The Rise of Green Freight in Asia

It is estimated that by the year 2050, medium and heavy freight trucks worldwide will consume 1,240 billion liters of fuel (gasoline equivalent), 138% more than 2000 levels. The global share of trucks operating within Asian countries is expected to increase from 19% in 2000 to 34% in 2050.\(^1\) Trucks’ impact on environment and society is high: in India 5% of vehicles are trucks, yet trucks are involved in 26% of road accidents, consume 46% of transport fuel and general 63% of CO\(_2\) and 59% of particulate matter emissions. Yet freight is the “Cinderella’ of the transport sector. How do you change this? The answer is: start small and think big. This is a summary of efforts of the **Clean Air Initiative for Asian Cities (CAI-Asia)** and partners to advance green freight in Asia thus far and of what is needed to scale this up.

A start in China

With World Bank support, and backed with the expertise from the US EPA and Cascade Sierra Solutions, a US-based truck NGO, CAI-Asia carried out a **Guangzhou Green Trucks Pilot Project** to trigger interest of trucking companies in tire and aerodynamics technologies and pave the way for a larger green freight initiative.\(^2\) Based on the findings from the pilot, CAI-Asia estimated that if these technologies were installed on Guangdong Province’s 825,000 heavy duty trucks alone, 3 million hectoliter of diesel, equivalent to 2.74 billion US dollars, 8 million tons CO\(_2\) emissions and 1.2 tons particulate matter (including black carbon) would be saved each year.

These findings helped convince Guangdong authorities to start a USD 14 million **Guangdong Green Freight Demonstration Project**, with GEF co-financing and World Bank support, which will install new technology on 1200 trucks and explore technology financing options. Launched in October 2011 at the Guangdong International Green Freight Fair (as part of the world 2\(^{nd}\) largest logistics fair in Shenzhen) the project will also investigate ways to optimize freight logistics, as Guangdong authorities estimate that as many as 40% of truck hauls are empty, thus wasting fuel.\(^3\)

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\(^1\) WBCSD and IEA. 2004. Sustainable Mobility Project. http://www.wbcsd.org/includes/getTarget.asp?type=p&id=MTQ0


\(^3\) Guangdong GEF Green Freight Demonstration Project. http://cleanairinitiative.org/portal/GuangdongGEF

Yahua, Deputy Director-General, Road Transportation Department, Ministry of Transport at the first **Green Freight China Seminar**, an annual event to provide a platform for government, private sector and civil society to share best practices and give input to policy development. The program is now institutionalized nationally: the Ministry of Transport launched this as the **China Green Freight Initiative** in April 2012 that will be supported by the China Road Transport Association, CAI-Asia, Energy Foundation, World Bank and others.

**Expanding efforts in Asia**

Green freight efforts in other Asian countries are also gaining traction. The first **Green Freight India Seminar** in January 2012, organized by CAI-Asia and the Society of Indian Automotive Manufacturers (SIAM), showed there is a strong interest of especially truck manufacturers and other private sector companies to collaborate on green freight and logistics in India. Efforts are continuing with GIZ and DHL to establish a Green Freight India program.\(^5\) With ADB and the Mekong Institute, CAI-Asia is working with truck companies on **truck fleet training and pilot projects in the Greater Mekong Subregion**.\(^6\) National Green Freight Seminars are also held in 2012 in Taipei (August), Indonesia (September) and Korea (October).

At the regional level, 22 Asian governments at the Environmentally Sustainable Transport Forum issued the **Bangkok 2020 Declaration** with 20 sustainable transport goals, including for freight transport and logistics.\(^7\) CAI-Asia prepared a background paper for transport and environment ministry officials to guide them on freight developments and issues; strategies to green the freight sector; and the role of government.\(^8\)

Private sector interest is high due to rising fuel prices, large inefficiencies in freight logistics, and the need for corporations to report on and reduce CO\(_2\) and air pollutant emissions throughout the freight supply chain. CAI-Asia partnered with the Sustainable Supply Chain Centre Asia Pacific to establish the **private sector Green Freight Asia Network** of freight logistics companies, manufacturers, freight carriers and industry associations to share practices and methodologies and support national green freight policies and programs in Asia. The 9 founding members, including DHL, UPS and TNT, signed the “Private Sector Declaration on Green Freight in Asia towards a Green Economy.” In 2012 a study will assess green freight practices of companies in Asia and barriers to scaling these up.\(^9\)

**The future of Green Freight in Asia**

Green freight in Asia must cover road, rail, water and aviation, but an initial focus could be on road freight for:

- National green freight programs or initiatives in all major Asian countries that are consistent and build on the US SmartWay Transport Partnership and other programs and that cover technologies, logistics, financing, partnerships, knowledge management and capacity building
- A strong Green Freight Asia Network of private sector companies to share experiences, foster collaborations between shippers/logistics providers and truck companies, scale up efforts jointly, and provide input into national initiatives
- Streamlined methodologies/protocols for fuel and CO\(_2\) measurement and reporting and a central database for data from freight carriers, national statistics, and other studies.

**About CAI-Asia:** CAI-Asia promotes better air quality and livable cities by translating knowledge to policies and actions that reduce air pollution and greenhouse gas emissions from transport, energy and other sectors. CAI-Asia was established in 2001 as a leading air quality network for Asia by the Asian Development Bank, the World Bank and USAID, and operates since 2007 as an independent non-profit organization. CAI-Asia is a UN recognized partnership with more than 230 organizational members and eight Country Networks. CAI-Asia has four programs: Air quality & climate change; Low emissions urban development, Clean fuels and vehicles, and Green freight and logistics. Its flagship event, the Better Air Quality conference, brings together over 500 policy makers, leading experts and other stakeholders. For more information: www.cleanairinitiative.org, www.greenfreightandlogistics.org. To sign up for Green Freight & Logistics Digest send an email to green_freight@cai-asia.org.

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\(^5\) [http://cleanairinitiative.org/portal/projects/GreenFreightIndia](http://cleanairinitiative.org/portal/projects/GreenFreightIndia)

\(^6\) [http://cleanairinitiative.org/portal/projects/GMSTransportCorridors](http://cleanairinitiative.org/portal/projects/GMSTransportCorridors)

\(^7\) [http://cleanairinitiative.org/portal/projects/ESTForums](http://cleanairinitiative.org/portal/projects/ESTForums)


\(^9\) [http://cleanairinitiative.org/portal/projects/GFANPrivateSector](http://cleanairinitiative.org/portal/projects/GFANPrivateSector)