

Preface

Concerned with the increasing levels of air pollution caused by motor vehicles in Asia's major cities, Asian Development Bank initiated a project on *Reducing Vehicle Emissions* in November 2000. The project collected and disseminated information on policies to reduce vehicle emissions through the Reducing Vehicle Emissions in Asia website (<http://www.adb.org/vehicle-emissions>), an information portal on international, regional, national and city level experiences in reducing vehicle emissions.

Through five workshops, the project provided a venue for the sharing of experiences between countries in Asia and the introduction of best practices on reducing vehicle emissions from other regions—

- **Fuel Quality, Alternative Fuels, and Advanced Vehicle Technology** held on 2–4 May 2001 in New Delhi, India,
- **Reducing Emissions from Two and Three Wheelers** held on 5–7 September 2001 in Hanoi, Viet Nam,
- **Strengthening Vehicle Inspection and Maintenance** held on 7–9 November 2001 in Chongqing, PRC,
- **Transport Planning, Demand Management and Air Quality** held on 26–27 February 2002 in Manila, Philippines, and
- **Concluding Workshop on Reducing Vehicle Emissions** held on 28 February–1 March 2002 in Manila, Philippines.

The project supported the formation of multi-sector action plan groups and the formulation of three action plans—"Integrated Vehicle Emission Reduction Strategy for Greater Jakarta, Indonesia," "Strengthening Vehicle Inspection and Maintenance in Chongqing, People's Republic of China," and "Integrated Action Plan to Reduce Vehicle Emissions in Viet Nam." It provided

resources for two studies—“Study on Air Quality in Jakarta, Indonesia: Future Trends, Health Impacts, Economic Value and Policy Options” and “Pricing and Infrastructure Costing for Supply and Distribution of CNG and ULSD to the Transport Sector in Mumbai, India.”

The *Policy Guidelines for Reducing Vehicle Emissions in Asia* consist of five main books with these titles:

- Reducing Vehicle Emissions in Asia
- Cleaner Fuels
- Cleaner Two and Three Wheelers
- Vehicle Emissions Standards and Inspection and Maintenance
- Transport Planning and Traffic Management for Better Air Quality

These books come with a common appendix on the *Adverse Health and Environmental Effects from Vehicle Emissions* printed as a separate book to clearly demonstrate the health and environmental impacts caused by air pollution from vehicles.

These policy guidelines, which are based on the five workshops organized by the project, provide an in-depth analysis of the different components of an integrated strategy to reduce pollution from vehicles in Asia. Policymakers in Asia will have to combine the general principles outlined in the policy guidelines with their knowledge of the local situation in their countries and cities to arrive at effective strategies.

The *Reducing Vehicle Emissions* project produced its final report in a CD-ROM containing the workshop presentations, action plans, studies, and policy guidelines.

Abbreviations

ADB	Asian Development Bank
CNG	compressed natural gas
CO	carbon monoxide
EU	European Union
GHG	greenhouse gas
HC	hydrocarbon
LPG	liquefied petroleum gas
MTBE	methyl tertiary-butyl ether
NGV	natural gas vehicle
NO _x	nitrogen oxides
PAH	polycyclic aromatic hydrocarbon
PM	particulate matter
PPM	parts per million
ULSD	ultra-low sulfur diesel
SOF	soluble organic fraction
SO _x	sulfur oxides
SO ₂	sulfur dioxide
T ₉₀	temperature at which 90% of diesel/gasoline evaporates
T ₉₅	temperature at which 95% of diesel/gasoline evaporates
VOC	volatile organic compound