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Sustainable Mobility in a Fast-Changing World

From Concept to Action

Nancy Vandycke · José M. Viegas

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*To Maëlle, Raphaël, and all the children
in this world. May the winds fill their
sails with hope and courage, inspiring
them to act for our better future.*

—Nancy Vandycke

*To my former students, who over several
decades have been a constant source of
motivation, and often also inspiration
and pride for what they have been able to
achieve.*

—José M. Viegas

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The ideas expressed in this book do not represent the views of the individual member organizations of the Partnership, or the organizations the authors belong

to. Many elements of the book were discussed as background material in several international conferences and fora. The authors used several early chapters of the book as course material for a World Bank Open Learning Campus knowledge exchange course titled “Sustainable Mobility requires a New Approach Today.” The production of this online course benefited from financial support from the Open Learning Campus managed Trust Fund from the Republic of Korea, Michelin Foundation, the World Bank, the UK Foreign, Commonwealth and Development Office, and the German Cooperation Deutsche Zusammenarbeit. We also owe our thanks to the participants of this course, who provided enthusiasm and formed a useful space for fine-tuning the communication of ideas and concepts in this book. Our thanks go also to Nicolas Beaumont, Young Tae Kim, Zeph Nhleko, Susanna Zammataro, Claire-Marie Bernard, Jan Hoffman, Frida Youssef, Irena Zubcevic, Jascha Franklin-Hodge, Jamal Saghir, Gurpreet Singh Sehmi, Mary Ngaratoki Fabian, Emiye Deneke, Javier Morales Sarriera, Holly Krambeck, Justin Coetzee, and Xavier Espinet who generously contributed their time to the development of the online course, much of which also doubled as feedback for this book.

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Nancy Vandycke
José M. Viegas

Praise for *Sustainable Mobility in a Fast-Changing World*

“Above all, the ambition of the Sustainable Mobility for All partnership is rooted in strategically meeting the challenges of an unstable and unpredictable future. True to its roots, *Sustainable Mobility in a Fast-Changing World* takes readers through the dynamics shaping our world today and in the future, and what can be done to help ensure a brighter future for all through sustainable mobility. The action needed today has never been clearer, and this book shares this message and related tools with country decision makers in search of objective answers and strategic guidance.”

—Sustainable Mobility for All Steering Committee

“Progress towards sustainable mobility has been slow, not because of a lack of effort but more because a global vision has been lacking. This book calls for a new global approach to public decision making on mobility through a focus on decentralised and participatory measures. The authors have produced an authoritative, well-researched and ambitious perspective through the development of a global sustainable mobility score, a toolkit, and a comprehensive range of actions at the national level. We all contribute to unsustainable mobility and this new systematic guidance provides a clear framework within which to compare, debate and decide on effective action. This book will help all countries facilitate progress towards sustainable mobility.”

—David Banister, *Professor Emeritus of Transport Studies,*
University of Oxford, UK

“I wish this book existed when I was the Mayor of Quito, especially when I decided to undertake the construction of the first metro line in my city, the first in Ecuador. The authors’ expertise in the field is a great resource and solid foundation for the development of a much-needed new approach to transport, which

highlights the importance of multi-stakeholder partnerships between and across local, national governments, and other sectors. Innovative partnerships are key to a paradigm shift in urban mobility for attaining sustainability in transport, emphasizing the focus of planning needs to shift from traffic to people.”

—Mauricio Rodas Espinel, *Former Mayor of Quito*

“The mobility of people and goods within domestic borders and internationally is a critical lynchpin of global economic development. As such, sustainable mobility is a requirement for sustainable development, a known requirement to reverse the effects of climate change. Vital for both developed and developing countries, this book sets strategic goals for sustainable mobility coupled with practical ideas and actions for a better future.”

—Jean-Pierre Loubinoux, *Honorary Director General of UIC, International Association of Railways; Member of the UN High-Level Advisory Group on Sustainable Transport*

“This is an invaluable read for countries that are serious about achieving the collective aspirations of the SDGs and the Paris Agreement. Drawing on their decades of international experience and expertise in the field, the authors outline the dynamics shaping the future of global transport and offer a useful toolkit for strategic national policy formulation in the sector. Policymakers, public transport officials, financiers of transport infrastructure and services, and transport professionals will find this book on sustainable mobility very useful.”

—Zeph Nhleko, *Chief Economist, Development Bank of Southern Africa*

“The authors address the right set of issues and challenges facing the transport sector. It comes at the right time when decision makers are in search of ways to change current development trajectory toward a new one incorporating the SDGs and climate mitigation and adaptation considerations. It brings together the deep knowledge generated by the World Bank Group, SuM4All and the affiliated organizations into a coherent structure proposing a new approach, set of tools and solutions.”

—Jamal Saghir, *Professor of Practice, Institute for the Study of International Development, McGill University. Former Director at the World Bank Group*

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About the Authors



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Dr. José M. Viegas is the methodological coordinator of an innovative approach for improved decision making in transport and associated tools—including the Global Tracking Framework for Transport and Catalogue of Policy Measures that are a part of the Global Roadmap of Action—developed under the Sustainable Mobility for All (SuM4All) partnership. He was the Secretary-General of the International Transport Forum (ITF) at the Organisation for Economic Co-operation and Development (OECD) from 2012 to 2017. In this capacity, Dr. Viegas led programs of structural reform in transport and brought ITF to the forefront of innovation in transport policy, strongly increasing collaboration with both corporate and institutional parts of the transport sector. ITF reports have become worldwide references in their respective domains. Prior to joining the ITF, José Viegas was Full Professor of Transportation at the University of Lisbon, where he was the Head of the Research Unit on Transport Infrastructure, Systems and Policy, as well as the National Director of the Transport Systems Area of the MIT–Portugal program. He was the coordinator of more than a dozen research projects for the European Commission between 1995 and 2010, and a member of the High-Level Advisory Group on Sustainable Mobility from 2015 to 2016 appointed by then UN Secretary-General Ban Ki-moon.

Abbreviations

4IR	Fourth Industrial Revolution
AI	Artificial Intelligence
BMZ	German Federal Ministry of Economic Cooperation and Development
BRT	Bus Rapid Transit
CAP	Country Action Plan
COP	Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC)
CORSIA	Carbon Offset and Reduction Scheme for International Aviation
CPM	Catalogue of Policy Measures toward Sustainable Mobility
DBSA	Development Bank of Southern Africa
EV	Electric Vehicle
FCDO	UK Foreign Commonwealth and Development Office
GHG	Greenhouse Gas
GMR	Global Mobility Report
GRA	Global Roadmap of Action toward Sustainable Mobility
GTF	Global Tracking Framework for Transport
ICAO	International Civil Aviation Organization
ICT	Information and Communications Technology
IEA	International Energy Agency
IRF	International Road Federation
ITF	International Transport Forum
LPI	Logistics Performance Index
MBT	Minibus Taxi
MDB	Multilateral Development Bank
NGO	Non-Governmental Organization

OECD	Organization for Economic Co-operation and Development
PAP	Prototype Action Plan
PPP	Public-Private Partnership
R&D	Research and Development
RAI	Rural Accessibility Index
RTR	Rapid Transit to Resident Ratio
SDGs	Sustainable Development Goals
SSA	Sub-Saharan Africa
SuM4All	Sustainable Mobility for All
TNCs	Transportation Networking Companies
UIC	International Union of Railways
UMIC	Upper Middle-Income Country
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNECE	United Nations Economic Commission for Europe
WB	World Bank
WHO	World Health Organization
WTO	World Trade Organization

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