

RAPID PLANNING



SUSTAINABLE INFRASTRUCTURE, ENVIRONMENTAL AND RESOURCE MANAGEMENT FOR HIGHLY DYNAMIC METROPOLISES

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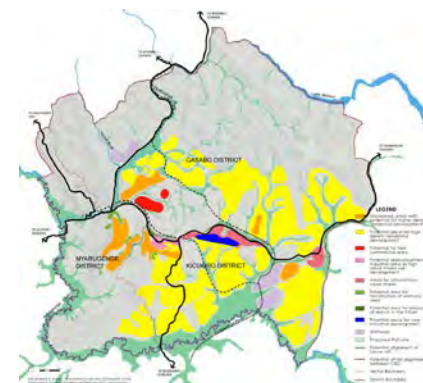
Urban Development and Environmental Planning in Kigali
Task 7.1 - Review of spatial planning and urban development systems in Kigali
November 09, 2016, Kigali – Stakeholder Conference 2016

- Overview: CoK Master Plan Development (2013)
- Challenges: Housing Demand / Affordability Gap in Kigali
- Reality: Current Development Projects in the “Formal” Sector

City of Kigali Master Plan 2013 (CoK and Surbana, Singapore)

Table 5.7 Proposed Kigali Broad Land Requirements - 2025 & Year X

		% OF URBAN EXISTING	% OF URBAN 2025	% OF URBAN YEAR X
PROTECTED FOREST / WETLAND/ WATERBODY		33%	75%	65.1%
AGRICULTURE		50%		
URBANIZED AREA (%)		17%	25%	34.9%
AREA		731.27	731.27	731.27
POPULATION		1.2 MILLION	2.9 MILLION	5 MILLION
GROSS DENSITY		1670 P/KM ²	3950 P/KM ²	6850 P/KM ²
GROSS URBAN DENSITY		11000 P/KM ²	15850 P/KM ²	19600 P/KM ²
URBANIZED AREA	RESIDENTIAL	9%	75 KM ² (41 %)	113 KM ² (44%)
	INDUSTRIAL	0.4%	24 KM ² (12.5 %)	51 KM ² (20%)
	COMMERCIAL + MIXED USE	0.4%	3 KM ² (1.5 %)	5 KM ² (2%)
	TRANSPORTATION, INFRASTRUCTURE & UTILITIES	3.1%	44 KM ² (24 %)	46 KM ² (18%)
	SPECIAL USE	1.6%	7 KM ² (4 %)	8 KM ² (3%)
	URBAN RECREATIONAL OPEN SPACES	0.2%	18 KM ² (10 %)	20 KM ² (8%)
	PUBLIC FACILITIES	1.6%	11 KM ² (6 %)	13 KM ² (5%)
	TOTAL BUILT-UP AREA	119 KM ²	182 KM ²	255 KM ² (100%)



Development Constraints and Opportunities

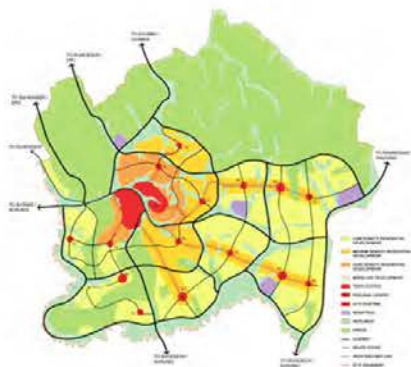


Fig.2.1 Kigali City Concept Structure

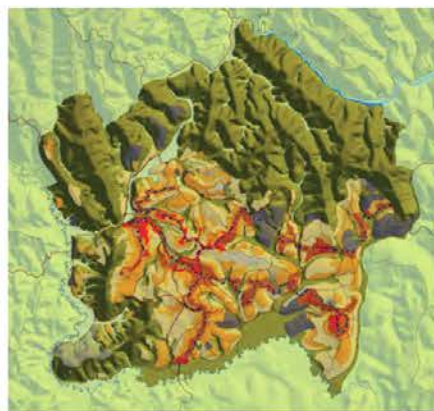


Fig.2.2 Kigali City Concept Plan

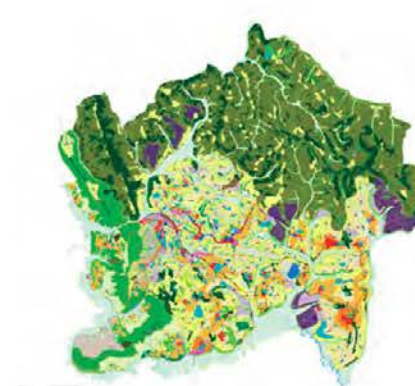


Fig.2.3 Kigali City Detailed Master Plan

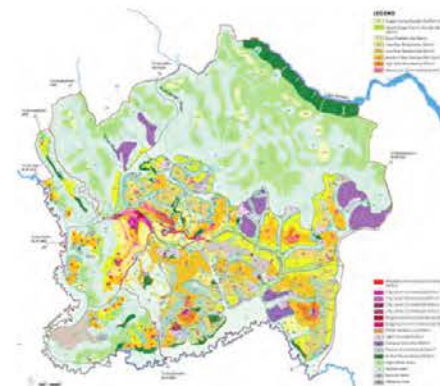
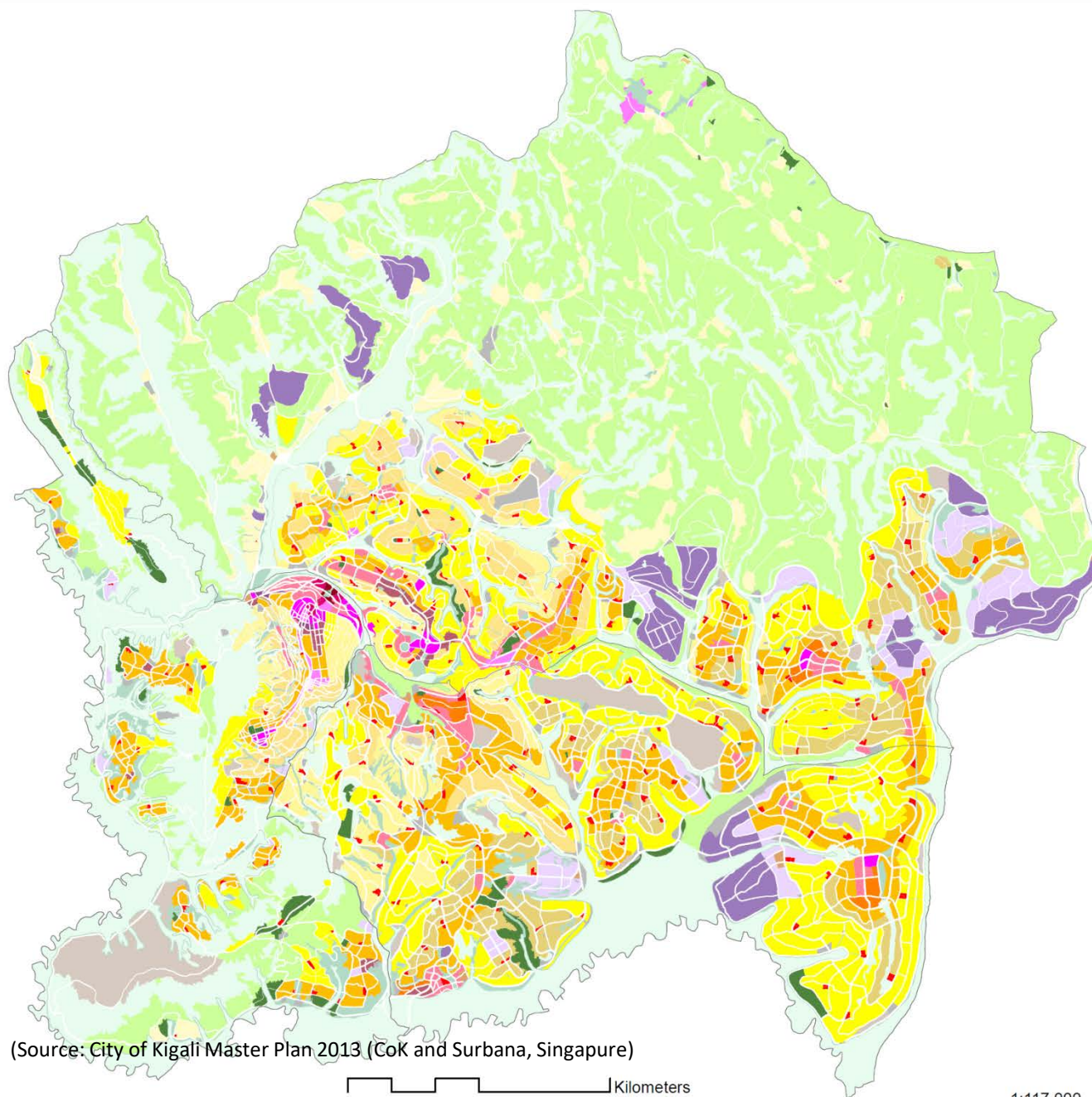


Fig.2.4 Kigali City Zoning Plan

(Source: City of Kigali Master Plan 2013 (CoK and Surbana, Singapore))

City of Kigali Zoning Plan (Regulatory development control plan as legal document)



Legend

- C1 - Mixed Use Commercial District
- C2 - Community Level Commercial District
- C3 - City Level Commercial District
- C3A - City Level Commercial District
- C3B - City Level Commercial District
- C3C - City Level Commercial District
- C4 - Regional Level Commercial District
- C4A - Regional Level Commercial District
- C5 - Retail Warehouse District
- I1 - Light Industrial District
- I2 - General Industrial District
- IN - Infrastructure
- Road
- P1 - Passive Recreational District
- P2 - Active Recreational District
- P3 - Agriculture District
- P4 - Protected Area District
- R1 - Single Family Residential District
- R1A - Mixed Single Family Residential District
- R1B - Rural Residential District
- R2 - Low Rise Residential District
- R2A - Low Rise Residential District
- R3 - Medium Rise Residential District
- R4 - High Rise Residential District
- SP - Special Use

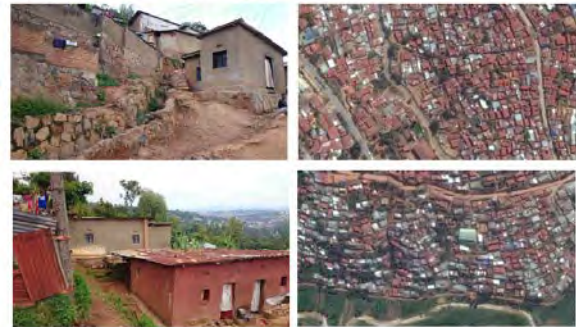
(Source: City of Kigali Master Plan 2013 (CoK and Surbana, Singapore))

0 2 4 8 Kilometers

1:117,000

Housing Typology in Kigali (Main Categories)

- Currently, Kigali City has broadly three types of housing:



High density packed unplanned housing
~ 62.5% of the population is living in unplanned/informal settlements.

It is also estimated that 40.5% of the people living in unplanned areas are renting the accommodation.

Planned housing (usually in the form of low density or single family homes)

Government sponsored Imudugudus
(planned rural villages)

Kigali Housing Demand 2012 to 2022 (CoK Housing Study 2012)

Kigali's affordable housing challenge

- Kigali's population is currently at 1.3 million people and is projected to reach 3.8 million by 2040.
- Kigali needs to build 31,000 housing units annually
 - according to a study by the City of Kigali, the Ministry of Infrastructure, and the European Union (EU) indicated that Kigali could face a housing deficit of 344,000 homes in 2020.
- The annual supply in the formal markets is 1,000 units
 - mostly targeted to the high end market segment, leaving the majority of city dwellers without decent homes.
- The city low and middle-income earners make up about two-thirds of all new housing demand.
- Rwandans earning Rwf100,000 or Rwf300,000 monthly salary can hardly afford the cheapest homes as it is currently operating, supplies around 1,000 DU per year, but the city will demand around 31,000 DU per year.
- the majority of affordable homes on the market are between Rwf20 million and Rwf28 million each.

1	Assessment of Existing Housing Stock (2011)	DU	%
1.1	In Good Condition	42.710	19,15%
1.2	To be Upgraded	71.487	32,06%
Subtotal A (1.1 + 1.2)		114.197	
1.3	To be Replaced	108.803	48,79%
		223.000	100,00%

2	Meeting Housing Needs in Kigali 2012-22	DU	%
2.1	Social Housing	43.436	12,62%
2.2	Affordable Housing	186.163	54,11%
2.3	Mid-range Housing	112.867	32,80%
2.4	Premium Housing	1.601	0,47%
Subtotal B (2.1 + 2.2 + 2.3 + 2.4)		344.068	100,00%

3	Meeting Housing Needs in Kigali 2012-22	DU	%
Subtotal A	Existing Housing Stock	114.197	24,92%
Subtotal B	New Dwellings	344.068	75,08%
Total		458.265	100,00%

Main factors responsible for this affordable-housing gap

- Kigali land prices are highly inflated
 - the result of “speculation” (landownership) by higher income groups, who lack the (financial / project managing) capacity for investment in housing projects.
- An underdeveloped financial sector
 - mortgage rates are high, typically 17 or 18 percent, putting home ownership out of reach for many otherwise well-off families.
- Rwanda’s limited industrial capacity and location 1,000 miles from the coast
 - make the cost of construction materials, despite an abundance of low-wage labor, abnormally high.

Q5	13	1.500.001	2.000.000	2.193	4.901	1%
	14	2.000.001	2.500.000	1.107		
	15	2.500.001	<	1.601		

30.9.2015

The NewTimes
Rwanda's Leading English Daily

Should luxury homes be the priority for RSSB?

By: EDWIN MUSONI



An artistic impression of the houses at Vision City estate. One needs to be earning at least Rwf4m to afford the least expensive of them. Courtesy.

An uphill task that awaits the new Director General of the Rwanda Social Security Board is to convince subscribers to the National Pension Fund that investing in high-end homes is viable at the moment.

The announcements that Vision City homes are to be constructed at the posh Gaculiro suburb are now up for sale, has angered a cross section of the City's dwellers who feel the pricing of the houses is way out of reach.

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READ ALSO: Will you ever own a home in Kigali?

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<http://www.newtimes.co.rw/section/Printer/2014-10-29/34852/>

22.9.2015

Vision City project to deliver 500 housing units by April next year - The New Times | Rwanda

The

ect to deliver 500 y April next year



at Vision City estate. (All photos by



“Vision City” high-end residential and commercial development

- Vision City is the biggest housing project in Rwanda to date
 - high-end residential and commercial development, located in Kigali’s uptown neighbourhood of Gaculiro.
 - in line with Kigali’s ambitious master plan, which seeks to transform the city into a “center of urban excellence,” the project will be a “reference point for contemporary Rwandan living.”
 - flagship project of Ultimate Developers Ltd., the country’s largest real estate developer.
 - financed by the Rwanda Social Security Board (RSSB), the pension body.
- The project initial phase contains 504 units
 - ranging from luxury villas and apartments.
 - scale up to 4,500 units, to be built in 4 phases over a period of 8 years .
- Town center in addition to residential housing
 - will serve as the commercial hub of the estate.
 - will be WIFI-connected.
 - with commercial and retail facilities, a supermarket, restaurants, office complex, a luxury three-star hotel and convention center.

“Vision City” high-end residential and commercial development

- Vision City is “self-sustaining”
 - While property developers focus on building the perfect house, Ultimate Developers Ltd (UDL) have gone ahead to anticipate the needs of the home buyers beyond the four walls of their homes.
- Town center in addition to residential housing
 - will serve as the commercial hub of the estate.
 - will be WIFI-connected.
 - with commercial and retail facilities, a supermarket, restaurants, office complex, a luxury three-star hotel and convention center.
- Open communal places
 - Parks with well manicured grass and trees, with lighting and with an irrigation system,
 - Basketball pitches,
 - Pedestrian walk paths that can double as jogging tracks,
 - Peripheral parking lots,
 - Amphitheatre that can accommodate up to 400 people.

“Vision City” high-end residential and commercial development

■ Infrastructure Services

- All roads are tarmacked with street lights on every stretch and corner.
 - Fibre optic cables have been laid down.
 - Fire safety network
- ## ■ Water shortage will not be problem for residents.
- Massive underground water reservoir of up to 2.6 million litres,
 - Above the ground reservoir of 200,000 litres,
 - Water tanks installed on top each unit.

- <http://hope-mag.com/index.php?com=news&option=read&ca=6&a=2096>
- <http://www.newtimes.co.rw/section/article/2016-09-19/203653/>



“Vision City” high-end residential and commercial development

- Target Customers

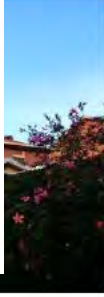
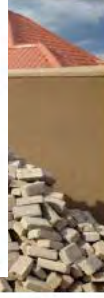
- Local or international homebuyer who are looking to own a premium home in a prime neighbourhood
 - most affordable unit (two-bedroom apartment), will cost 124 mill. RwF,
 - most expensive (five-bedroom luxury villas) will run close to 320 mill. RwF.

- Cost of Construction

(Wang Zenkhun, project manager of China Civil Engineering Construction Corporation, Liliane Mupende, CEO of Ultimate Developers Ltd (UDL))

- Approximately 100 Chinese and 1,500 to 3,000 skilled and semi-skilled Rwandan workers
 - To a certain extent, access to skilled labour has been a hindrance for the speedy progress of the project
- Forced to import 70 percent of the construction materials
 - “Materials are the No. 1 expense”
 - Cement sourced from Uganda and Tanzania.
 - Finishing products from Turkey, Dubai and China.
 - For materials from China, “the transport to Kigali from the port will be twice the cost of transport in the sea.”
 - Future phases of the project: That this is slowly changing with the integrated initiatives to promote local material and local production.

Q5	13	1.500.001	2.000.000	2.193	4.901	1%
	14	2.000.001	2.500.000	1.107		
	15	2.500.001	<	1.601		



Gated Middle-class Development (2-story Duplex Villas - 70 mill. RwF) by local developer "Kabaija"



Kicukiro-District – Niboye-Sector – Gata

Karumeyi Village Estate by JS International (JSI) – Pre-fabricated Housing



- Development plan of 256 houses
 - Constructed in the light steel technology.
 - The houses are paired with one level.
 - Living room, dining room, kitchen and an extra self contained room on the ground floor;
 - 3 bedrooms and 2 bathrooms upstairs
 - Unit starting from \$70,000
 - The construction work is set to start in August 2015, the period of execution is three months, and the sample houses are already available.

(<http://www.karumeyivillage.com>)

Kigali's affordable housing challenge

"Will you ever own a home in Kigali?"

- The 2012 study of Housing in Kigali indicated that an average modern bungalow that a middle-income earner would ideally own costs about Rwf70 million in the city.
- The average take-home salary for the middle-income earners ranges from Rwf200,000 to Rwf600,000 and with ever-increasing cost of living, the Rwf70 million house is out of equation for the majority in this bracket.

Since 2008, only two estates that could benefit the middle class have been put up:

- They include the 250 low cost houses in Batsinda in Gasabo District that were built in a joint effort of City of Kigali, Rwanda Social Security Board and former Rwanda Housing Bank.
- The other estate is a 42-apartments in Palm Estate, recently constructed by Ujenge Developers. An apartment in the estate ranges between Rwf28 million and Rwf45 million.

Affordable Housing Projects (2008 to 2014) Batsinda I and Palm Estate



Batsinda – the pilot community

The Model House concept is finding practical application in the construction of some 1,000 planned homes in the *Batsinda* neighborhood. Located in Kigali's *Kinyinya* sector, where extensive development is planned for low- and medium-standing homes, by 2008 more than 250 low-cost houses were built by the National *Engineering Regiment* at a unit cost of approximately \$6,000, and most are already occupied (Photo 4). The city collaborated with the retirement fund *Caisse Sociale* and the *Rwanda Housing Bank* for financing of the construction and mortgages. The neighborhood will become a model for sustainable and affordable housing through its use of local materials and renewable energies, as defined by the Model House.



Photo 4 - *Batsinda* pilot community under construction, February 2008 (1°54'2.29"S, 30°4'36.61"E).

The first residents of *Batsinda* are a community from the *Muhima* sector in central Kigali.



Batsinda II - Affordable Housing Project (600 units - 20 to 25 million Rwf)

- Construction of 4,000 low-cost housing units new mass housing developments is due to begin in the next few years.
 - 600 affordable housing units under construction in Batsinda,
 - 1,000 units in Kibenga and Cyaruzinge both in Ndera, Gasabo District,
 - other units will be built in Busanza, Nyamirambo and Ndera sectors.
- Government subsidies for basic infrastructure
 - Unlike high-end projects, which generate adequate returns without the need for state support, these developments will benefit from government subsidies for roads, water, electricity, sanitation and other basic infrastructure.
- First project - Batsinda II Estate, a 600-unit “low-cost” development
 - to be financed by RSSB and built by the contractor Horizon,
 - will be an “experimental project” to prove the viability of the concept and help lure private-sector interest in similar state-supported projects in the future.
 - Units, most of them three-bedroom apartments, will cost approximately 25 million RwF.
 - RSSB will help connect buyers to sources of finance, to offer more-favorable lending terms than are currently available on the market.
 - *Even if Batsinda proves to be a viable model, however, such prices are still far beyond the means of most Kigali residents.*

<http://www.newtimes.co.rw/section/article/2016-05-31/200338/>

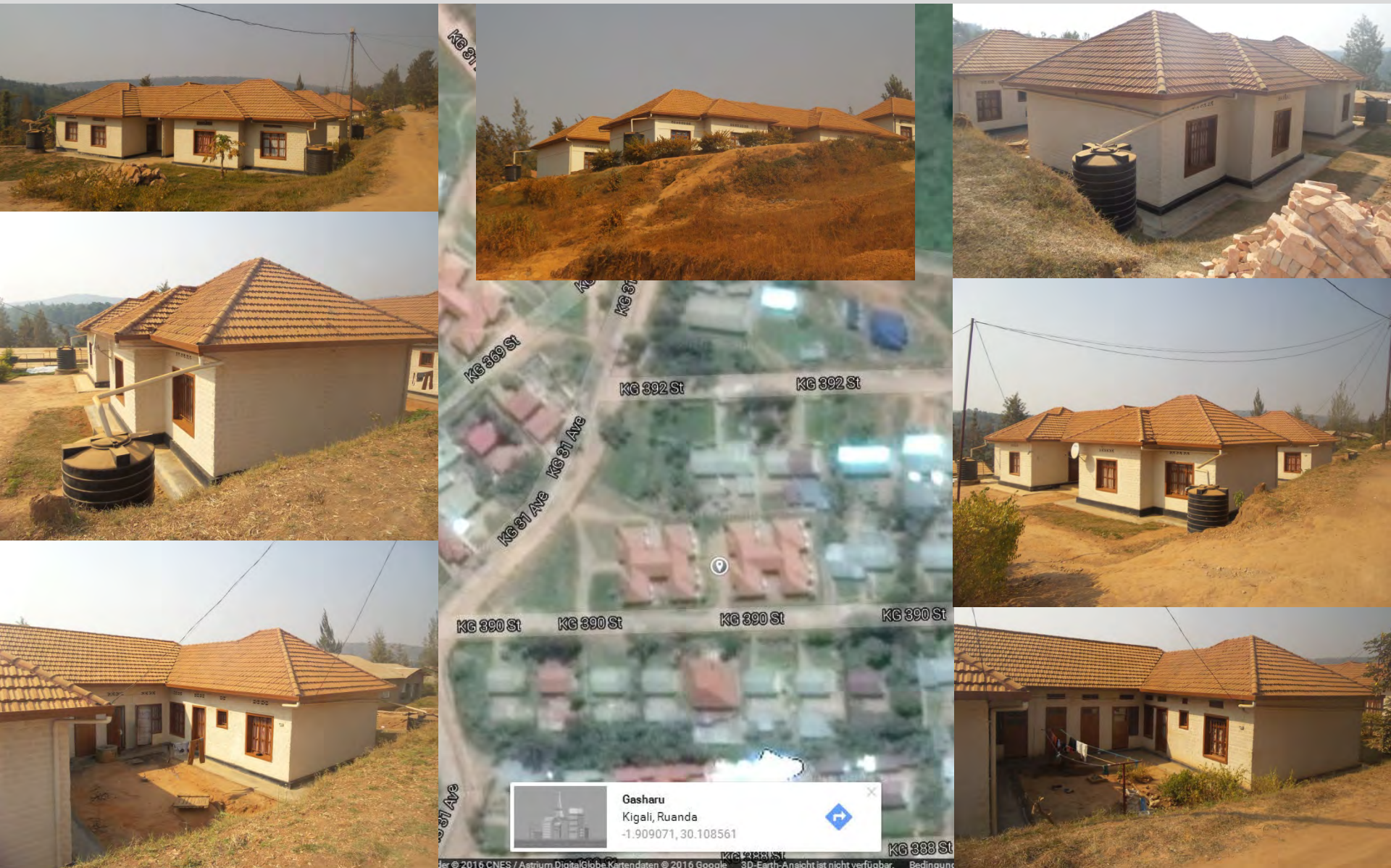
<http://america.aljazeera.com/articles/2015/6/15/in-push-to-modernize-rwandan-capital-struggles-to-house-its-population.html>

Source: <http://www.skyscrapercity.com/showpost.php?p=128303542&postcount=267>

Affordable Housing Project (Units 25 mill. RwF , 200 total/100 sold) by Developer “Joseph”



Affordable Housing Project (Fourplex-Homes - 25 mill. Rwf) by “Unknown” Developer(s)



(Gasabo-District, Kinyinya-Sector, Gasharu-Cell)

Affordable Housing Project (Fourplex-Unit 25 mill. Rwf) by Abadahigwa ku Ntego Ltd, a subsidiary company of the Kigali Veterans Cooperative Society (KVCS)



<http://www.newtimes.co.rw/section/article/2016-05-31/200338>

(Kicukiro District - Masaka-Sector - Kabuga-Cell)

Kigali Housing Demand 2012 to 2022 (by Income Groups) (EuropeAid-Study 2012)

Quintile	Segment	Monthly HH Income RwF		TOTAL DU	Total DU per Quintile	Proportion
		From	To			
Q1	1	<	100.000	147.761	268.865	78%
	2	100.001	200.000	81.838		
	3	200.001	300.000	39.266		
Q2	4	300.001	400.000	22.914	46.239	13%
	5	400.001	500.000	14.100		
	6	500.001	600.000	9.225		
Q3	7	600.001	700.000	7.035	15.809	5%
	8	700.001	800.000	5.147		
	9	800.001	900.000	3.627		
Q4	10	900.001	1.000.000	2.599	8.254	2%
	11	1.000.001	1.100.000	1.987		
	12	1.100.001	1.500.000	3.669		
Q5	13	1.500.001	2.000.000	2.193	4.901	1%
	14	2.000.001	2.500.000	1.107		
	15	2.500.001	<	1.601		
TOTAL DU				344.068		

Thank You

