

Sustainable Road Freight Transport: An Asian Perspective

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**The Future Role of Trucks for Energy and Environment
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Since 2007,
CAA has provided
direct support to

199
cities in Asia

CAA tracks
air quality levels in

478
cities

Clean Air Asia is an international non-governmental organization leading the regional mission for better air quality, and healthier, more livable cities in Asia since 2001. We work with partners to reduce air pollution and greenhouse gas emissions by building capacity, advocating effective policies and practice, and informing stakeholders of the impacts of air pollution and climate change.

Since 2007, Clean Air Asia has been a UN-recognized partnership with 7 Country Networks—Indonesia, Malaysia, Nepal, Pakistan, Philippines, Sri Lanka and Vietnam—and 261 member organizations in 33 countries.

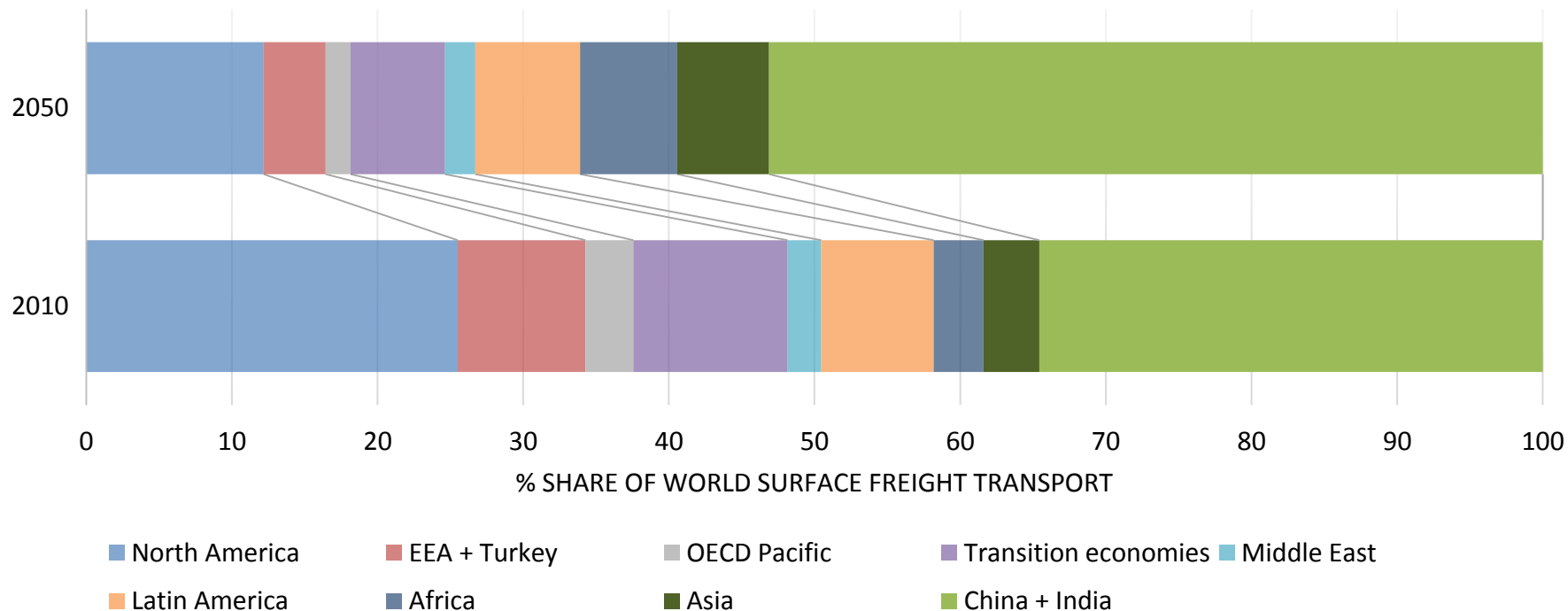
Our headquarters are in Manila, Philippines and we have offices in Beijing, China and New Delhi, India.

www.cleanairasia.org



Asia's Importance in Driving Freight

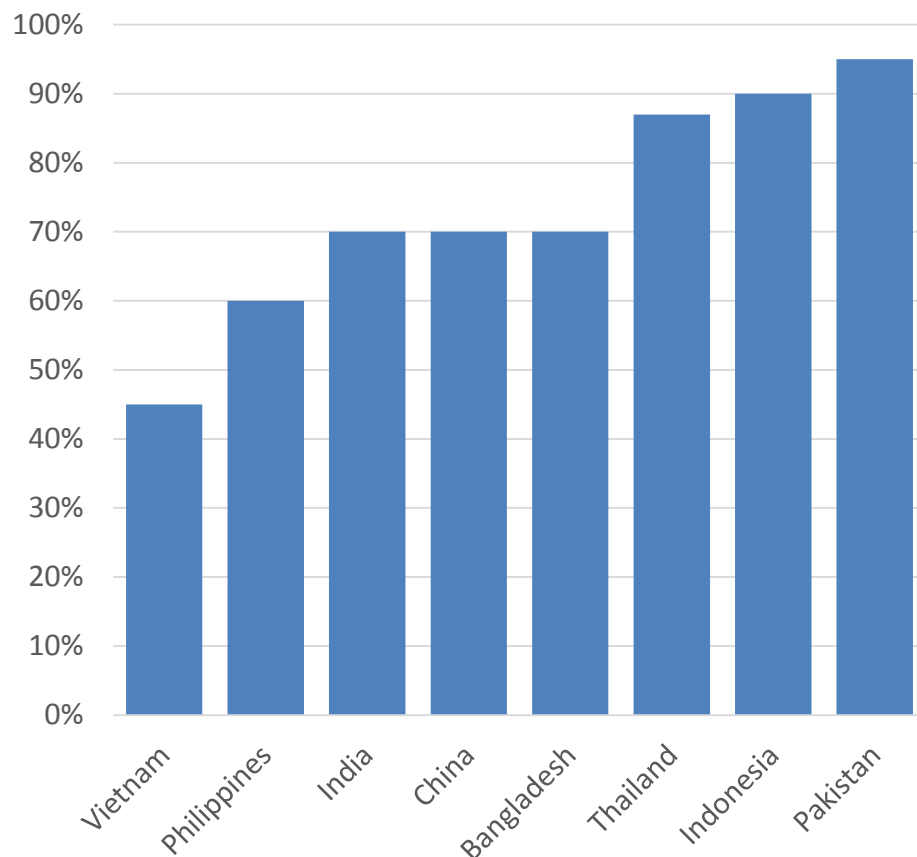
Asia, including China and India, will account for almost 60% of world surface freight transport in 2050



Road Freight Sector in Developing Asia

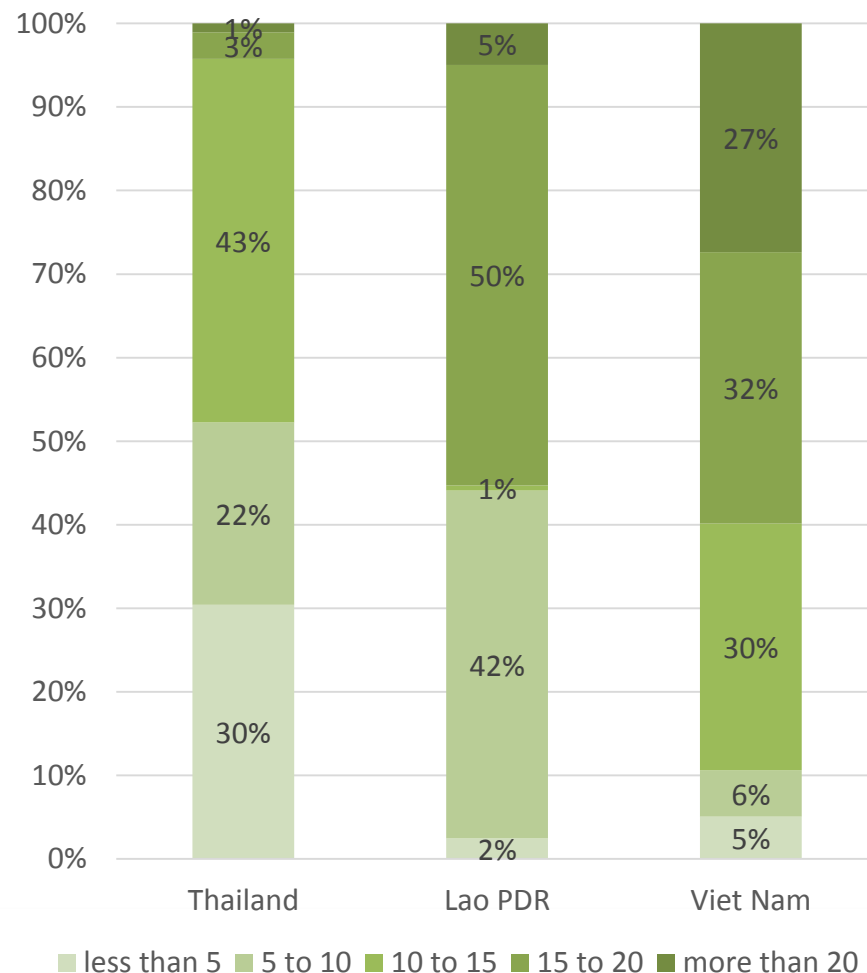


% SHARE OF ROAD FREIGHT ACTIVITY



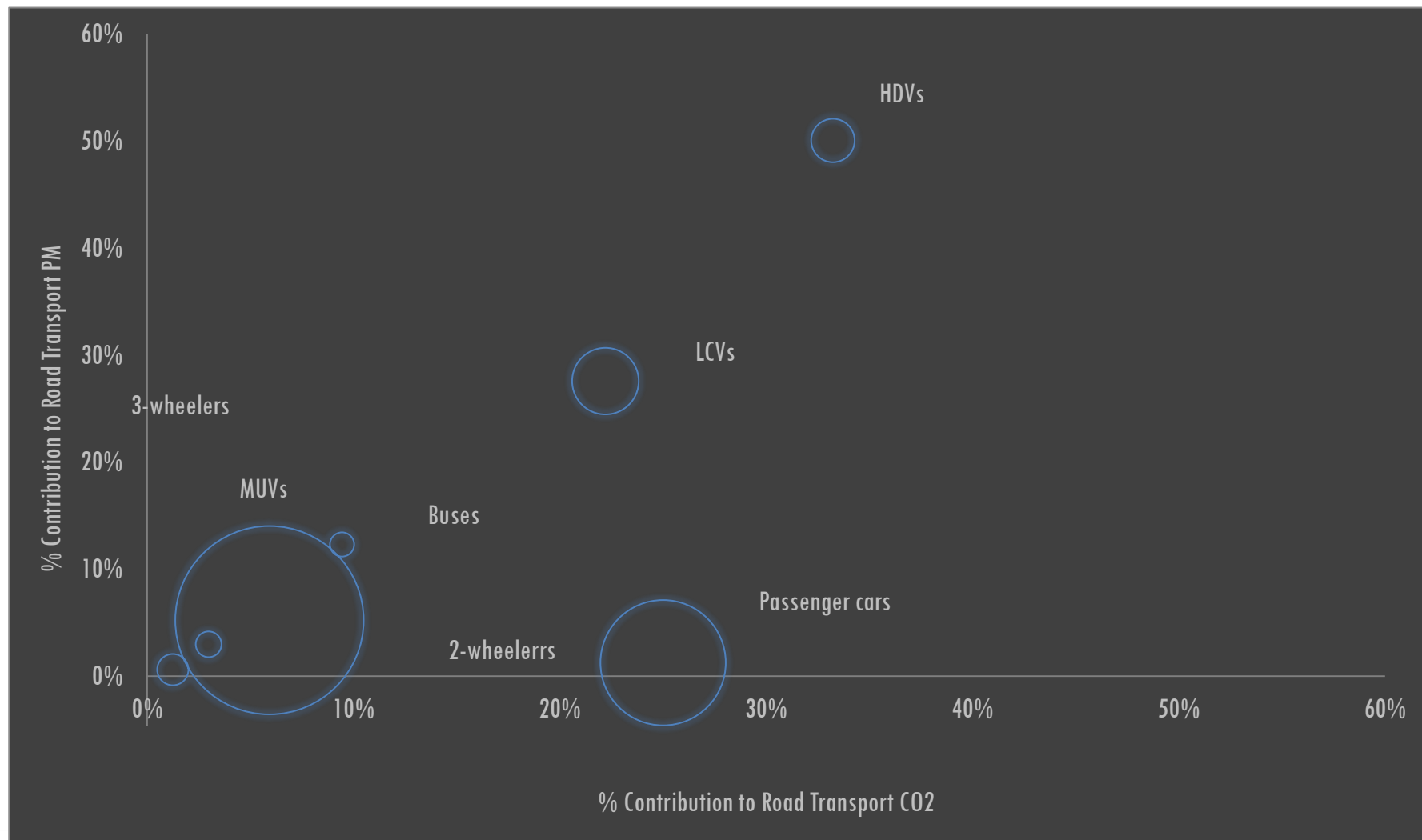
Source: Pakistan: Government of Pakistan, Engineering Development Board, Ministry of Industries, Production and Special Initiatives (2006). Indonesia: Sopadang, A. (2007). Philippines: Patdu, I. (2005). Vietnam: Lubis, H. and M. Isnaeni. (2005). China: ADB (2008). India - World Bank (2008), Bangladesh BRTA, Vietnam World Bank (2014, based on a JICA Study in 2009)

AGE STRUCTURE OF TRUCK FLEETS



Source: ADB GMS EOC

Impacts of Road Freight : Emissions



Note : The size of the bubble represents the % share of the vehicle in the total vehicle population

Key Barriers to Sustainable Road Freight



- Governance-related issues — multiple agencies, lack of enforcement
- Market fragmentation — dominated by small operators
- Access to finance — small players who are in need of financing (e.g. for technology adoption) normally cannot meet financing requirements
- Poor freight data — leads to unguided policies; freight is disconnected between transport policy and planning

Green Freight Developments: China



- **STAKEHOLDER ENGAGEMENT**

- China Green Freight Initiative

- **PROJECT DESIGN, IMPLEMENTATION, REVIEW**

- 2008-2010: Guangzhou Green Freight Project
- 2011-2015 : Guangdong Provincial demonstration (involving truck technologies, information platform, drop-and-hook)
- Present : Green logistics management, green technologies, green driving : awareness raising
 - Mr. Trucker campaign (to be launched this month!)



Phase I theme: Eco-driving



Green Freight Developments: India

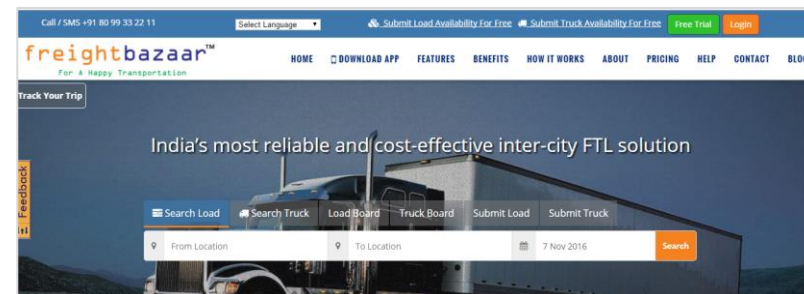
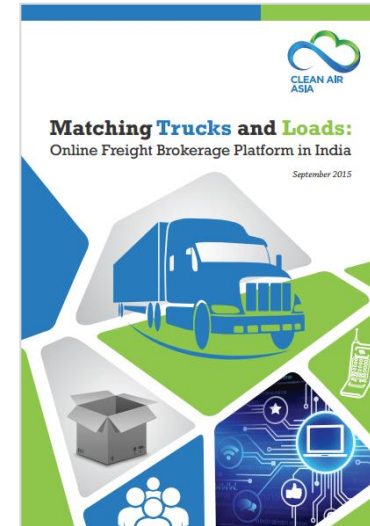


GREEN FREIGHT STAKEHOLDER COORDINATION

- Green Freight India Working Group

TOOLS and CASE STUDY BUILDING

- Modification and application of the “Green Freight Toolkit” in India
- Online freight exchange (in cooperation with freightbazaar.com)



Green Freight Developments: Southeast Asia

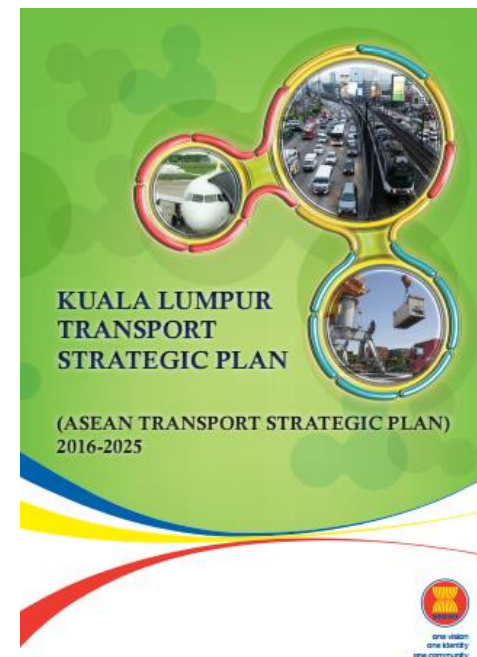


REGIONAL LEVEL

- ASEAN's inclusion green freight in its new transport strategic plan
- Green freight activities in the GMS countries (Lao, Thailand, Vietnam); stakeholder coordination

COUNTRY LEVEL

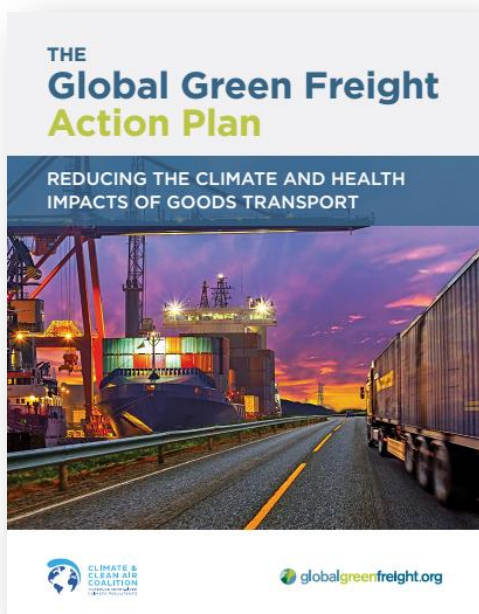
- Ground work towards the establishment of a green freight program development in Vietnam



Global Green Freight Action Plan



CLIMATE &
CLEAN AIR
COALITION
TO REDUCE SHORT-LIVED
CLIMATE POLLUTANTS



Goal: To enhance the environmental and energy efficiency of goods movement

- Align and enhance existing GF efforts
- Develop and support new GF programs
- Incorporate BC reductions into GF programs

2020

High quality global multimodal freight supply chain data and emissions factors shared through global reporting database/mechanism; Global Green Freight Technology Verification program in place; Major shippers and carriers include black carbon in sustainability goals; Regional level programs in all regions (available for any country to join)

2022

Green freight financing programs established to accelerate fleet turnover and retrofits in all regions

2025

Green freight programs that follow best practices in all major markets; Top 100 global shippers in carriers are members of all major programs

2030

All countries members of regional program; Green freight programs demonstrate significant emissions reductions from freight transport.

Conclusions

- **Asia will increasingly be important in driving (green) freight activity and there is momentum towards greening the road freight sector in the region**
- **Developing Asia primarily relies on road freight. The governance, and market structure, combined with lack of financial access, are key challenges towards transformation.**
- **Although technology solutions are important, greening the freight sector entails a more integrated approach. Long-term transformative interventions (such as land use planning, alternative modes for freight) must be implemented as well**



For more information: www.cleanairasia.org

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Clean Air Asia Center Members



TOYOTA

261 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

Clean Air Asia Country Networks

Indonesia . Malaysia . Nepal . Pakistan
Philippines . Sri Lanka . Vietnam