

8th Regional EST Forum in Asia, 19-21 November 2014, Colombo, Sri Lanka

UNCRD's effort on the promotion of Green Freight under the Regional EST Forum in Asia

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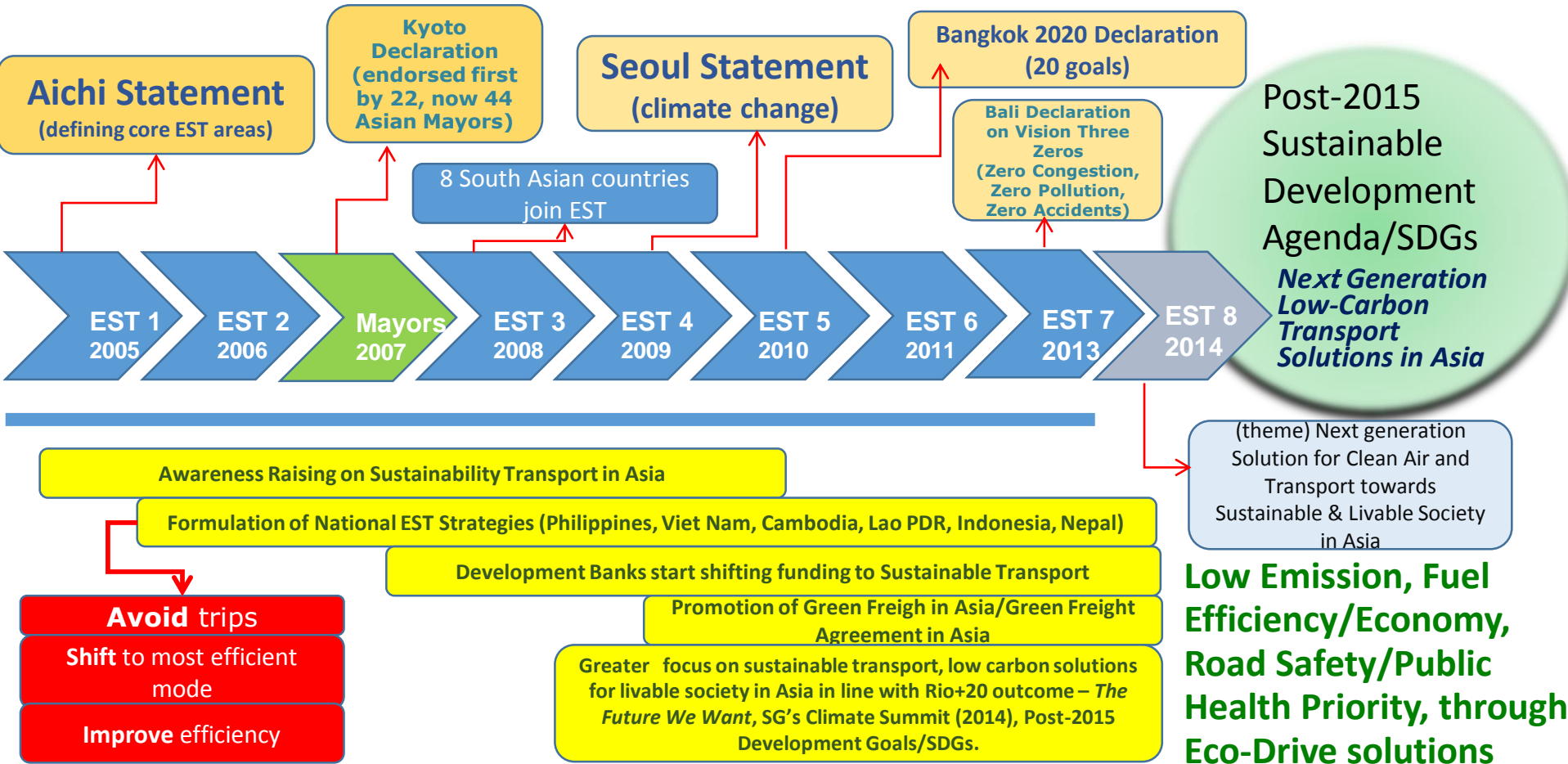


United Nations Centre for Regional Development



Environmentally
Sustainable
Transport

ASIAN EST INITIATIVE

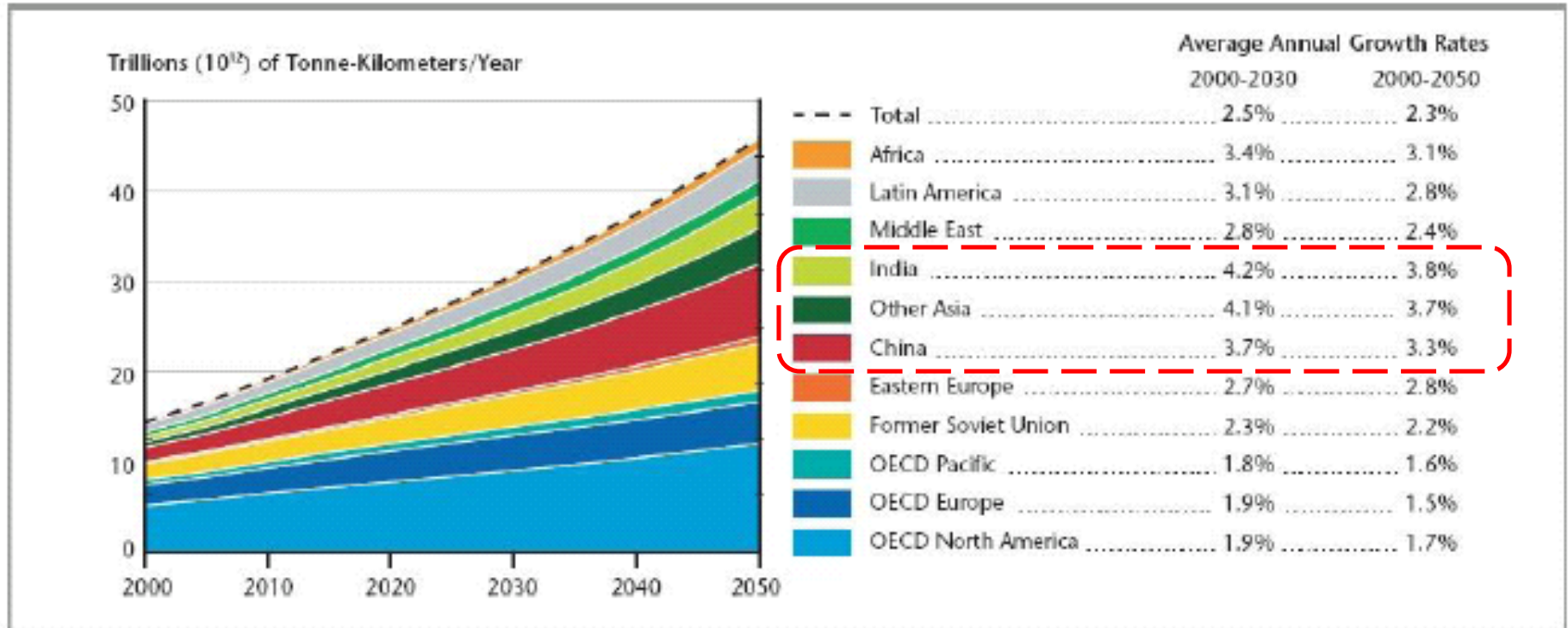


Background: Preparation of the Regional Cooperation Agreement on Green Freight in Asia

- Bangkok 2020 Declaration (2010-2020): 20 EST Goals and relevant indicators. **Goal 12:** *“Achieve improved freight transport efficiency, including road, rail, air, and water, through policies, programmes, and projects that modernize the freight vehicle technology, implement fleet control and management systems, and support better logistics and supply chain management.”*
- **6th Regional EST Forum in Asia, 2011:** Recommended - *“Green Freight should become more prominent on Asia’s policy agenda and proposed the consideration of a Regional Cooperation Agreement or convention to collectively address freight issues under the framework of the Regional EST Forum in Asia.”*
- **7th Regional EST Forum in Asia, 2013:** *Further reinforced the importance of moving towards Regional Cooperation Agreement on Green Freight in Asia in the spirit of Bali Vision Three Zeros – Zero Congestion, Zero Pollution, Zero Accidents. The consultative process is led by UNCRD and UN ESCAP and supported by ADB, GIZ, ITDP, SLoCaT and CAA.*
- **UN ESCAP Meetings of Asian Transport Ministers – discussed and recognized Green Freight is an important area to pursue through Regional Commission**
- **Rio+20 outcome – The Future We Want - provides an important framework**

Projected Freight Transport Activity (2000-2050)

Projected freight transport activity by region



Note: Excludes air, waterborne and pipeline.

Source: Sustainable Mobility Project calculations.

Road and Rail Freight in Asia (2000-2050)

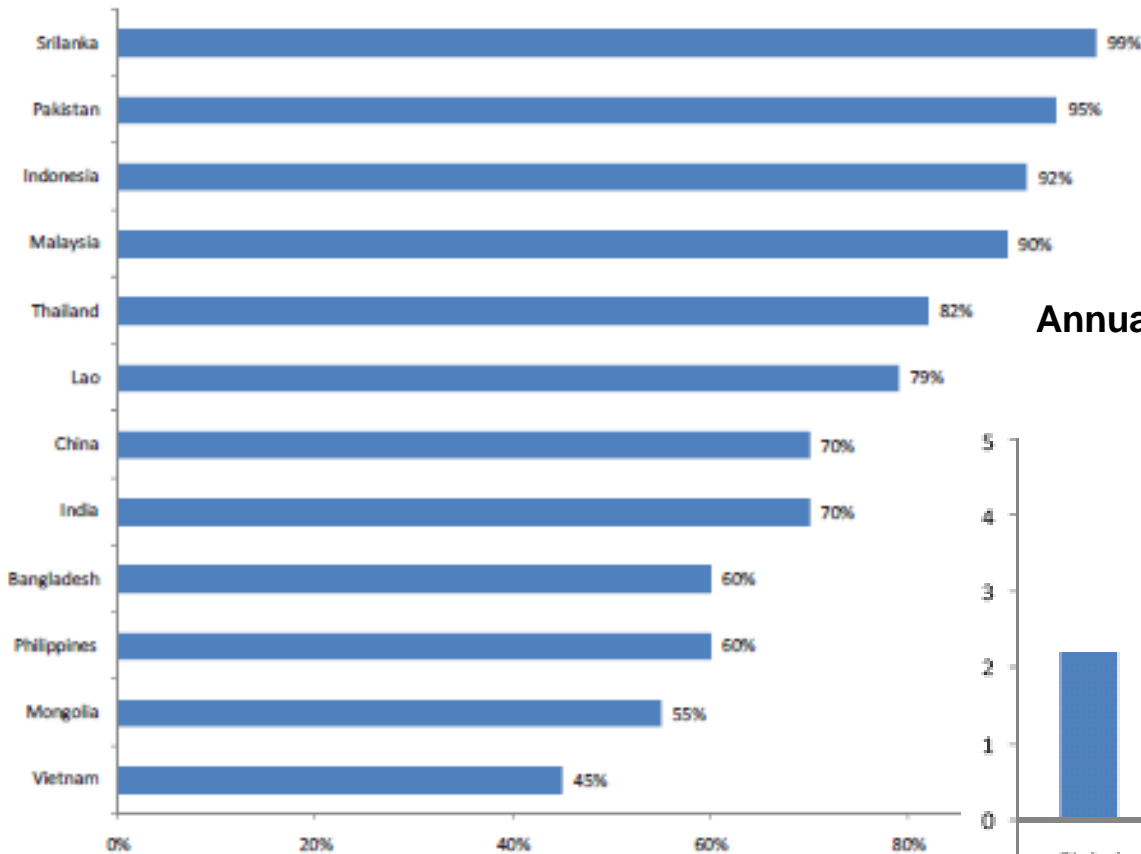


Fig: Road freight share (ton) in total freight in Asia

Road freight Growth in Asia: 645% from 2000 to 2050 compare to 241% globally.

Source: <http://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=380>

Annual rail freight growth (in ton Km) 2 to 4%.

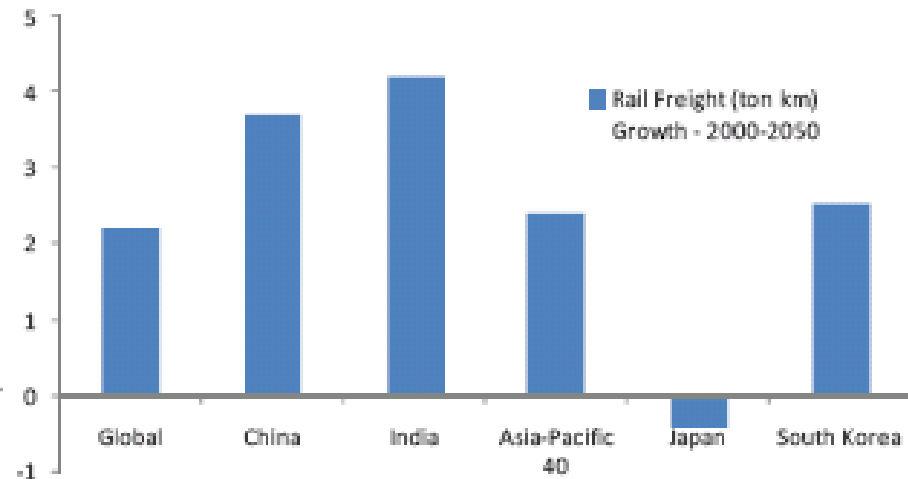


Fig: Rail freight (ton-km) growth in Asia ranges 2-4% annually from 2000-2050.

Source: ICCT Road Map Projections.

World Transport Sector and Energy Consumption (2010-2040)

Freight now accounts for 35% of the world's transport energy use

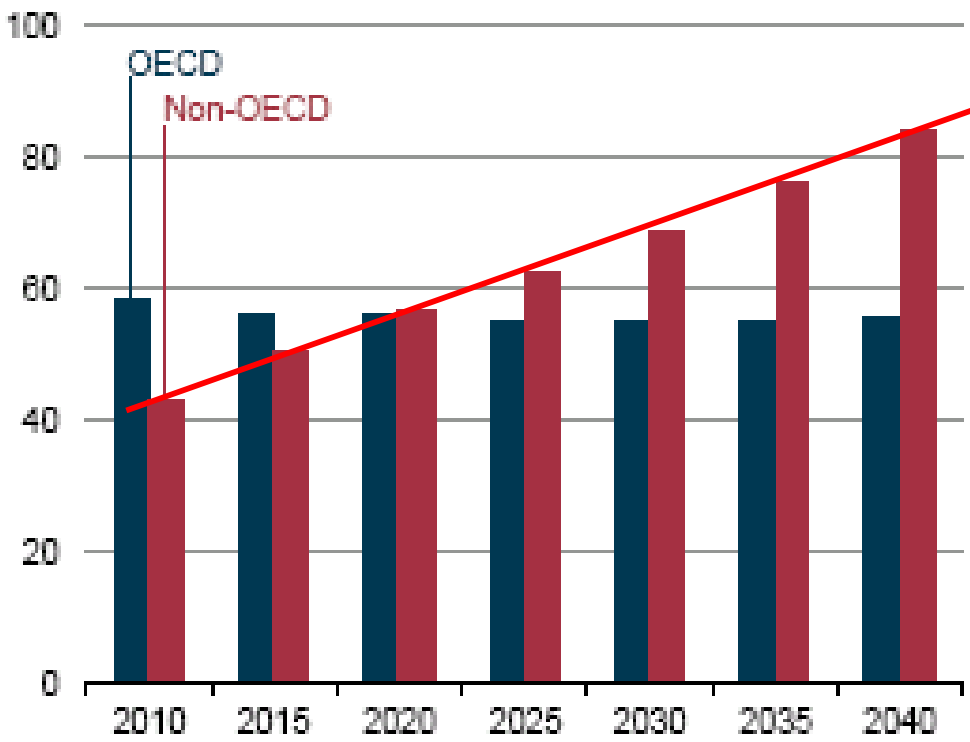


Fig: World Transport Sector Energy Consumption (2010-2040)

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.**

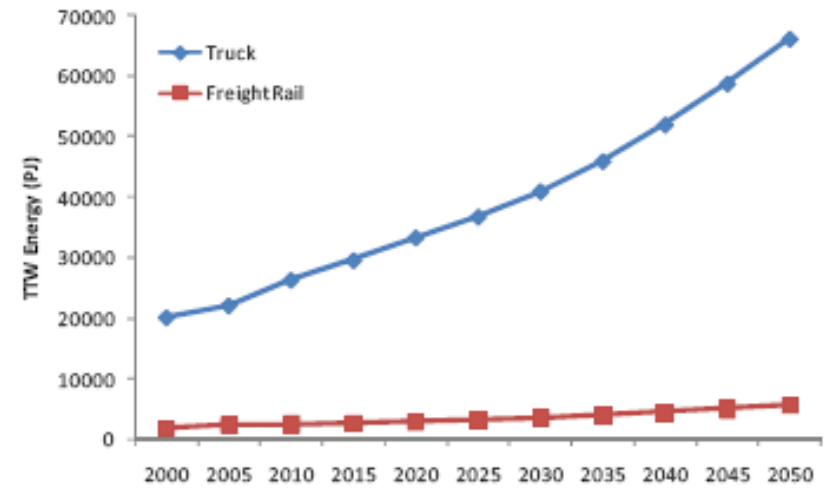


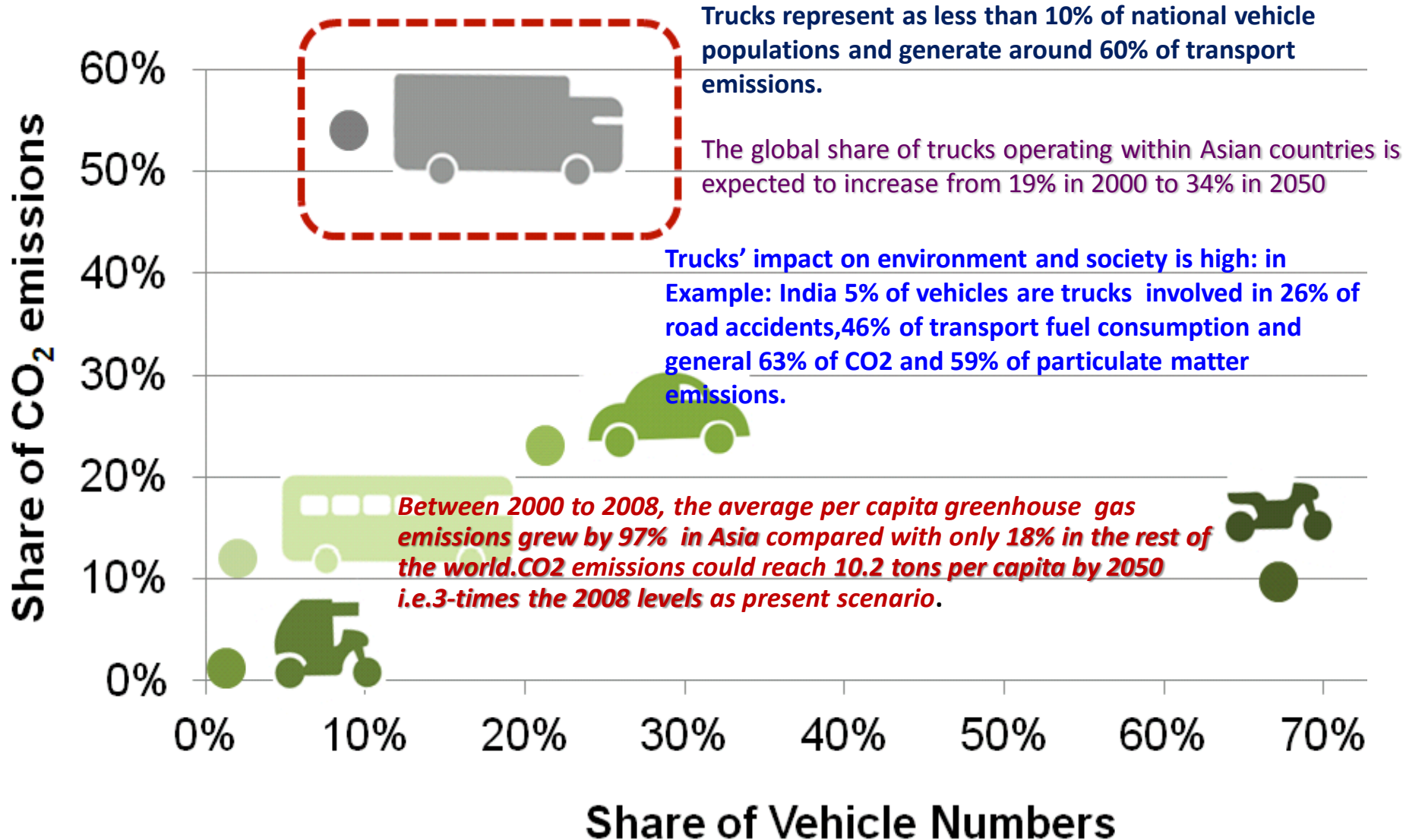
Fig: Energy Consumption of Truck and Rail globally, 2000-2050

The Transportation share of world total liquid fuel consumption increase 55% in 2010 to 57 % in 2040 in the IEA 2013 reference case.

Source: IEA,2013

CO2 and PM emissions across Asia by Diesel trucks

Trucks are large contributor to CO2 and PM emissions across Asia



Logistic Cost and Freight Growth in Asia

- **Logistic cost as % of GDP** : Very high for example **15%-India, 16%-Thailand, 18%-China, 24% -Indonesia & 25%-Viet Nam** compare to developed countries less than 10%.
- **Flight logistic value**: **China-US\$ 19.84 trillion** in 2012 -18% of GDP. **India-35% and Thailand 49%** of total logistic cost
- **Fuel Cost**: **Lao PDR, Thailand and Viet Nam- 40 to 60%** of overall operating costs of transport carriers.
- **Waterway/Marine Freight Growth**: **Container-6%, trade-6%** in 2011, and the growth of freight activity (ton km) **increased by 4.3% over past decade.**
- **Air Freight Growth**: Air freight volume growth worldwide by **3.7% annually** in the past decades. It is predicted that over the next 20 years it will increase by **5.2 %**.

Sources: http://news.xinhuanet.com/english/china/2012-04/19/c_131536275.htm;
<http://www.internationaltransportforum.org/jtrc/DiscussionPapers/DP201204.pdf>;
http://www.gms-eoc.org/uploads/resources/141/attachment/Gota_CAI_evaluating_impact_green_freight_technologies.pdf
ICCT Road Map Projections
<http://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=380>
http://unctad.org/en/PublicationsLibrary/rmt2012_en.pdf
Position paper for the promotion of green freight in Asia.

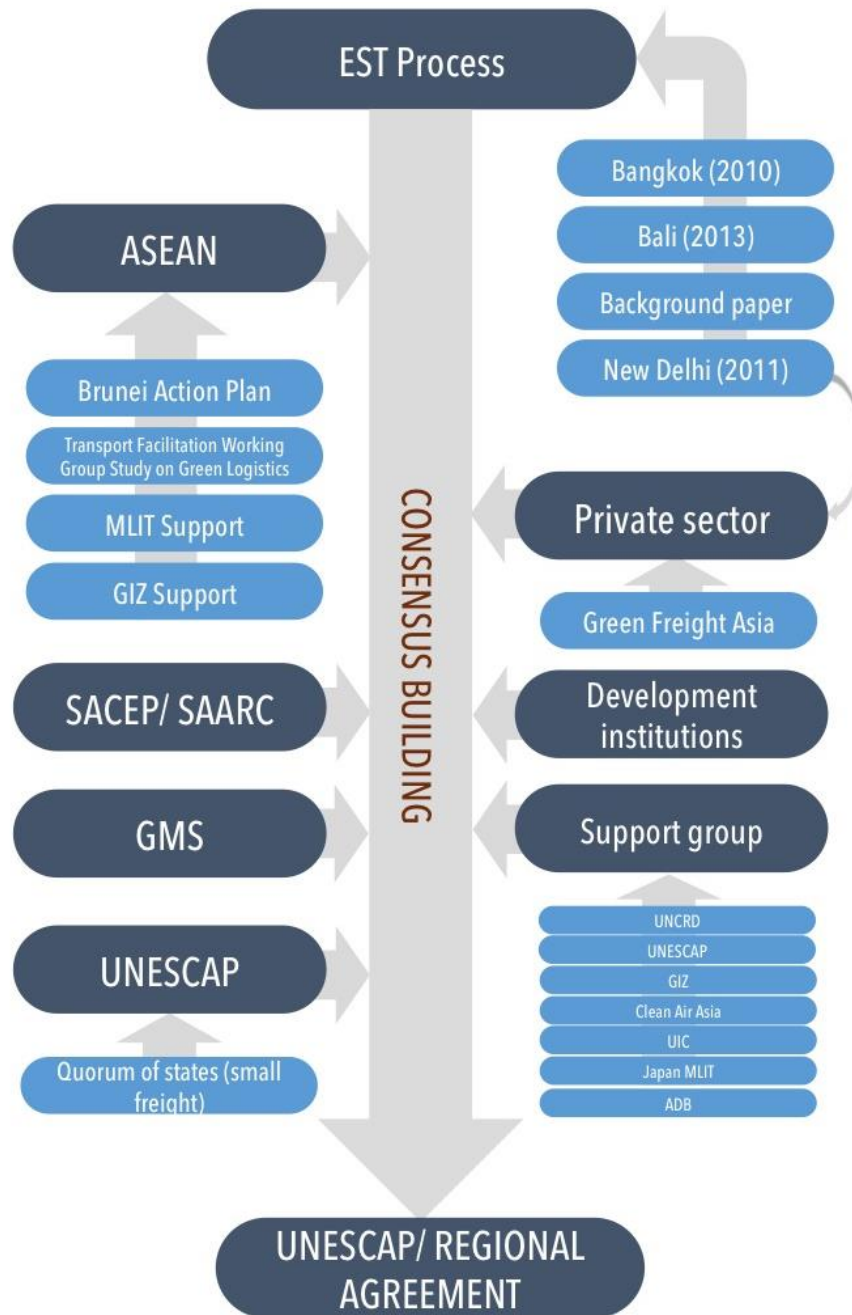
Challenges, Opportunities and Way forward

Social Security	Environmental protection	Economic Efficiency	Policies and Institutions
<ul style="list-style-type: none">• Public health• Road safety• Working conditions of drivers• Employment• Insurance system• Energy security	<ul style="list-style-type: none">• Air pollution• Noise pollution• CO2 and GHG emissions• Natural disasters• Climate change/global warming related	<ul style="list-style-type: none">• Energy efficiency• Competitiveness• Logistic cost• Institutional arrangement• Lack of assess of funding• Lack of freight data	<ul style="list-style-type: none">• Lack of adequate policies, planning, and enforcement• Rule & regulations• Fragmented freight sector• Lack of mutual cooperation among

Mutual cooperation/collaboration and collective effort among Governments, International organizations, Development banks, Research institutions, Private sectors, NGO's and Academia, and all concerned stakeholders on Green Freight

Regional Cooperation Agreement on Green Freight in Asia

Building Blocks Towards a
Regional Green Freight Agreement in Asia



UNCRD formulated three background/position papers for the promotion Green Freight and preparation of the possible Regional Cooperation Agreement on Green Freight in Asia.

(Please see for detail: <http://www.uncrd.or.jp/>)