Decarbonization of the Transport Sector and Urban Form

City of Kigali: The Journey towards Sustainable Urban Mobility
The Central Business District at Muhima, the agricultural farmlands in Gasabo and Kicukiro, and the Free Trade Zone in Gasabo are the major contributors to Kigali’s fast growing economy.

730 km²
City of Kigali Area 2013

3 districts
Nyarugenge, Gasabo and Kicukiro

35 sectors
10 sectors in Nyarugenge district
15 in Gasabo and 10 in Kicukiro

1.3 million
Household Size: 4.8
(City Population 2013)
Socio demographic Projections

Kigali City Projected Population

Population size
2011: 1.22 million
2040: 3.8 million
Ultimate: 5 million

Household size
2011: 4.7
2040: 3.85

Employment
2011: 0.5 million
2040: 2.3 million jobs
Preferred Concept Option

SELECTED CONCEPT: RADIAL CITY

Key aspects:

- Decentralized growth nodes
- Development is well distributed along transit corridors
- Regional nodes along each transit corridor
Envisioning the Future of Kigali - 2040

**Vision**

“The Centre of Urban Excellence”

Social Inclusion, Sustainable Development, Economic Growth

**Roles for the 3 districts of Kigali**

- **Nyarugenge**: “The Financial Hub”
- **Gasabo**: “The Administrative Centre”
- **Kicukiro**: “The Knowledge Hub”

**GOALS FOR KIGALI**

1. City of character, vibrant economy and diversity
2. City of green transport
3. City of affordable homes
4. City of enchanting nature & biodiversity
5. City of sustainable resource management

Total Area: 731 km²
City Pop.: 1.3 million (2011)
Household size: 4.7
Goals:

2: CITY OF GREEN TRANSPORT

- 70% public transit modal share
- 10% green trips (non-motorised trips)
Promoting Non-Motorized Transport

Non Motorized Transit
- Green network, cycling etc..

Dedicated Space for Pedestrians and Bicycles
Intelligent Transport Systems

**Efficient Road Network**
- Area-wide traffic control
- Long-distance traffic management
- Re-routing guidance
- Variable speed controls
- Ramp metering
- Incident detection and management
- Driver information

**Vehicle Use Management**
- Access control
- Road user charging
- Congestion charging

**Better Public Transport**
- Journey planning
- Real-time passenger information systems
- Bus traffic priority
Ongoing Decarbonization Strategies

Transport Infrastructure Improvement
Transport Infrastructure Improvement

- Improvement of the existing main Corridors from single to dual carriage ways in order to initiate dedicated bus lanes for PT priority in peak hours and upgrade of the cross sections by adding green space, footpath and cycle path where applicable.
Cobblestone paved roads in Neighbourhood road network

Asphalt concrete paved roads in Neighbourhood street network
LED Public Lights on all paved road network
Public Transport Service Improvement

- More than 22 new routes have been created following 41 initial routes and the existing ones extended to reach residential areas in a bid to reduce walking distances to the nearest bus stops.

- 4 Zones were formed: KBS -Zone I, Royal-Zone II, RTF-Zone III, RFTC-Zone IV

- Urban peripherals have been given public transport services.

- Each transport zone has a dedicated operator who is held accountable in case of poor service delivery.

- A number of bigger buses have been purchased replacing the former smaller minibuses which serve the feeder routes.

- An introduction of internet in buses and E-Ticketing was done based on the existing fiber internet propagation.
Working hours were set to start at 5 AM and end at 11PM

A system of queueing based on arrival time (first come, first served) has been created which encourages order at bus stops and therefore enhancing passenger safety and security in the terminals. Some of the terminals were upgraded to separate franchised route loading and offloading.
Pedestrianization of the CBD

- The CBD Pedestrianization [Car Free zone] initiative was started by the City of Kigali in its pursuit to become a Centre of Urban Excellence as envisioned by Kigali City Master Plan 2013 report and thus recognizes the importance of introducing public spaces in the city.

- As the City of Kigali embarks on the journey to become a green, friendly, liveable, economically successful and socially equitable place, the provision of public spaces becomes more and more urgent.

- It is from this background, the car free zone was introduced in the KN 4 Avenue to be transformed into a pedestrian public space in August 2015. Following its establishment as a pedestrian space, a conceptual masterplan was drafted and recently a detailed design was completed.
The creation of a pedestrian corridor along this space located at KN Avenue 4, also identified as Imbuga City Walk, is the first step of this long-term objective and will serve as an example for future pedestrian corridors in Kigali CBD as well as in other parts of the City.
Existing situation

Future situation
The City of Kigali initiated a Car Free Day event. One major road corridor is closed and made free of vehicular traffic. This event was introduced in May 2016 with an aim of “Encouraging people to walk, jog and cycle as part of Active Transport and health lifestyle promotion.

The move is aimed at encouraging mass sports and exercise while introducing the much awaited green transport and green city initiatives as per the City of Kigali’s goals.
Much more benefits accrue from having a car free day event in the City of Kigali. During this event residents not only walk, jog and cycle enjoying their time out without any fear of being knocked by cars or motorcycles, but also they get opportunity to take medical tests and advise free of charge. A combination of three first editions reveals that over 10,000 persons have taken part in the medical tests.
Thank You !!

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