





# Share the Road: Minimum Standards for Safe, Sustainable and Accessible Transport Infrastructure in Nairobi

# FINAL DRAFT REPORT

Climate XL- Africa September 2009

# Share the Road: Minimum Standards for Safe, Sustainable and Accessible Transport Infrastructure in Nairobi

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# Acronyms and Abbreviations

AfDB	African Development Bank
AQG	Air Quality Guidelines
BC	Black Carbon
CBD	Central Business District
CCN	City Council of Nairobi
CO2	Carbon dioxide
DALYs	Disability Adjusted Life Years
DTIE	Department of Technology, Industry and Economics
EC	European Commission
EEA	European Energy Agency
EPZ	Export Processing Zone
FIA	Fédération Internationale de l'Automobile
GoK	Government of Kenya
GTZ	Deutsche Gessellschaft für Technische Zusammenarbeit
I-CE	Interface for Cycling Expertise
iRAP	International Road Assessment Programme
ITDP	Institute for Transportation Development and Policy
JICA	Japanese International Cooperation Agency
JPY	Japanese Yen
KShs	Kenya Shillings
KRB	Kenya Roads Board
KURA	Kenya Urban Roads Authority
KUTIP	Kenya Urban Transport Infrastructure Project
NMT	Non-motorised Transport
MNMD	Ministry of Nairobi Metropolitan Development
MoRPW	Ministry of Roads and Public Works
OD	Origin and Destination
PSV	Public Service Vehicle
Q/LOS	Quality and Level of Service
QOA	Quality of Air
SSATP	Sub-Saharan Africa Transport Programme
ToR	Terms of Reference
UNEP	United Nations Environment Programme
USD	United States Dollar
WHO	World Health Organisation

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# **DRAFT REPORT**

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# **1 EXECUTIVE SUMMARY**

This case study – A Review of Minimum Standards for Safe, Sustainable and Accessible Transport Infrastructure - was carried out between May and July 2009. It examines the extent to which the planning, design and financing of transport infrastructure in Nairobi integrates safety considerations for various road users, particularly taking into account the predominance of Non-Motorised Transport [NMT] by the majority of Nairobi residents.

This case study builds on a safety assessment carried out in Nairobi during 2008-9 under the International Road Assessment Programme (iRAP). The iRAP study measured the safety performance on the following 8 roads: Ngong, Langata, Karen, Jogoo, Outer Ring, Juja, Limuru, Kiambu, and Thika. The case study reported here was done on the same roads, with more detailed analysis focusing on NMT infrastructure and usage. The iRAP report (2009) makes a strong case for financing safety measures on Nairobi roads. For example, it argues that by investing \$3.5m in pedestrian crossings, 10,300 deaths and serious injuries could be prevented. Again, by investing \$1.9m in segregated pathways on the Nairobi roads, 4,200 deaths and serious injuries could be prevented.

This case study explores how investments in roads could be better made to secure the safety of the majority and most vulnerable users. The study makes a case for allocating a dedicated minimum of

10% of road investments to promote safety, accessibility and sustainability of use among all road users, particularly pedestrians and cyclists.

In this study, interviews were conducted with policy and decisionmakers in key institutions responsible for the financing, designing, planning and management of transport infrastructure for Nairobi. In addition, a total of 297 interviews were conducted with several categories of road users, made up of 120 pedestrians (40.4%), 65 cyclists (21.9%), and 74 handcart pullers (24.9%). The rest included 23 vendors pushing wheelbarrows (7.7%), 7 physicallychallenged on wheelchairs (2.4), and 8 horse riders (2.7%).



Photo 1: Jogoo Road/City Stadium Junction

Concerns about the vulnerability of most road users in Nairobi

has led this case study to underscore the need for integrating safety considerations in road planning, financing and design in order to promote safe and sustainable travel. Since the most vulnerable road users in Nairobi are pedestrians and cyclists, the case study focused on the non-motorised transport (NMT) market, which in Nairobi consist of walking, cycling for both personal transport and for goods transportation, and the use of wheelchairs, hand-carts and push-carts.

The focus on the safety of NMT users is informed by the fact that they constitute the majority and most vulnerable of road users. The Ministry of Transport statistics (2009) show that during the last eight years (2000-2008), 70.8% of fatalities in Nairobi were pedestrians.<sup>7</sup> A study in [2004]<sup>8</sup> showed that only 7.3% of the Nairobi population depends on private motor-vehicles, whereas 47.7% are dependent on walking. This assortion is also supported by a 2006 study by the Japanese International

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