

Abbreviations and Acronyms

ADB	–	Asian Development Bank
ASIF	–	Activity-Structure-Intensity-Fuel
BAU	–	business-as-usual
BRT	–	bus rapid transit
CAFE	–	Corporate Average Fuel Economy
CAI-Asia	–	Clean Air Initiative for Asian Cities
CBD	–	Central Business District, Singapore
CDM	–	Clean Development Mechanism
CNG	–	compressed natural gas
CO ₂	–	carbon dioxide
ERP	–	electronic road pricing
EU	–	European Union
EURO	–	European emissions standards
GDP	–	gross domestic product
GEF	–	The World Bank's Global Environment Fund
GhG	–	greenhouse gas
HC	–	hydrocarbons
I&C	–	inspection and certification
ITS	–	Intelligent Transport System
km	–	kilometer
LCA	–	life cycle analysis
LPG	–	liquefied petroleum gas
Mmtoe	–	million metric ton of oil equivalent
mpg	–	mile per gallon
NGO	–	nongovernment organization
NMT	–	nonmotorized transport
NO _x	–	nitrogen oxides
OECD	–	Organisation for Economic Co-operation and Development
PM	–	particulate matter
ppm	–	part per million
PPP	–	public-private partnership
PRC	–	People's Republic of China
SUV	–	sport utility vehicle
UK	–	United Kingdom
UN	–	United Nations
US	–	United States

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Foreword

Rapid urbanization in Asia has brought tremendous opportunities and benefits in areas such as education, health care, and social services. But it has also brought significant challenges as cities work to absorb higher populations. One of those challenges is how to deal with increased mobility and number of vehicles on the road, particularly harmful vehicle emissions. Besides the serious consequences of these pollutants on people's health and quality of life, motorized vehicles are now the leading contributor in Asia to the greenhouse gas (GhG) emissions.

Climate change is principally the result of burning of fossil fuels such as coal, oil, and gas. Over the last 30 years, Asia's energy consumption has grown by 230%. With the dramatic increase in vehicle usage in our region, transport is not only the largest source of these emissions, but also the fastest growing. Vehicle fleets are doubling every 5 to 7 years and this reinforces the urgency of producing cost-effective GhG reduction solutions for transport. Asia must put its energy consumption on a more sustainable path.

Our work at the Asian Development Bank (ADB) clearly demonstrates that to achieve real reductions in the rate of growth in GhG from the transport sector, the problems must be addressed holistically. This means changing existing travel behavior patterns and modifying urban development patterns to minimize the type, length, and frequency of trips that people need to take.

Progress toward reducing the growth of GHGs from the transport sector will require partnerships and involvement of a wide range of stakeholders. As the region's development bank, ADB has undertaken several comprehensive initiatives in energy efficiency and climate change mitigation. We support the Clean Air Initiative for Asian Cities, a regional network of cities, government agencies, business, civil society, academe, and development agencies.

More recently, we launched an Energy Efficiency Initiative to boost our investment in clean energy projects to around \$1 billion a year, and a Carbon Market Initiative to address climate change and energy security, while providing substantial benefits for both developing and industrialized countries.

The report presents a comprehensive analysis of the future emission scenarios of GhGs from the transport sector in Asia. ADB expects that the findings and the recommendations will help to inform thinking of a wide range of stakeholders across Asia and that it will stimulate the development of policies and actions.

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