Option 1- Linear Polycentric District development Concept	Option 2: Radial Polycentric District development Concept
Spatial growth around existing Nyagasambu-Rwamagana City corridor and Nyagasambu, Muyumbu, Nyakaliro and Karenge	Spatial growth around existing Rwamagana City and multiple potential new nodes in the district, including development along Lake Muhazi
<ul style="list-style-type: none"> <li>Reduced urban sprawl</li> <li>Low cost for infrastructure implementation</li> <li>Short term solution</li> </ul>	<ul style="list-style-type: none"> <li>Sustainable</li> <li>Shared amenities</li> <li>high accessibility to labor</li> <li>Low transportation costs</li> <li>Distributed employment centres</li> <li>Less travel</li> <li>New linkage to Ngoma</li> </ul>
<ul style="list-style-type: none"> <li>Peri-urban areas could remain largely agriculture</li> </ul>	Infrastructure cost could be higher, with establishment of new centers

## GUHITAMO IMBIBI Z' UMUJJI IDENTIFICATION OF URBAN BOUNDARY

GUHITAMO IMBIBI Z' UMUJJI BYAKOZWE HASHINGIWE KU GISHUSHYANYO MBONERA CY'IMIKORESHEREZE Y'UBUTAKA CY'IGIHUGU 'NLUDMP' NDETSE N'UKO HATUWE, AMAHIRWE Y'AKAZI N'IBIKORWAREMEZO BIHARI; UBUSHOBOZI N'AMAHIRWE BIGARAGARA MURI IYO MIDUGUDU, BYOSE BYAGENDEWEHO MU KUGENA IMBIBI Z' UMUJJI.

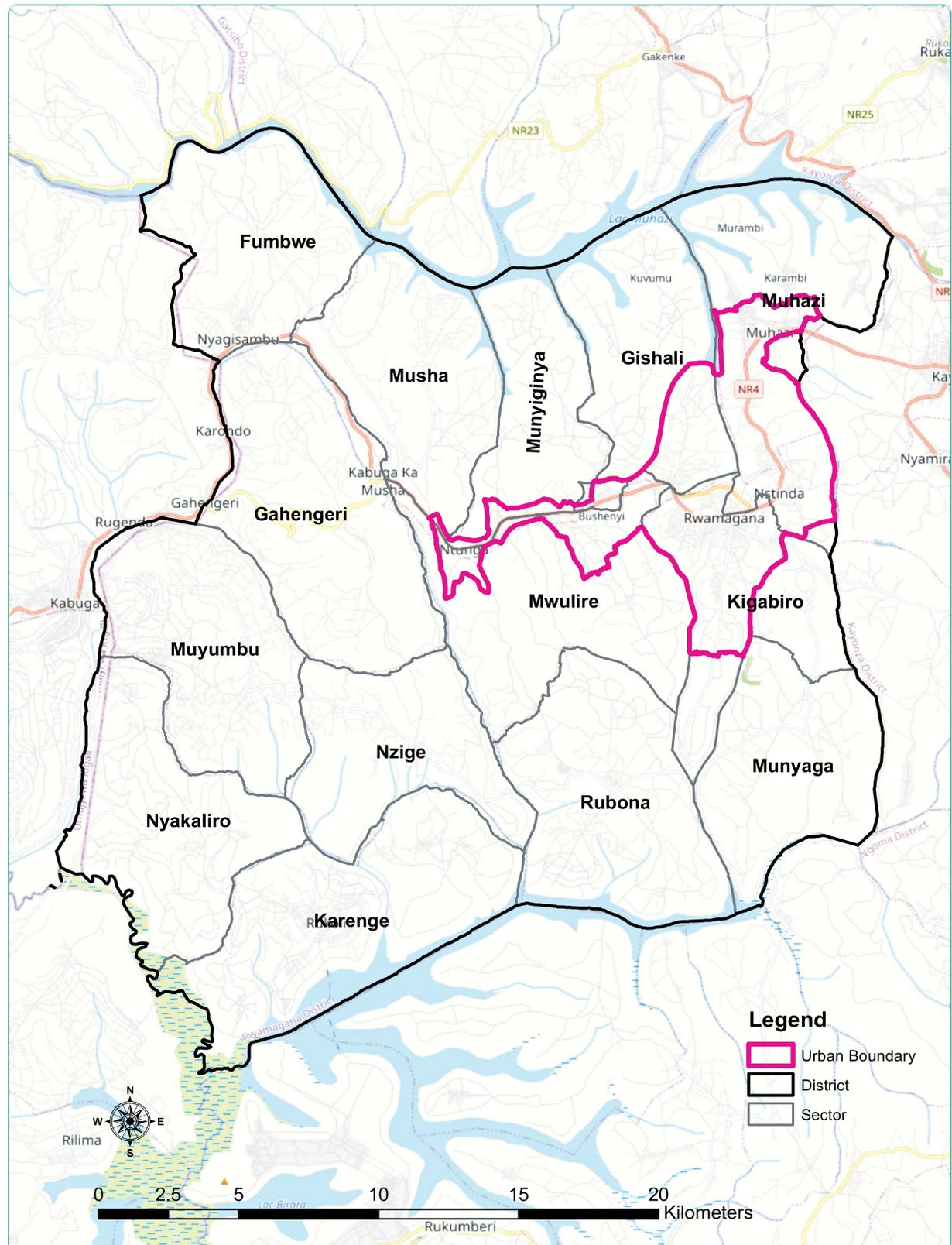
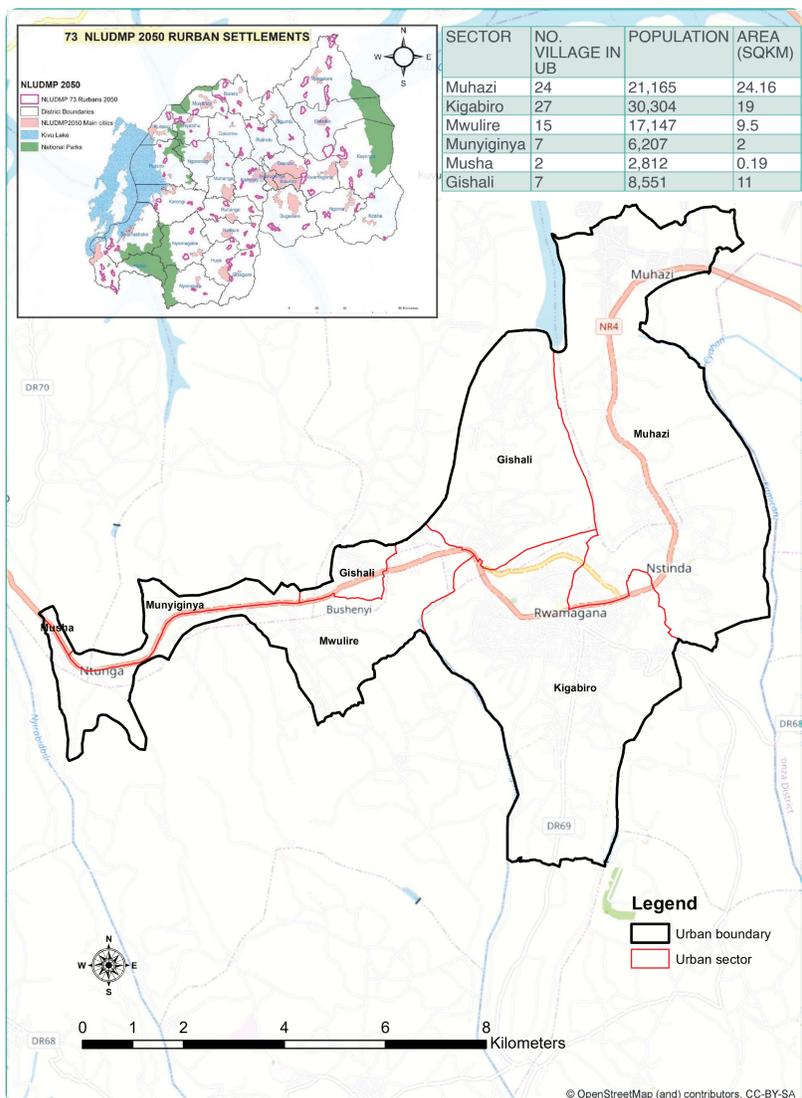
Imbibi z'ibice bitunganywa bya Rwamagana, ni itsinda ry'uduce duto tw'umujyi duhuriye hamwe. Imbibi z'umujyi zateganyijwe zigizwe n'imidugudu 82, mu mirenge ya Kigabiro, Gishari, Mwilire, Muhazi, Munyiginya na Musha, Igishushanyo cy' imikoreshereze y'ubutaka gisanzweho kigaragaza imikoreshereze y'ubutaka igaragara ubu mu mbizi z'igice cy'umujyi. 56% by'umujyi wa Rwamagana ni ahantu karemano n'ubutaka bw'ubuhinzi bw'icyaro. Umutima w'umujyi uri mu murenge wa Kigabiro n'inyubako zitweme ziganje cyane ku mihanda RN3, n'umuhanda ujya Gishari. Ibikorwa by'iterambere mu mujyi biratanye, kuburyo bigiye bihabanye n'ibikorwaremezo bihari.

**LOCATION**  
Rwamagana planning area boundary is a series of urban centres combined together. The economic node of the city is in the Kigabiro sector on the way towards Kayonza District. The city has previously had 3 masterplans with boundary encompassing parts of Kigabiro, Gishari, Mwilire and Muhazi sectors and 1 free-standing plan for Ntunga business node located along Kigali-Kayonza corridor in Munyiginya Sector. There is some inconsistency between the planning areas, therefore through this master plan aims to develop a single master plan which takes into account the potential fringe areas of the city.

Since the adoption of National Landuse and Development Masterplan late 2020, the urban boundary has since changed to include all the major node along the Kigali-Kayonza corridor. That is to say a huge chunk has been added to the urban boundary including parts of Kigabiro, Gishari, Mwilire, Muhazi, Munyiginya and Musha.

**GROWTH OF EXISTING CITY**  
The current Rwamagana City is experiencing growth in three main directions,  

- Along the Rwamagana-Kayonza corridor
- Along Muyumbu-Nyakaliro road and
- Along the lake Muhazi



### IGISHUSHANYO GISANZWE CY'IMIKORESHEREZE Y'UBUTAKA EXISTING LAND USE MAP

#### IMIKORESHEREZE Y'UBUTAKA KU RWEGO RW'AKARERE DISTRICT EXISTING LAND USE

Imibi z'ibice bitunganywa bya Rwamagana, ni itsinda ry'uduce duto tw'umuji duhurijwe hamwe. Imibi z'umuji zateganyijwe zigizwe n'imidugudu 82, mu mirenganya ya Kigabiro, Gishari, Mwalire, Muhazi, Munyiginya na Musha, Igishushanyo cy' imikoreshereze y'ubutaka gisanzweho kigaragaza imikoreshereze y'ubutaka igaragara ubu mu mibi z'igice cy'umuji. 56% by'umuji wa Rwamagana ni ahantu karemano n'ubuhinzi bw'icyaro. Umutima w'umuji uri mu murenganya wa Kigabiro n'inyubako zitwemeho ziganje cyane ku mihanda RN3, n'umuhanda uya Gishari. Ibikorwa by'iterambere mu muji biratantanywe, kuburyo bigiye bihabanye n'ibikorwaremezo bihari.

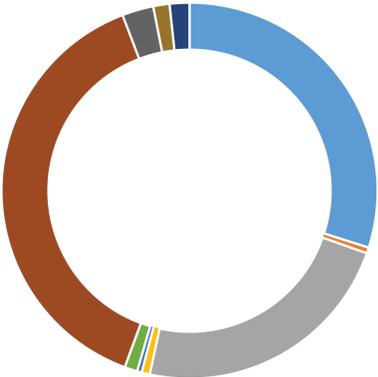
LAND USE	AREA-SQKM	%
1 Agriculture	203.87	29.9
2 Commercial	3.20	0.5
3 Forest and Open Spaces	157.00	23.0
4 Industrial	4.74	0.7
5 Public Administration	2.82	0.4
6 Public Facility	7.16	1.1
7 Public Utility	0.29	0.0
8 Residential	263.12	38.6
9 Transportation	18.67	2.7
10 Waterbody	9.67	1.4
11 Wetland	11.76	1.7
	682.30	100

Imikoreshereze y'ubutaka isanzweho  
Existing Land Use Distribution

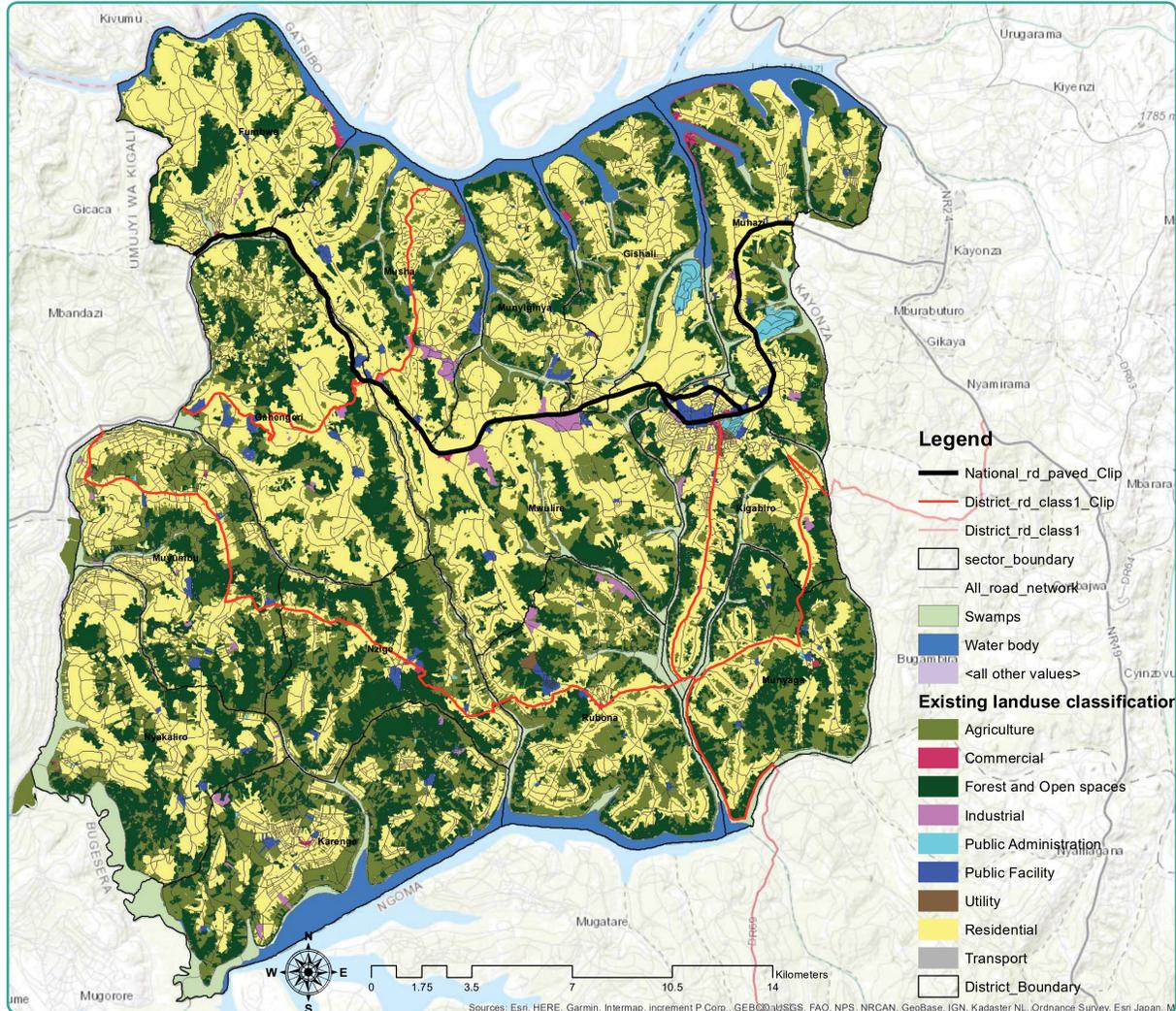
**District- 682 SQKM**

<b>38.6%</b> Gutura Residential	<b>1.5%</b> Ibikorwa rusange bifasha abaturage/ibigo Public Facilities / Institution	<b>0.5%</b> Ubucuruzi General Commercial	<b>0.7%</b> Inganda Industrial	<b>56%</b> Ibimera karemano n'ubuhinzi Natural Vegetation and Agriculture
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Percentage of existing landuse share



- Agriculture
- Commercial
- Forest and Open Spaces
- Industrial
- Public Administration
- Public Facility
- Public Utility
- Residential
- Transportation
- Waterbody
- Wetland



#### IMIKORESHEREZE Y'UBUTAKA KU RWEGO RW'UMUJI CITY EXISTING LAND USE

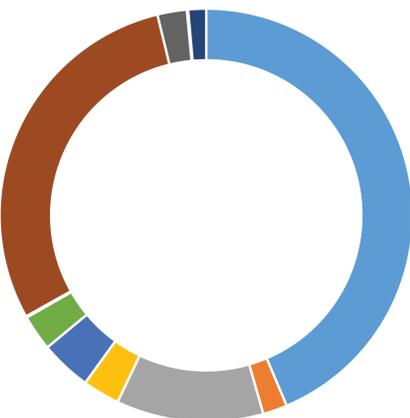
LANDUSE	AREA/SQKM	%
1 Agriculture	28.70	43.6
2 Commercial	1.28	1.9
3 Forest and Open Spaces	7.60	11.5
4 Industrial	1.93	2.9
5 Public Administration	2.62	4.0
6 Public Facility	1.84	2.8
7 Public Utility	0.04	0.1
8 Residential	19.30	29.3
9 Transportation	1.54	2.3
10 Waterbody	0.07	0.1
11 Wetland	0.90	1.4
	65.82	100.0

Imikoreshereze y'ubutaka isanzweho  
Existing Land Use Distribution

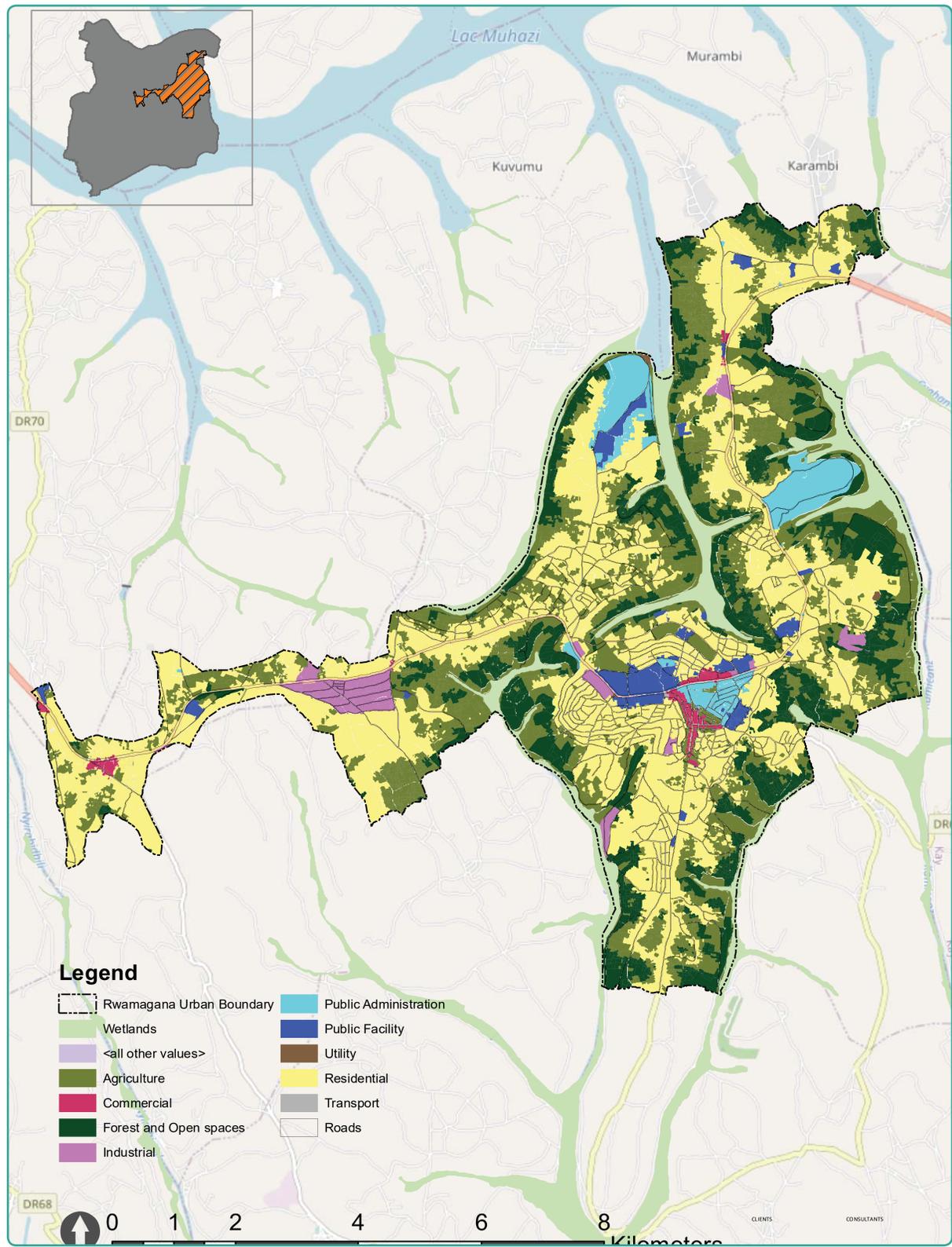
**City- 65 SQKM**

<b>29.3%</b> Gutura Residential	<b>7%</b> Ibikorwa rusange bifasha abaturage/ibigo Public Facilities / Institution	<b>1.9%</b> Ubucuruzi General Commercial	<b>2.9%</b> Inganda Industrial	<b>56.6%</b> Ibimera karemano n'ubuhinzi Natural Vegetation and Agriculture
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Percentage of existing landuse share

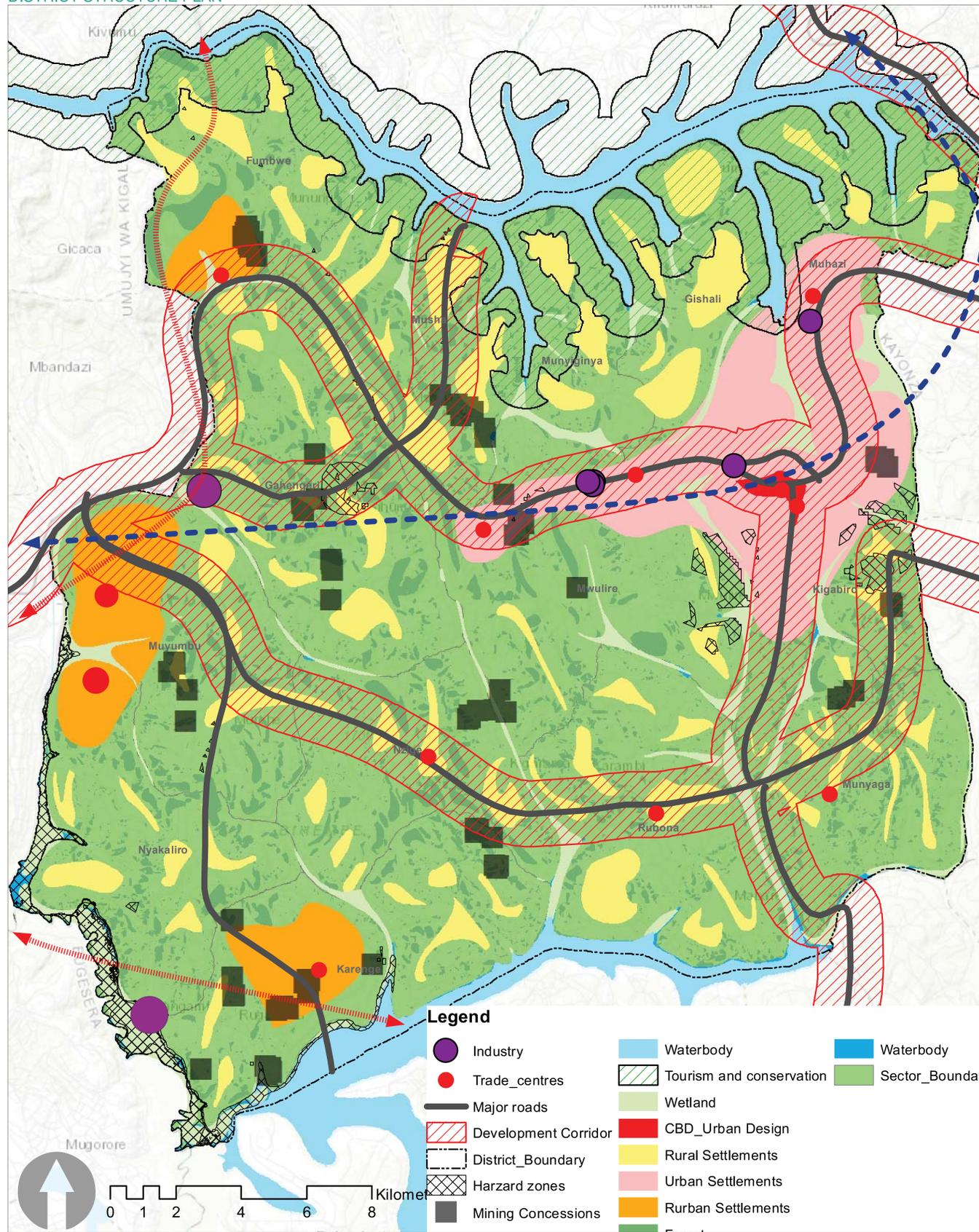


- Agriculture
- Commercial
- Forest and Open Spaces
- Industrial
- Public Administration
- Public Facility
- Public Utility
- Residential
- Transportation
- Waterbody
- Wetland

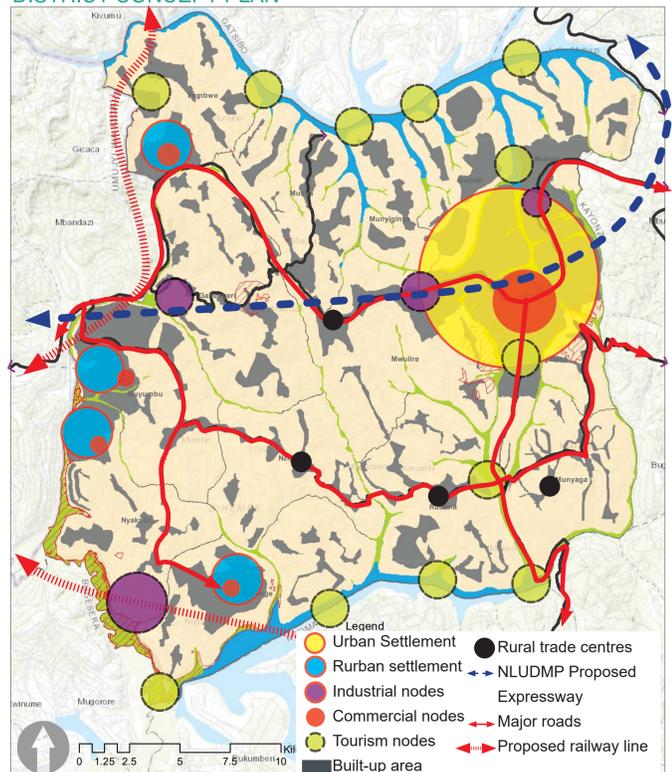


- Legend**
- Rwamagana Urban Boundary
  - Public Administration
  - Wetlands
  - Public Facility
  - <all other values>
  - Utility
  - Agriculture
  - Residential
  - Commercial
  - Forest and Open spaces
  - Industrial
  - Transport
  - Roads

### IGISHUSHANYO CY'IMITERERE Y'AKARERE DISTRICT STRUCTURE PLAN



### IMBAZIRIZA MUSHINGA Y'AKARERE DISTRICT CONCEPT PLAN



### IBICE BITUNGANYWA BYATEGANYIJWE N'AHATUWE PROPOSED PLANNING AREA AND NEIGHBOURHOODS

Umujyi wa Rwamagana uteganyirijwe kongera kugabanywamo ibice 9 bitunganywa byahariye harimo n' Igice-fatizo cyo mu mujyi nwa gati Urban core, NH1- NH 8.

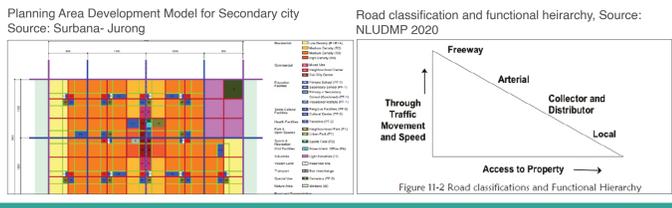
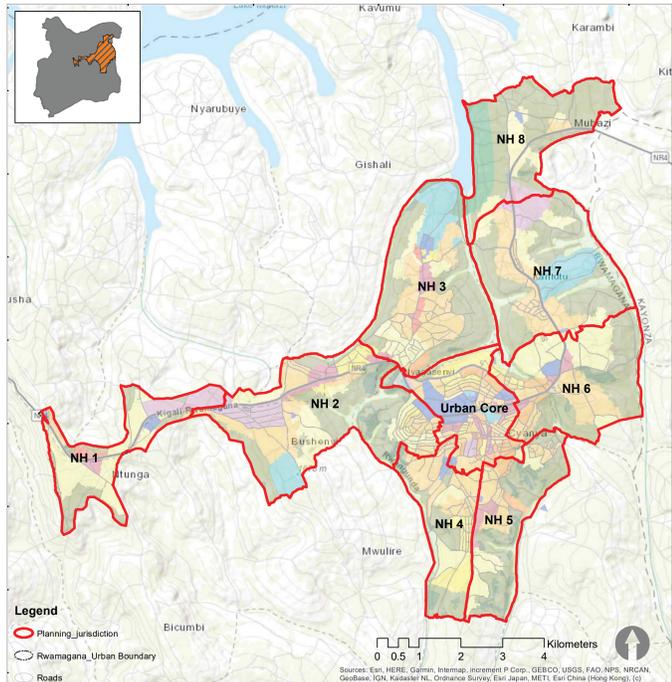
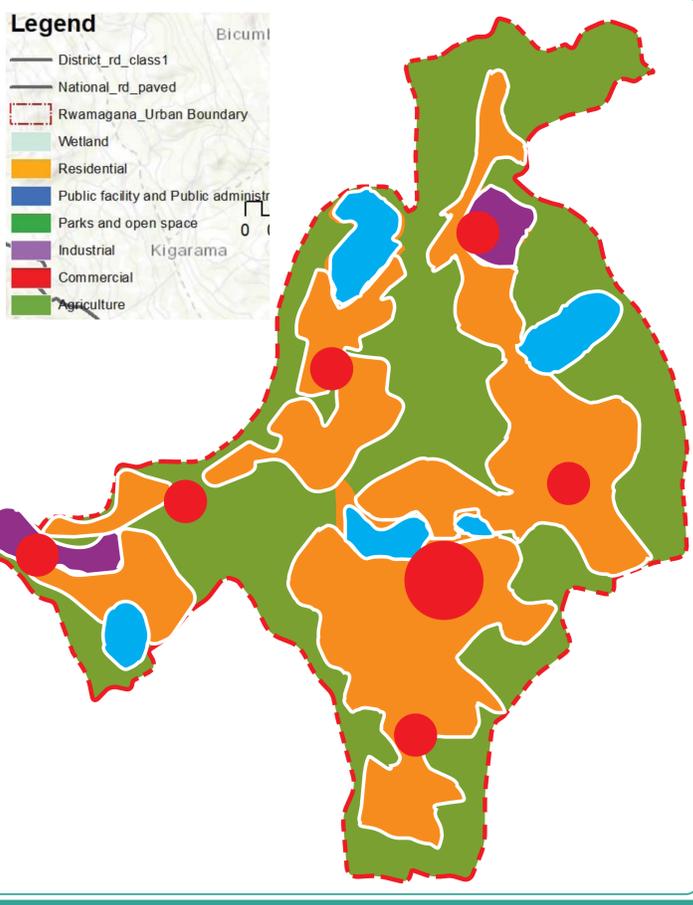
PLANNING JURISDICTION	VILLAGE NAMES	CELL/SECTOR	AREA (SQKM)	POPULATION 2050	DENSITY (/SQKM)	EMPLOYMENT 2050
Urban Core	Biraro, Busanza, Kabeza, Kabuye, Kamata, Rurembo, Kavura, Kayenzi, Ramba, Rusave, Kanywiriri, Plage	Cyanya, Nyagasenyi, Kigabiro	5.2	50,336	9680	42,786
Neighborhood (NH) 1	Kabenda, Kagarama, Rweza, Akabuye, Ntunga, Nyagakombe, Kadasumbwa, Cyimbazi, Kabacuzi, Karuzigura, Kiyovu, Rugarama	Cyarukamba, Cyimbazi, Musha, Ntunga, Munyiginya, Musha, Mwulire	4.76	38,080	8000	28,560
Neighborhood (NH) 2	Cyini, Kigega, Kirehe, Umuganura, Ndagoye, Kabahima, Kangaruye, Flebero, Rubiha, Ruseke	Ruhimbi, Nyagasenyi, Cyarukamba, Bushenyi, Gishali, Kigabiro, Munyiginya, Mwulire	10	80,000	8000	60,000
Neighborhood (NH) 3	Akanogo, Mugusha, Nyakabungo, Shaburondo, Byimana, Rwagahaya	Bwinsanga, Ruhimbi, Gishali	9.6	76,800	8000	46,080
Neighborhood (NH) 4	Gahonogo, Bugugu, Kabuga, Kamanga, Miyange, Rushangara	Nyagasenyi, Sibagire, Sovu, Kigabiro	4.95	39,600	8000	20,988
Neighborhood (NH) 5	Cyahafi, Karuhayi, Karutimbo, Bacyoro, Cyimpima, Gasharu, Gatere	Cyanya, Sibagire, Sovu, Kigabiro	5.6	44,800	8000	22,400
Neighborhood (NH) 6	Bigabiro, Cyeru, Akagarama, Akalorero, Gahondo, Kavura, Kidogo, Mpinga, Umubuga	Cyanya, Karitutu, Nyarusange, Kigabiro, Muhazi	7.9	63,200	8000	31,600
Neighborhood (NH) 7	Agatere, Karambo, Kingondo, Nyarugarama, Kibare, Rubirizi	Karitutu, Nsinda, Muhazi	10	80,000	8000	60,000
Neighborhood (NH) 8	Gatobotobo, Kabeza, Nyarukombe, Biremo, Ubwiza, Umunini, Uwimanzu, Akabeza	Byeza, Kabare, Nsinda, Muhazi	6.8	54,400	8000	40,800
<b>Total</b>			<b>65</b>	<b>527,212</b>		<b>353,232</b>

### PROPOSED STRUCTURE PLAN FOR RWAMAGANA CITY

The Proposed Structure Plan for Rwamagana satellite city establishes the structure of the development areas and location of the key activities within the District. The key proposals of the Structure Plan for Rwamagana City include:

- Establishment of an efficient highway grid system ensuring the long-term regional connectivity and internal linkages.
- Redevelopment of Kigabiro Sector, Cyanya and Nyagasenyi Cell and Nyarusange cell in Muhazi Sector as the revitalized Central Business District of Rwamagana City
- Development of a CBD core extending from Uswahilini into the wetlands in the north of CBD
- Redevelopment of the existing dense and informal housing areas near the Police Training college in Gishari
- Creation of local employment opportunities through development of town centres and industrial estates.

- GUTEGURA UMUIYI WEGERANYE, MWIZA KANDI UFASHA URUYIYA N'URUZA RW'ABANTU N'IBINTU
- GUSHYIRAHU URUHEREREKANE RW'AMAHURIRO AHUJWE NEZA YO GUHANGA NO GUTANGA IMIRIMO
- KUGENA IMITURIRE MYIZA IFASHA KUGIRA IMIBEREHO MYIZA N'IBIKORWA REMEZO BIRAMBYE MU MBIBI Z'UMUIYI
- KURENGERA NO KONGERERA UBUSHOBOZI IBICE BYA RWAMAGANA BIFASHA MU KURENGERA IBIDUKIKIJE
- GUHUZA NO KUBUNGABUNGA UBUTAKA KUBW'INYUNGU Z'IGIHE KIZAZA
- KUSHYIRAHU UMUIYI UHUJE UFITE AHANTU RUSANGE HEZA NO KURENGERA UMURAGE W'UMUIYI



## IGISHUSHANYO CY'IBYICIRO BY'UBUTAKA CYATE-GANYIJWE 2035 PROPOSED RWAMAGANA ZONING PLAN 2035

Igishushanyo cy' agateganyo cy'ibyciro by'ubutaka cya Rwamagana kerekana ingamba z'iterambere ry'igihe kinini kugeza muri 2050, ariko kikaba kigiye kiri mu byiciro bitanu by'ishyirwa mu bikorwa. Igishushanyo cyateganyijwe kandi gisobanura imishinga yemejwe n'icyerekezo cy'iterambere mu muji wa Rwamagana.

The proposed Zoning Plan for Rwamagana will provide the development plan for the long term till the year 2050, along with phased development in five phases. The proposed plan also takes into consideration the approved projects and the development trends within the Rwamagana urban boundary.

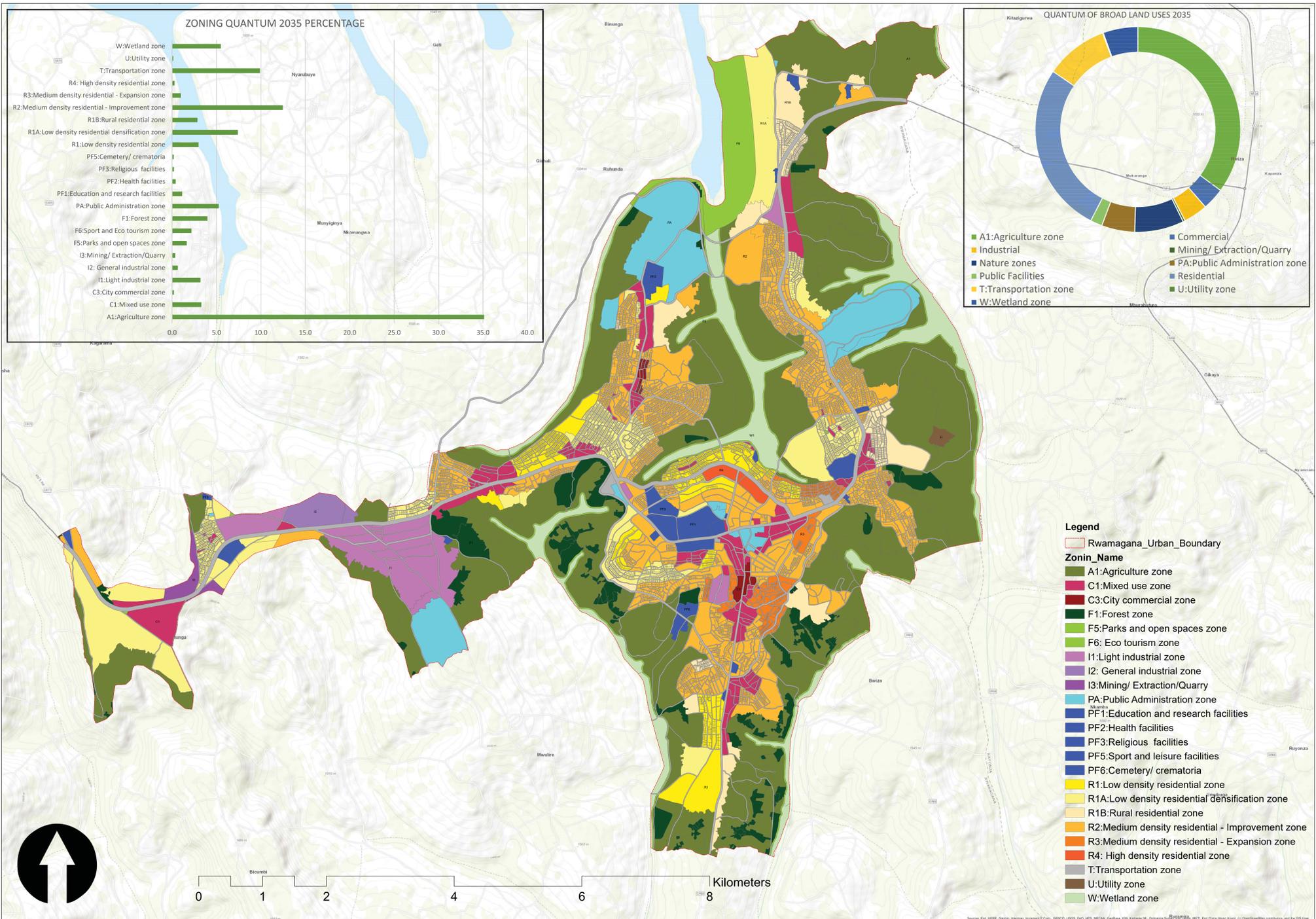
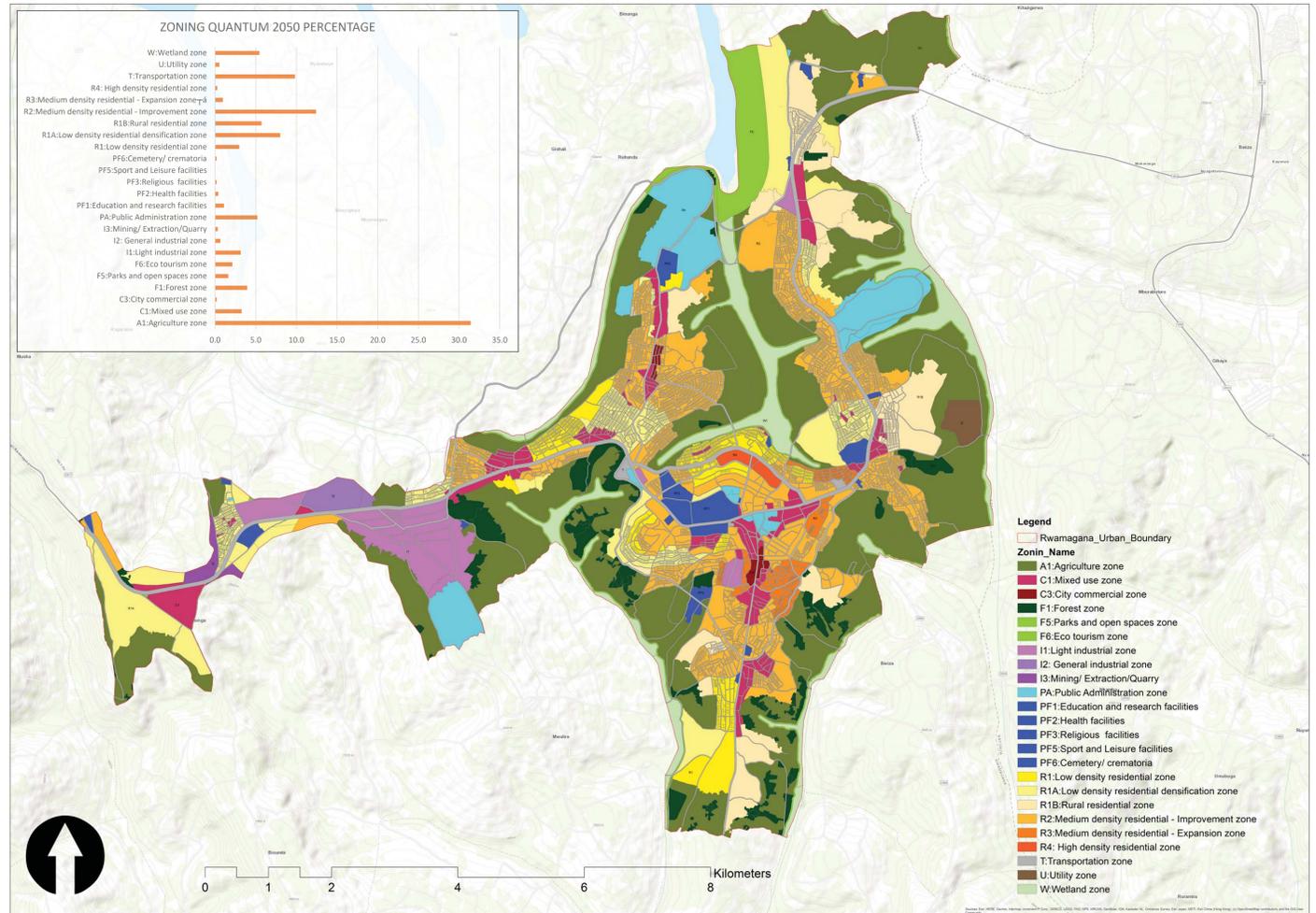
### IGIPIMO CY'UBUCURUZI CYATEGANYIJWE MU MUJYI WA RWAMAGANA PROPOSED COMMERCIAL QUANTUM

Key Sectors	2020	2035	2050	%
Agriculture	59,245	25,931	19,500	6%
Mining	2,734	8,900	12,880	4%
Construction	3,372	23,990	58,700	17%
Commercial (Office, Hotel, Retail, Whole sale, trade, transport & storage)	9,206	46,352	141,852	40%
General Industry (Agro-processing & manufacturing)	8,568	25,880	64,700	18%
Light Industry	8,203	21,800	55,600	16%
Employment/Jobs	91,146	152,853	353,232	100%
Population	177,265	305,706	527,212	

### UBUTAKA BUCYENEWE MURI RUSANGE BROAD LAND REQUIREMENT

Broad landuse	2020	2035	2050	%
Residential	665	1,750	2,205	36%
Commercial	10	70	234	3%
Industrial	84	238	602	11%
Infrastructure, Road & Open Spaces (50%)	758	1,434	2,731	50%
Developable Urban Land Required (HA)	1,517	2,869	5,461	100%

## IGISHUSHANYO CY'IBYICIRO BY'UBUTAKA CYATEGANYIJWE 2050 PROPOSED RWAMAGANA ZONING PLAN 2050



## AMAHAMEFATIZO Y'IBYICIRO BY'UBUTAKA ZONING PARAMETERS

### C1 Ikomatanyabikorwa Mixed Use - Commercial

- Ibyiciro by'Ikomatanyabikorwa (C1) ni icyiciro cyashyirirweho kurema ubufatanye buhagije mu ikomatanya ry'ibikorwa, gukomeza uruherekane rw'urwego rw'ibikorwa by'ubucuruzi ndetse no kugena ibiro cyangwa amacumbi mato y'abakozi mu magorofa yo hejuru.
- Imigabane y'Ikomatanyabikorwa ni uguturira 70% n'ubucuruzi 30%.
- The Mixed Use Commercial Zone (C1) is a zone established to create high flexibility in the mix of uses, ensure continuity in ground level commercial activities and provide offices or accommodation in upper floors.
- Mixed Use share is Residential 70% and Commercial 30%

**2.4 Maximum**  
Ikigereranyo cy'ahazubakwa  
Floor Area Ratio

**500 m<sup>2</sup>**  
Ingano nto y'lkibanza  
Minimum Plot Size

**110 du/ha**  
Urugero rw'ubucucike  
Density

### C2 Ubucuruzi bw'ahatuweku mihanda Neighborhood Level Commercial

- Ubucuruzi bw'ahatuweku ku mihanda yemerera imitunganyirize y'ibikorwa bito by'ubucuruzi ahantu hatuwe ku mihanda y'ubwikorezi, Imihanda mito n'imini. Umugambi ni ukurushaho kwegeranya ikomatanyabikorwa hashingiwe ku bikenewe ku isoko.
- Neighbourhood Commercial Overlay (C2) allows for small commercial developments in residential zones along transit corridors, minor arterials and collector roads. The intent is to cater for mixed uses based on market demand.

**1.4 Maximum**  
Ikigereranyo cy'ahazubakwa  
Floor Area Ratio

**300 m<sup>2</sup> Max**  
Ingano nto y'lkibanza  
Minimum Plot Size

**80-120 du/ha**  
Urugero rw'ubucucike  
Density

### C3 Ubucuruzi bwo ku rwego rw'Umujyi City Level Commercial

- Icyiciro cy'Ubucuruzi bwo ku rwego rw'Umujyi (C3) cyashyirirweho guhuza Ububiko bw'ibicuruzwa, ubucuruzi n'ibiyifuzo by'imirimo ku bantu benshi. Uretse aho C3 iri mu mujyi rwa gati CBD, inaboneka Gashari, Ntunga na Munyiginya nk'inhuriro n' uduce duteye imbere mu bucuruzi mu Mujyi. Ikomatanyabikorwa rigizwe n'aho Gutura 60% n'ah'ubucuruzi 40%
- City Level Commercial Zone (C3) is established to meet most of the retail, commercial and service needs for the larger community. In addition to the core CBD area, C3 areas are also identified at Gashari, Ntunga and Munyiginya for Sub-City Centre developments.

**3.0 Maximum**  
Ikigereranyo cy'ahazubakwa  
Floor Area Ratio

**900 m<sup>2</sup> Min**  
Ingano nto y'lkibanza  
Minimum Plot Size

**100 du/ha**  
Urugero rw'ubucucike  
Density

### I1 Inganda zidahumanya Light Industry

- Icyiciro cy'Inganda zidahumanya (I1) gihuriza hamwe umubare munini w'inganda zidahumanya ikirere kandi kiri hafi y'ibice byagenewe gutura hafite uburyo bworohereza abahatuye gukora ingendo (imihanda) kandi babasha kuba hafi y'aho bakorera imirimo yabo.
- The Light Industrial Zone (I1) accommodates a range of non-polluting industries and is allowed located close to residential area with easy vehicular access to enable residents to live close to their workplaces.

**1.2 Maximum**  
Ikigereranyo cy'ahazubakwa  
Floor Area Ratio

**250m<sup>2</sup> Min**  
Ingano nto y'lkibanza  
Minimum Plot Size

## IGISHUSHYANYO CY' UBUCURUZI COMMERCIAL PLAN

### UBUTAKA BUCYENEWE BW'UBUCURUZI LAND REQUIRED FOR COMMERCIAL

Broad landuse	2020	2035	2050	%
Commercial (HA)	10	70	234	3%

### Ubutaka Bugenewe Ubucuruzi Land gazetted for Commercial zones

Commercial Zoning	Area in HA
C1: Mixed use zone	218.61
C3: City commercial zone	13.73

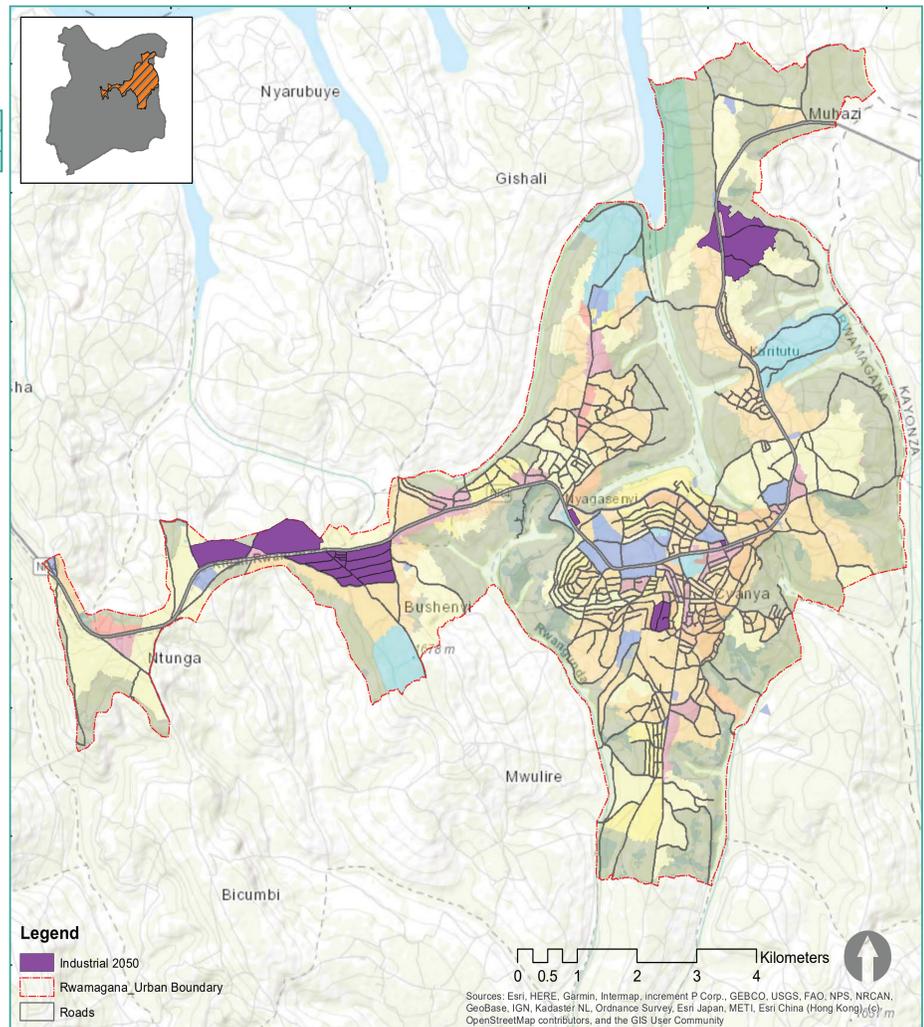
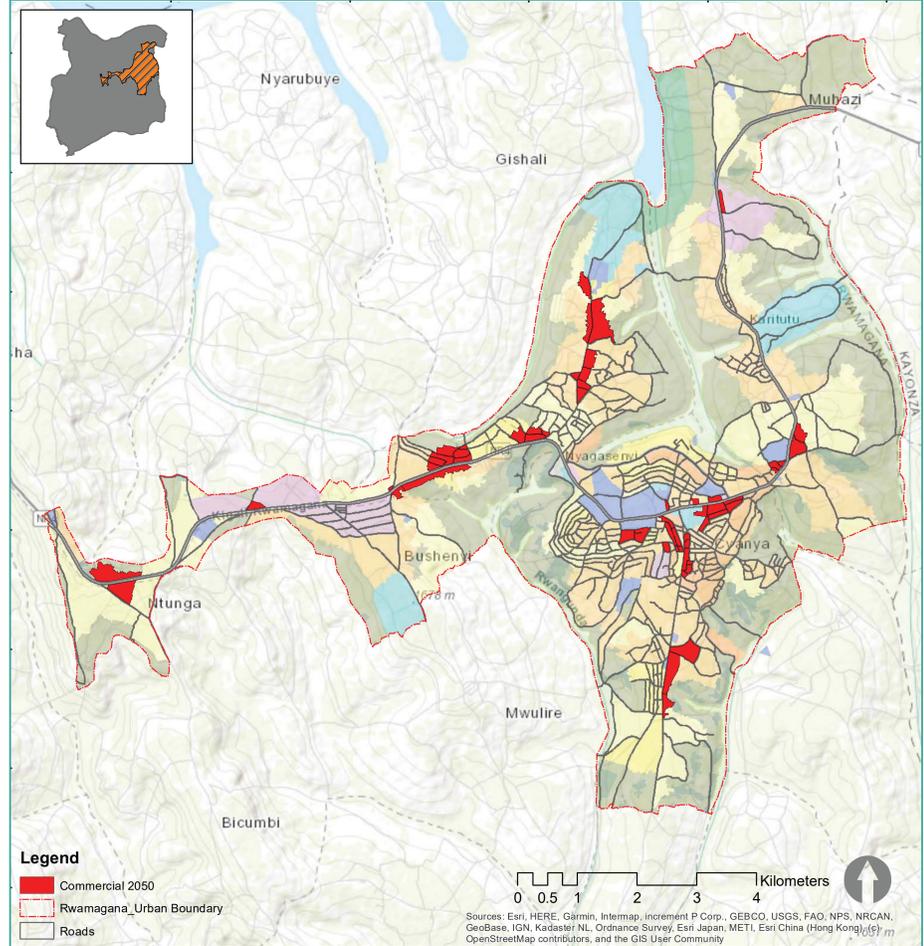


## IGISHUSHYANYO CY'INGANDA INDUSTRIAL PLAN

### UBUTAKA BUCYENEWE BW'INGANDA LAND REQUIRED FOR INDUSTRIES

Broad Land Use	2020	2035	2050	Land (Ha)
Industrial (HA)	84	238	602	602

Industrial Zoning	Area in HA
I1: Light industrial zone	211.55
I2: General industrial zone	42.76
I3: Mining/ Extraction/Quarry	22.16
	276.46



### I2 Inganda zihumanya Heavy/General Industry

- Icyiciro cy'inganda zihumanya (I2) cyashyirirweho ibikorwa muri rusange by'inganda nini cyangwa zihariye mu gukora ibintu runaka bitewe n'urwego rw'imihumanyirize yarwo. Bisaba ko zishyirwa ku ntera ihagije kubwo gukumira urusako no kurinda ubuzima bw'Abaturage
- The General Industrial District (I2) is established to accommodate general manufacturing industries or specialized industries depending on the pollutive nature. It requires buffer for noise and health safety.

**N/A**  
Ikigereranyo cy'ahazubakwa  
Floor Area Ratio

**1000m<sup>2</sup> Min**  
Ingano nto y'lkibanza  
Minimum Plot Size

### IGENAMIGAMBI RY'UBUCURUZI COMMERCIAL PLAN

- Ubwoko butatu bw'ibice by'ubucuruzi biteganyijwe ku rwego rw'akarere, umujyi ndetse n'ahatuwe.

- Buri gice cyatunganyijwe cyagiye kigenerwa agace gifata nk'umutima w'umujyi. Harimo igice cy'ahariye mu by'ubucuruzi CBD mu Mujyi rwa gati ndetse no mu bice bya Gashari, Ntunga na Munyiginya.

- Kongerera ubushobozi no kwagura imibi amasentere y'ubucuruzi asanzwe akajya ku rwego rw'umujyi (C3) no kongeramo ikomatanyabikorwa kugira ngo atere imbere yihagijwe.

- Icyiciro cy'ikomatanya-bikorwa (C1) giteganyijwe cyane ku mihanda minini nka RN3 n'umuhanda uya Gashari mu korohereza ba nyir'ubutaka gukomatanyabikorwa mu nyubako igorofa ibanza igakoreshewa mu bucuruzi.

- Inyongera-mwihariko ku bucuruzi bw'ahatuwe ku mihanda (C2) yemerera imitunganyirize y'ibikorwa bito by'ubucuruzi ahantu hatuwe ku mihanda y'ubwikorezi, Imihanda mito n'imini bitwe n'ibikorwa bikenewe ndetse n'ubushobozi bwa nyir'ubutaka.

### IGENAMIGAMBI RY'RY'INGANDA INDUSTRIAL PLAN

- Iterambere ry'inganda muri Rwamagana ryateganyijwe mu rwego rwo kwibanda ku nganda zitunganya umusaruro w'ubuhinzi n'ubworozi n'izikora ibikoreshe bitandukanye, zikazana-tanga akazi kuri benshi n'ubumenyi bukwiriye mu gihe kigufi.

- Ibikorwa by'inganda, by'umwihariko I2 byashyirirweho ubushishozi mu bice bikikije umujyi, kure y'ahatuye abantu kandi inkengero zazo ziteganyirizwa kugira ahantu h'imyidagaduro idasaba gukoresha imbaraga, iyo ntera ikazafasha mu gutandukanya inganda n'ahantu hatuwe muri ibi bice by'inganda.

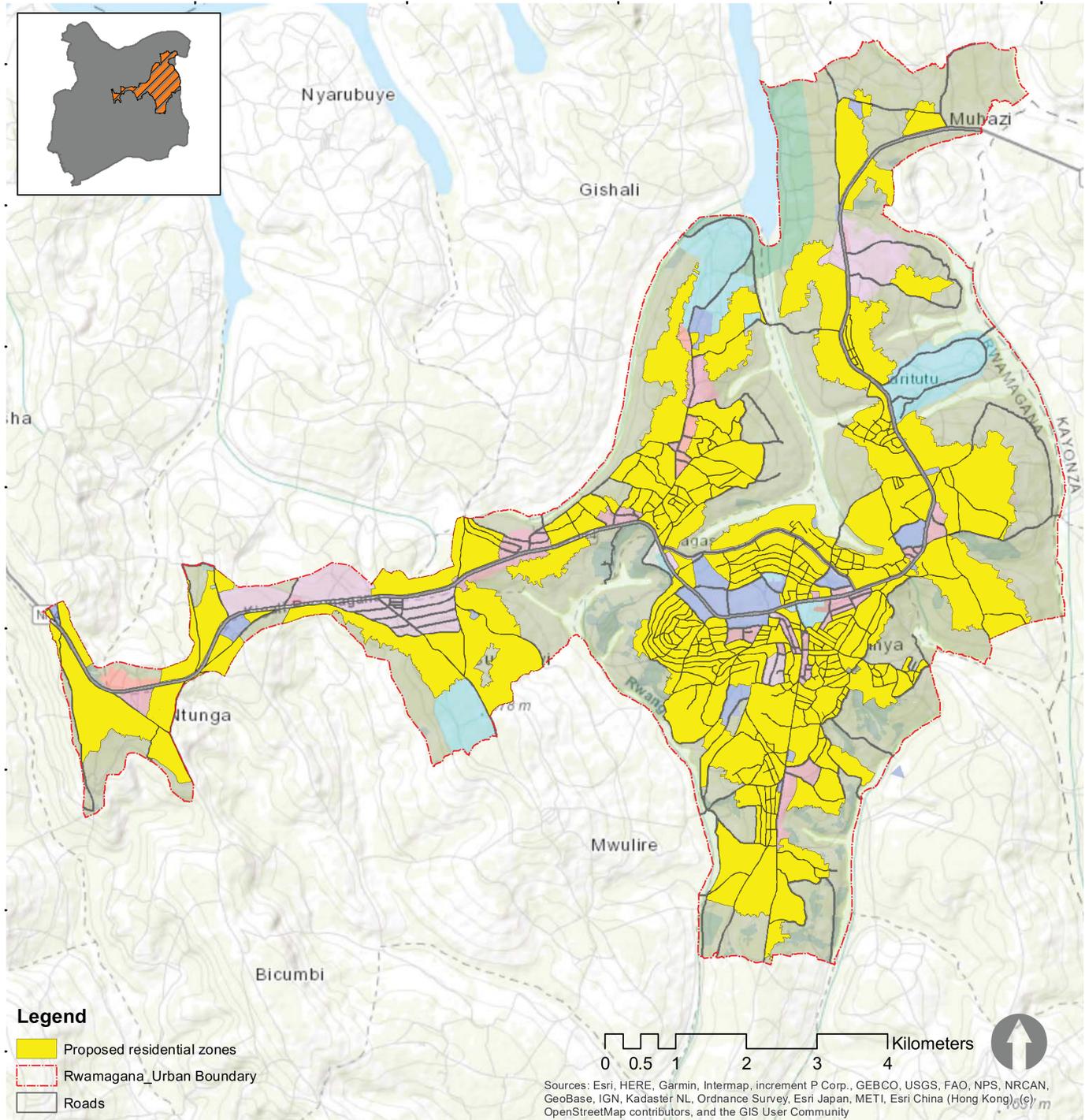
- Ahantu fatizo habiri mu by'inganda mu mujyi wa Rwamagana hateganyijwe ni Munyiginya na Mwulire mu kwagura ibikorwa by'inganda bihasanzwe no muri Muhazi. Ahandi ni bice bya Kigabiro.

## IKARITA Y'AHATEGANYIJWE IMITURIRE PROPOSED RESIDENTIAL PLAN

UBUTAKA BUCYENEWE MURI RUSANGE  
BROAD LAND REQUIREMENT

Broad landuse	2020	2035	2050
Residential (HA)	665	1,750	2,205

Residential Zoning	Area in HA
R1:Low density residential zone	199.04
R1A:Low density residential densification zone	493.85
R1B:Rural residential zone	190.15
R2:Medium density residential - Improvement zone	831.67
R3:Medium density residential - Expansion zone	64.65
R4: High density residential zone	18.04
	1797.39



## AMAHAMEFATIZO Y'IBYICIRO BY'UBUTAKA ZONING PARAMETERS

**R1** Icyiciro cyo gutura ahadacutitse  
**Low Density Residential**

- Icyiciro cyo gutura ahadacutitse (R1) giteganyira inzu zo mu bwoko bwa villa na bingalo. R1 ni igice cyahariwe inzu zihanzwe zagenewe guturwamo n'umuryango umwe, hatezwa imbere iterambere rihuje.
- The Low Density Residential Zone (R1) is intended for villa and bungalow typology. R1 Zones are mostly limited to existing single family houses, encouraging compact development.

**0.8 Maximum** Ikigereranyo cy' ahazubakwa  
**Floor Area Ratio**

**600 m<sup>2</sup> Max** Ingano nto y'lkibanza  
**Minimum Plot Size**

**10-15 du/ha** Urugero rw'ubucucike  
**Density**

**R1B** Icyiciro cyo gutura mu bice by'icyaro  
**Rural Residential**

- Icyiciro cyo gutura mu bice by'icyaro (R1B) kigena imitunganyirize y'icyaro yegeranye kandi iciriritse harimo intego zo gukumira ukuvogera ubutaka bwo guhingwa kandi busanzwe bwera.
- The Rural Residential Zone (R1B) offers compact low rise rural developments with an intention to limit encroachment towards fertile agricultural land.

**1.2 Maximum** Ikigereranyo cy' ahazubakwa  
**Floor Area Ratio**

**250 m<sup>2</sup> Max** Ingano nto y'lkibanza  
**Minimum Plot Size**

**40-70 du/ha** Urugero rw'ubucucike  
**Density**

**R3** Icyiciro cyo gutura mu bucucike buringaniye –Icyiciro cyaguka  
**Medium Density Residential-Expansion**

- Aho gutura mu buryo buringaniye - Icyiciro kivugururwa (R3) cyateguwe cyane cyane mukuvugurura imidugudu ituwe mu kajagari cyangwa se kongera gutunganya ibice by'umuji mu buryo bushya; n'imibereho ikomatanyije y'ahantu hashya ho gutura hatunganyije.
- The Medium Density Residential - Improvement (R3) zone is planned for the upgradation of unplanned settlements; redevelopment of urban renewal areas and clustered living at strategic locations.

**1.6 Maximum** Ikigereranyo cy' ahazubakwa  
**Floor Area Ratio**

**N/A** Ingano nto y'lkibanza  
**Minimum Plot Size**

**50-90 du/ha** Urugero rw'ubucucike  
**Density**

**R1A** Icyiciro cyo gutura ahadacutitse cyane- Icyiciro cy'ahadacutitse cyane  
**Low Density Residential Densification zone**

- Icyiciro cyo gutura cya R1A cyateganyijwe kugena amazu aciriritse ahuje ubucuruzi n'ibikorwa bifasha abaturage nk'uko bikunze. Intego ni uguhanga amazu ari ku murongo yo guturwamo n'umuryango umwe kandi acutitse cyane, amazu yakira imiryango myinshi aherereye mu bice nyaburanga.
- The R1A zone is intended to offer lowrise housing with shared commercial and public facilities as needed. The purpose is to create denser single family townhouses, multi-family houses around scenic areas.

**1.0 Maximum** Ikigereranyo cy' ahazubakwa  
**Floor Area Ratio**

**300 m<sup>2</sup> Max** Ingano nto y'lkibanza  
**Minimum Plot Size**

**20-30 du/ha** Urugero rw'ubucucike  
**Density**

**R2** Icyiciro cyo gutura mu bucucike buringaniye – Icyiciro kivugururwa  
**Medium Density Residential-Improvement**

- Icyiciro cyo gutura mu bucucike buringaniye – Icyiciro kivugururwa (R2) cyateguwe mukuvugurura imidugudu y'akajagari; kongera gutunganya ibice by'umuji mu buryo bushya n'imibereho ikomatanyije y'ahantu hatunganyije.
- The Medium Density Residential - Improvement (R2) zone is planned for the upgradation of unplanned settlements; redevelopment of urban renewal areas and clustered living at strategic locations.

**1.4 Maximum** Ikigereranyo cy' ahazubakwa  
**Floor Area Ratio**

**300 m<sup>2</sup> Min** Ingano nto y'lkibanza  
**Minimum Plot Size**

**60-100 du/ha** Urugero rw'ubucucike  
**Density**

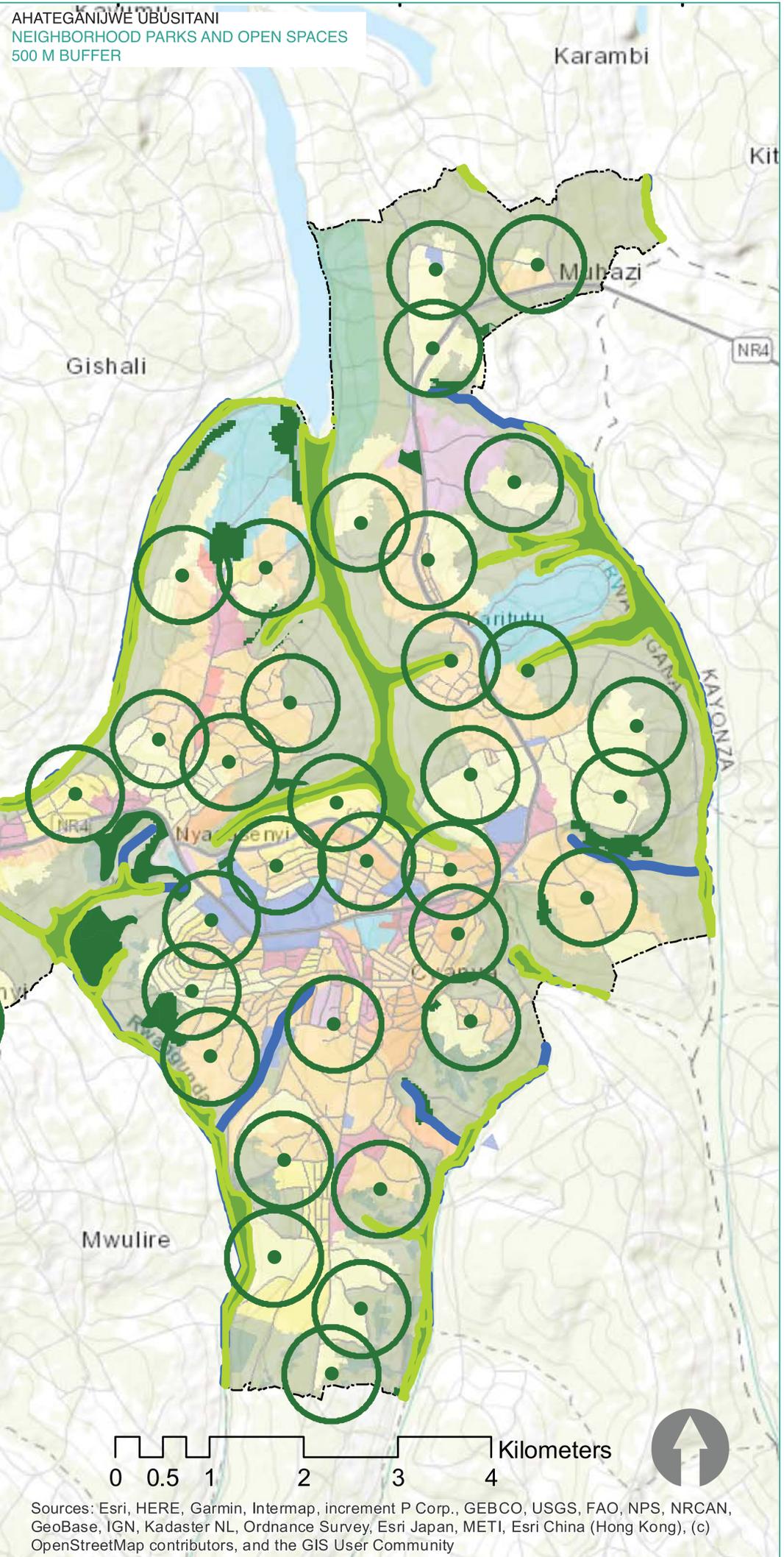
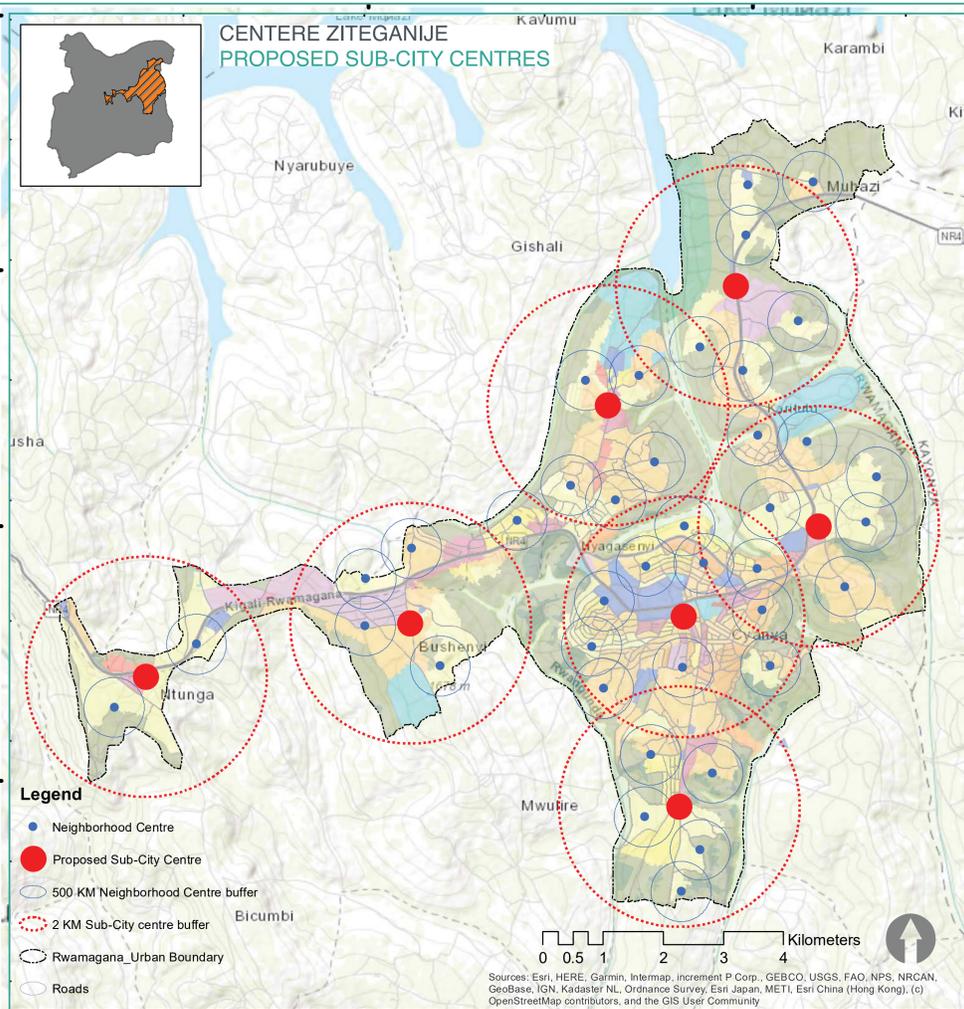
**R4** Icyiciro cyo gutura mu bucucike bwo hejuru  
**High Density Residential**

- Icyiciro cyo gutura mu bucucike bwo hejuru (R4) cyashyizwe mu rwego rwo kurema uburyo bwiza butegewe bw'imiturire icutitse cyane n'amacumbi afite ibikenerwa byose harimo ubucuruzi ndetse n'ibikorwa rusange bifasha abaturage, kandi haharereye mu hantu h'ingenzi hakikije umuji no mu nkengero z'umuji.
- The High Density Residential Zone (R4) is established to create well planned medium rise high density housing and apartment complexes with integrated commercial and public facilities; and are located in prime areas around City and Sub- City Centres.

**1.8 Maximum** Ikigereranyo cy' ahazubakwa  
**Floor Area Ratio**

**300 m<sup>2</sup> Max** Ingano nto y'lkibanza  
**Minimum Plot Size**

**80-120 du/ha** Urugero rw'ubucucike  
**Density**



## IBIKORWA RUSANGE BIFASHA ABATURAGE PUBLIC FACILITIES

- Mu rwego rwo kubasha kwakira impinduka zagaragara mu gishushanyo cy' ibyiciro by'ubutaka, hateganijwe ibikorwa bifasha abatwage ku rwego rw'akarere, urw'umuji n'urw'ahatuwe nkuko bigaragara mu gishushanyo. Igishushanyo gitanga umurongo mugari wakurikizwa n' umuji mu guhuzza ibikorwaremezo rusange bikenewe mu bice bitunganywa ndetse n' ibitwwe.
- To boost the flexibility and adaptability in the Zoning Plan, the regional, city level and neighbourhod public facilities proposed are indicatively shown in Figure above. The indicative plan provides a broad guide to the City to gauge the need of facility within the respective planning areas and the neighbourhods.
- Uretse ibikorwa by'ibanze byo ku rwego rw'umuji nk'isomero, ihuriro ndangamuco/ndangamurage, Sitade ndetse n'ibitaro by'akarere, ibikorwa rusange bifasha abatwage ku rwego rw'imijyi mito nk'ibigo by'imyuga, amavuriro mato, pariki n'ibibuga bya siporo bikwiriye gushyirwa muri buri gace gategurwa bigendeye ku mahameshingiro.
- Besides basic City level services such as Regional Library, City Cultural Centre, Museum, Stadium and Regional Hospital; Sub-city level facilities such as Vocational Institute, Polyclinic, Urban Park and Sports field need to be provided in each planning area as per the provision standards.

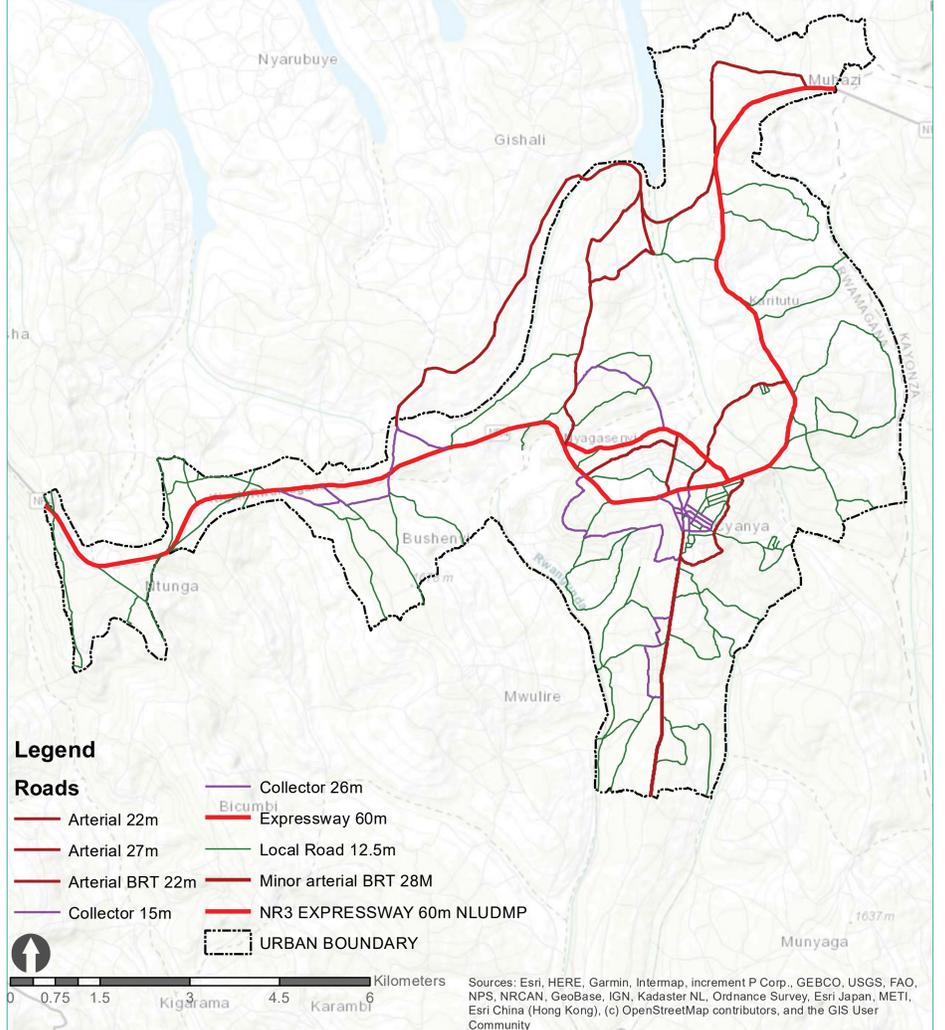


AM Period Modal Split in Trips		
Motorcycles	4235	20%
Buses	456	2%
Cars	1290	6%
Heavy Vehicles	295	1%
Pedestrians	9743	45%
Bicycle	5405	25%
Totals	21,424	100,0%

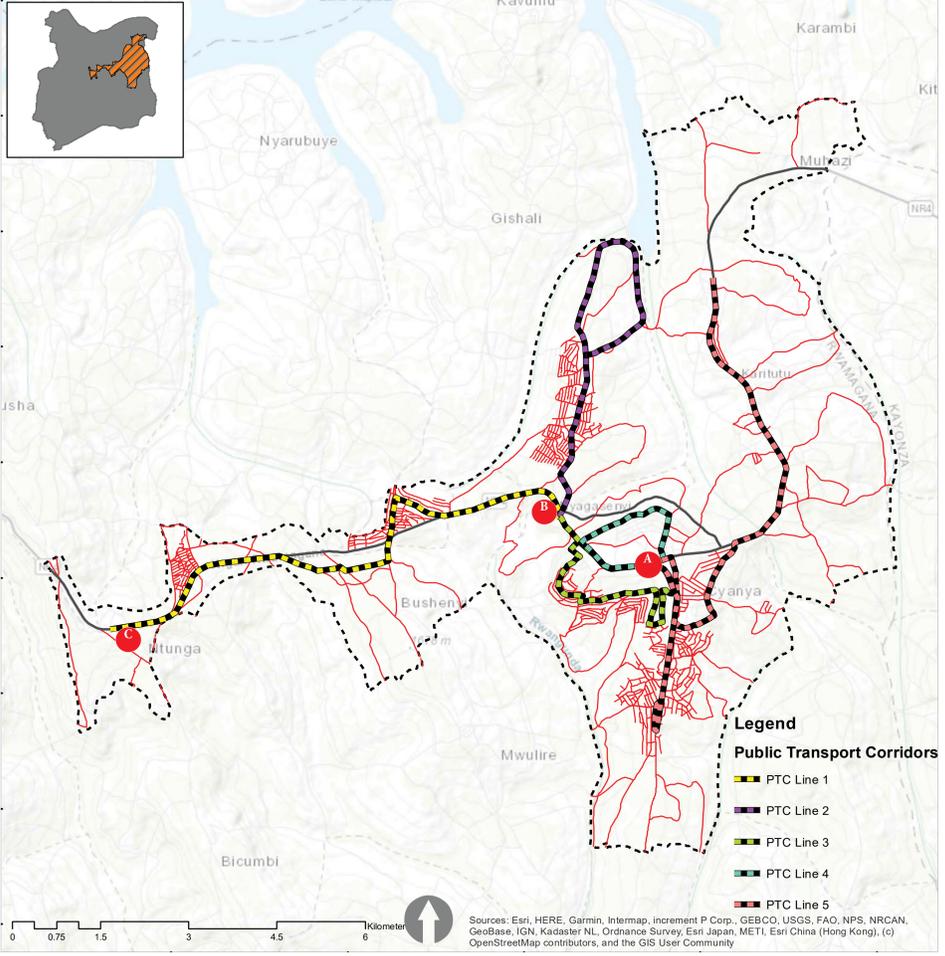
### INGENDO ZIKORWA MU MUJYI WA RWAMAGANA TRIP ASSUMPTIONS

PLANNING JURISDICTION	POPULATION 2050	WORKING POPULATION (57%)	ECONOMIC ACTIVITIES (ASSUME 35%)	TRIP OUT (ASSUME 70%)	MODE SPLIT		PRIVATE CAR	BUS	90% TRIPS IN 2 HRS		PCU
					Private Car (30%)	Bus (70%)			Private Car	Bus	
Urban Core	50,336	28,692	10,042	7,029	2,109	4,921	1,406	123	639	56	695
Neighborhood (NH) 1	38,080	21,706	7,597	5,318	1,595	3,723	1,064	93	483	42	526
Neighborhood (NH) 2	80,000	45,600	15,960	11,172	3,352	7,820	2,234	196	1,016	89	1,105
Neighborhood (NH) 3	76,800	43,776	15,322	10,725	3,218	7,508	2,145	188	975	85	1,060
Neighborhood (NH) 4	39,600	22,572	7,900	5,530	1,659	3,871	1,106	97	503	44	547
Neighborhood (NH) 5	44,800	25,536	8,938	6,256	1,877	4,379	1,251	109	569	50	619
Neighborhood (NH) 6	63,200	36,024	12,608	8,826	2,648	6,178	1,765	154	802	70	873
Neighborhood (NH) 7	80,000	45,600	15,960	11,172	3,352	7,820	2,234	196	1,016	89	1,105
Neighborhood (NH) 8	54,400	31,008	10,853	7,597	2,279	5,318	1,519	133	691	60	751
Total	527,212	300,513	105,180	73,626	22,088	51,538	14,725	1,288	6,693	586	7,279

### IMIHANDA ITEGANIJWE PROPOSED ROAD NETWORK



### IMIHANDA ITEGANIJWE GUKORESHWA N'IMODOKA ZITWARA ABAJENZI PROPOSED PUBLIC TRANSPORT CORRIDORS



### IBIGIZE UMUHANDA ROAD CROSS SECTIONS



### UBWIKOREZI BUTANGIZA IBIDUKIKIJEUBWIKOREZI BUDAKORESHA ZA MOTERI

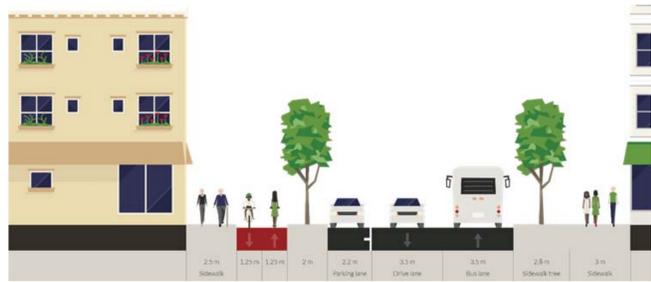
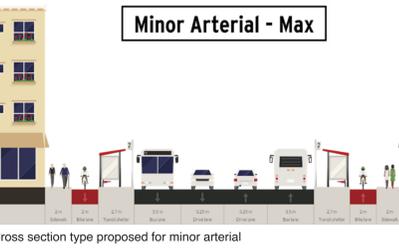
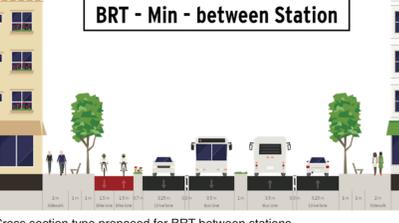
#### GREEN TRANSPORT - NMT

- Ibikorwaremezo by'ahakorerwa ubwikorerezi budakoresha za moteri (NMT) burateganyijwe ku mihanda yose mishya, yaba imihanda igera ahatuwe ndetse n'indi mihanda mito.
- Inkengero z'imigezi zizabungabungwa nka hamwe mu hanyurwa n'abaturage bagana mu busitani ndetse n'ibindi bikorwa bifashisha
- Imihanda mito y'imigenderano iteganyijwe izemezwa n'ubuyobozi ariko hanitabwaho abanyamaguru

### ROAD CLASSIFICATION FOR RWAMAGANA

ROAD ACT CATEGORY	ROAD TYPE	BROWN-FIELD	GREEN FIELD	DESIGN SPEED	MAX GRADIENT %
National Road	Expressway/Freeway/Railway Network (NLUJMP)	60	60	90-100	7
	Arterial Belt Network	44	44	80	7
District Road Category 1	Major Arterial	27	44	70-80	10
	Minor Arterial BRT/PTC	22	28	60-70	7
District Road Category 2	Collector	15	26	60	14
	Collector BRT/PTC	15	26	50	13
	Collector in rural areas - Unpopulated/Undeveloped/Rural Road	15	37	40	12
Specific Roads	Local Road	9	12.5	20-30	17

- Accessible Non Motorised Transport (NMT) infrastructure facilities are proposed along all new collectors and arterial roads
- River buffers are proposed to encourage wider green network connecting community to the parks and facilities.
- Proposed local roads should be detailed out by authorities considering pedestrian as priority



## IKWIRAKWIZWA RY'AMAZI WATER SUPPLY

- Uruganda rusukura amazi rusanzeho rwa Muhazi kizongerera ubushobozi kive ku bushobozi gisananywe bwa metero kibe 7,200 ku muni kizagere kubuzakenerwa bwa metero kibe 47,500 ku muni muri 2050. Urukurikirane rw'ibigega hamwe n'umyoboro y'amazi ihamye yarateganyijwe kugirango hizerwe ko amazi abonwa ijana ku ijana (100%) nk'uko biteganwa n'ikigero cya serivise ikenewe (LOS)
- Ikigero cya serivise ikenewe - Kugirango hagerwe ku ntego y'u Rwanda yo guha abaturage bose 100% amazi asukuye hateganyijwe ibigero bya serivise bikurikira - Icyaro (R1B) /igice kidatuwe cyane -mu baturage ivomero rusange muri buri metero 500(litiro 40/umuntu/umunsi); Umujyi/ibice bituwe ku bucucike bwo hejuru: Guha amazi buri rugo( Litiro 90/umuntu/umunsi)

- The existing Muhazi Water Treatment Plant will be upgraded from its current capacity of 7,200 m<sup>3</sup>/day to meet the demand of 47,500 m<sup>3</sup>/day in 2050. A series of reservoirs together with a network of bulk water supply lines have been proposed to ensure 100% access as per the suggested Level of Service (LOS)
- Proposed Level of Service - In order to meet the Rwandan goals of providing 100% of the population with water the following levels of service are proposed - Rural (R1B)/ low-density areas – Community standpipes accessible within 500m (40 l/person/day); Urban / High density areas – Individual household connections (90 l/person/day).

Comparison with other cities

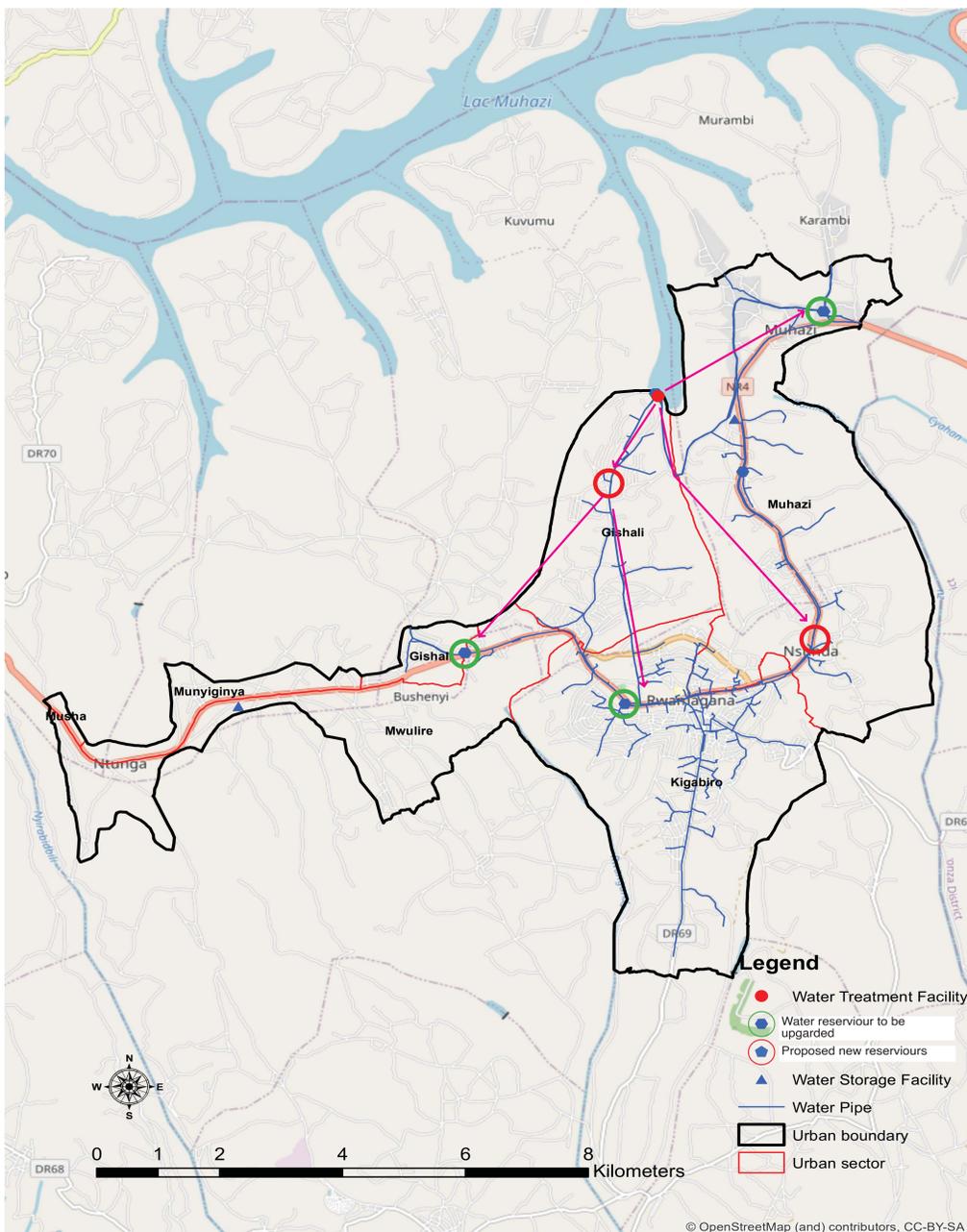
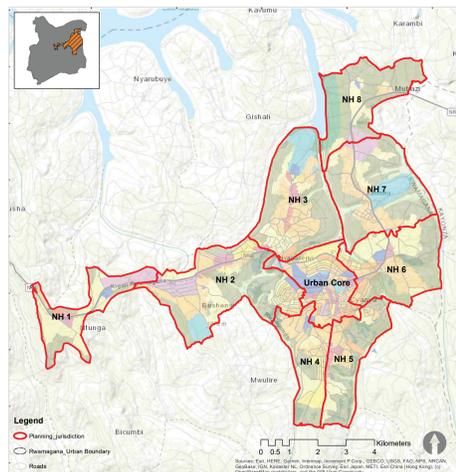
CITY	SINGAPORE	CAPE TOWN	AMSTERDAM	KIGALI	RWAMAGANA
Water dd l/person/day	130	201	135	120	90

Water demand parameters, Source: AJ+Partners

LAND USE	DEMAND	UNIT	
Residential	Rural / Low-Density	40	L/person/day
	Urban / High-Density	90	L/person/day
Employment	Commercial	32	CM/Ha/day
	Industrial	24	CM/Ha/day

2050 Water demand calculation Source: AJ+Partners

PLANNING JURISDICTION	POPULATION 2050	WATER DEMAND M <sup>3</sup>
Urban Core	50,336	4,530
Neighborhood (NH) 1	38,080	3,427
Neighborhood (NH) 2	80,000	7,200
Neighborhood (NH) 3	76,800	6,912
Neighborhood (NH) 4	39,600	3,564
Neighborhood (NH) 5	44,800	4,032
Neighborhood (NH) 6	63,200	5,688
Neighborhood (NH) 7	80,000	7,200
Neighborhood (NH) 8	54,400	4,896
Total	527,212	47,449



## UMUYOBORO W'AMAZI YANDUYE / IMYANDA IKOMEYE SEWERAGE / SOLID WASTE

- UMUYOBORO W'AMAZI YANDUYE - Inzira z'umuyoboro munini w'amazi yanduye ugizwe n'imirongo y'ibanze n'iyunganira n'ibigo bishya bitunganya amazi yanduye bifite ubushobozi byarateganyijwe kugira ngo hizerwe ijana ku ijana (100%) ry'abagerwaho n'isukura rivuguruye nk'uko biteganwa n'ikigero cya serivise ikenewe (LOS) muri 2050.
- Bitewe n'imiterere y'ahantu, ishyingiraho ry'uruganda rusukura amazi yanduye cyo gufasha umujyi wose ryazagorana, bityo hateganyijwe kuzubakwa inganda nto ebyiri.
- Sewerage- A bulk sewer network comprised of primary and secondary collector lines and new Waste Water Treatment Plants will ensure 100% access to improved sanitation as per the LOS by 2050.

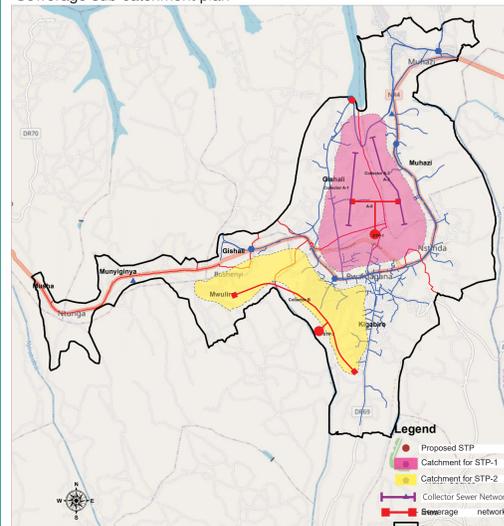
Due to the topography of the area, implementation of a sizable sewer treatment plant to serve the entire city will be difficult, instead two smaller treatment plants will be proposed.



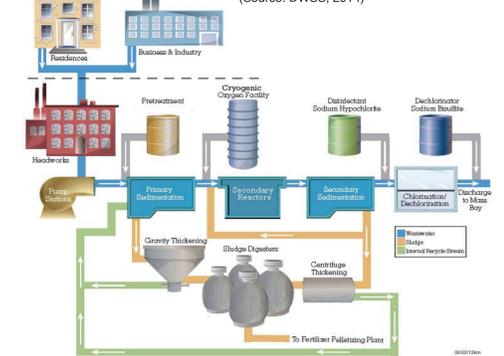
Estimated sewerage collection

Planning jurisdiction	Water demand m <sup>3</sup>	2050 Sewer Flow (m <sup>3</sup> /day)
Urban Core	4,530	3,624
Neighborhood (NH) 1	3,427	2,742
Neighborhood (NH) 2	7,200	5,760
Neighborhood (NH) 3	6,912	5,530
Neighborhood (NH) 4	3,564	2,851
Neighborhood (NH) 5	4,032	3,226
Neighborhood (NH) 6	5,688	4,550
Neighborhood (NH) 7	7,200	5,760
Neighborhood (NH) 8	4,896	3,917
Total	47,449	37,960

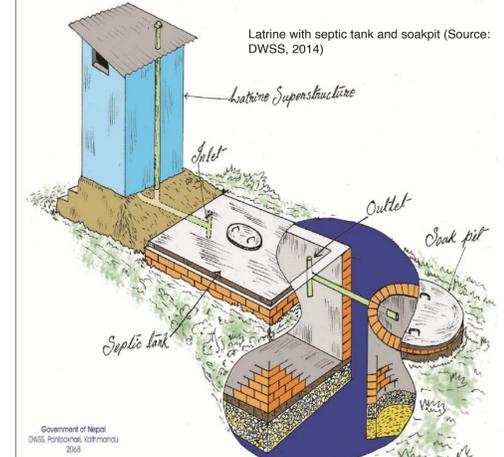
Sewerage sub-catchment plan



SOLUTIONS PROPOSED FOR URBAN/CITY ZONES  
Centralized Sewerage Treatment Plant (Source: DWSS, 2014)



SOLUTIONS PROPOSED FOR RURAL ZONES



## IMYANDA IKOMEYE SOLID WASTE MANAGEMENT

- IMYANDA IKOMEYE - Igenamigambi ry'imyanda ikomeye hakubiyemo Sitasioyo 4 zoherezwaho imyanda na hegitare 7.7 z'ikimoteri zizakoreshwa kugirango hagenzurwe imenwa ry'imyanda izaba ijugunwa muri 2050 ku mujyi n'ahatwe cyane biteganijwe kuri toni 316 ku muni.
- Solid Waste- The solid waste plan includes 5 transfer stations and a 7.7 Ha landfill that will be used to manage and dispose off the waste generated in 2050 for urban/ high-density areas, estimated at 316 tonnes/day.

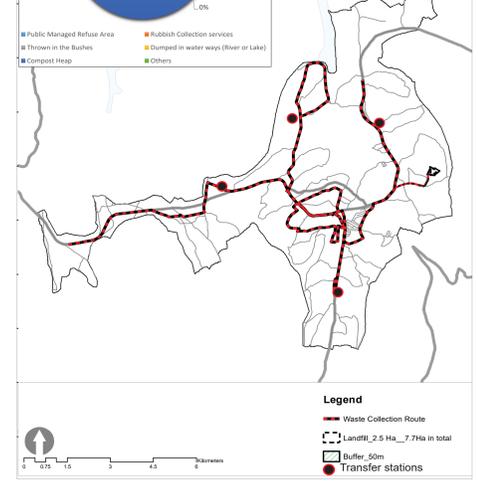
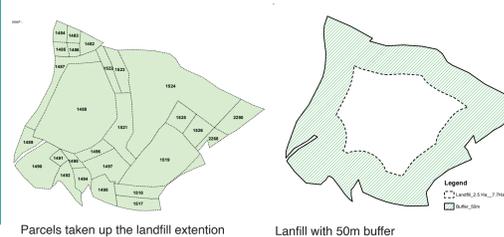
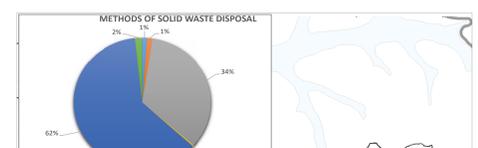
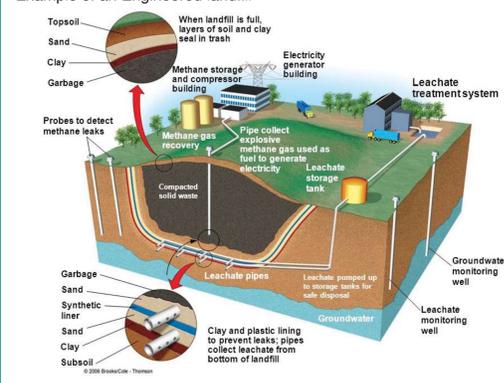
2050 Solid waste demand calculation Source: AJ+Partners

PLANNING JURISDICTION	POPULATION 2050	Waste generation 0.6kg/person/day
Urban Core	50,336	30,202
Neighborhood (NH) 1	38,080	22,848
Neighborhood (NH) 2	80,000	48,000
Neighborhood (NH) 3	76,800	46,080
Neighborhood (NH) 4	39,600	23,760
Neighborhood (NH) 5	44,800	26,880
Neighborhood (NH) 6	63,200	37,920
Neighborhood (NH) 7	80,000	48,000
Neighborhood (NH) 8	54,400	32,640
Total	527,212	316,330

Location of existing landfill

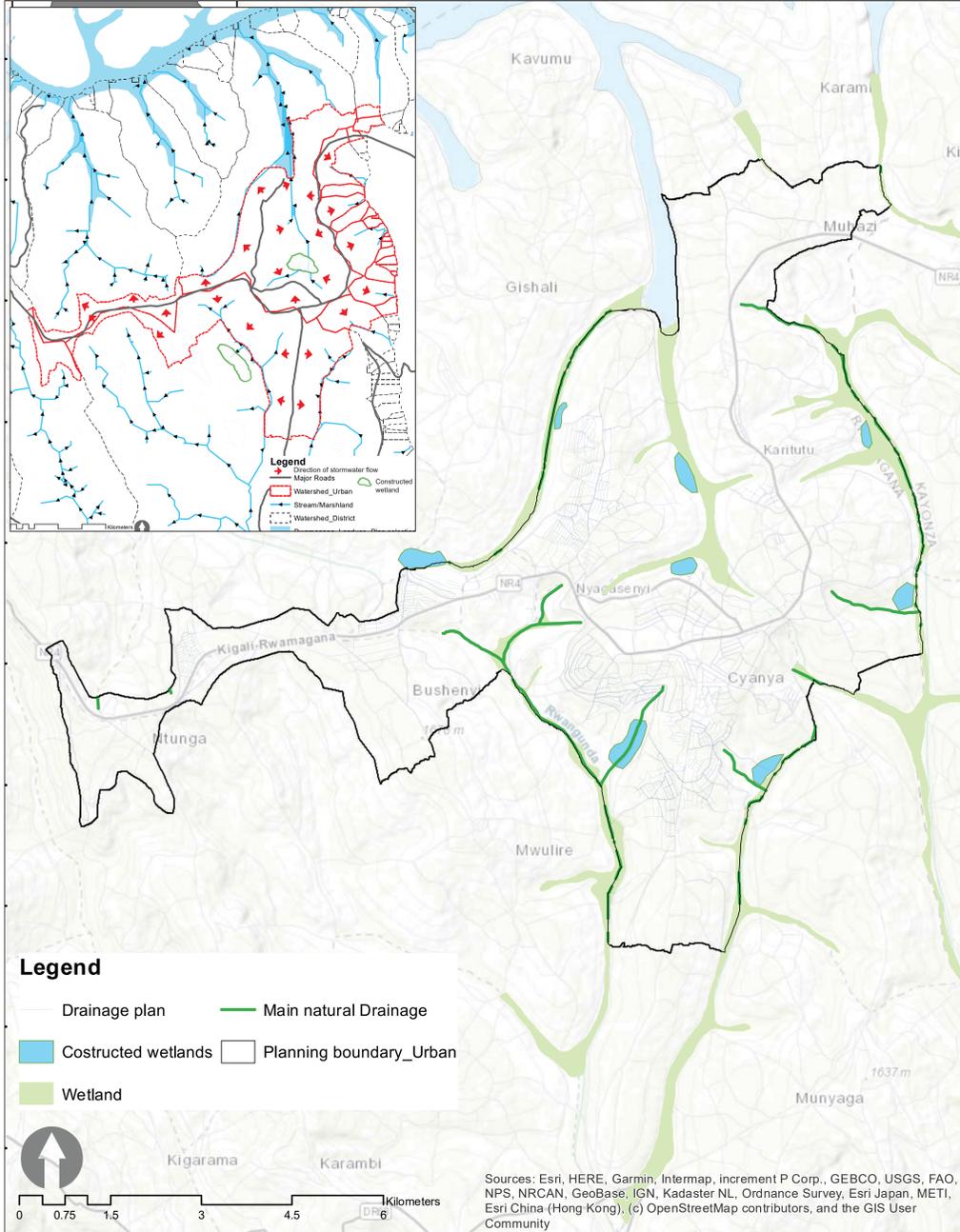


Example of an Engineered landfill



## UMUYOBORO W'AMAZI Y'IMVURA STORM WATER DRAINAGE

- Umuyoboro wateganijwe ukora igice gikomeye cy'umuyoboro w'amazi wungirije. Umuyoboro wungirije wisuka urangirira mu mibare w'amazi agwa mu mugezi aherereye ku nkombe z'umugezi ndetse n'izikiyaga. Amazi magari karemno (imigezi 6 iboneka rimwe na rimwe ndetse n'ikiyaga kimwe gihoraho) bikora umuyoboro w'amazi ukomeye.
- The proposed network forms the bulk portion of the Secondary Drainage System. The secondary system ends in a number of out falls located on the river band and at the edge of the lake. The natural water bodies (six seasonal rivers and one perennial lake) form the primary drainage system.

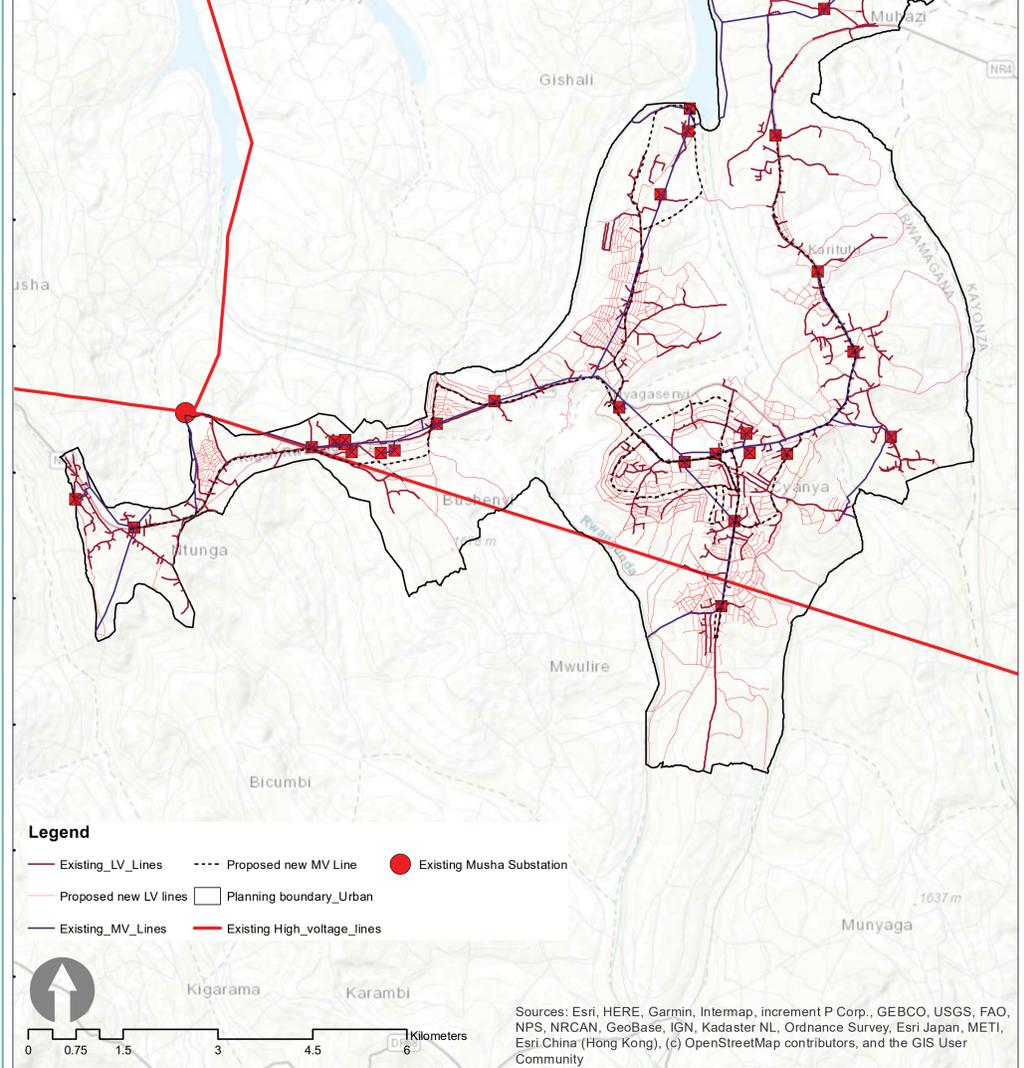


## INGUFU ENERGY

- Icyerekezo cy'amashanyarazi azakenerwa muri Rwamagana abarirwa kuri MVA 107.06 muri 2050.
- Sitasiyi nto ya Musha iteganyijwe kuvugurura
- Umuyoboro w'umuriro mwinshi uzagurwa ukava aho usanzwe ugera ku masitasiyo mato yateganyijwe, umuyoboro uringaniye uzaturuka aho usanzwe ukagera ku masitasiyo mato ugana ku masitasiyo mato yo gukupiraho yateganyijwe
- The electricity demand for Rwamagana City is projected to be around 107.06 MVA by 2050.
- Upgrading existing sub-station in Musha
- Six switching stations at 4 the planned areas (30kV)
- Associated high voltage lines, extending from existing positions to proposed substations, and Medium voltage feeders from existing and proposed substations to proposed switching substations.

Estimated power demand

LAND USE	2035 (MVA)	2050 (MVA)
Commercial	11.85	11.98
Industrial	11.87	18.57
Civic facilities/Public facilities	26.17	30.16
Residential	37.69	46.34
<b>Total</b>	<b>87.59</b>	<b>107.06</b>



## IKORANABUHANGA INFORMATION AND COMMUNICATION TECHNOLOGY

### Considerations for ICT Infrastructure

A critical component of the integrated planning process will be the assessment and audit of existing ICT infrastructure, particularly passive components such as manholes, ducts, and fiber optic cable, that can be leveraged in an open access collaborative approach to accelerate the city's digital migration process.

Due to the lack of land resources in the city as a result of natural constraints such as Lakes, hill, Forest, and wetlands, portions within the city are also underdeveloped. This will also be a critical factor in planning ICT infrastructure and avoiding network duplication in a competitive structure.

The sections below outline typical ICT infrastructure that will be deployed or leveraged to support and enable "smart" services. It should be noted that responsibility for the deployment or modernisation of infrastructure and facilities should be governed by structured interactions between key stakeholders in government, regulatory bodies, and industry role players, namely the major telecom operators, Internet Service Providers (ISPs), wholesale network service providers, and network facility providers.

#### Infrastructure for Fibre Optic Cables (Passive)

The construction of a core optic fiber cable in a ring design requires careful planning to ensure that critical spots along the path are picked up.

#### Potential locations:

Public sector locations, such as health care (hospitals and clinics), educational institutions (universities, colleges, and schools), government offices, and safety and security (military, police, and national intelligence) facilities, etc.

Business places, such as business parks, industrial districts, and shopping centers;

Residential places, such as multi-family complexes, gated communities, and suburbs; and

#### Periurban areas.

The cable's dimensions will be determined by the "smart" services that will be provided. Access networks will be constructed in accordance with the integrated Smart City plan's prioritizing of smart services as well as demand.

The metro cable/s will also be routed through the City of Rwamagana

in accordance with the physical routing and termination of the National Fibre Backbone.

Installing fiber to connect to rapidly developing areas, such as eastwards towards Kayonza and western towards Kigali, might be optimized if done concurrently with other infrastructure development projects, such as roads and sanitation, because trenches may be shared. The core fiber infrastructure will ideally be ducted and positioned along the city's major transportation arteries.

### Center for Data Management

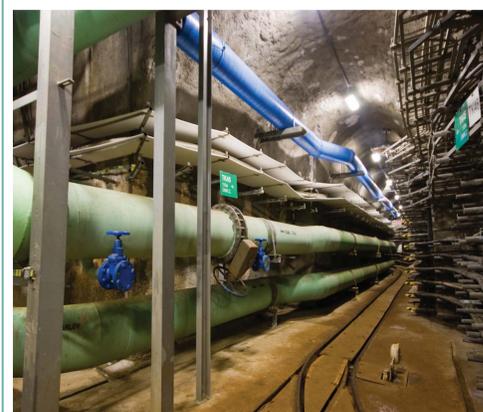
A domestic data center will be required to host Smart Applications and platforms in lieu of using the National Data Center. The Rwamagana satellite City's data center does not have to be physically located in a building; it might be housed in a containerized Tier 3 data center.

Additionally, an existing facility owned by one of the operators could be used, as guided by the city's integrated infrastructure plan and collaboration agreements. The data center should be designed around the unique hosting requirements of a core transmission network and its accompanying network management programs (OSS). Among the critical data center design considerations are the following:

Usable data space, or how many racks will need to be accommodated, taking expansion requirements into mind;

Associated ancillary ICT energy requirements,

Diverse cable entrance points.



### ESTIMATING ELECTRICITY DEMAND IN THE URBAN BOUNDARY

This is based on the existing and proposed land use/zoning tables and the anticipated population at different time horizon that is established from the urban planning output. Specific peak demand figures that are characteristic to the respective land uses are applied, with normalisation of peak demand to compensate for the convergence of different typical load profiles.

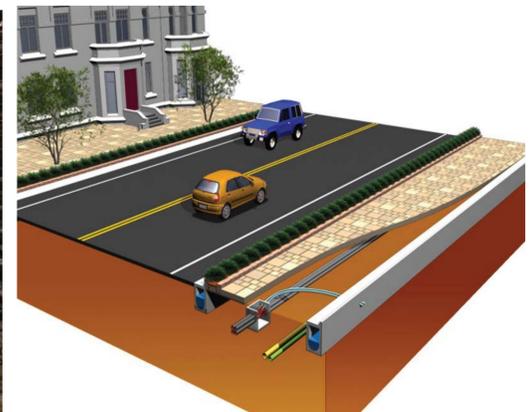
Rwanda's developmental statements include the long-term goal of becoming a middle-income country. Middle-income countries' average energy usage is projected to be 2000kWh per capita per year, according to World Bank estimates for developing nations. Despite the fact that the relation between this consumption figure and peak demand figures is not believed to be consistently and directly linked, the demand figures and characteristics used in forecasting peak demand must be chosen to contribute appropriately to achieving this goal.

REG's consumption brackets suggest low electricity uptake, which could be symptomatic of concerns like power quality (system reliability), high prices (affordability), and income level (current level of disposable income). Because of the nature of urban planning and aspirational goals, the demand components utilized in the estimates equate to increasing electricity usage and reliance. Agriculture, infrastructure, nature, special use, and water bodies, for example, are thought to have little or no demand for power supply and hence do not contribute to the overall electricity demand number. The proposed source of power supply for CBD area will be tapped from the existing 110 kV and 30 kV power lines.

Depending on the type of building and their usage, the load shall be estimated in W/m<sup>2</sup> based on the experience in South Africa

Diversity and demand factors are included in the power estimation, 5 are used for commercial and other land use whereas 1.2 is used for residential.

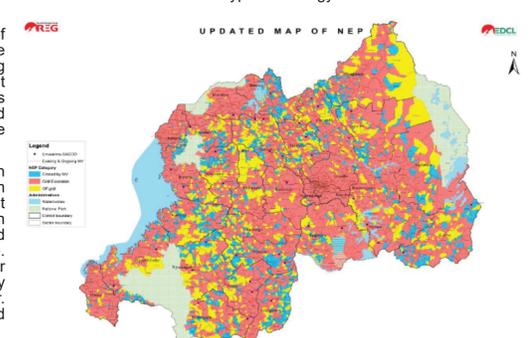
For better aesthetics, all power cables within the road shoulders and the trunk roads are to be laid underground. These cables are to be



encased in heavy duty UPVC pipes and draw pits (manholes) are to be provided at regular interval to facilitate the installation and replacement of cables in the future without the need to dig up the ground and the entire stretch of underground cables.

For the entire urban area, the electricity demand is calculated as follows:

#### National Electrification Plan/types of energy used



## IGISHUSHANYO CYIMBITSE CYO MUMUJYI RWAGATI URBAN DESIGN PROPOSAL

Igishushanyo cyihariye cyo mu mujyi rwagati cyagendeye ku cyerekezo cy' Akarere; "IGICUMBI CY'ITERAMBERA MBUMBE CY'UBURASIRAZUBA".

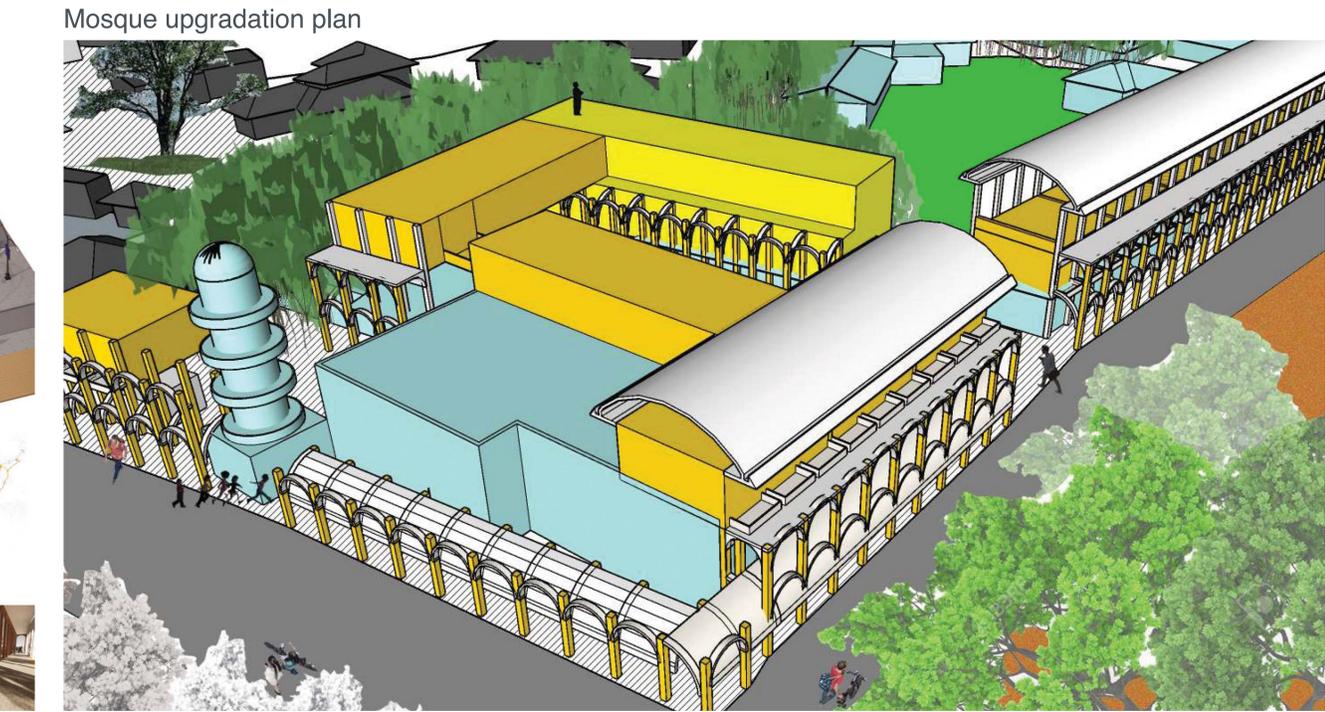
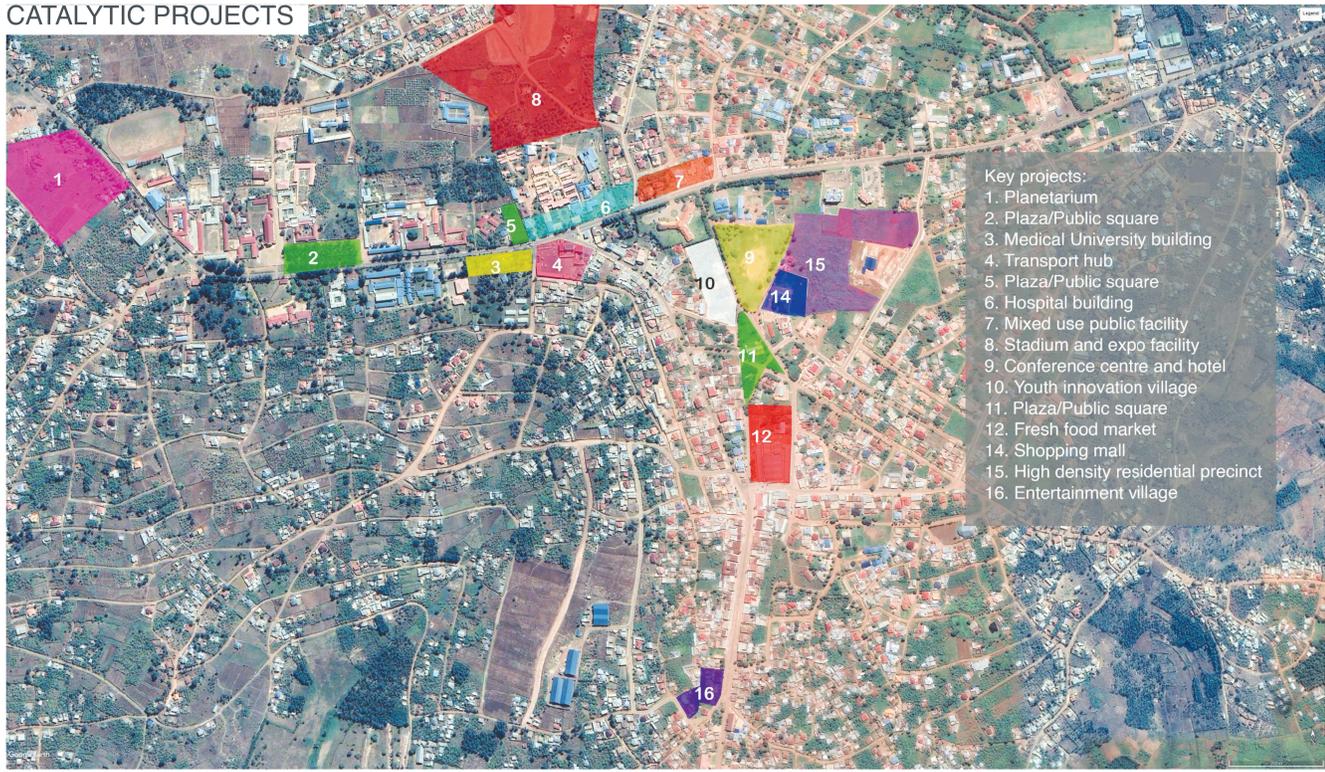
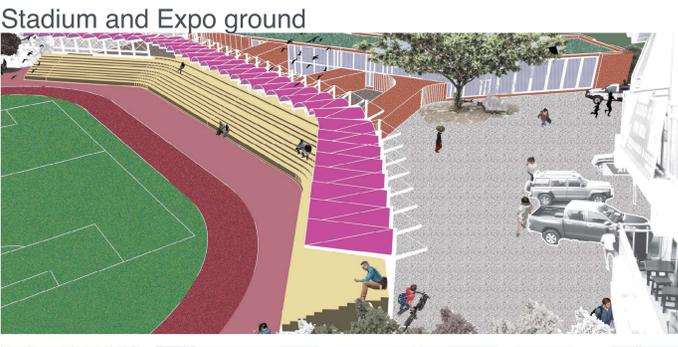
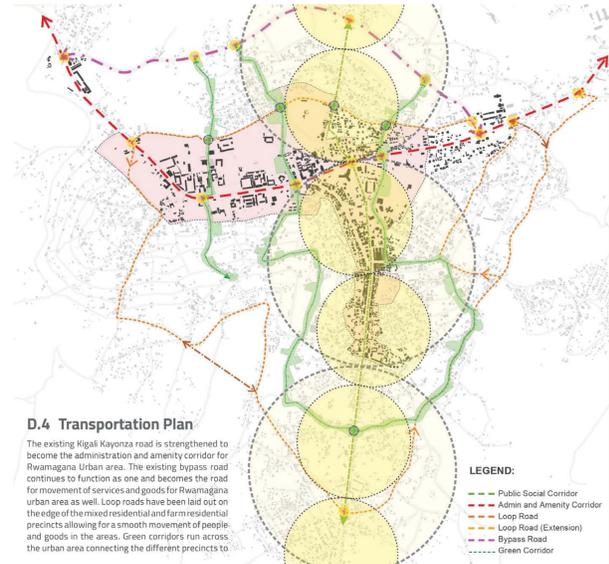
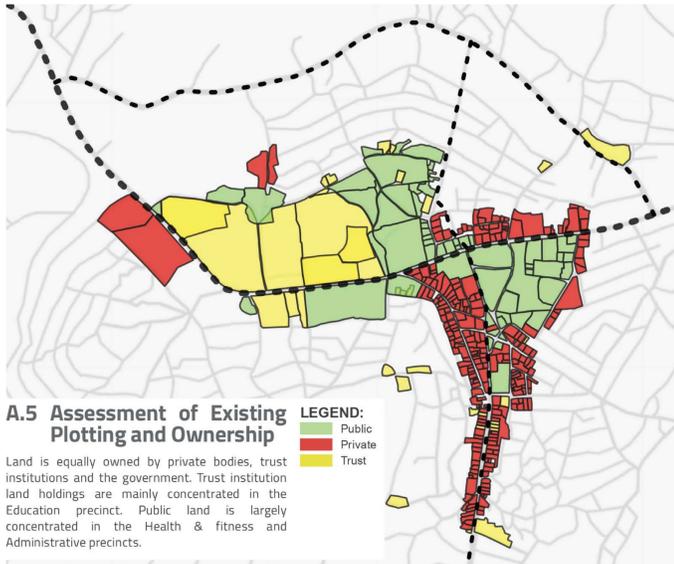
Bigaragara ko hari byinshi byakoresheye mu guteza imbere umujyi ariko bitabyazawo umusaruro neza. Igishushanyo cyimbitse mu mujyi rwagati kizafasha kumenya ibintu byose byatuma iterambere mbumbe ryagerwaho mu mujyi rwagati.

Ibikorwa biteganywa mu mujyi rwagati ni ibitekerezo byatanze kubufatanye n' abaturage n' abafatanyabikorwa. Hamwe no gushyiraho ibigo mboneragihugu n' iby' imyidagaduro, igishushanyombonera cyimbitse kizanafasha kongera igihe abashitsi bamara mu mujyi hashyirwaho;

- Ahantu hatandukanye hakorerwa ubukerarugendo.
- Guteza imbere ibikorwa by' ubucuruzi
- Guteza imbere iby'ubukerarugendo bukorerwa ku mazi n'inganda zishingiye kumusaruro ukomoka kubuhinzi
- Guteza imbere iby'inganda zishingiye kumusaruro ukomoka kubuhinzi n'inganda z'ububiko n'ubwikorezi
- Guteza imbere umucyo n'amateka
- Kuba igicumbi cy'inganda n'ubuyobozi mu burasirazuba
- Kuba amarembo y'ubwikorezi mu Rwanda

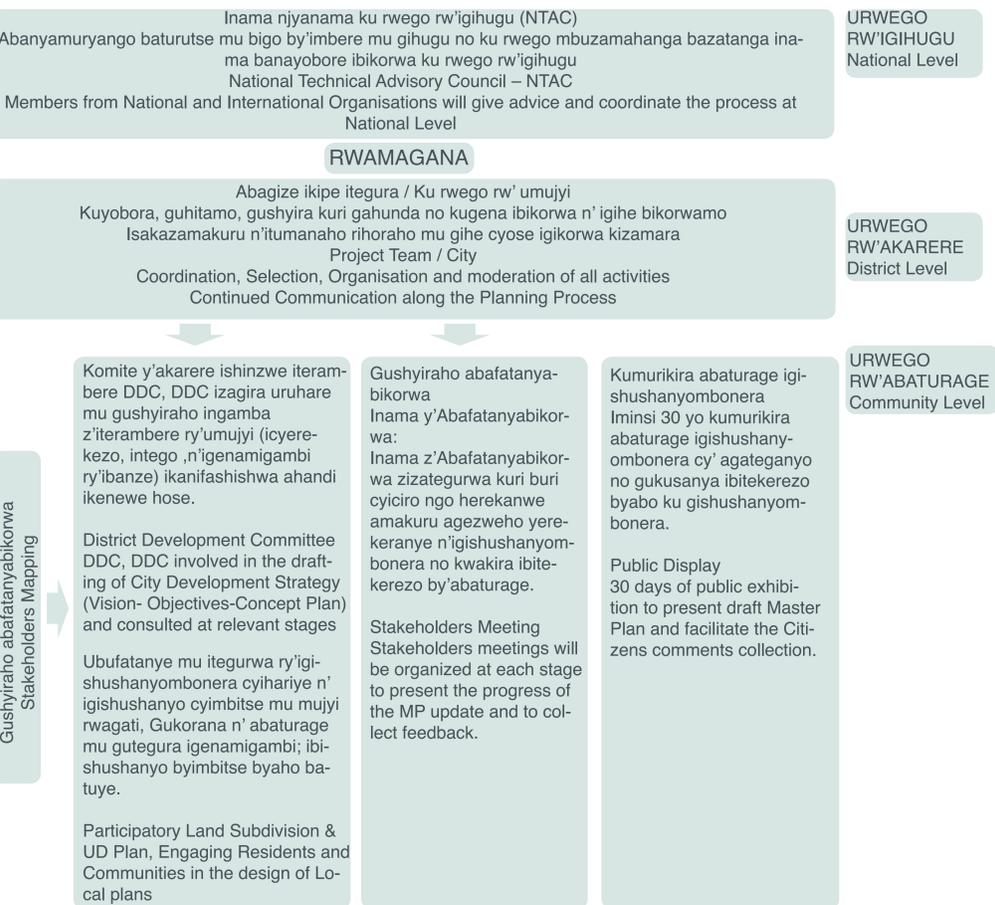
Igishushanyo cyimbitse cyo mu mujyi rwagati kitaho:

- Iterambere ry'ubukungu bishingiye kuguha agaciro ibikorwa by'ubucyerarugendo,
- Gushyiraho ahantu ho kwidagadura havugururwa ahantu nyaburanga hatandukanye, nk'imisozi, amashyamba n'imigezi,
- Kuvugurura ibikorwa rusange nk' ibigo by' urubiruko na gare y' imodoka
- Kuvugurura ibikorwaremezo hashyirwaho inzira z' abanyamaguru, n'utuyira tw'amagare

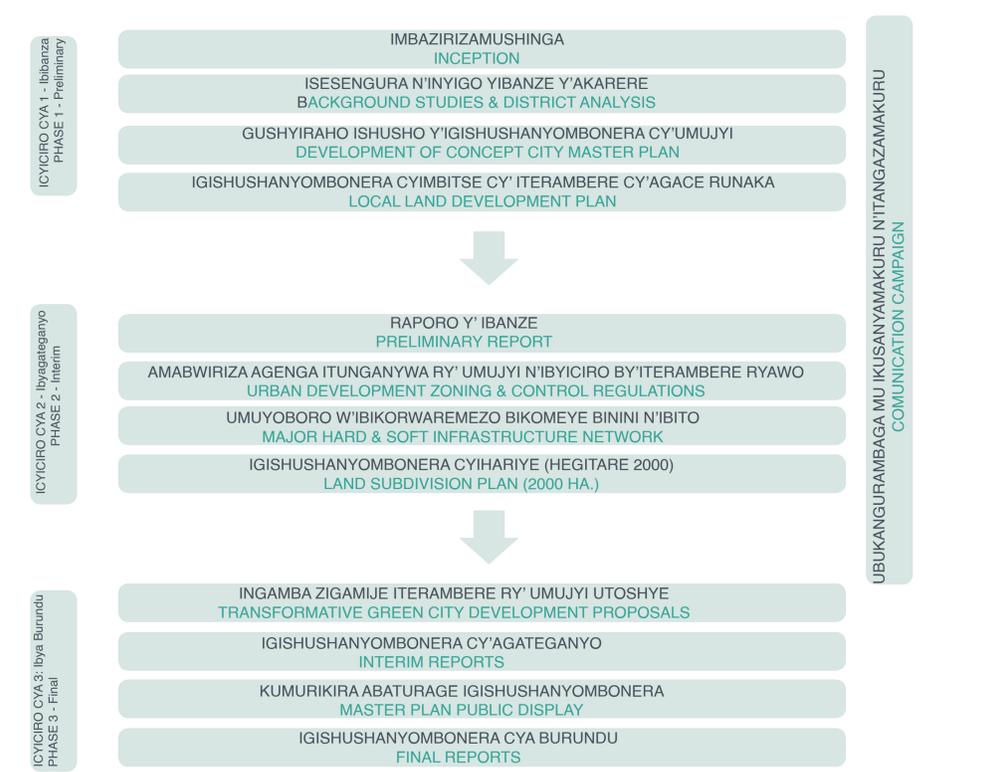




## GAHUNDA Y' URUHARE RW'ABATURAGE PUBLIC ENGAGEMENT STRUCTURE



## INZIRA Y'ITEGURWA, URUHARE RW'ABATURAGE, IKUSANYAMAKURU N'ITANGAZAMAKURU PLANNING PROCESS AND PUBLIC ENGAGEMENT & COMMUNICATION



## UBURYO BUKORESHA MW'IKUSANYAMAKURU N'ITANGAZAMAKURU COMMUNICATION CHANNELS

**IBINYAMAKURU BYANDIKWA NEWS LETTERS**

**Rwamagana Satellite City Masterplan Revision 2050**

**Rwamagana Satellite City Masterplan Revision 2050**

**Ivugururwa ry'igishushanyombonera cy'umujyi wa Rwamagana 2050**

**SONORISATION MOBILE PUBLIC ADDRESS SYSTEM**

**IMBUGA NKORANYAMBA SOCIAL MEDIA PLATFORMS**

facebook [@Rwamagana Satellite City Masterplan Revision](#)

E-MAIL [rwmaganacitymasterplan2050@gmail.com](mailto:rwmaganacitymasterplan2050@gmail.com)

twitter [@RwamaganaPlan](#)

0788553014

## INGAMBA K' URUHARE RW'ABATURAGE PUBLIC ENGAGEMENT STRATEGY

Inama nnyanama ku rwego rw'igihugu NTAC: Ababiharariye baturutse muri MINALOC MINAGRI, MININFRA, MINICOM, MINECOFIN, RALGA, RLMUA, NISR, RTDA, REMA, RDB, REG, LODA, WASAC, RISA, urugaga rwabategura ibishushanyo asosiyasiyo y'abahanga mu bwubatsi, intara n'uturere bakora nka comite igenzura ku rwego ry'igihugu bayobore banabishyire igishushanyo mbonera cy'imijyi wa Rwamagana.

Komite y'akarere ishinze iterambere DDC: Abanyamuryangobagize ihuriryo y'abafatanyabikorwan' abahagarariye abafatanyabikorwa bazashirwa mu bagira uruhare mu itegurwa ry'ingamba z'iterambere (icyerekezo, intego, n'igenamigambi ry'ibanze) inagenzurwe mu byiciro runaka;

Inama y'abafatanyabikorwa: abahagarariye ibigo by'imbere mu gihugu no ku rwego mbuzamahanga abikorera ku giti cyabo amasosiyete y'abaturage, amashuri makuru n'abashakashatsi bazatanga inama banagenzwe imitegurire y'igishushanyombonera.

Itegurwa ry' igishushanyombonera cyihariye n' igishushanyo cyimbitse mu muji rwagati: Abaturage batuye cyangwa bakorera mu muji bazagira uruhare mu itegurwa ry'ibishushanyombonera byihariye by' umujyi.

Kumurikira abaturage igishushanyombonera: Mu cyiciro cya nyuma igishushanyombonera cy' agateganyo kizagaragarizwa abaturage mu gihe cy' iminsi 30.

National Technical Advisory Council (NTAC): Representatives from MINALOC MINAGRI, MININFRA, MINICOM, MINECOFIN, RALGA, RLMUA, NISR, RTDA, REMA, RDB, REG, LODA, WASAC, RISA, Institute of Architects, Engineers Association, Provinces and Districts to work as a Steering Committee at National Level and coordinate and ensure integration among Rwamagana Master Plans;

District Development Committee (DDC): Members of Joint Action Development Forum + Selected stakeholders representatives to be involved in the drafting of City Development Strategy (Vision- Objectives-Concept Plan) and at relevant stages;

Stakeholders Meetings: Representatives of national and international organisation, private sector, civil society, academic and research institutes will be summoned for consultative meeting at each stage.

Participatory Land Subdivision & Urban Design Plans: local residents and key members of the communities will be engaged in the drafting of LSP and UD Plan.

Public Display: At final stage the outcomes of the entire Master Plan Drafting will be presented and displayed for 30 days.



## IBIKORWA BY'ITANGAZAMAKURU N'IKUSANYAMAKURU COMMUNICATION ACTIVITIES

Ikiganiro n'abanyamakuru – Mu rwego rwo gutangiza ku mugaragaro ibikorwa by'itangazamakuru n'ikusanyamakuru, no kumenyeshya ibinyamakuru byose amakuru ku gikorwa cyo kuvugurura igishushanyombonera.

Ibikorwa by'itangazamakuru n'ikusanyamakuru kuri radiyo:

Ibitangazamakuru - Inyandiko yateguwe ikubiyemo amakuru y'ibanze yerekeye igishushanyo mbonera, intego n'umusaruro witezwe biganirwaho n'abanyamakuru mu kindi kiganiro kirimo kunyuzwaho ako kanya kuri radiyo y' igihugu na radio z'abaturage mu gihe cy' iminsi 30.

Amatangazo yamamaza - Ubutumwa bugufi buri mu Kinyarwanda busobanura igikorwa cy' imurika ry' igishushanyombonera, igihe n' aho kibabera, intego yacyo na gahunda yo gukusanya ibitekerezo by' abaturage, buzatambutsa mu gihe cy' iminsi 30 hagamuje gusobanurira abaturage iby' ingenzi ku gishushanyombonera.

Radiyo - Ikiganiro kirambuye kizanyura kuri radiyo Izuba. Ibiganiro kuri televiziyo bitanga amakuru arambuye ajiyanye n'igishushanyombonera bizafasha guhuza abagitegura n'abaturage batange ibisobanuro bikomeye. Abaturage mu muji wa Rwamagana bazagira amahirwe yo gutanga ibitekerezo babaze n' ibibazo ku gishushanyombonera. Ibiganiro bitandukanye n'abanyamakuru bizanyura kuri televiziyo na radio z'abaturage.

Kumurikira abaturage igishushanyombonera – Hazabaho iminsi 30 y'imurika ry' igishushanyombonera cy' agateganyo ku batwaga, no gufasha kumva neza igenamigambi ryacyo no gukusanya ibitekerezo by'abaturage ku gishushanyo mbonera mbera y' uko hasohoka icya burundu.

Press conference – to launch the Communication activities and ensure a media press coverage on the Master Plan review processes

Radio Communication activities:

DJ mentions - A prepared text containing key information about the Master Plan, the objective and expected outcomes commented by presenter during a live talk show and aired on community Radios.

Spot Advertisement - A short message in Kinyarwanda advertising the Public display event and its objectives, the comments collection, and let the listeners have a brief overview of the Master Plan, aired for 30 days.

Radio talk show - Live coverage on Radio Rwanda. Radio shows provide further information regarding the Master Plan, and help to visually connect the MP key actors with citizens/viewers. Audience from the Rwamagana City also have an opportunity to share comments and feedbacks.

Public Display – a 30 days public exhibition in the Districts to show the main outcomes of the Master Plan process and facilitate the understanding of the Plan for the Citizens to provide their comments.

## TWIRINDE KORONAVIRUSI

**The Do's**

- Wear your mask when in public to prevent the spread of COVID-19
- Wash your mask with warm soapy water and iron when dry
- Cover your face with a mask from the nose, mouth to the chin
- Do not share your mask with anyone else

**The Don'ts**

- Do not remove or loosen your mask when speaking, coughing or sneezing
- Do not touch your nose or mouth when wearing your mask
- Do not buy your mask from uncertified places. They are only sold in pharmacies, supermarkets and any other places approved by Rwanda FDA
- Masks are sold in sealed packages from the manufacturer. Do not try them before purchasing
- Do not share your mask with anyone else

**IRINDE KURAMUKANYA IRINDE KWIKORAKORA**

40-60 seconds  
Dukarabe intoki kenshi kandi neza

Ambara agapfukamunwa buri gihe uri ahahurirwa n'abandi bantu

Intera ya metero imwe hagati y'abantu.

114 | 250 788 20 20 80 | [communications@rw.gov.rw](mailto:communications@rw.gov.rw) | [@RwandaHealth](#)