



# Reducing Non-Motorised Transport Casualties in African Cities: A Multi-Sectoral Approach

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# Introduction

- NMT road users constitute 52 % of all road users killed on roads in Africa (World Bank, 2010).
- Paper covers challenges NMT road users are facing on roads in African cities and suggests measures to be implemented to reduce NMT road user casualties in line with the five pillars of the DOA.
- Reduction in NMT road user fatalities a priority if Africa wants to achieve the reduced targets as set by the DoA, 2011 - 2020.
- To make this happen fundamental changes in NMT planning and operations are required in areas such as:
  - Road user behaviour (drivers, passengers, pedestrians, cyclists).
  - Road funding, design, construction and maintenance.
  - Public transport and land-use planning.
  - Vehicle design, safety and roadworthiness.
  - Trauma care and other related measures.

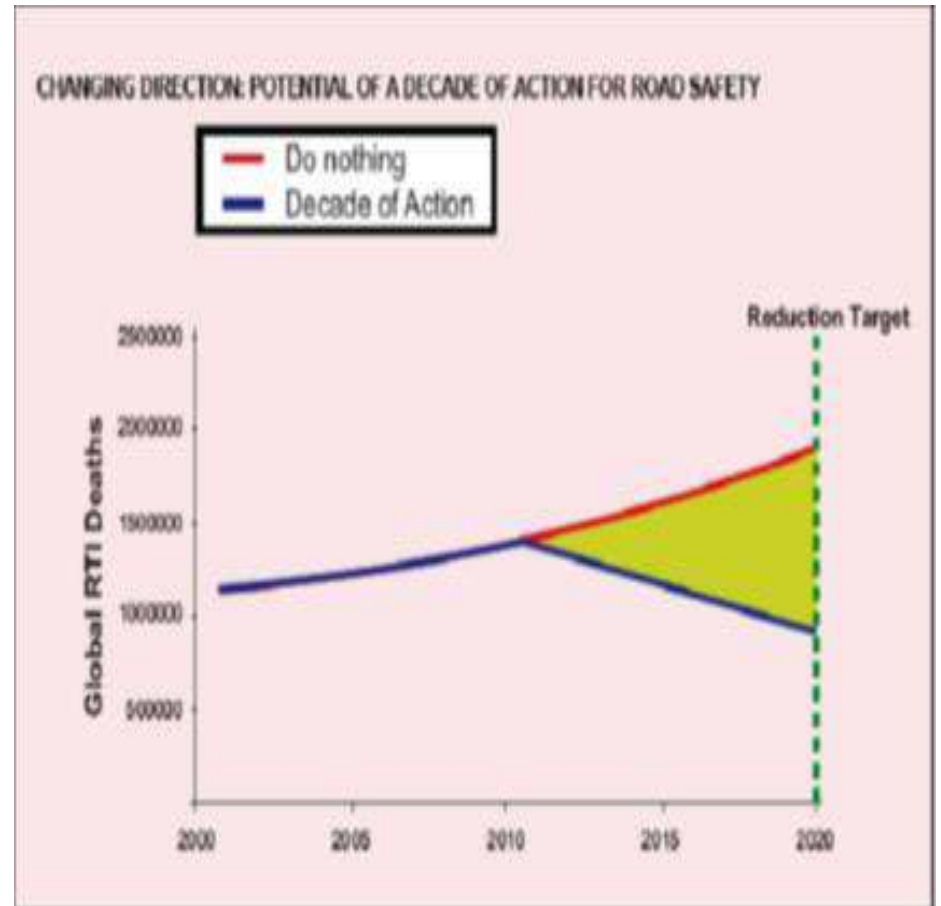
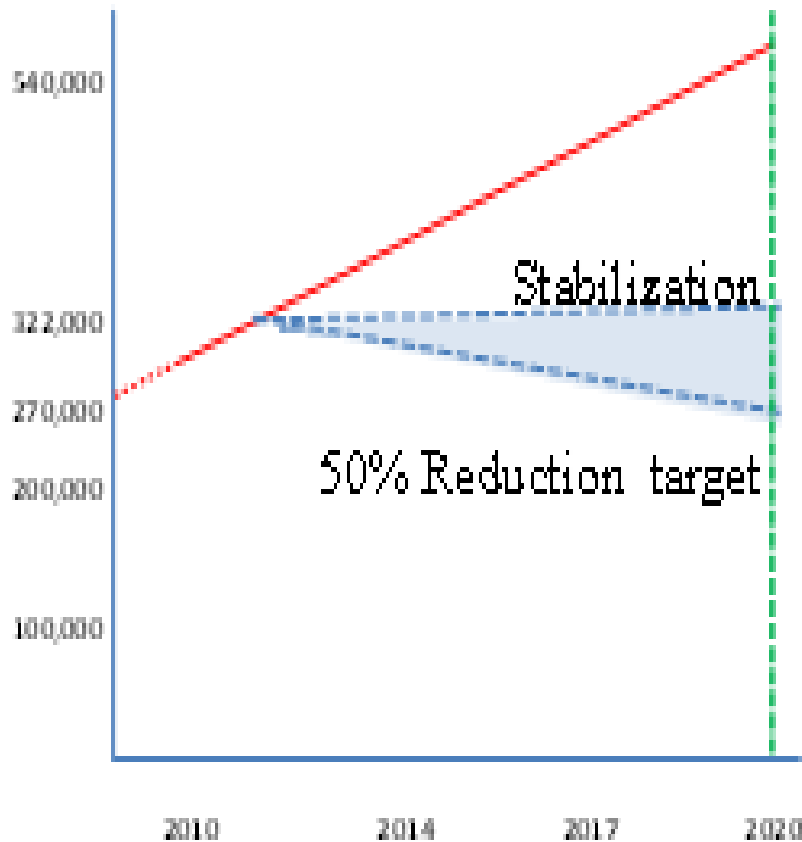
# Global road safety challenge

- About 1.3 million people killed on the world's roads each year.
- Up to 50 million people are injured, many disabled for life.
- 90 % of road deaths in developing countries; Africa 16 % of these casualties with only 2 % of the world's vehicles.
- NMT road users constitute major proportion of road deaths and injury, varying in numbers from region to region or in regions.
- Annual road traffic deaths to rise to 1.9 million people by 2020.
- Road traffic injuries number one cause of death for young people worldwide.
- By 2015 road traffic injuries leading health burden for children over the age of five years in developing countries.
- Economic cost to developing countries more than \$100 billion.
- Road traffic injuries place immense burden on hospitals and health systems generally.

# Africa and Global Projected Road Deaths 2020

**Africa** 540 000 casualties by 2020

**World** 1 900 000 casualties by 2020



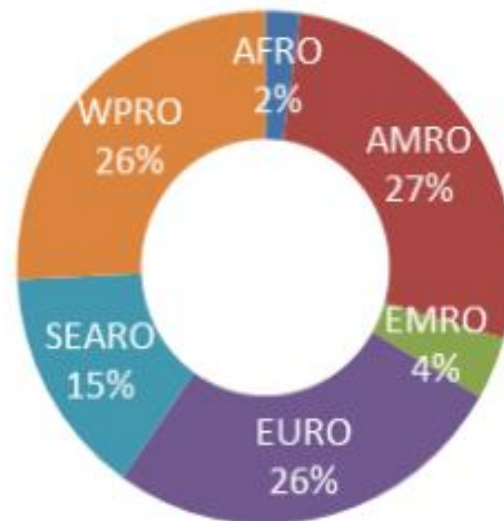
## Population



## Deaths



## Vehicles



# Challenges facing NMT road users in African cities

- Various studies conducted to identify challenges. These include:
  - WHO Second Global Status report on Road Safety, 2013
  - WHO AFRO Factsheet, 2013
  - Tuli, Washington, King and Hague, 2013
  - Stockholm Environment Institute, 2013
  - African Centre of Excellence for Studies in Public and Non-motorised Transport (ACET) (Mitullah and Opiyo, 2012)
  - African Road Safety Policy Framework (ECA, 2011)
  - SSATP Working Paper 80: Non-Motorized Transport in African Cities - Lessons from Experience in Kenya and Tanzania, 2004
  - Matovu & Langen, Low-cost Mobility in African Cities, 2001

# Challenges facing NMT road users in African cities

Stockholm Environment Institute, 2013

## Challenges facing NMT road users in Sub-Saharan Africa:

- Deaths and injuries from road crashes are taking a serious toll, especially on pedestrians and cyclists. Need to *increase awareness amongst politicians, planners, engineers and the public.*
- Traffic congestion growing concern in cities. Causes include ineffective public transport; no transport demand measures; poor quality of cycling and walking infrastructure; lack of integrated land-use policies, and poor road discipline.
- Extent of congestion problem and the resulting economic, social and environmental impacts rarely quantified or assessed.
- Transport policies tend to favour automobiles, which short-changes poor and vulnerable populations.
- Need for policies that ensure more equitable appropriation of space, from the standpoint of accessibility, safety and environmental protection.



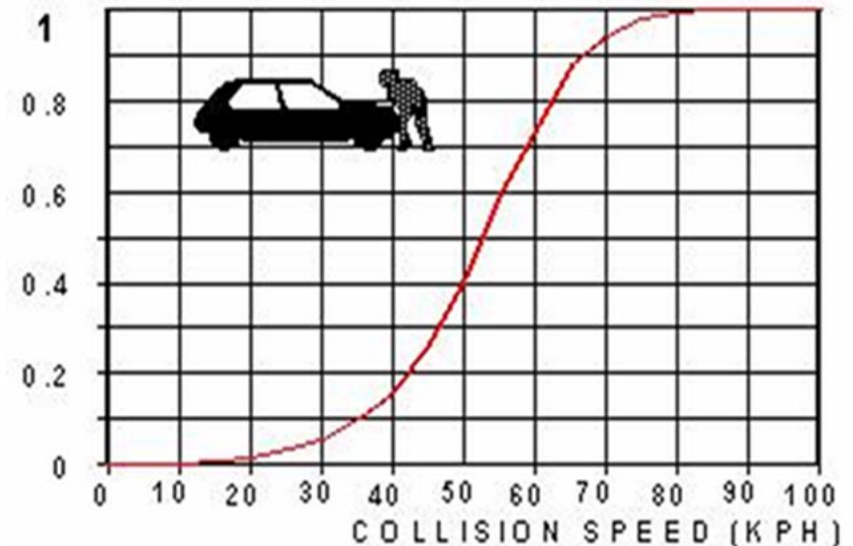
# Challenges facing NMT road users in African cities

Tuli, Washington, King and Hague (2013)

- Walking at night
- Fatigue
- Walking on road surface
- Illegal crossing behaviour
- Socio economic factors
- Alcohol & impaired walking
- Poor transportation and land use planning
- Lack of road safety education
- Poor enforcement
- High growth of motorisation
- Institutional capacity



PROBABILITY OF DEATH



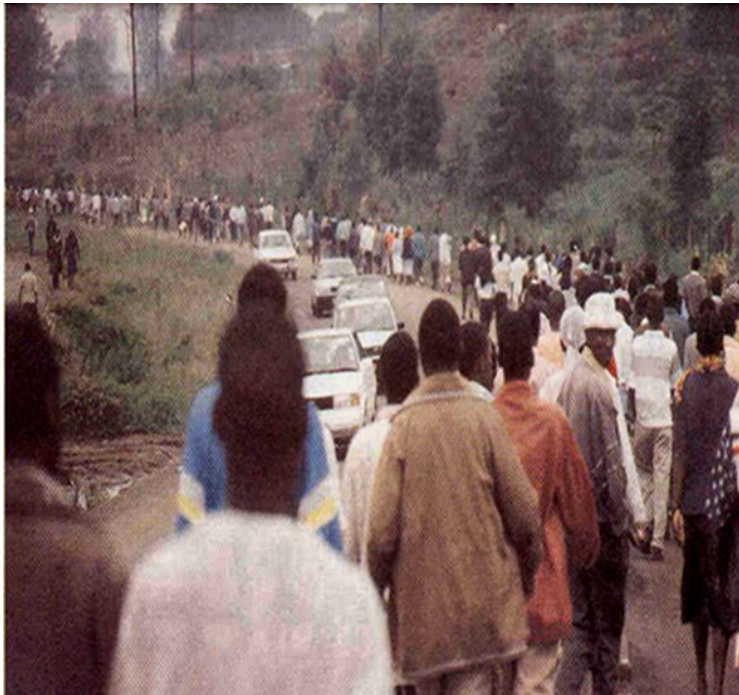
# Challenges facing NMT road users in African cities

## The African Centre of Excellence for Studies in Public and Non-motorised Transport (ACET) (Mitullah and Opiyo, 2012)

- Lack of integrated transport
- Ineffective urban governance
- Inadequate provision of NMT facilities
- Poor enforcement of NMT regulations
- Poor co-ordination by authorities



# Inadequate provision of NMT Infrastructure



## More challenges facing NMT users in African cities

- Sustainable funding limited to provide for and to maintain NMT infrastructure
- Users sense a lack of security in road environments
- Roadworthiness and low standards of vehicles
- Mobility of disabled users, elderly people and children restricted to move freely around
- Lack of proper road crash data
- Inadequate surveillance and post-crash care systems in most African cities

# Solutions to improve NMT safety in African cities

## World Health Organisation, 2013

- Protection of vulnerable road users
- Improved road network planning
- Implement public transport systems
- Improved traffic law enforcement
- Improved surveillance and EMS
- Proper road crash data systems needed



# Solutions to improve NMT safety in African cities

## Horizontal separation



## Vertical separation



# Solutions to improve NMT safety in African cities

**NMT protection at public transport stops**



**Safe river crossings**



# Conclusions

- *Establishment/improvement of the NMT road environment* in African cities a major objective to be accomplished in DoA 2011 – 2020.
- *Piecemeal approach* to expand NMT network to be replaced by incremental approach where certain building blocks put in place first to ensure the sustainability of non-motorised networks in African cities.
- *Politicians and officials bias towards motorised traffic* to make place for more realistic approach to acknowledge the valuable role of the NMT mode in urban areas by promoting walking and cycling.
- *NMT modes are cost effective over shorter distances* and also serve as *feeder system to public transport* operations.
- *Adopting city NMT policies & strategies* to expand role of NMT modes in urban transport, backed up by *NMT master plans* to facilitate implementation. These documents will assist in systematically plan, implement and expand safe and continuous NMT networks across African cities.



# Conclusions

- *NMT networks* must be planned to ensure that non-motorised traffic is *separated vertically, horizontally and temporally* for motorised traffic. The main prerequisite to make this happen is sustainable funding sources.
- International best practices show that the *expansion of NMT networks* into a citywide network can only be accomplished through the provision of *ongoing year-on-year budgets* to build and maintain the networks.
- This multi-sectoral approach will make a significant contribution to reduce casualties among non-motorised road users in African cities, thereby assisting in achieving the 2020 DoA fatality reduction targets for Africa.