

A NEW PERSPECTIVE

# SUSTAINABLE **MOBILITY** IN AFRICAN CITIES



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UN-HABITAT is the United Nations agency for human settlements. It is mandated to promote socially and environmentally sustainable towns and cities with the goal of providing adequate shelter for all.

UN-Habitat's Urban Transport Section promotes policies and models to achieve sustainable urban transportation systems across the Globe. Set against the overall mission of the organisation to promote socially, environmentally and economically sustainable human settlements development, the practical work places particular emphasis on promoting effective answers to the challenges of the rapid urbanization process in developing countries and the needs of the urban poor. At the same time, urban transport policy all over the world has to substantially contribute to solutions addressing global warming.

The International Association of Public Transport (UITP) is the international network for public transport authorities and operators, policy decision-makers, scientific institutes and the public transport supply and service industry. UITP covers all modes of public transport: metro, bus, light rail, regional and suburban rail and waterborne transport.

UITP acts as a platform for worldwide co-operation, business development and the sharing of know-how between 3,400 members from 92 countries. Furthermore, UITP is the global advocate for public transport and sustainable mobility, and the promoter of innovations in the sector.

## BACKGROUND

The following report is the summary of the seminar ‘Sustainable Development of Public Transport in Africa’, held in Nairobi, Kenya, on November 10 and 11, 2009. The event was jointly organised by the United Nations Human Settlements Programme (UN-HABITAT), UITP (the International Association of Public Transport) and UATP (the African Association of Public Transport).

The meeting assembled experts from around the world to share knowledge and expertise with a focus on urban passenger mobility in Africa in preparation for the United Nations Commission of Sustainable Development’s 18<sup>th</sup> and 19<sup>th</sup> sessions in 2010 and 2011. The joint declaration and this report synthesise the key messages from the event.

For UN-HABITAT, urban mobility is a key element of sustainable urbanization in response to social and economic challenges in developing countries as well as climate change. UITP, in its role as the professional body advocates the use and increased investment in organised passenger public transport, covers all modes of collective urban passenger transport, including bus, rail (metro, light rail and commuter), waterborne, cars and bike sharing. Its African division, UATP, focuses on the specific needs and requirements of Sub-Saharan Africa and its membership also includes those involved in transporting freight.

In 2005, UN-HABITAT and UITP signed a Memorandum of Understanding (MoU) to foster cooperation in the areas of sustainable mobility and public transport and which aims to combine research, policy advocacy, capacity building and expert assistance to improve the sustainability of cities worldwide.

### INTERNATIONAL AGREEMENTS AND SUSTAINABLE DEVELOPMENT

In recent years, the international community has taken important decisions aimed at enhancing sustainable development worldwide. These include historic summits and high-level meetings such as the United Nations Conference on Environment and Development (UNCED), commonly known as the Earth Summit (Rio de Janeiro, Brazil, 1992) and the World Summit on Sustainable Development (WSSD, Johannesburg, South Africa, 2002).

Agenda 21, a key outcome of the Earth Summit, clearly mentions transport in Chapter 7, “Promoting sustainable human settlements development”, and Chapter 9, “Protection of the atmosphere”. Transport is part of the Johannesburg Plan of Implementation (JPOI, 2002). Countries agreed to promote an integrated approach to policy making, including policies and planning for land use, infrastructure, public transport systems and goods delivery networks with a view to providing safe, affordable and efficient transportation, increasing energy efficiency, reducing pollution, reducing congestion, reducing adverse health effects and limiting urban sprawl.

The United Nations Commission for Sustainable Development (CSD) was established in 1992 to review progress on the implementation of the commitments and goals set out in Agenda 21 and the Johannesburg Plan of Implementation. The CSD review and policy debate focuses on thematic clusters of selected topics and the goal is to advance global consensus on sustainable development in the various sectors.

Since CSD reviewed the topic of transport, together with energy, at its ninth, 14<sup>th</sup> and 15<sup>th</sup> sessions (2001, 2006 and 2007), significant new challenges have emerged for transport globally. Transport is again part of the 2010-2011 cycle. At its 18<sup>th</sup> session in May 2010, the Commission reviewed progress in implementation with regard to the thematic clusters of transport, chemicals, waste management, mining and the ten-year framework of programmes on sustainable consumption and production patterns. The review session focussed on the analysis of trends, issues and policy options while the policy cycle in 2011 will look at how to overcome constraints, obstacles and barriers to implementation<sup>1</sup>.

This report and the declaration supports the concept that sustainable urban transport can play a significant role in efforts towards achieving the most broadly-supported development aims - the Millennium Development Goals - to eradicate extreme poverty and hunger and to ensure environmental sustainability.

<sup>1</sup> UN Department of Social and Economic Affairs 2009

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## LIST OF ABBREVIATIONS

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CO <sub>2</sub>	Carbon Dioxide
CSD	Commission of Sustainable Development
GDP	Gross Domestic Product
GHG	Green House Gas
IEA	International Energy Agency
JPoI	Johannesburg Plan of Implementation
MDG	Millennium Development Goals
MoU	Memorandum of Understanding
UATP	African Association of Public Transport
UITP	International Association of Public Transport
UNCED	United Nations Conference on Environment and Development
UNEP	United Nations Environment Programme
UN-HABITAT	United Nations Programme for Human Settlements
WSSD	World Summit on Sustainable Development



# 01. INTRODUCTION

**E**fficient and inclusive urban mobility is essential for economic and social development since it enables citizens to access goods, services, jobs, markets, education opportunities and social contacts. Access to mobility enhances quality of life but growing motorisation and unmanaged transport in many cities is also associated with congestion, air pollution, traffic-related accidents, the waste of productive time and other social and environmental costs.

This report intends to raise awareness of sustainable urban transport systems among policy-makers in developing cities and their advisors. It outlines examples of successful policies and reforms as well as cutting-edge operational and technical expertise. The aim is to support progress in moving towards more sustainable transport systems and to outline key messages from the combined knowledge of all actors active in the transport sector which will include private and public operators, local, regional and national governments, the service and supply industry, scientific institutions and civil society organizations.

## 1.1 GLOBAL DEVELOPMENTS AND SUSTAINED URBANIZATION

Half of the world's population now live in cities and by 2030 this figure is expected to rise to two-thirds. A total of 95 per cent of future urban growth is expected to occur in developing countries, where motorization is rising rapidly and creating major challenges<sup>2</sup>.

Generally, transport and mobility can be regarded as essential preconditions for achieving sustainable development. However, looking at recent trends in developing countries it is clear that a lack of adequate transport infrastructure and affordable transport services has exacerbated rather than alleviated widespread poverty and social exclusion and is a major obstacle to the achievement of the Millennium Development Goals (MDGs).

Cities in developing countries are facing severe traffic congestion and worsening air pollution. The health effects of urban air pollution are estimated to cost approximately more than 5 per cent of the GDP in

developing countries<sup>3</sup>. Fewer than 20 per cent<sup>4</sup> of urban residents own and use a private car while the majority relies on informal or formal public transport, taxis, walking or cycling.

Despite this, cities have the potential to contribute to economic growth and wealth generation of developing nations but the rapid deterioration of the living environments in heavily-congested cities and towns threatens to undermine their ability to be engines of growth. Roads unsafe for walking and cycling and the decreasing efficiency and reliability of public transport affect the poor the most but the increasing levels of air pollution and congestion hampers economic vitality and quality of life in general, which has a negative impact on everyone.

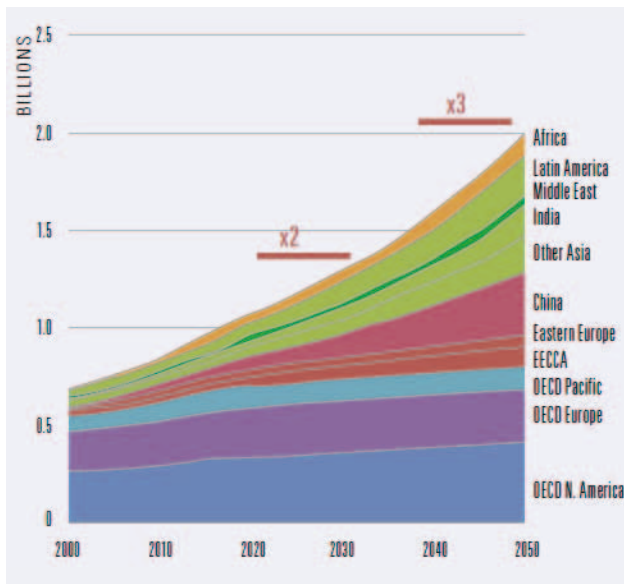
The recent worldwide financial and economic crisis has had a direct impact on transport. Fewer funds are available for infrastructure investments and there has been a dampening of travel demand. However, it is likely that these effects are only temporary and that demand for travel will increase further in much of urbanised Africa<sup>5</sup>.

Current trends suggest that few cities in developing countries will be able to afford the investment required for transport infrastructure and services to satisfy either present or future mobility demands. At present, the majority of the investment in transport infrastructure caters to the needs of the users of private motor vehicles, who are still a minority in most African cities. Sustainable urban transport policies have to address such imbalances, which has immediate relevance for alleviating social inequity.

<sup>3</sup> UNEP, 2009

<sup>4</sup> Trans African Consortium, 2010. Note: This figure is considered to be quite conservative and in many cities in Sub-Saharan Africa it is nearer 10 - 12 per cent whilst it may be slightly over 20 per cent in South African cities.

<sup>5</sup> For further information please see presentations give at the meeting (<http://www.unhabitat.org/content.asp?cid=7997&catid=639&typeid=11&subMenuId=0>)

**FIGURE 1: Total Stock of Light-Duty Vehicles by Region  
2000-2050**

Source: GEF/WBCSD 2004

## 1.2 URBAN TRANSPORT AND CLIMATE CHANGE: THE ROLE OF DEVELOPING COUNTRIES

Sustained urbanization and motorization have contributed to an unprecedented rise of worldwide greenhouse gas (GHG) emissions. According to International Energy Agency (IEA) estimates in 2009, urban areas currently account for more than 71 per cent of global greenhouse gases and their share is expected to rise to 76 per cent by 2030. Although per capita CO<sub>2</sub> emissions are far higher today in developed than in developing countries, it is estimated that 89 per cent of the increase in CO<sub>2</sub> from energy use over the next 20 years will be from developing countries.

figures of the World Energy Outlook of the IEA, about 23 per cent of the global GHG emissions are attributable to transport-related energy use. Private cars, light duty vehicles and trucks are the main source of these emissions. Car ownership worldwide is set to triple to more than two billion by 2050 and, given current trends, transport energy use and CO<sub>2</sub> emissions are projected to increase by nearly 50 per cent by 2030 and more than 89 per cent by 2050.

According to the IEA, even with deep cuts in CO<sub>2</sub> emissions from all other energy-consuming sectors, it will be difficult to meet targets such as stabilizing the concentration of GHG emissions in the atmosphere at a level of 450 ppm of CO<sub>2</sub> equivalent if transport does not reduce emissions to well below current levels by 2050. This will require changing the amount that urban residents travel and the way technologies to improve vehicle efficiency and shifts to low-carbon fuels will be adopted<sup>6</sup>.

However, it is unlikely that technology alone will deliver socio-economic development goals since the widespread adoption of clean fleets or clean fuel is frequently hampered by a lack of funds and resources. African citizens, governments and businesses for the most part cannot afford the most up-to-date technology. This is due not only to financial constraints, but also because many of these technologies need specialised maintenance and require imported spare parts.

Due to its emission relevance, the transport sector plays a critical role in reducing or stabilizing GHG emissions globally. Since effective climate change actions are incomplete without addressing the overall system performance of the transport sector, sustainable mobility in urban areas deserves special attention and it also tends to be easier to organize alternatives in urban

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