Towards Sustainable Urban Mobility in Developing Countries
Debashish Bhattacharjee

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1. New frameworks for sustainable urban mobility

2. Urbanisation trends and mobility - challenges in developing countries

3. Vision of inclusive transport

4. An Approach to Solutions

5. Sustainable mobility: action at all levels
New Frameworks for Sustainable Mobility
A Global Vision to Promote Sustainable Urban Mobility

Sustainable Development Goals
SDG 11: Make cities inclusive, safe, resilient and sustainable

Target 11.2: By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, and children, persons with disabilities and older persons.

Indicator: Proportion of the population that has convenient access to public transport by sex, age and persons with disabilities

Paris Agreement
National Commitments to Low Carbon Transport

New Urban Agenda
Habitat III: Localising the SDGs; Safe, inclusive, transport – walking, cycling and Public Transport
Urbanisation trends and mobility - challenges in developing countries
The world is rapidly urbanizing: from 37% in 1995 to 60% in 2030. Africa and Asia are urbanizing fastest.
New spatial configurations in Africa: metropolitan areas

New spatial configurations: city clusters, large urban agglomerations, urban corridors and city-regions

Rural Urbanization: Small and Intermediate Towns in vicinity of bigger towns become spatially "connected"

Challenge: Often unplanned city expansion/ lack of public transport connectivity
Spontaneous and unplanned urban development

Most of the global urbanization that is taking place happens spontaneously. People are occupying the land without urban planning, without any design, any rule or right, and they do it in a very unproductive way.

Most of cities actual problems are derived of this unplanned excessive growth (urban sprawl) that will have immense economic, social and environmental consequences, in particular, for intermediate cities, which are experiencing the fastest population growth.
The city for the car and of the car

- Low density, urban sprawl, mono-functional use
- **Car-based** transit corridors contributing to traffic congestion
- **No Integration**: Often separate mobility systems
- **NMT users forgotten** even though they form majority
- People walk sometime up to 4 hours a day out of choice not preference
......But the car dominates....
A City In Your Hands?
1.3 million people die on the world's roads and 20 - 50 million are injured every year. The risk of dying in a road traffic crash is more than 3 times higher in low-income countries than in high-income countries.
Ambient air pollution – a growing problem

- 4.2 million estimated premature deaths from ambient air pollution;
- Highest Air Pollution in S.E and South Asian cities; probably increasing in Africa but measurement lacking – Source WHO
Contribution of transportation to emissions (and pollution)

THE TRANSPORTATION SECTOR
A major contributor to global energy-related CO₂ emissions

GLOBAL ENERGY-RELATED EMISSIONS
≈ 30 Gt CO₂

TRANSPORT EMISSIONS
≈ 7 Gt CO₂

ROAD TRANSPORT EMISSIONS
≈ 5 Gt CO₂

Legend:
- RAIL
- AIR
- ROAD
- SEA
- HEAVY-DUTY VEHICLES
- LIGHT-DUTY VEHICLES

Sources:
Where does the pollution come from?

A vision of inclusive transport
Striving towards a more inclusive urbanisation
Striving towards a more inclusive urbanisation
A vision of inclusive transport: streets for people

Better facilities for walking and cycling; BRT an effective solution (Dar Es Salam Tanzania)
Inclusive Mobility = Universal Access

Design for people with disabilities: segregation, low gradients, illumination...... (Right Picture: Outside City Hall, Bilbao)
A Vision of Inclusive Transport: integrating public transport with walking and cycling

Universally Accessible Vehicles
A Vision of Inclusive Transport: integrating public transport with walking and cycling

Cycle Tracks should be separated from high speed vehicular traffic

“Eyes on the Street” improve security; Organized vending creates jobs

Source: UN-Habitat and ITDP : Streets for walking and cycling ; Designing for safety, accessibility and comfort in African Cities
An Approach to Solutions
Making it happen: participatory processes (SUMPs)

1. Develop a common vision
2. Analyse mobility situation and develop scenarios
3. Engage all transport modes/Identify mobility challenges
4. Stakeholder Validation workshop/Agree on clear responsibilities & budget
5. Propose Action Plan
6. Problem Map/Identify Mobility Priorities
Results: Inclusive Accessibility, Safety and Reduced Emissions

**Nairobi Bus Rapid Transit**
- BRT system in Nairobi will result in benefits in the range of $42 to $51 million per year in 2035
- Advanced technology choices result in CO2 emissions reductions in the range of 600,000 cumulative tons by 2035

**Kiambu Transport Policy**
- Expected Outcomes / 15 year target:
  - Increased mode share of 90% of walking, cycling and PT in 15 years
  - Zero fatalities related to road crashes
  - 90% reduction of emissions of GHG from transport system
  - Car VKT no more than baseline

**Ruiru SUMP**
- Action Plan - Ruiru Boulevard:
  - Reduce through traffic by diverting
  - Enhance human-friendly greening through appropriate landscaping
  - Renew street furniture for public use
  - Enhance safety - crossing levels, speed breakers, and lighting
## UN-Habitat Global Experiences

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<th>Programme</th>
<th>Description</th>
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<td><strong>EMPOWER</strong></td>
<td>Using positive incentives to encourage citizens to reconsider their travel choices and reduce the extent of using conventionally fuelled vehicles.</td>
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<td><strong>SOLUTIONS</strong></td>
<td>SOLUTIONS aims to support the exchange on innovative and green urban mobility solutions between cities from Europe, Asia, Latin America and the Mediterranean. Promotes the “Urban Electric Mobility Initiative” (UN-Habitat)</td>
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<td><strong>Urban Pathways</strong></td>
<td>Urban Pathways - Supporting Low Carbon Plans for Urban Basic Services in the context of the New Urban Agenda (Brazil, India, Kenya, Vietnam)</td>
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<td><strong>GEF-SUSTRAN</strong></td>
<td>Reduce growth in private motorized vehicles, thus decreasing traffic congestion and greenhouse gas (GHG) emissions. Introducing BRT in Addis Ababa, Kampala and Nairobi integrated with walking and cycling</td>
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<tr>
<td><strong>FUTURE-RADAR</strong></td>
<td>Create and implement research and innovation strategies for a sustainable and competitive European road transport system. Promotes Electric Mobility.</td>
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Sustainable mobility: actions at all levels
Bringing it together: Global - Local - Global

Key Actors: National and Local Governments, Civil Society, Academic and Research Institutions, Industry
Conclusions and Recommendations

• Developing country cities are growing: a reason as well as an opportunity for sustainable mobility
• National Policy + City Capacity = sustainable urban mobility
• National Policy: prioritize walking, cycling and public transport; provide fiscal incentives, institute design standards and monitoring requirements (KM of NMT/KM); fuel and vehicle import policies
• Local Implementation: participatory and consensus based planning; devise revenue schemes (e.g. parking, congestion charging); capacity building needs.
• Promote city-city learning