

# Accelerating Fuel Economy Policies in the ASEAN Region

Parthaa Bosu  
India Director and South Asia Liaison

Urban Mobility India, 2015



**Clean Air Asia** is an international NGO that promotes better air quality and livable cities by translating knowledge to policies and actions that enable Asia's 1,000+ cities to reduce air pollution and greenhouse gas emissions from transport, energy, other sectors.



## Clean Air Asia Programs



**Air Quality and Climate Change**



**Low Emissions Urban Development**



**Clean Fuels and Vehicles**



**Green Freight and Logistics**

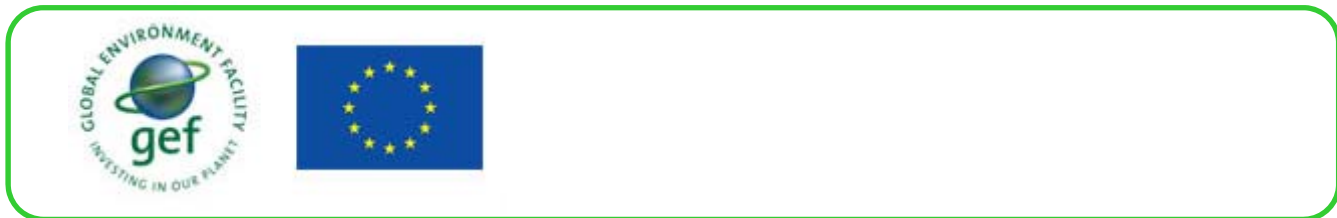
**Clean Air Asia** offers its partners:

- **Actionable guidance** for administrators and policymakers
- **High-level expertise** in air quality management
- **An ethos of partnerships, collaboration, and cooperation** as key drivers for meaningful and lasting change
- Established in 2001 as the premier air quality network for Asia by ADB, World Bank, USAID
- Since 2007, Clean Air Asia is a UN recognized partnership of more than 250 organizations in Asia and worldwide and 8 country networks

# About Clean Air Asia



**Donors**



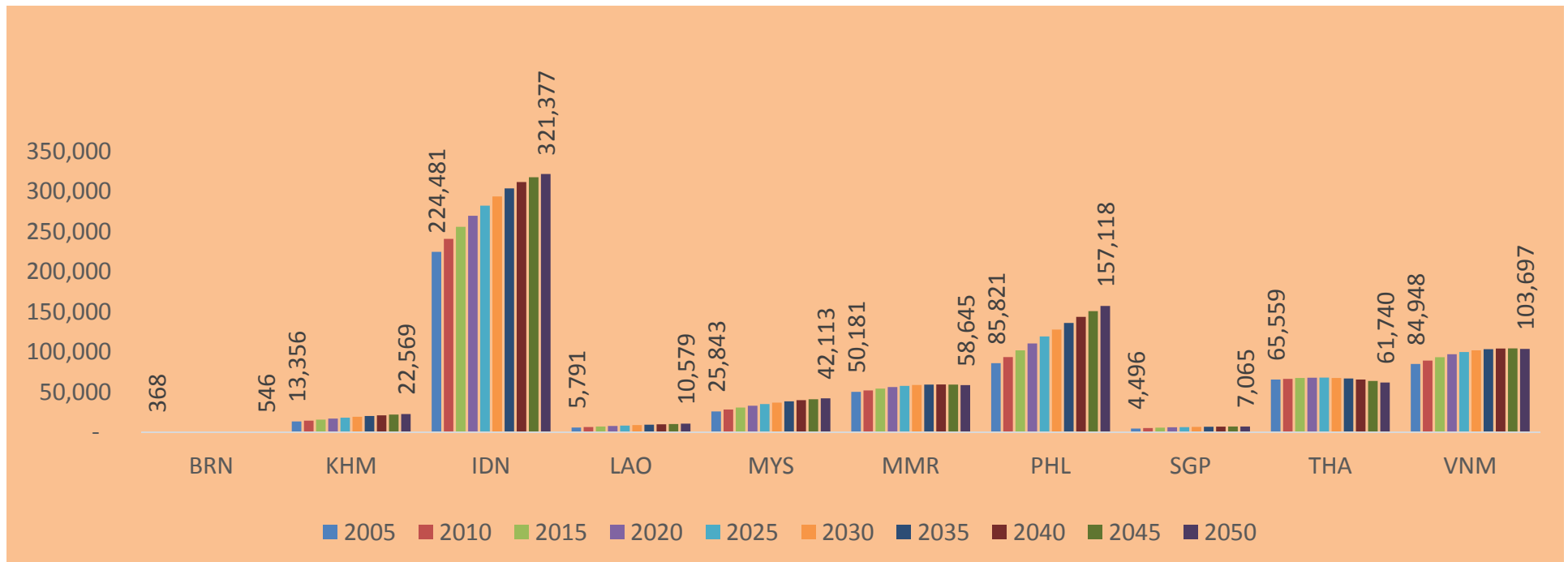
**Mission:** facilitate large reductions in CO<sub>2</sub> emissions and oil use through improvements in automotive fuel economy as per IPCC and G8 recommendations.



# Key Drivers : Growing Population



- Southeast Asia will be home to **785** million people in 2050, 8% of the world's population
- **4.9** million people are to be added each year



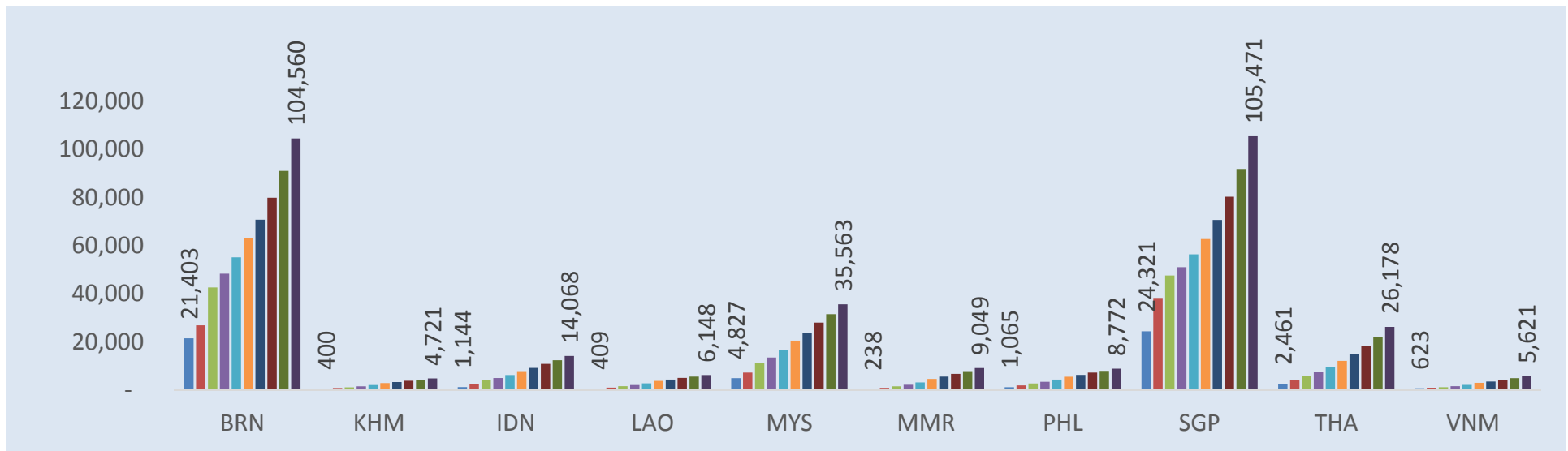
Source: Based on UN Population Projections



## Key Drivers : Growing Economies

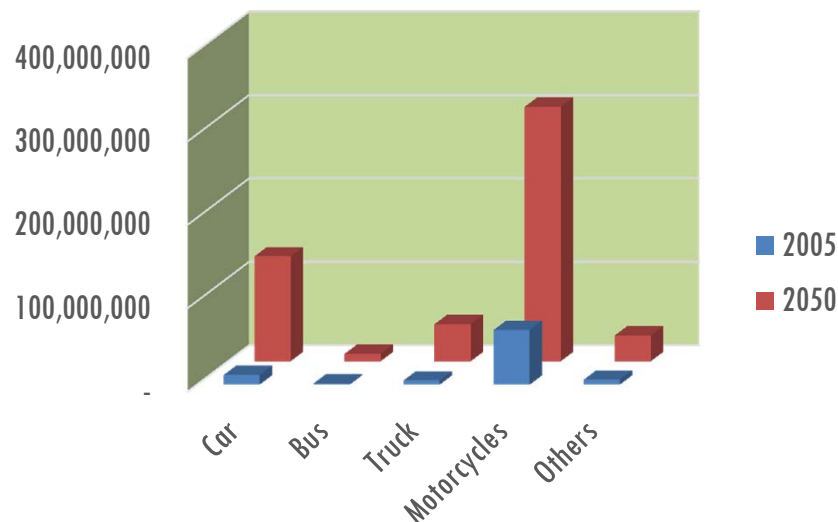


- The weighted average GDP per capita will increase almost **10-fold** from 2005-2050
- 2005 = **1,469** USD , 2050 = **14,132** USD
- **3.91%** annual growth rate (long term average)



Source: ITPS, CAA, 2014

# Projections : Growing Vehicle Fleets



- **515 million** vehicles in 2050
- **389** 4-wheeled vehicles/1000 people
- **388** 2 and 3-wheeled vehicles/1000 people
- **2.5** million cars will be added per year
- **5.3** million motorcycles will be added per year

Source: ITPS, CAA, 2014

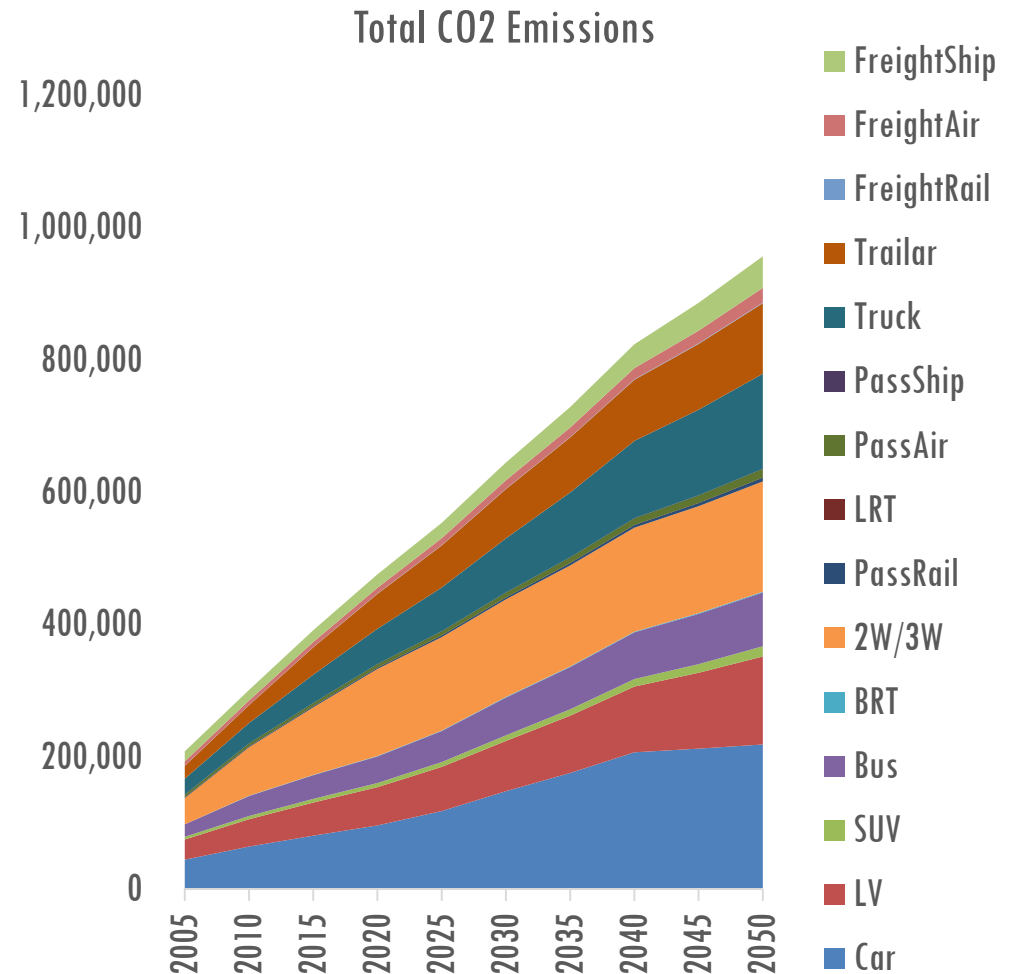
In 2014, 3.1 passenger and commercial vehicles sold in ASEAN (excluding Cambodia, Lao, Myanmar), 11.2 million motorcycles (INO, MYS, PHL, THA) . Source – Asean Automotive Federation



# Road Transport Related CO2 Emissions



- Transport CO2 emissions will increase by **4.6** -fold from 2005-2050
- **208** million tons CO2 2005 → **956** million tons CO2 in 2050
- CO2 emissions per capita will increase to **1.32** tons/year from **0.37** in 2005.



- One of the key objectives of the “ASEAN Economic Community” is to create a “single market and production base” within the region
- The national markets in ASEAN present varying stages of industry development
- Regional fuel economy discussions can lead towards synergies
  - Increasing regional market integration and removal of trade barriers.
  - Intensifying energy productivity and reducing energy demand.
  - Improving energy security, while reducing greenhouse gases emissions.

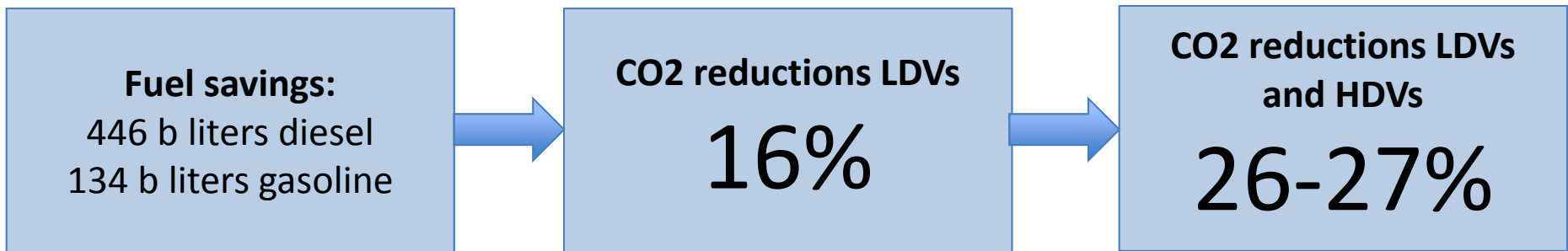
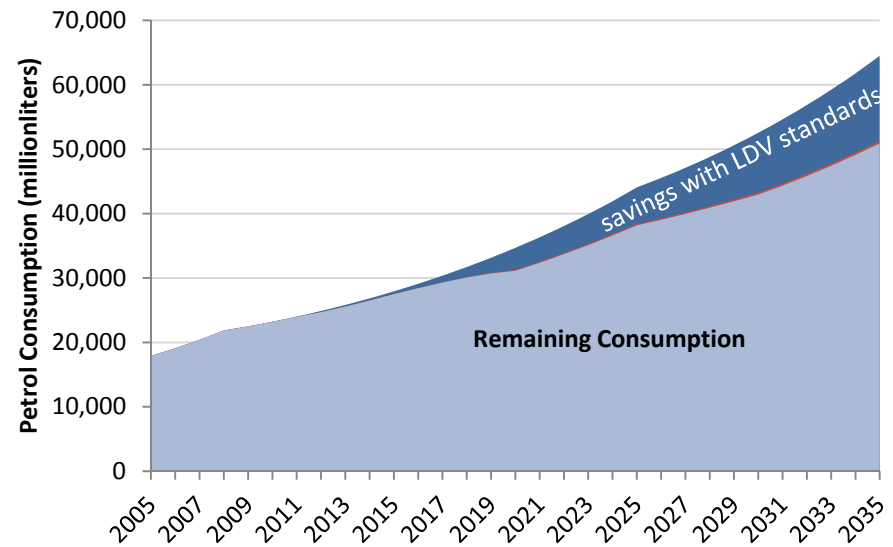
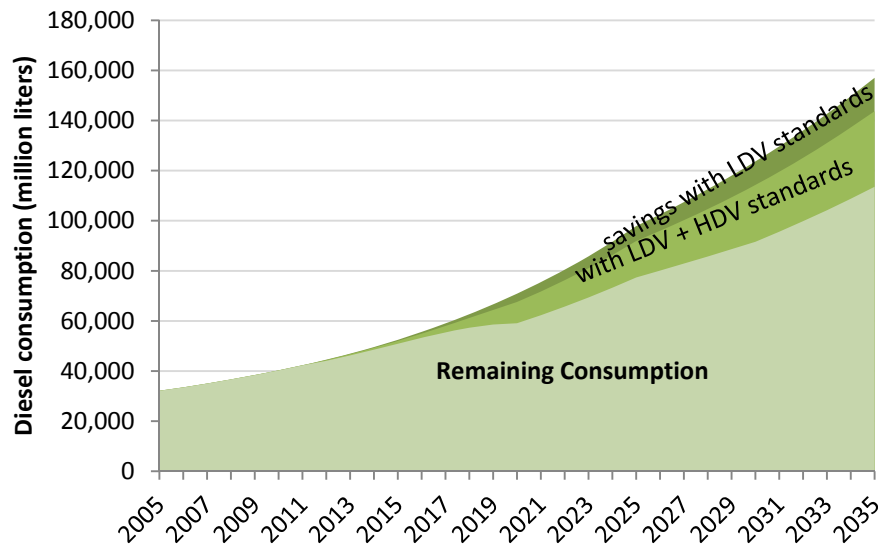


# Potential Benefits: Fuel Economy Policies



## Impact potential 2012 – 2035 compared to BAU

### Indonesia, Thailand, Philippines, Vietnam



# National initiatives in the ASEAN Region



THAILAND

- Development of automotive fuel economy standards (DEDE, Ministry of Energy)
- CO<sub>2</sub>-based taxation



VIETNAM

TCVN fuel economy standards for LDV and motorcycles (Ministry of Transport)



PHILIPPINES

- Baseline calculations for fuel economy standards setting (with Department of Energy, Department of Trade and Industry)
- Fuel economy labeling scheme is being formulated



INDONESIA

Cost-Benefit Analysis on Fuel Quality and Fuel Economy (with Ministry of Environment)  
Low cost Green Car Program

MALAYSIA:  
National Automotive Policy 2014 – implementation of Energy efficient vehicles



Barriers brought about by  
“Lack of a Harmonized Approach”



- Lack of standards and mutual recognition → technical barriers to trade (internally and also with global markets)
- The national markets in ASEAN present varying stages of industry development → need to be taken into account
- An ASEAN roadmap on fuel economy is needed in order to provide guidance for the policy options towards fuel economy improvements in the road transport sector. National governments in ASEAN can also learn from the experiences of other nations in Asia such as India.



# BAQ Experts Group Meeting on Fuel Economy



## *Better Air Quality Workshop @ Colombo, 2014* Experts Group Meeting on Fuel Economy in ASEAN

- A key outcome of the meeting is the formulation of clear guidance for governments to champion the agenda of fuel economy through formal regional channels, This becomes especially relevant as the post-2015 ASEAN Strategic Action Plan is being finalized for future adoption by ASEAN member countries.
- Another key outcome is to pursue a common labeling policy for passenger cars in member countries of the ASEAN region, which was proposed as a viable next step towards achieving a common set of guidelines for fuel economy measures in the region. This will also provide the necessary public engagement which can lead to a better understanding of the need to institute fuel economy policies and measures.



# Towards a Regional Roadmap



- Fuel economy is currently included in the discussions for the post-2015 ASEAN Strategic Transport Plan as a thematic area under sustainable transport
  - Establishment of an ASEAN expert group on fuel economy
  - Fuel economy roadmap formulation
  - Support for national efforts to improve vehicle fuel economy
- A proposal was also discussed under the ASEAN Center for Energy/ Energy Efficiency and Conservation Sub-sector Network for formulating a Roadmap on Fuel Economy in the Region



## Moving Forward



- ASEAN strongly positioned to become a major vehicle market in the future
- Championing the issue within the ASEAN structure is key
- Current situation is characterized by a diverse set of strategies relating to fuel economy improvements
- Intensified externalities and costs in the horizon
- Need to engage at a regional level – a common regional **roadmap** for guiding national governments towards divergence towards a regional approach; knowledge transfer and experience sharing is essential



For more information: [www.cleanairasia.org](http://www.cleanairasia.org)



BUSAN, SOUTH KOREA  
29 AUG - 2 SEP 2016

[www.cleanairforcities.org](http://www.cleanairforcities.org)

### Clean Air Asia Center

[center@cleanairasia.org](mailto:center@cleanairasia.org)

Unit 3505 Robinsons Equitable Tower  
ADB Avenue, Pasig City  
Metro Manila 1605  
Philippines



### Clean Air Asia China Office

[china@cleanairasia.org](mailto:china@cleanairasia.org)

11-152, JianGuoMenWai Diplomatic  
Residence Compound, No.1 XiuShui  
Street, ChaoYang District,  
Beijing 100600 China

### Clean Air Asia India Office

[india@cleanairasia.org](mailto:india@cleanairasia.org)

1st Floor, Building No. 4  
Thyagraj Nagar Market, Lodhi Colony  
New Delhi 110003  
India

### Clean Air Asia Country Networks

China • India • Indonesia • Nepal • Pakistan • Philippines • Sri Lanka • Vietnam

#### Clean Air Asia Center Members



#### 250 Clean Air Asia Partnership Members

- Cities
- Environment ministries and government agencies
- Development agencies and foundations
- Non-government organizations
- Academic and research institutions
- Private sector companies and associations

#### Donors in 2015

Asian Development Bank • AECOM • China Road Transportation Association (CRTA) • Civic Exchange • Climate and Clean Air Coalition (CCAC) • ClimateWorks Foundation • DHL/IKEA/UPS • Energy Foundation • Fredskorpset Norway • Fu Tak lam Foundation • German International Cooperation (GIZ) • Institute for Global Environmental Strategies (IGES) • Institute for Transport Policy Studies • Institute for Transportation and Development Policy • MAHA • Pilipinas Shell • Rockefeller Brothers Fund • Shakti Foundation • Shell Foundation • Sida • UNCRD • United Nations Environment Program Partnership for Clean Fuels and Vehicles (UNEP PCFV) • UNEP DTIE • UN Habitat • USAID CEnergy • World Bank