Sustainable Road Freight Transport: An Asian Perspective

Bjarne Pedersen
Executive Director
Clean Air Asia

The Future Role of Trucks for Energy and Environment
Brussels
8 November 2016
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. According to the ITF, 2015 report, the following regions and their respective shares of world surface freight transport are projected for 2010 and 2050:

- **North America**: 10% in 2010, 10% in 2050
- **EEA + Turkey**: 15% in 2010, 15% in 2050
- **OECD Pacific**: 20% in 2010, 20% in 2050
- **Transition economies**: 25% in 2010, 25% in 2050
- **Middle East**: 5% in 2010, 5% in 2050
- **Latin America**: 10% in 2010, 5% in 2050
- **Africa**: 10% in 2010, 5% in 2050
- **Asia**: 30% in 2010, 60% in 2050
- **China + India**: 50% in 2010, 60% in 2050

Source: ITF, 2015
Road Freight Sector in Developing Asia

% SHARE OF ROAD FREIGHT ACTIVITY


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.

Source: Estimates by Clean Air Asia.
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 1 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

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.