

# Meeting Summary

## Second Regional Environmentally Sustainable Transport (EST) Forum

11-12 Dec 2006  
Yogyakarta, Indonesia



### I. Opening Session

1. The Second Regional EST Forum was jointly organized by the United Nations Centre for Regional Development (UNCRD), Ministry of the Environment, Government of Japan, and the State Ministry of Environment, Republic of Indonesia on 11-12 December 2006 in Yogyakarta, Indonesia during Better Air Quality (BAQ)-2006 Week. The meeting was attended by approximately 100 participants, comprised of governmental representatives from fourteen Asian countries, international experts, and representatives from relevant international organizations. Welcoming the participants, the UNCRD Director, Kazunobu Onogawa, congratulated the participants and co-organizers for engaging this highly important task of making transportation environmentally sustainable for the region to promote the higher societal goals of socially, economically, and environmentally sustainable development. He encouraged the participants to make use of their respective country and professional experiences to contribute to this Second Regional EST Forum and encouraged concrete follow-up on the recommendations made in the *Aichi Statement* to promote EST at local and national levels. He welcomed the cooperation and support provided by the World Health Organization (WHO) towards the participation of Ministry of Health officials from selected countries for the first time in the history of the Forum. At the same time, he appreciated the cooperation of the ASEAN Working Group on Environmentally Sustainable Cities (AWGESC) in facilitating the participation of city-level officials from ASEAN cities. He also appreciated the support provided by the Ministry of the Environment-Japan, Ministry of Environment-Indonesia, Sida, GTZ, Seoul Development Institute (SDI), and CAI-Asia, for the organization of the Second Regional EST Forum.

2. Expressing deepest condolences to all citizens of Indonesia for the casualties suffered during the last devastating earthquake of May 2006, Kazuhiko Takemoto, Director-General of the Environmental Management Bureau, Ministry of the Environment-Japan, extended his appreciation to all the organizers, co-organizers, experts, government representatives, for contributing towards the Forum, and to the promotion of EST in Asia. He placed emphasis on implementation of the provisions of the *Aichi Statement*, along with sharing among countries, best practices and recent developments in relation to the recommendations made in the Statement. He noted that the Government of Japan had noted that this Regional EST Forum was an important platform to address and share common issues of concern related to environment and transport.
3. Through the message of the Minister for Transportation, H.E.M. Hatta Rajasa, it was indicated that the Government of Indonesia has adopted policy measures to provide safer, cleaner and more efficient transport service for sustainable development. He underlined the significance of EST by observing that problems like congestion not only entail economic productivity loss but also result in deterioration of social welfare. He urged the participants to devise knowledge-based sustainable transportation, and referred to the Indonesian Government's policies and action programmes in the institutional, technical, and socioeconomic areas.
4. Welcoming the participants to the cultural heart of Indonesia, the message from the Governor of the Special Region of Yogyakarta, H.R.H. Sri Sultan Hamengku Buwono X, noted that many air-pollution related problems may appear to be of a technical nature but they soon become economic problems and ultimately end up as political problems. The Governor urged the participants to engage in creative dialogue so that the sessions would produce fruitful results in terms of applicable solutions.
5. The Opening Address was also delivered by the representative of the City Mayor of Yogyakarta, highlighting local air quality issues and measures taken.

## II. EST Initiative

6. The Forum began with a review of the progress achieved in promoting EST in the region since the Nagoya Conference on EST in March 2003. Presented by C. R. C. Mohanty of UNCRD, it was noted that momentum had been gained from the Manila Policy Dialogue in January 2004 followed by in-country EST inception meetings held in Lao PDR, Cambodia, and Viet Nam, the First Expert Meeting in May 2005 in Tokyo, Japan, and most importantly, the First Regional EST Forum and adoption of the *Aichi Statement* in Nagoya, Japan in August 2005. The EST Forum brings together the central governments (represented by the Ministry of Environment and Transportation and a group of experts in nine thematic and one cross-cutting area of EST).
7. While presenting the objectives of the Regional EST Forum, he emphasized the need for an integrated EST strategy and the coordinated efforts of key stakeholders at local and central levels addressing the key elements of the *Aichi Statement*, as below:
  - Public Health
  - Land-use Planning
  - Environment and People Friendly Urban Transport
  - Public Transport Planning and Transportation Demand Management (TDM)
  - Non-motorized Transport (NMT)

- Social Equity and Gender
- Road Safety and Maintenance
- Road Side Air Quality Monitoring
- Traffic Noise Management
- Cleaner Fuel
- Vehicle Emissions Control, Standards, and I/M
- Strengthening Knowledge Base and Public Participation.

### **III. Country Synthesis Presentations and Response Sheets**

8. Country initiatives were jointly presented by the representatives from the respective ministries: Ministry of Environment, Ministry of Transport, and in some cases, also the Ministry of Health. Each presentation discussed policy initiatives, best practices, and progress in relation to promotion of EST. The country presentations closely followed the EST thematic areas as outlined in the Aichi Statement as well as in their Country Response Sheets (See Annex 4). The common denominations included rapid urbanization, rapid motorization, and recognition accorded to the vital role of transportation for economic growth and development. Importance of poverty reduction and promoting gender and social equity also featured. While all the country presentations highlighted the need for EST promotion at local and national levels, the need for capacity-building in various EST areas such as fuel efficiency, land use, transport, and environmental-integration, road side air quality monitoring and assessment; health impact assessments, vehicle inspection and maintenance, and traffic noise management; was observed for most of the developing countries.
9. Striking differences were however observed between Japan, the Republic of Korea (hereinafter, Korea), and Singapore on one hand, and the rest of the countries, on the other. The most enlightening lessons of the country presentations were traced to the differences in interpretation of EST goals, policies, strategies, approaches, and practices.
10. The key highlights from the country presentations, country response sheets, experts' comments, and floor discussions were as follows.

#### **a) Vehicular Pollutions and Public Health Linkages**

While most of the countries realize that public health and road safety are integral parts of transport planning and policies, in most cases, credible information showing the linkage between public health and vehicular pollution, in particular, the health impacts of PM, NOx, and HC are lacking. Countries such as Japan have carried out epidemiological studies on localized air pollution and respiratory diseases along major roads. One notable example is the Gross Loss Output Approach in Korea to estimate the traffic accident costs published annually. While awareness and concerns are rapidly growing, which is paving the way for more public policy and sound strategies, more scientific research is still needed in assessing the health impacts from PM emissions. The meeting called for greater coordination among key agencies, in particular, health, environment, and transport agencies.

#### **b) Integration of Land Use and Transport Planning/Network**

While some countries such as Singapore, Korea, and Japan has been able to mainstream

integrated land use and transport planning, much needs to be done by the city governments and transportation authorities in other countries. The planning policy guidelines of Japan for the creation of a city which imposes less environmental load has been issued for the local governments to utilize city planning methodologies towards the realization of compact cities, controlling the disorderly expansion of urban centres, and high-density land-use planning for urban centres. The other example is the National Physical Plan (NPP) of Malaysia which is designed to create a sustainable national spatial framework to achieve higher levels of land-use efficiency, better use of infrastructure, in particular public transport, and to create a higher quality urban environment with more parks and recreation areas. The meeting noted the importance of transit-oriented development as part of integrated land use and transport planning. The meeting also noted the importance of integrated land-use planning for pollution control, noise reduction, and for addressing global issues such as climate change.

**c) Promoting Environmentally and People Friendly Urban Transportation Infrastructures**

A great variation was observed with regards to measures taken by the countries to promote environmentally and people friendly urban transport infrastructure and facilities in urban centres. Few countries have successfully demonstrated LRT, convenient bus location system, park-and-ride system, exclusive priority bus lanes (BRT), exclusive bicycle and pedestrian zones, CNG facilities, roadside emergency facilities; most of the countries still need to address and successfully implement these measures. When it came to the comfortability and convenience for the travel of the elderly, physically impaired, women, children, little progress was visible in many countries. Also, the meeting observed that pedestrian space was violated in many cases. At the same time, the meeting noted that pro-poor policies needed to be taken into account within the overall framework of EST programmes and policies.

**d) Public Transport Planning and Transport Demand Management**

The meeting noted that more efforts were required to promote modal complementarity. Reliance was more on regulatory measures, and economic measures' role in influencing public behaviour. Particular public transit modes were prominent, in line with the country's stage of development, (e.g. buses in the low-income countries and MRT/LRT in the relatively developed countries). Phasing out of two-stroke motorcycles was a priority every country but the reality of their widespread use was still recognized. While the meeting noted the growing interest among all countries in promoting public transport modalities such as BRT and MRT as environmentally friendly modes of transport, increased individual car ownership has posed a big challenge to the entire Asian region. One of the successful regulatory measures to promote use of public transport was observed in Korea in the form of a transport congestion fee (TCF) in certain corridors of Seoul.

**e) Non-Motorized Transport (NMT)**

With half of the total trips conducted by the poor in developing countries being on foot, the meeting recognized the need to address NMT as an integral part of the EST promotion. However, NMT had been treated as a peripheral issue in most countries. In some countries, such as Viet Nam, a high volume of motorcycles had resulted in the low number of pedestrians. The meeting also recognised that NMT as a complementing mode deserved adequate policy support and acknowledged the importance of promoting NMT- inclusive planning.

#### **f) Social Equity and Gender**

In general, social equity and gender issues are part of national policies, but are applied to the transport sector somewhat indirectly. Some good examples of gender priorities (e.g. LRT carriages in Manila and women-only trains in Japan) were noted. The meeting recognized the growing importance of (women's and poor's) specific user needs, and called for these needs to be identified and promoted in all countries as part of the integrated EST strategy.

#### **g) Road Safety**

All countries recognized road safety as a very important issue. Despite the low vehicle ownership, traffic accident and casualty rates are higher in Asia. While most of the countries have developed Road Safety Action Plans, the implementation is poor. In some countries, the number of traffic accidents and casualties is under-reported. The meeting emphasized the need for developing accident reporting systems, costing of accidents, strict rules and regulations in issuing driver's licenses, training of police, and compulsory insurance for all vehicles. The meeting noted that regular road maintenance was underemphasized and underbudgeted in many countries resulting in fuel inefficiency and increased rates of road accidents.

#### **h) Roadside Air Quality Monitoring and Assessment**

Only a few countries, for instance Thailand, Singapore, Malaysia and Japan, had undertaken roadside air quality monitoring and assessment, and several countries had no roadside air quality monitoring mechanism or standards. It was noted that in Asia, a high proportion of the urban population lived alongside roads where air quality was significantly worse than ambient levels. In particular, groups like traffic police and informal sector workers and the poor were the most exposed, and the most vulnerable. The meeting noted that studies to demonstrate health impacts of roadside air pollution were lacking.

#### **i) Traffic Noise Management**

While most countries had vehicle noise standards, it was noted that enforcement needed strengthening. Noise barriers were commonly used on major road infrastructure, but were forgotten on smaller roads. Motorcycles were identified in some countries as major sources of noise pollution. The meeting noted the importance of comprehensive and systematic countermeasures against road traffic noise, indispensable measuring and analysis of noise for important locations in urban centres.

#### **j) Cleaner Fuels**

Switching from leaded gas to unleaded gas has been possible in several countries with combined use of regulatory and economic measures plus public awareness campaigns. Replacing diesel by CNG was also in progress in some countries. The importance of other alternative fuels, such as bio-fuels, was also growing in most of the countries. For instance, Philippines is promoting bio-diesel such as coco methyl ester (CME) - "coco-diesel" and ENVO diesel and palm methyl ester in Malaysia. While lead has not been completely phased out in Indonesia, significant efforts to use CNG and bio-fuel have been forthcoming. The hazardous material control standard for gasoline set by SEPA of China strengthened the control of leaded gasoline and other gasoline

ingredients such as olefin and aromatics. It was noted that in Thailand, the fuel quality standard for EURO IV vehicle was due to be implemented by 2012.

#### **k) Vehicle Emission Control, Standards, and I/M**

The meeting noted the importance that high-volume inspection facilities, privately operated I/M stations are under close government supervision. The meeting also recommended that inspection should be linked to vehicle registration. Other measures such as granting concessions to low emitters on road-user charges could be considered by Asian countries. Incentives such as lower road tax and/or preferential access to congested areas can encourage new vehicle buyers to purchase vehicles meeting advanced "near-zero" emission standards (e.g. Euro V, current U.S., or current Japanese standards). Experience in Europe and Mexico shows that incentives can lead to much more rapid adoption of low-emission technologies than reliance on mandatory standards alone. The meeting emphasized the need for capacity-building of the maintenance and repair industries on various technical issues concerning emission control. The need to rapidly phase in mass emission standards for new vehicles along with corresponding quality of fuel was emphasized. Many countries seemed to lag behind in this respect.

#### **l) Awareness, Knowledge, and Public Participation**

The need for greater awareness programmes was recognized by the participants. Multisectoral approach as well as sound knowledge base on various aspects of EST was noted as essential for the region. At a relatively low cost, more sustainable behavioural change could be possible through active participation of civil society in EST campaigns and awareness raising programs. It was observed that in most of the countries many NGOs and research institutions were active in addressing environment and transport related issues. For example, regular awareness campaigns at national and state levels through distribution of brochures on vehicle emissions and maintenance were carried out in Malaysia.

### **IV. EST Performance Indicators**

11. C. R. C. Mohanty of UNCRD introduced the concept of EST Performance Indicators and their role in the decision-making process and for good governance. He also introduced the process of development of EST Performance Indicators. He mentioned that EST Performance Indicators could be developed under the overall framework of the EST Initiative and in line with the elements of the *Aichi Statement*. He mentioned that EST Performance Indicators would allow a quantitative evaluation and monitoring of the effectiveness of policies and programmes to help decision makers at local and national level for EST promotion, and would facilitate improved and meaningful reporting and policy dialogues at Regional EST Forum. The meeting emphasised that EST Performance Indicators should not be used to rank countries. The meeting suggested that guidance documents for developing indicators be prepared to assist countries in establishing their own indicators. The Chair of the Session, H.E. Sithong Thongkeo, Vice Minister of Communication, Transport, Post and Construction (MCTPC) of Lao PDR noted that EST Performance Indicators are important and should be used for internal monitoring purposes in the country on a voluntary basis.
12. As a related activity, Ministry of Environment-Indonesia introduced their on-going work on sustainable transport indicators known as the ADIPURA programme. Cities are evaluated with

remarks such as “good city” or “dirty city” based on their performances in various sectors such as environment (garbage, re-greening, and ash can), drainage, waste disposal, traffic performance, and air pollution. It was reported that the ADIPURA programme was very successful in influencing the city authorities.

#### **V. Discussion on the Asian Mayors Dialogue on EST Promotion in Asia, 23-24 April 2007, Kyoto, Japan**

13. The representative of the Steering Committee (Ministry of the Environment-Japan, UNCRD, Chairman of the ASEAN Working Group on Environmentally Sustainable Cities (AWGESC), and IGES) introduced the outline and objectives of the forthcoming Asian Mayors’ Dialogue on EST planned to be held on 23-24 April 2007 in Kyoto, Japan, as a pre-event of the ADB Annual Meeting, in close cooperation with the ASEAN Working Group on Environmentally Sustainable Cities (AWGESC). The Chairman of AWGESC, Loh Ah Tuan, remarked that the efforts of the AWGESC at the city level and the forthcoming Asian Mayors’ Dialogue on EST as bottom-up processes to promote ESCs in the Asian region would provide good synergy with the top-down processes such as the Regional EST Forum, involving the central government agencies (Ministry of Environment, Ministry of Transport, Ministry of Health).
14. Bindu Lohani, Director-General of the Regional and Sustainable Development Department of ADB, fully endorsed the idea of the planned Asian Mayors’ Dialogue on Promotion of EST in Kyoto, Japan in April 2007, and expressed all possible support for the Dialogue. The Ministry of the Environment-Japan also indicated fullest support for the organization of the Dialogue.
15. While expressing strong support, participants sought clarification on the criteria of the selection of the cities, the possible coordinating role of the participants of the Regional EST Forum, the number of invited cities per country, etc. The participants also recommended preparing simple and visually appealing documents on the concept of EST and the benefits to the cities. The meeting agreed that the participants of the Forum would follow up as appropriate in their respective countries to facilitate the city selection and possible discussion on the draft Mayors’ Declaration to be adopted at the Kyoto meeting. The meeting was of the view that the Mayors could play a tremendous role and demonstrate effective leadership to implement EST.

#### **VI. Presentation on the Better Air Quality (BAQ) Workshop 2006**

16. Kong Ha, Chairperson, Clean Air Initiatives for Asia (CAI-Asia) introduced the objectives of the BAQ Workshop 2006. He mentioned that organizing the EST Forum back-to-back with the First Governmental Meeting on Urban Air Quality in Asia as well as the BAQ Technical Sessions would achieve greater synergies between the logically interlinked events.

#### **VII. Presentation on the GEF Project Proposal on Sustainable Transport and Environment Programme (STEP) for East Asia with synergy to EST Initiative**

17. Jitendra Shah, Country Sector Coordinator, EASES SE Asia, World Bank presented the GEF Project Proposal on Sustainable Transport and Environment Programme (STEP) for East Asia. It was explained that the project aimed to (i) foster a common understanding of sustainable urban

- transport (SUT) and sustainable development, (ii) create a network of East Asian cities to share relevant experiences (iii) create an environment of friendly competition for demonstration of SUT initiatives, (iv) set up a world-class institute on sustainable urban transport based in the region, and (v) reduce greenhouse gas (GHG) emissions and improve local air and overall environmental quality by catalysing sustainable urban transport development strategies and investments.
18. The project on the Sustainable Urban Transport and Clean Air for Smaller Cities in the ASEAN Region was also presented by GTZ.
  19. The meeting acknowledged the importance of linking the EST initiative with these two regional projects which were likely to be pursued in the near future.

### **VIII. Conclusions and Recommendations**

20. Participants complimented UNCRD for facilitating the adoption of a comprehensive approach towards EST promotion in Asia. A wealth of policy relevant information has been generated through the Country Response Sheets. The Director-General of the Environmental Management Bureau, Ministry of the Environment-Japan, Kazuhiko Takemoto, in his concluding remarks, encouraged UNCRD and participants to make use of this Regional EST Forum effectively. He also appreciated the country responses in relation to the recommendations of the *Aichi Statement*, which provided the basis for the policy dialogues along with the expert interventions. He pledged support for any action plan and programme emerging from this Forum.
21. The Experts of the Regional EST Forum requested the early distribution of Forum inputs such as Country Response Sheets and allocation of more time for floor discussions.
22. The meeting recognized the need for formal documents such as National EST Strategies as a good guiding mechanism or instrument to pursue integrated strategies to promote environmental sustainability in the transport sector. In this context, the delegates from Philippines, Indonesia, and Myanmar expressed interest for the formulation of the National EST Strategies with the support of UNCRD.
23. The meeting also made the following recommendations for consideration:
  - Extension of EST Initiative to South Asian countries in close cooperation with SACEP and SAARC;
  - Strengthened collaboration with key organizations such as WHO, ADB, Sida, GTZ, the World Bank, SDI, and others in addressing environment and transport issues in Asia;
  - Developing countries should learn from experiences of other countries and initiate preventive measures and adopt where appropriate some well-established mechanisms while they still have the opportunity before pollution from the transport sector poses a dangerous problem;
  - Roadmaps for implementing, where appropriate, the *Aichi Statement* should be developed in consultation with all key stakeholders – governments, municipal authorities, automobile industries, motor companies, oil producers and manufacturers, NGOs, scientific and research institutions;
  - Mechanisms for strict enforcement of standards (vehicle emission standards, roadside air quality standards, noise standards, fuel quality standards, etc) need to be evolved;
  - Energy efficiency measures and fuel economy should be pursued as part of the EST promotional activities and programs at the local and national levels.



24. The meeting concluded with the remarks from Kazuonobu Onogawa, UNCRD and Iskandar Abubakar, Director General of Land Transport, Ministry of Transportation, Republic of Indonesia, highlighting the need for participants to share experiences and best practices in the implementation of the *Aichi Statement*. The meeting also requested the usual cooperation of the participating countries for the organization of the 3<sup>rd</sup> Regional EST Forum.