SSATP
Africa Transport Policy Program

Changing the face

OF TRANSPORT IN AFRICA

Regional Integration

Urban Transport & Mobility

Road Safety

The role of public transport

in sustainable urban development in Africa

SUMMARY

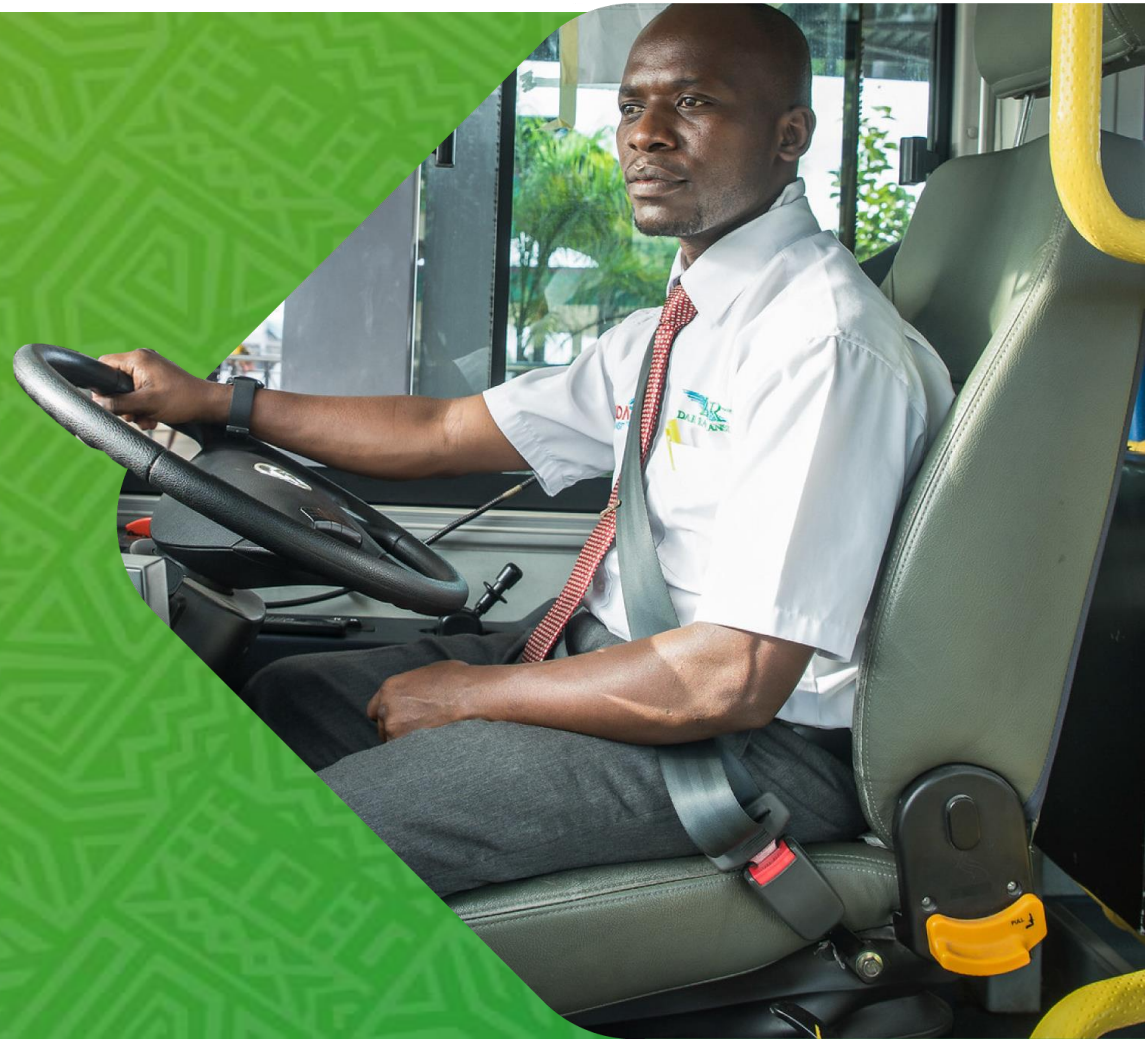
1. Urbanization and mobility challenges

2. Responses to the mobility crisis

3. Role of public transport in sustainable development in Africa

4. Mobilizing finance for mass transport systems

1. Urbanization and mobility challenges

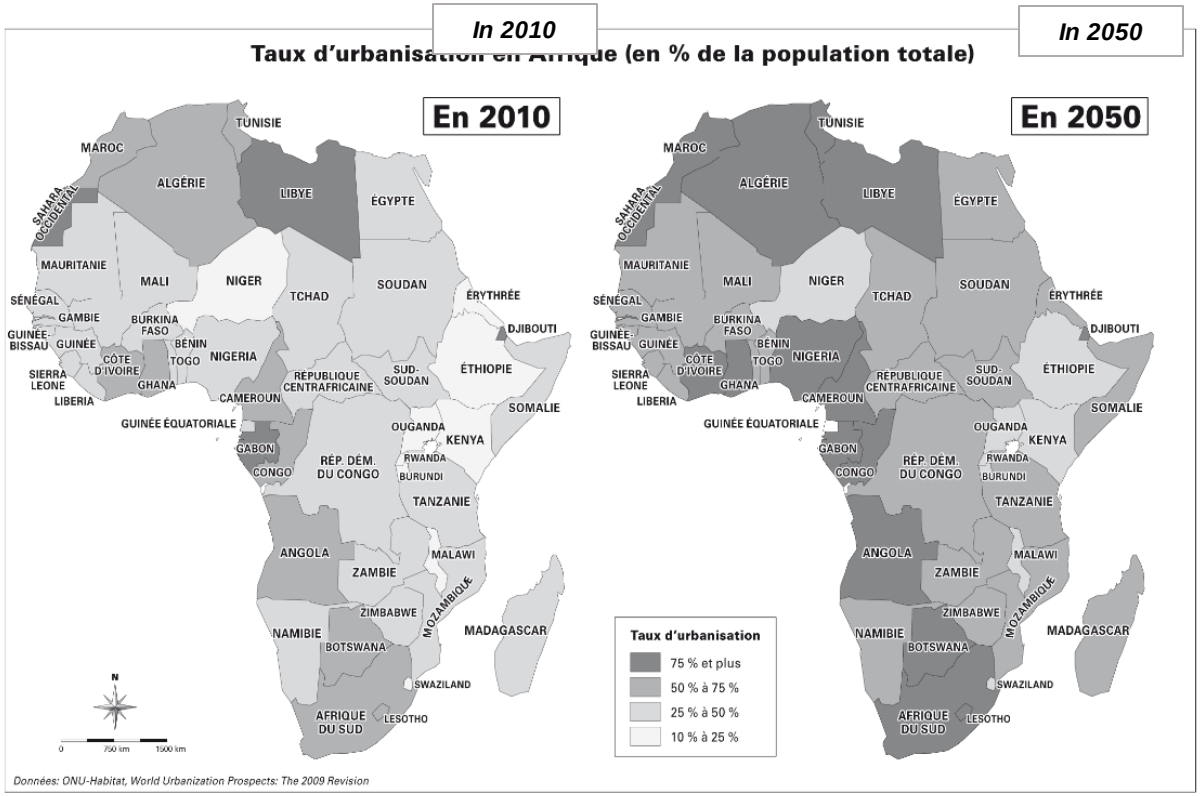


1. Urbanization and mobility challenges

1.1 Rapid urbanization in Africa

Africa has one of the highest urbanization rates in the world.

- Urbanization rate in 2010: 39%.
- Projections in 2050: 60%.



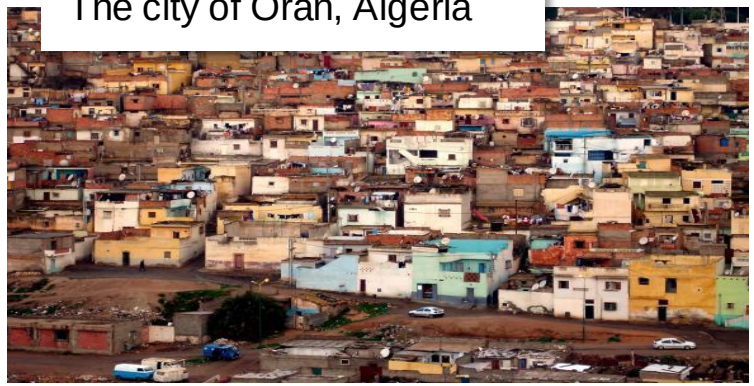
1. Urbanization and mobility challenges

1.2 Impacts on mobility

This strong urbanization rate combined with:

- Poor urban design
- Insufficient and poor quality urban road networks
- Weak mass public transport policies

The city of Oran, Algeria



Road investment, but poor traffic management (Senegal)

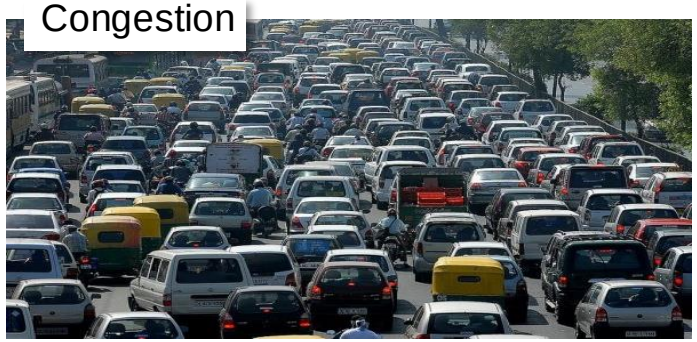
Lead to major spatial transformations and increased transport needs, thus placing new travel trends and urban transport and mobility issues at the core of the discussion.

1. Urbanization and mobility challenges

1.2 Impacts on mobility (Cont'd)

Informal public transport

Congestion



Poor road conditions in Guinea

Road safety issues

Pollution

Investments are not optimized, example of LRT in Addis Ababa (Ethiopia)

Waiting time of public transport users in Conakry (Guinea)

Waiting time of private car drivers in Abidjan (Côte d'Ivoire)

1.3 Other development impacts

Economic

- Direct costs of congestion/accidents
- Limited access to employment opportunities and services
- Loss of city attractiveness and competitiveness

Social

- Increased weight of transport expenditure on household budgets
- Inequality of access (physical and financial)
- Women and people with disabilities

Environmental

- Impact on the aesthetics and hygiene of the city
- Contribution to climate change
- Particulate matter pollution - health impacts

The total cost due to these impacts on the economy is estimated at 2% to 4% of a country's GDP.

1. Urbanization and mobility challenges

1.4 African cities: Diverse figures/similar issues

- ☑ Lack of awareness
- ☑ No leadership for urban mobility
- ☑ No organization
- ☑ Lack of civil society engagement
- ☑ Short-term focused private sector
- ☑ Lack of sustainable resources
- ☑ Suboptimal projects and management
- ☑ Need for capacity building
- ☑ Lack of data
- ☑ No plans or not implemented

2. Responses to the mobility crisis

2.1 Traditional approaches focused on infrastructure

The challenges of urban mobility in Africa require new solutions. Until recently, solutions focused on:

- increasing road capacity
- improving public transport facilities
- improving traffic flow

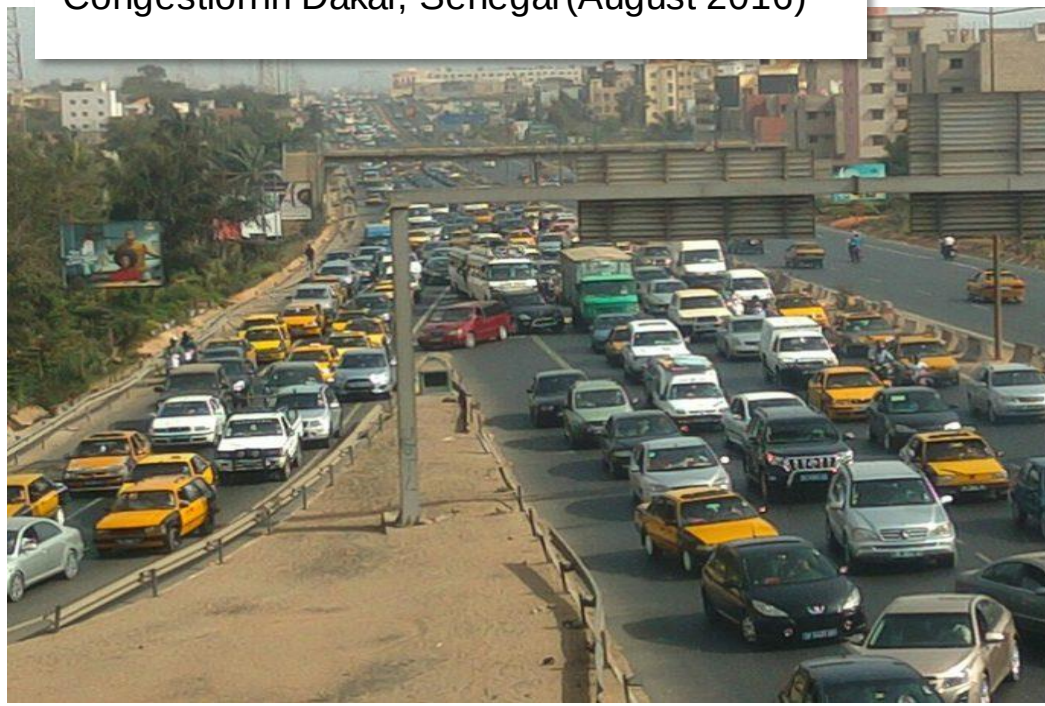
Ad-hoc solutions, but no structural changes...

Informal Public Transport

Formal Public Transport

Formalization project that replaced old informal public transport fleets with renewed bus fleets in Dakar. Launch date: 2005

Congestion in Dakar, Senegal (August 2016)



2.2 An integrated approach is the key… Infrastructure + Policy focused

The Holistic "EASI" Approach:

ENABLE

- Establishment of a regulatory, institutional and financial framework
- Capacity building

AVOID

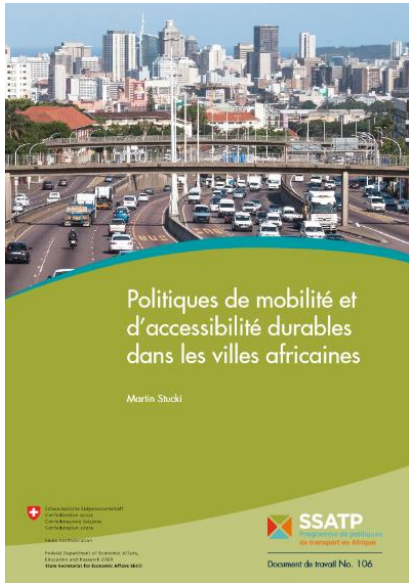
- Act on / reduce travel demand
- Reduce travel time / distance

SHIFT

- Decrease the use of private cars
- Develop / promote alternative modes of transport

IMPROVE

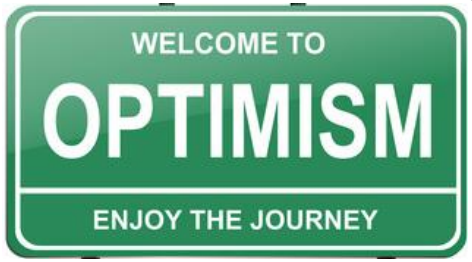
- Improve the efficiency of transport modes / inter-modality
- Promote the integration of new technologies



Source :
SSATP, WP106

2.3 EASI: Prospects for OPTIMISM

- ☑ Awareness
- ☑ Strong leadership
- ☑ Adequate institutional setup
- ☑ Civil society engagement
- ☑ Private sector development
- ☑ Sound projects & management
- ☑ Sustainable funding
- ☑ Proper skills
- ☑ Data collection & management
- ☑ Integrated planning



2.4 Good case studies: Sustainable urban mobility & accessibility

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2.4 Good case studies: Sustainable urban mobility & accessibility

☑ Strong Leadership

Institution building to serve long-term vision

- The Government of Senegal
- The Governor of Lagos State
- The Government of Kenya
- The Government of Cote d'Ivoire

BRT system in Lagos (Nigeria)

2.4 Good case studies: Sustainable urban mobility & accessibility

☑ Adequate Institutional Setup

Clear allocation of responsibilities

- CETUD in Dakar in 1997
- LAMATA in Lagos in 2002
- NAMATA In Kenya in 2017
- In Addis Ababa, the Road and Transport Bureau (AARTB)
- In Kigali, coordination between the City of Kigali, Road and Transport Development Agency and Ministry of Infrastructures
- "Grand Abidjan Mobilité" in 2019

Central Bus Station in Kigali, Rwanda

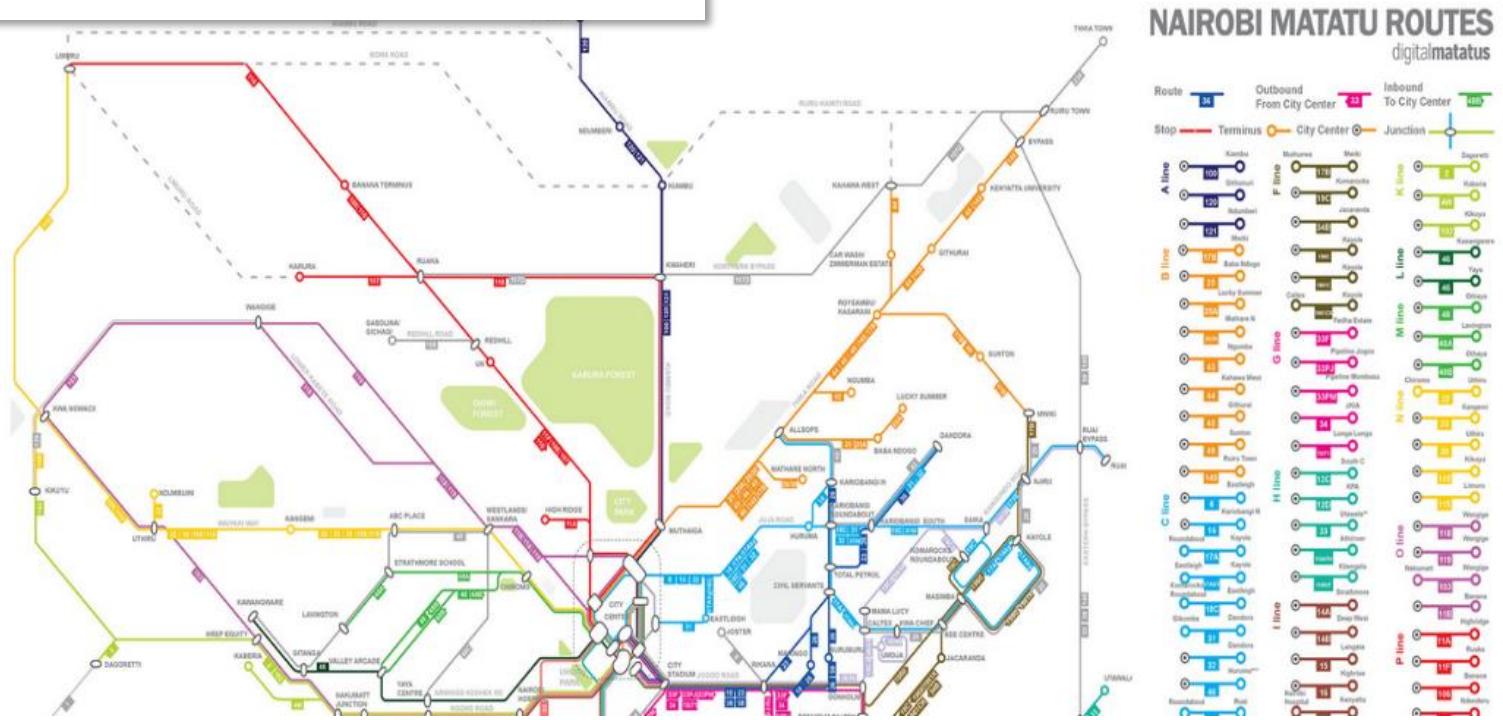
2.4 Good case studies: Sustainable urban mobility & accessibility

Data Collection

Build knowledge using data

- Dakar Mobility Survey in 2015 gave a clear vision of the situation
- “Digital Matatus” and “Accra Mobile” - data collection on paratransit services through GPS-enabled smartphones
- Daily data collection in Kigali Bus Terminus to supervise operators

Digital Matatus output, Nairobi, Kenya



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☑ Proper Skills

Enhance capacities at all levels

- Ghana Urban Mobility and Accessibility Project: Capacity building for municipalities in Accra Metropolitan Area and Master Program in Kumasi National University (KNUST)
- Various international programs: LUTP, TUMI, CODATU+EAMAU, etc.
- University curricula under development: Abidjan, Dakar, Accra…

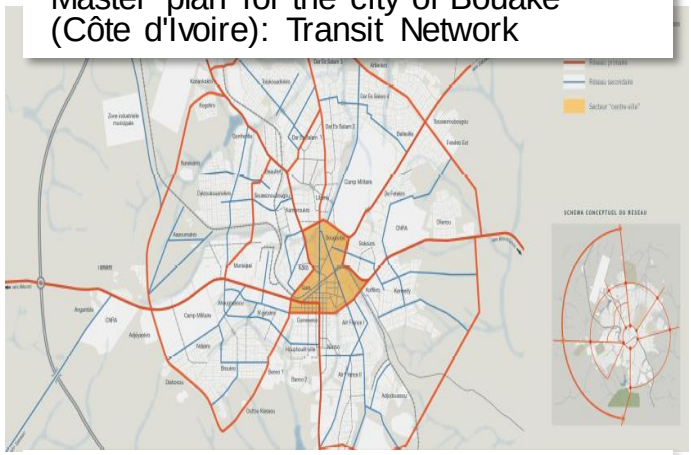
2.4 Good case studies: Sustainable urban mobility & accessibility

☑ Integrated Planning

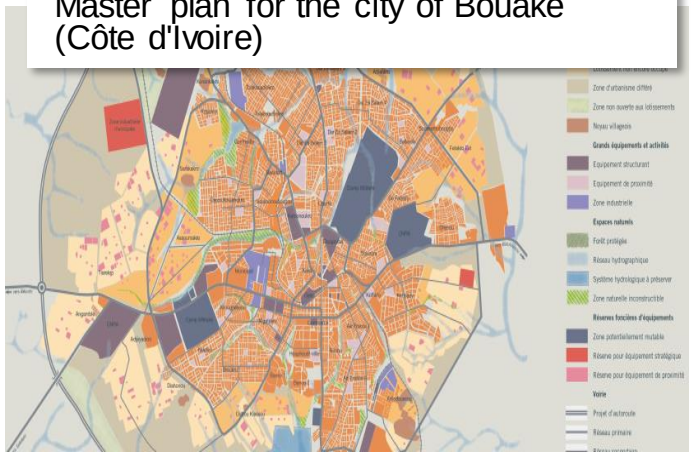
Integrated urban development and transport at planning and implementing stages

- Conakry Sustainable Urban Mobility Planning
- Master Plan of Greater Abidjan (SDUGA 2015-2030)
- Bouaké Integrated Master Plan
- Kigali Master Plan implementation

Master plan for the city of Bouaké (Côte d'Ivoire): Transit Network



Master plan for the city of Bouaké (Côte d'Ivoire)



2.4 Good case studies: Sustainable urban mobility & accessibility

☑ Good Projects & Management

Optimization of resources and formalization

- Professionalization program for bus operators in Dakar
- Fleet Renewal & Paratransit Regulation in Dakar - 2 first phases: 505 vehicles (2005-2008), 1102 vehicles (2010-2015).
- In Rwanda, Road Transport Development Authority (RTDA) has developed standards. They include sidewalks and cycle paths each time the space for roads / streets is wide enough.

AFTU buses and Cars Rapides, Dakar (Senegal)

New Street in Kibuye, Rwanda

2.4 Good case studies: Sustainable urban mobility & accessibility

☑ Sustainable Funding

Specific mechanisms for investment and operations

- Lagos State: Since 2007, 50% of Motor Vehicle Authority revenue should be remitted to a Transport Fund which is utilized by LAMATA: 5-6 MUSD.
- Addis Ababa Municipality: The Transport Fund Office (TFO) was created; it receives funds from all transport fines and penalties, parking fees, advertisement revenue from bus shelters, etc. (40 MUSD)
- Dakar: Fonds de Développement des Transports Urbains (FDTU)

2.4 Good case studies: Sustainable urban mobility & accessibility

☑ Private Sector Development

Strengthening the local economy

- Professionalization of operators in Dakar and creation of a mutual health insurance
- Contractualization with bus operators in Kigali
- Start-up Development: Sunubus, Amarante, etc. in Dakar, AC Group, YegoMoto in Kigali, Cozco e-Parking in Abidjan, Ma3Route in Nairobi, etc.

Gare Routière des Baux Maraîchers, Dakar (Senegal)

2.4 Good case studies: Sustainable urban mobility & accessibility

☑ Civil Society Engagement

Mobilization of citizens

- Nairobi: Kenya Alliance of Residents Associations (KARA) is 18 years old. It has a dedicated focus on urban mobility matters (safe pedestrian crossings, etc.)
- Senegal, Dakar: A consumer association is part of the Board of CETUD since its creation and “Save Dakar” is really active on social networks, promoting a new image of Dakar and blaming non-respectful behavior.

Accra (Ghana)

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3. Role of public transport in sustainable development in Africa

3. Role of public transport in sustainable development in Africa (Why?)

Comparative Advantage of Mass Transit/Public Transport Systems vs Private Cars

Economic Growth & Prosperity

- Public transport raises the level of economic activity and prosperity at a *fixed* level of congestion.
- Expansion of public transport (i.e. increased subway and commuter rail ridership) allows downtown areas to grow (economic activity) beyond what road networks can support.

Accessibility & Affordability for All

- Improves mobility and accessibility for the poor and vulnerable.
- Providing mobility to these disadvantaged groups is not merely a social service; it also expands prosperity and reduces emissions.
- Benefits include gains in economic efficiency, lower emissions, and reduced vehicle trips.

Environment & Sustainability

- Transit-dependent cities are generally more sustainable than car-dependent cities.
- They cover less land and tend to have fewer emissions both per capita and per distance travelled.
- They promote more walking, which is also better for public health, producing further indirect economic benefits in reduced healthcare costs.

Reduced Congestion & Improved Safety

- Exclusive transit lanes (for buses, rail, and arguably two-wheelers and taxis) improve the performance of emergency services
- They protect emergency vehicles from congestion-related delays, potentially saving lives.

3. Role of public transport in sustainable development in Africa (Why?)

3.1 Amount of space required to transport the same number of passengers by car, bus or bicycle

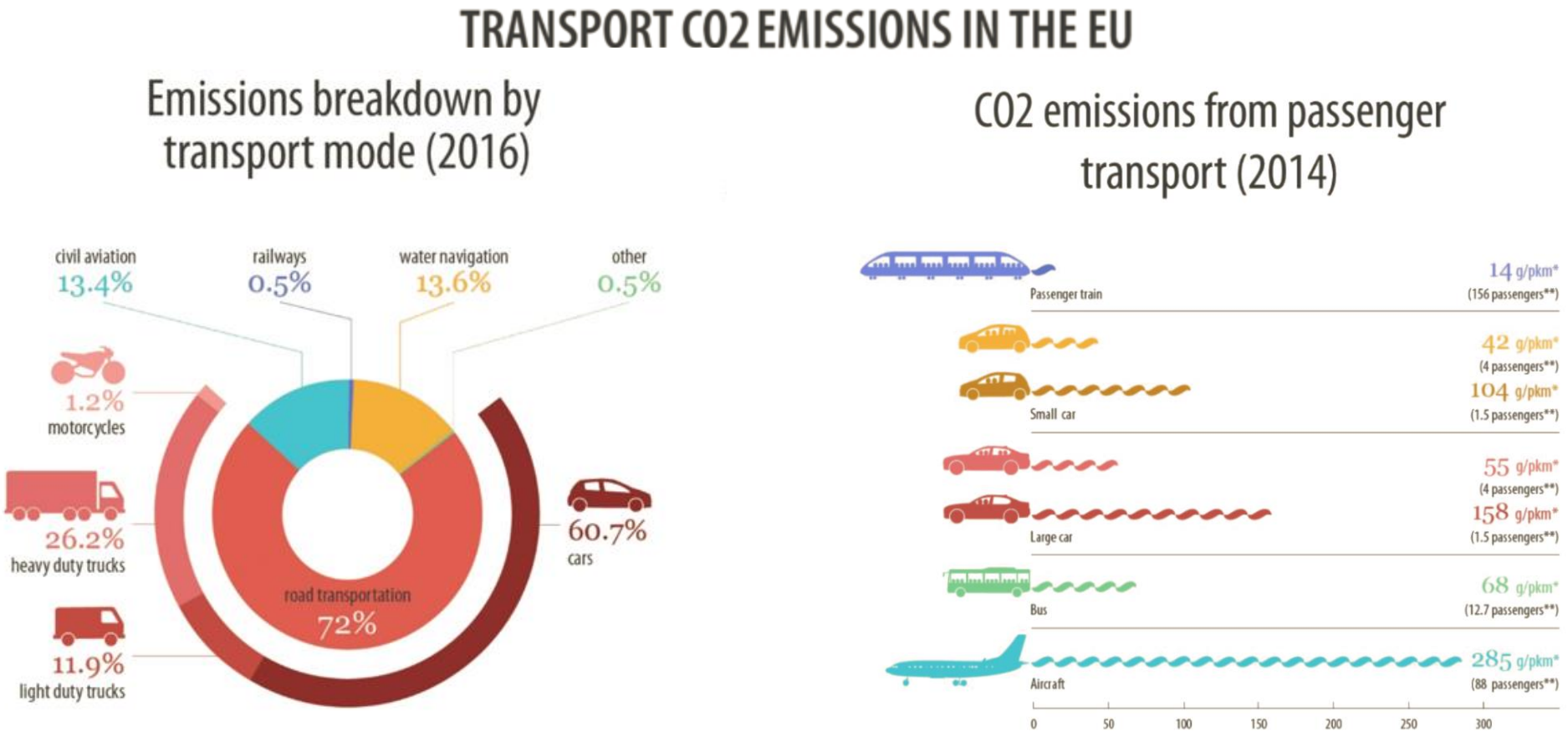
Car?

Bus?

Bicycle?

3. Role of public transport in sustainable development in Africa (Why?)

3.2 Adverse impact by modes of transport



3.3 Public transport system

Metro systems

- ALGERIA x 1 - Algiers.
- EGYPT x 1 - Cairo.
- SOUTH AFRICA x 5 - Cape Town, Port Elizabeth, Durban, Pretoria and Johannesburg.
- TUNISIA x 1 - Tunis.

Cairo Metro in Egypt

3.3 Public transport system (continued)

LRT

- ALGERIA x 2 – Algiers - Constantine
- ETHIOPIA x 1 – Addis Ababa
- NIGERIA x 2 – Abuja - Bauchi

LRT in Addis Ababa

3.3 Public transport system (continued)

BRT Systems

- In Operation: Lagos - Johannesburg
- Under Construction: Cape Town - Port Elizabeth
- Planning phase: Accra - Dakar - Dar es Salaam - East London - Kampala - Nairobi - Pretoria

3.3 Public transport system (continued)

Formal bus companies

- Dakar Dem Dikk in Dakar, Senegal
- M'dina Bus in Casablanca, Morocco
- SOTRA Buses in Abidjan, Côte d'Ivoire

Dakar Dem Dikk buses in Dakar, Senegal

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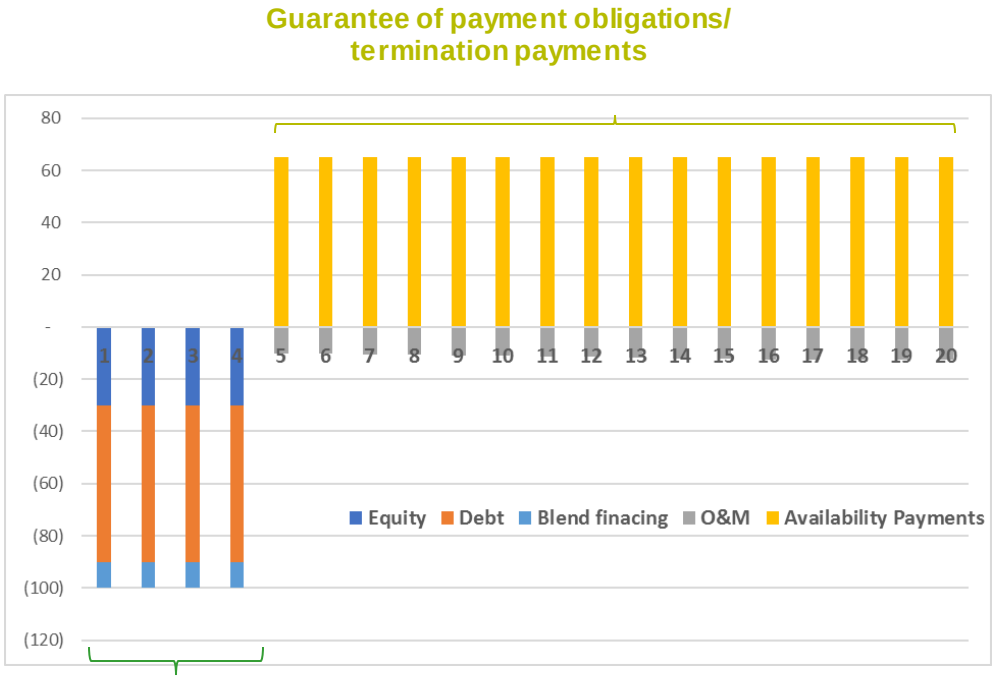
Urban Transport & Mobility

4. Mobilizing finance for mass transport systems

4. Mobilizing finance for mass transport systems

4.1 How can we mobilize private finance?

- Capital grant/blend finance upon construction or milestones
  - Matching loan disbursements and payments to the SPV in availability payment schemes
- Guarantees: liquidity, early termination, political risk
  - Sovereign and non-sovereign
  - Structured public finance
- SOEs (ECA, EAP) to mobilize private finance
  - Restructuring to enhance efficiency and credit worthiness
  - Asset recycling: divestiture, concessions, securitization
  - Indonesia InfraSAP
- Securitization of road asset fund (and its limitation)



- **IBRD/IDA:** Capital grants, blended finance
- **IFC:** equity, lending and loan syndication

Upon construction or milestones

Concessional financing in IDA countries IDA and IDA-PSW

4. Mobilizing finance for mass transport systems

4.2 WBG support for Maximizing Finance for Development (MFD)

MFD aims to help countries maximize their development resources by drawing on **private financing and sustainable private sector solutions** to provide **value for money** and meet the highest environmental, social, and **fiscal responsibility** standards, and **reserve scarce public financing** for those areas **where private sector engagement is not optimal or available.**

Keep in touch

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