Environmentally Sustainable Transport (EST) Initiative and Programmes in Asia

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To create a new paradigm in the transport sector in Asia towards low carbon and sustainable transport (integrating social equity, economic prosperity, and environmental conservation) UNCRD has been promoting the Asian EST Initiative since 2004.

To build a common understanding across Asia on essential elements of EST and to create a political consensus on the need for an integrated approach to deal with multi/cross-sectoral environment, health and transport issues, including climate change, through interagency coordination (MoE, MoT, MoUD, MoH, etc.)

Major components:
- High level Regional EST Forum in Asia
- Regional/national EST training programs
- Technical assistance for national EST strategies
- Asian Mayors’ Policy Dialogue on EST
- Rio+20 Voluntary Commitments

(24 EST Member Countries – ASEAN, South Asia, East Asia, and Russian Federation)
Regional EST Forum in Asia (1)

a) To foster a common understanding across Asia on the essential elements of EST as well as the need for an integrated approach to deal with multi-sectoral environment, transport, and health issues;

b) To provide a strategic and knowledge platform for sharing experiences and disseminating among Asian countries best practices, policy instruments, tools and technologies in the transport sector;

c) To set in motion a regional mechanism and intergovernmental consultative process to address policy and institutional issues, including knowledge and technical gaps, in transport sector;
d) facilitate intergovernmental discussion (MoT, MoT, MoH) on how sustainable transport policy options and measures can be integrated into the overall policy, planning and development;

e) provide a platform for interagency coordination both at national and international levels towards facilitating partnerships and collaboration between governments and international organizations such as development banks, bi-lateral and multilateral donors, etc.

f) facilitate improved regional input and information on sustainable low-carbon transport to international discussions and negotiations on climate change
Shared issues: Growing Motorization

In case of many developing countries of Asia, efforts to introduce/enforce cleaner fuels and vehicle emission standards, may greatly reduce vehicle emissions, but on the other hand the number of private vehicles is growing rapidly, which may offset much of the emission control progress!

In most cases the policy is towards motorization without effective TDM policies in place!
Premature deaths due to PM$_{10}$ exposure

(Source: GEO-4, UNEP)
Lack of an integrated approach / strategy ...

Emission standards (technology)

Inspection and maintenance (I/M) + Road worthiness

Cleaner fuels

Transport planning and demand management

Note: In reality, these processes are interlinked, but may not be sequential, as shown above.
Shared issues: for most cities NMT is a peripheral issue

NMT receives very low priority in most transport planning and infrastructure design and development, which is most often oriented to promote motorized transport rather than to support people movement ….

*consequence => thousands of pedestrians and cyclists are killed by accidents each year in developing countries of Asia!*
NMT a peripheral issue - Evident from mostly car oriented design
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Obstructed footbridges

Motorcycles driving on footpaths

Lack of crossings
Shared issues: Economic cost of accidents ranges 1-2% of GDP

- Nearly 0.5 million die and up to 15 million are injured in urban road accidents in developing countries each year.
- ASEAN → 75,000 people die each year on roads and 4.7 million are injured.
- Economic cost of such tragedies for developing countries is estimated to be between 1~2% of their GDP.
- ASEAN → US$15.1 billion or 2.2% of regional GDP.

Source: ADB, WB
Shared issues: resiliency has not been integral part of transport policy, planning, and development in Asia

- rise in frequency and magnitude of natural disasters (flood, earthquake, cyclones, landslides, etc.)

- climate resiliency is not yet a major element in the current transport policy, planning, and urban/transport infrastructure and services development resulting in unprecedented damages to both human life and economy during such extreme events;

- in the current state, urban/transport infrastructures in Asia are vulnerable to effects of climate change, and these vulnerabilities are yet to be addressed in the design, construction, and geometry of roads, railway tracks, and other transport infrastructure, including the drainage system of cities.
**Integrated EST strategies** – result not only in the improvement of human health through reduction of urban air pollution, but also the reduction of GHG emissions, deaths and injuries from road accidents, harmful noise levels, and traffic congestion

(Aichi Statement, 2005)

- **Avoid** – avoid or reduce travel or the need to travel
- **Shift** – shift to more environmentally friendly modes
- **Improve** – improve the energy efficiency of transport modes and vehicle technology

(Source: GTZ, 2007)
Aichi Statement

Kyoto Declaration (endorsed first by 22, now 44 Asian Mayors)

EST 1 2005
EST 2 2006
EST 3 2008
EST 4 2009
EST 5 2010
EST 6 2011
EST 7 2013

Seoul Statement (climate change)

Bangkok 2020 Declaration (23 goals)

Bali Declaration on Vision Three Zeros (Zero Congestion, Zero Pollution, Zero Accidents)

8 South Asian countries join EST

Aichi Statement

Mayors 2007

Awareness Raising on Sustainability Transport in Asia

Development Avoid-Shift-Improve Approach: Pilot testing

Avoid unnecessary trips

Shift to most efficient & low carbon mode

Improve energy efficiency & vehicle technology

Development Banks start shifting funding to S.T.

Development S.T related assessment tools

SLoCaT pulls together transport community

Bangkok 2020 Declaration (23 goals)

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Bali Declaration on Vision Three Zeros (Zero Congestion, Zero Pollution, Zero Accidents)
Bangkok 2020 Declaration
– Sustainable Transport Goals for 2010-2020 –

1. 22 participating Asian countries of the 5th Regional EST Forum in August, Bangkok, Thailand, agreed on “the Bangkok 2020 Declaration”, which reflects a regional consensus as well as aims to influence the decisions of governments and transport stakeholders in the region over the next decade towards realization of safe, secure, affordable, efficient, and people- and environment-friendly transport in rapidly urbanizing Asia.

Opening of the Bike Ride 8 June 2012

THE SECRETARY-GENERAL

MESSAGE TO THE 7TH REGIONAL ENVIRONMENTALLY SUSTAINABLE TRANSPORT FORUM IN ASIA AND THE GLOBAL CONSULTATION ON TRANSPORT IN THE POST-2015 DEVELOPMENT AGENDA

Bali, Indonesia, 23 April 2013

I send warm greetings to the participants in this important forum on sustainable transport. I extend sincere appreciation to the Governments of Indonesia and Japan for their initiative and generosity.

Transport is a key building block for sustainable development. Access to goods and services through efficient means of transport and connectivity is essential for poverty reduction. Ensuring better market access for rural communities through improved transport services enhances farmers’ lives and sustainable livelihoods.

In both urban and rural areas, better planning for land-use and transport systems makes a great difference in facilitating access to jobs, goods and services for men and women alike. It also helps improve road safety and reduce traffic accidents and fatalities. On a global scale it is essential that we design and build transport infrastructure to make it safer and more environmentally friendly, and to minimize vulnerability to climate change and natural disasters.

I am therefore pleased that this forum will discuss next-generation transport systems for the 21st century. The significant financial commitments for sustainable transport made by multilateral development banks at last year’s Rio+20 conference can help us to realize those aspirations.

I also welcome your ideas and suggestions as the United Nations seeks to define a transformative post-2015 development agenda. Global consultations are under way among Governments, civil society, the private sector and others, and I encourage you to make your voices heard.

I share your commitment to sustainable transport and look forward to the outcome of your deliberations. Please accept my best wishes for a productive forum.

Terima Kasih (Thank you)

BAN Ki-Moon
Asian countries continue to face vast challenges in realizing safe, secure, people and environment friendly, affordable, and climate resilient transport systems. Rapid urbanization throughout the region further compounds these challenges.

Transport infrastructure is vulnerable to extreme weather events associated with climate change as well as natural disasters. Significant investment/financing requirement for resilient transport system. Damage caused by 2011 flooding in Thailand amounted to US$46.5 billion, while the recovery and reconstruction costs are expected to reach at least US$50 billion according to the Government of Thailand and U.N.

Investments in people and environmentally friendly transport system, including safe and dedicated walkways and bicycle lanes, in Asia have not kept pace with the still growing needs for environmentally sustainable transport in the region.

The Forum recognized the essential contribution of EST towards realizing not just the transport related objectives from The Future We Want but also other key thematic and cross cutting issues including but not limited to: poverty alleviation, sustainable cities and human settlement, energy, food security and sustainable agriculture, as well as health and education.

Strengthening rural-urban connectivity is key to overall economic development in the countries. At the same time improved intercity connectivity is important to accommodate the rise in transport demand. These can help address the need to connect effectively, farm gate to consumer, manufacturer to customer, and personal mobility needs of people.

Connectivity is not just about land transport but also about shipping and the role of ports and ocean shipping. Regional connectivity of inter-island shipping needs to be strengthened. Inland and coastal waterways have great potential to support more environmentally sustainable transport as does the greater use of rail transport with double tracking and electrification.

Full and seamless integration of public transport modes (physical, information, network and fare integration) will be an essential characteristic of next generation transport systems. This can be achieved by forming transit alliances between local government organisations and the private sector at provincial or regional level.
Green Freight is essential for Asian countries in the 21st century to respond to high logistics costs, disproportionate environmental social impacts from freight movement and market pressures to improve efficiency. The Forum recommended the following core-elements to be considered as part of a possible regional agreement, but not limited to: (a) Green Freight Programs at the national or sub-regional level, (b) set of plans and policies for a socially inclusive green freight, (c) standard set of indicators for green freight, and (d) regional collaboration framework on green freight.

Railways play a key role to serve urban and economic development in Asian countries, while at the same time offering opportunities to mitigate emissions, reduce traffic congestion, enhance traffic safety, and improve accessibility and connectivity.

Many countries have a huge infrastructure deficit at the current level of urbanization. As the urban population doubles in the next 20 years the pressure to build infrastructure is huge. For instance, India has estimated the finance need to be $70 billion in the next 5 years, $450 billion over the next 20 years and the government is planning to support cities through the next round of the Jawaharlal Nehru Urban Renewal Mission (JnNURM) investments.

Intelligent Transportation Systems (ITS) could significantly contribute to improved safety, higher efficiency, better service and reduced pollution and greenhouse gas emissions, thereby these can enable next-generation Vision Three Zero transport systems. They may also play a key role in integrating transport systems for both passenger and freight, across modes and localities.
Kyoto Declaration by Asian Mayors - EST for Sustainable Cities

44 Asian cities as signatories ~ Provides an opportunity for NAMAs at local level

**Participating cities:** 22 Asian Cities signed Kyoto Declaration on EST on 24 April 2007 at Kyoto, Japan

Bangalore, Bhubaneswar, Jeju, Korat, Kuala Lumpur, Kuching, Kyoto, Luang Prabang, Matale, Nagoya, Phnom Penh, Quezon, Ulaanbaatar, Semarang, Seoul, Siem Reap, Singapore, Surabaya, Suzhou, Sylhet, Tianjin, Vientiane, and Yogyakarta

12 More Asian Cities signed the Kyoto Declaration on 12 Nov 2008 at BAQ-2008, Bangko, Thailand:

Bangkok (Thailand), Baguio (Philippines), Cebu (Philippines), Colombo (Sri Lanka), Batam (Indonesia), Guwahati (India), Karachi (Pakistan), Kathmandu (Nepal), Makassar (Indonesia), Makati (Philippines), Palembang (Indonesia), and Surat (India).

10 cities signed the Kyoto Declaration on 16 March 2010 at the United Nations Forum on Climate Change Mitigation, Fuel Efficiency and Sustainable Urban Transport, Seoul, ROK:

Ahmedabad (India), Banjarmasin (Indonesia), Surakarta (Indonesia), Tangerang (Indonesia), Penang (Malaysia), Islamabad (Pakistan), Chuncheon (Republic of Korea), Donghae (Republic of Korea), Kandy (Sri Lanka), Chiang Mai (Thailand)
Rio+20 Outcome – The Future We Want

Sustainable Transport (para. 132-133)

Among others, the Heads of State and Governments:

- note that transportation and mobility are central to sustainable development. Sustainable transportation can enhance economic growth and improve accessibility. Sustainable transport achieves better integration of the economy while respecting the environment.

- recognize the importance of the efficient movement of people and goods, and access to environmentally sound, safe and affordable transportation as a means to improve social equity, health, resilience of cities, urban-rural linkages and productivity of rural areas. In this regard, we take into account road safety as part of our efforts to achieve sustainable development.

- support the development of sustainable transport systems, including energy efficient multi-modal transport systems, notably public mass transportation systems, clean fuels and vehicles, as well as improved transportation systems in rural areas.

- recognize the need to promote an integrated approach to policymaking at the national, regional and local levels for transport services and systems to promote sustainable development.

- recognize that the special development needs of landlocked and transit developing countries need to be taken into account while establishing sustainable transit transport systems.

- acknowledge the need for international support to developing countries in this regard.
PROPOSED SDGs IN THE OWG FINAL REPORT (19 JULY 2014) – direct and indirect relevance to transport sector

- **Goal 2**: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
- **Goal 3**: Ensure healthy lives and promote well-being for all at all ages
- **Goal 7**: Ensure access to affordable, reliable, sustainable and modern energy for all
- **Goal 9**: Built resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- **Goal 11**: Make cities and human settlements inclusive, safe, resilient and sustainable
  - **Target 11.2** by 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons
  - **Target 11.6** by 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality, municipal and other waste management
  - **Target 11.7** by 2030, provide universal access to safe, inclusive and accessible, green and public spaces, particularly for women and children, older persons and persons with disabilities
  - **Target 11.a** support economic, social and environmental links between urban, peri-urban and rural areas into by strengthening national and regional development planning
- **Goal 12**: Ensure sustainable consumption and production patterns
- **Goal 13**: Take urgent action to combat climate change and its impacts
Transport contributed 25% of energy-related global GHG emissions and about 20% of energy use in 2009, under a ‘Business as Usual’ scenario, transport energy use and GHG emissions are projected to rise by nearly 50% by 2030 and by more than 80% by 2050 (from 2009).

The International Energy Agency estimates that a shift to sustainable, low-carbon transport by the middle of the century could save governments, companies and individuals up to US$70 trillion.


The proposed actions on transport (outlined in the Joint Statement by Governments, transport companies and associations, other private sector players and civil society organizations) to scale up public transport and make it the number one choice for travel, greater use of more efficient rail and public transport and an accelerated introduction of urban electric transport will reduce the carbon footprint of at least 50% of all the passenger and freight trips made by 2025. These actions are expected to leverage wider action on low carbon transport, both within the scope of the UN 2014 Climate Summit and outside,

– urban electric mobility, railways and public transport under the Transport Action Area;
– the fuel economy commitment under the Energy Action Area
– Green Freight Commitment under the Industry Action Area
National EST Strategies

• serve as a national guideline for changing the country’s transport policies into more people- and environment-friendly ones,

• ensure a future transport development direction towards increasing environmental & social sustainability, including climate change mitigation

• provide an important basis to develop EST activities as nationally appropriate mitigation actions (NAMAs) to take full benefit of the international support available in addressing the climate issues.

• strengthen interagency coordination and networking among wide range of stakeholders involved in environment and transport sector.
### The Philippines EST Strategy

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>Dec 26, 2008</td>
<td>The Presidential Task Force on Climate Change (PTFCC) was reorganized.</td>
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<tr>
<td>Apr 2010</td>
<td>Formulated National Framework Strategy on Climate Change (NFSCC)</td>
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<tr>
<td>Jan 30, 2009</td>
<td>DOTC was mandated to lead a Task Group on Fossil Fuels (TGFF) under the PTFCC and to coordinate the formulation of NESTS</td>
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<tr>
<td>Jan 2011</td>
<td>Formulated up to the 2nd Draft and established Action Plans</td>
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The drafted NESTS and Action Plans were presented at the meetings of the PTFCC and used as important inputs to the formulation of NFSCC.

**Under 8. The Mitigation Pillar of the NFSCC, it is emphasized that EST is one of the Strategic Priorities and NESTS needs to be integrated into policies and actions for Climate Change.**

With the strong political will and institutional support as well as clear coordination mandate, the DOTC, together with relevant national authorities and international financial and technical assistance, has mainstreamed EST in climate change discussions at the decision-makers level.
National Framework Strategy on Climate Change 2010 – 2022

CLIMATE CHANGE IMPACTS AND VULNERABILITIES
- Ecosystems
- Energy
- Food
- Water
- Health
- Communities
- Infrastructure

ADAPTATION
- Enhanced Vulnerability and Adaptation Assessments
- Integrated Ecosystem-Based Management
- Climate-Responsive Agriculture
- Water Governance & Management
- Climate-Responsive Health Sector
- Climate Proofing Infrastructure
- Disaster Risk Reduction

MITIGATION
- Energy Efficiency & Conservation
- Sustainable Infrastructure
- Renewable Energy
- Environmentally-Sustainable Transport
- National REDD+ Strategy
- Waste Management

GOAL
To build the adaptive capacity of communities and increase the resilience of natural ecosystems to climate change, and optimize mitigation opportunities towards sustainable development.

CROSS-CUTTING
- Capacity Development
- Knowledge Management
- IEC and Advocacy
- Research and Development/Technology Transfer
- Gender Mainstreaming

MEANS OF IMPLEMENTATION
- Multi-Stakeholder Partnerships
- Financing
- Valuation
- Policy, Planning and Mainstreaming
Asian EST Initiative

A joint initiative of UNCRD and MoE-Japan
8th Regional EST Forum in Asia

Integrated Conference of
Better Air Quality (BAQ) 2014
&
Intergovernmental Eighth Regional Environmentally Sustainable Transport (EST) Forum in Asia

19-21 November, 2014
Venue: Bandaranaike Memorial International Conference Hall (BMICH)
Colombo, Sri Lanka

Theme: Next Generation Solutions for Clean Air and Sustainable Transport – Towards a Livable Society in Asia