



Share the Road:

Investment in Walking and Cycling Road Infrastructure







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Acknowledgements

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^{*} This report does not necessarily reflect the views of all contributors and reviewers.

Acronyms

ADB Asian Development Bank
AfDB African Development Bank

ASEAN Association of Southeast Asian Nations

BAQ
Better Air Quality
BC
BCR
BCR
Benefit-Cost Ratio
BRT
Bus Rapid Transit
CBAs
COst Benefit Analyses
CO2
Carbon dioxide

CSE Center for Science and Environment

CTF Clean Technology Fund
C-XL Climate Excellence Africa
DALYs Disability Adjusted Life Years

DTIE Department of Technology, Industry and Economics

EU European Commission
EU European Union

FIA Federation Internationale de L'Automobile

GAP Global Atmospheric Pollution
GDP Gross Domestic Product
GHGs Greenhouse Gases
GoK Government of Kenya

GTZ Deutsche Gesellschaft Fur Technische Zusammenarbeit

HC Hydrocarbons

ICA Infrastructure Consortium for Africa
I-CE Interface for Cycling Expertise

ICT Information and Communications Technology

IEA International Energy Agency

iRAP International Road Assessment Programme
ITDP Institute for Transportation & Development Policy

km Kilometres

kph Kilometres Per Hour
KSI Killed and Serious Injuries

LOS Level of Service

MDBs Multilateral Development Banks
MDGs Millennium Development Goals

MT Motorised Transport

NAMAS Nationally Appropriate Mitigation Actions
NEPAD New Partnership for Africa's Development

NOx Nitrogen Oxide

NMT Non-motorised Transport

OECD Organisation for Economic Co-Operation and Development

PM Particulate Matter SOx Sulphur Oxide

SPM Suspended Particulate Matter

SSATP Sub-Saharan Africa Transport Programme

UNCTAD United Nations Conference on Trade and Development

UNDP United Nations Development Programme
UNEP United Nations Environment Programme

UNFCCC United Nations Framework Convention on Climate Change

UNICEF United Nations Children's Fund

USD United States Dollar

WBCSD World Business Council for Sustainable Development

WHO World Health Organisation

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Foreword

Roads are meant to facilitate mobility, the movement of people and goods. But many roads have become too congested with traffic and no longer meet their main purpose of improving accessibility. Moreover, most roads have been developed with the motor vehicle as the principal user. The results are sobering. Road transport accounts for 17% of the world's energy-related carbon dioxide emissions and 10% of global greenhouse gas emissions. It is also responsible for up to 90% of urban air pollution. More than 1.3 million people are killed every year and more than 50 million are seriously injured; 90% of which is in the developing world. And our cities are losing the vitality and ease of travel preferred by citizens, visitors and investors alike.

To take a more sustainable mobility path, the critical role of non-motorised transport (NMT) needs to be recognized and factored into road infrastructure investments. The most natural and energy-efficient ways to travel shorter distances— walking and cycling — have been sidelined by politicians and planners in many places over the last century in favour of transport systems designed for the motor vehicle. Innovations and new technologies in fuels and vehicles, as well as measures in traffic demand management, need to not only be encouraged but accelerated. It is clear that we need to diversify the options by building integrated, multi-modal transport systems that can propel a transition towards a low carbon, resource efficient, jobgenerating Green Economy.

It is a vision that brings together the United Nations Environment Programme (UNEP) and the FIA Foundation for the Automobile and Society (FIA Foundation) through a new campaign--Share the Road. In partnership with governments and donors, Share the Road aims to catalyse decision-making to systematically allocate investments in NMT road infrastructure. A good start would be a set percentage of the project costs set aside for NMT road infrastructure. The core rationale is that such investments are a triple win opportunity in improved environment, safety and accessibility which can contribute to sustainable development.

NMT investments are also a significant part of the package of solutions necessary to achieve the poverty-related Millennium Development Goals (MDGs) and the objectives of the UN Decade of Action for Road Safety in 2011-2020. For example by 2015, road crashes are projected to be the leading cause of health losses for children aged 5 to 14 in developing countries. Unless there are sustainable roads for these children to go to school in safety, we risk losing the progress made in reducing the under-5 mortality rate.

There is a critical window of opportunity to make road infrastructure in developing countries accommodate all users and support development efforts. On behalf of the many partners who contributed to this report, we invite all stakeholders in the international community to take part in the Share the Road initiative.

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Executive Summary

Cities are in urgent need of a new paradigm for envisioning and implementing sustainable transport. While current road transport systems have served as an engine of tremendous economic growth, they have also incurred huge costs in air pollution, emissions of greenhouse gases, injuries and fatalities from road crashes, lost productivity from congestion and, in some cases, the severance of communities. Such problems will be further exacerbated with the projected growth in private light-duty vehicles, namely a tripling of the global fleet by 2050, unless we establish cleaner, safer and more efficient transport systems. This kind of shift is urgent globally, but most acutely in the cities of developing countries where two-thirds of the growth in motor vehicles is expected to take place and where high rates of urbanisation add to the pressures on the environment and society.

Despite the massive benefits of NMT, investments by donors and governments still do not sufficiently finance roads and transport infrastructure to enable safe and enjoyable walking and cycling. The lack of investment in sustainable urban transport is one of the most blatant gaps in government expenditures, development assistance and climate finance. Share the Road draws attention to the missed opportunity and proposes a broad-based partnership to develop the kind of investment policies that will significantly raise the profile and delivery of NMT infrastructure. One possibility lies in linking to the recommendation of the Commission for Global Road Safety that a minimum 10% of total project costs be allocated to safety, inclusive of NMT infrastructure.

Investments in infrastructure for NMT yields tremendous positive impacts in the environment from less pollution and greenhouse gases, in safety from the protection of vulnerable road users from high-speed traffic, and in accessibility itself, by providing the majority of global citizens with a more viable, enjoyable and affordable means of travel.

Depending on the country and city, road investments will need to address an appropriate mixture of measures to preserve the modal share of NMT by preventing the shift to private cars or to increase the modal share of NMT by encouraging the shift to NMT modes. For example, in Nairobi, Kenya, more than half of the population walks or cycles to meet their mobility needs. The paradox is that little, if any NMT infrastructure exists, leaving those who rely on NMT especially vulnerable to road crashes. To rectify the situation and improve the convenience of using NMT, roads must be designed with all users in mind. Whether in rehabilitation projects or new road constructions, there are two common principles – the protection of vulnerable users from high speed impact and the integration of NMT networks with other motorised services such as public buses.

In this context, this report puts forth the following key recommendations to the international community, in particular to donors and to governments, for promoting increased investments in walking and cycling infrastructure:

- 1. Recognise the massive benefits of a clean environment, safer roads and better mobility from increased investments in NMT infrastructure: Current transport systems, overly dependent on motor vehicles, incur high costs from congestion, pollution and road fatalities. Walking and cycling are highly resource-efficient in both energy and space and the ability to use these modes makes our cities more attractive and liveable.
- 2. Better balance the share of NMT investments in road and transport infrastructure projects to meet the full range of people's mobility needs: Roads should facilitate the mobility of people and goods, without preference for some users over others. Sharing the road entails sharing the space and the resources allocated to build, maintain and improve them.
- 3. Increase the total amount of investments in NMT infrastructure as part of efforts for greening our economies, improving global road safety and achieving the Millennium Development Goals for reducing poverty:

 Sustainable transport is key to multiple agendas of global importance. Investments to address climate change, promote economic growth, improve road safety and reduce poverty should include components on NMT infrastructure as a matter of course.
- 4. Collaborate across a wide range of sectors and countries to make investments in NMT infrastructure a matter of policy in donor agencies and government budgets: The argument is clear, increased investments in NMT infrastructure are necessary for multiple, urgent reasons. Partners must work together to promote this low-cost, high-benefit component to sustainable mobility and institutionalise systematic financing of NMT.



- 5. Promote further education and training for engineers, designers, planners and funding proposal writers to raise their capacity to design and finance safe, intermodal transport systems: Achieving sustainable transport will be a challenging journey that requires a new way of planning, financing and implementing, especially in cities with rapid urbanisation and motorisation. Effective exchange and cooperation across national and sectoral boundaries are needed to cultivate such expertise.
- 6. Have creativity and courage in charting a sustainable mobility path: When faced with particular challenges, a healthy dose of thinking outside the box is necessary. Cities that are now leading examples had to overcome their own difficulties; their champions continue to promote safe, clean, more equitable transport.
- 7. Design roads so that vulnerable road users such as pedestrians and cyclists are protected from high speed impact: NMT facilities that protect users from high speed impact can drastically cut the number of serious injuries and fatalities. Giving NMT users their own space makes these modes of travel more enjoyable and attractive, while also improving traffic flow for motorists.
- 8. Integrate NMT networks with other modes, especially public transport, in order to maximise usage and impact: Walking and cycling are best suited for shorter distances, 3 km to 15 km respectively. Connecting sidewalks and cycling paths to bus stations and other motorised transport expands the possible range of resource-efficient travel and also increases use of public transport.
- 9. Develop indicators that can monitor and evaluate roads for their contribution to sustainable development in terms of environment, safety and accessibility: The traditional method of expressing transport improvements in km paved or the average speed of motor vehicles is outdated. Modern and inclusive ways to measure progress in roads and transport infrastructure must be developed to make investments more successful.
- 10. Communicate among donors and governments both at the project and policy level to identify best practices in monitoring and measuring impacts of road investments: Some donors and governments have already embarked on internal initiatives to improve the effectiveness of investments, as well as to reduce the unintended negative consequences. An open atmosphere of sharing and coordination will help propel a global push for better investments.

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