Traffic Management in Sub-Saharan African Cities
The Way Forward
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Interlinking of Road Safety and Traffic Management

• Road safety and traffic management are interlinked

• The safety of Africa’s cities is shaped by the safety of pedestrians

• Need for a high-quality pedestrian-friendly urban realm facilitated through traffic management measures

• Participants will learn how to shift the focus from motorised modes through traffic management measures for pedestrians in a people-centric approach
FOCUS ON SAFETY
- because road safety is very poor and there are too many crashes
- because there are too many casualties, especially pedestrians

FOCUS ON PEDESTRIANS
- because pedestrians are neglected in design and planning
- because more than 50% of trips are walking in African cities and everyone is a pedestrian at some stage in their journey

FOCUS on combining BOTTOM-UP and TOP-down measures
- because these “bottom-up” measures can be implemented easily & quickly and showcase quick successes
1. **ENABLE** stronger institutions

2. **AVOID** inappropriate land use and develop a Functional Road Hierarchy

3. **SHIFT** from motorised modes to non-motorised modes including walking by providing people-centric facilities and managing parking

4. **IMPROVE** safety and efficiency through Intelligent Transport Systems
1. ENABLE stronger institutions

Mainly medium & long term actions BUT two short term actions can start now:

- Knowledge transfer
  - Placements for local staff in international institutions
  - Higher level educational opportunities at universities & colleges
  - Learn about importance of walking and facilities for pedestrians
  - Link between safety and traffic management

- Innovative data collection
  - Freetown Sierra Leone data collection through anonymized mobile phone data \(\rightarrow\) traffic management solutions \(\rightarrow\) institutional development
2. AVOID inappropriate land use and develop a Functional Road Hierarchy

Mainly MT actions BUT one ST action can start now

- Implementing TM measures in a pilot area to reinforce the predominant function(s) of selected roads
  - Road functions not just for moving traffic but also for pedestrians and walking
  - FRH can make roads and their environs safer
  - Road surface upgrade and traffic management interventions
  - Cross-sections and speed limits should enable a “natural” enforcement of the desired function by good design
Examples of FRH in action:

- Functional Road Hierarchy enables Prioritization for Road Upgrading in Ouagadougou, Burkina Faso
Examples of FRH in action:

• Physical segregation for two-wheeled vehicles in Ouagadougou, Burkina Faso
• Predominant function is for two-wheeled vehicles
Examples of FRH in action:

- Home Zones (Woonerven), The Netherlands
- Predominant function is walking
- Shared space
- Traffic calmed
- Landscaped
Avoiding Inappropriate Land Use

Functional Road Hierarchy

Examples of FRH in action:

• Public Transport routes in Stockholm, Sweden
• Predominant function is for PT and for passenger access
• Motor vehicle speeds restricted by speed limits and enforcement and education
3. SHIFT to greener modes by providing people-centric facilities

Mainly Medium Term Actions

• Build on experience from Kigali, Mombasa, Addis Ababa, and Tshwane.
• Identify barriers to walking
• Identify different types of walking, different walk trips for different purposes disaggregated by gender
• Traffic calming for safety
• Implement “bottom up” local pedestrian schemes
Examples of people-centric facilities:

- Wide sidewalks
- Pedestrian friendly infrastructure in Kigali, Rwanda
Examples of people-centric facilities:

• Physical segregation for safety
• Lebu-Jemo Cycling Corridor in Addis Ababa, Ethiopia
Examples of people-centric facilities:

- Traffic-calmed road table for pedestrian crossing in Cape Town, South Africa
Examples of people-centric facilities:

- Innovative and low-cost colored surfacing to demarcate pedestrian refuge areas in Coimbatore, India
3. SHIFT to greener modes by managing parking

Mainly Medium Term Actions

• Free and unregulated parking has a high cost for pedestrians in terms of access and safety
• Establish a zonal parking system with a differentiated and hierarchical charging system
• Develop a Smart Parking System
• Parking is a business and a service
• Civilianize enforcement
4. IMPROVE safety and efficiency through Intelligent Transport Systems

Mainly Short Term Actions

- ITS caters to all road users and can be deployed to favour pedestrians
- Capitalize on “latecomer advantages”
- Deploy the benefits of user-centric, data-driven and “bottom up” innovations
- Utilize the benefits of Big Data, especially crowd-sourced data from individual smartphones
- Install “bottom up” ITS focusing on traffic signals, Area Traffic Control (ATC), and crowd-sourced apps for Mobility as a Service
- Lay the foundations of a fibre-optic or wireless communication network
4. IMPROVE safety and efficiency through ITS – Traffic Signals and ATC

Mainly Short Term Actions

- Traffic signals and ATC can be deployed to favour pedestrians and improve safety
- Start off with sets of isolated traffic signals at selected junctions
- Complement these traffic signals with the “Three Es” and install “green man” pedestrian phases
- Coordinate isolated signals and expand to an Area Traffic Control (ATC) system
- Develop a Traffic Command Centre (TCC) and expand the functions of ATC to include traffic monitoring cameras and electronic police enforcement cameras
Examples of Intelligent Transport Systems:

• Traffic Command Centre, Seoul, South Korea
Example of ITS and the Three “Es”: 

- Sao Paulo, Brazil 
- Engineering – Junction Channelization 
- Education – Campaign 
- Enforcement – Police presence/cameras
Example of ITS and junction channelization:

- Addis Ababa, Ethiopia
CONCLUSIONS

• From the myths of TM to the reality
• Need to combine “bottom-up” and “top-down” approaches
• Pedestrians and safety are at the centre of good TM
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Changing the Face OF TRANSPORT IN AFRICA

REGIONAL INTEGRATION

URBAN MOBILITY

ROAD SAFETY