

## **APPENDIX E**

### **Summary of Plenary Session 2**

#### **Challenges, Solutions and New Ideas for Promoting Environmentally Sustainable Cities (ESC)**

In Plenary Session 2, representatives of EAS participating countries introduced key initiatives on ESC promotion by their countries or organisations. They shared their ideas for promoting ESC based on the lessons learnt from existing or past initiatives, as well as their observations on recent trends and emerging issues. Finally, speakers provided some ideas on how their experience and insights may be useful in the context of ASEAN.

The session's speakers were:

1. China – Ms. Wang Xiaomi, Official, Ministry of Environmental Protection;
2. India – Ms. Sunita Singh, Director, Ministry of Environment and Forests; Mr. P. Bhagat Singh Superintending Engineer Indira Paryavaran Bhawan Project;
3. Japan – Mr. Kotaro Kawamata, Director, International Cooperation Office, Ministry of the Environment;
4. Republic of Korea – Mr. Sang-Kap Kim, Director of the Urban Environmental Accords (UEA) Secretariat, Gwangju City;
5. United States – Mr. Alfred Nakatsuma, Regional Environment Director, Regional Development Mission for Asia, U.S. Agency for International Development (USAID).

#### **China**

Urban environmental protection activities in China have evolved over four decades from the early 1970s through four stages into the present focus on 'Eco-Construction' and 'Overall Improvement of Urban Environment'. These activities have managed to achieve remarkable progress especially in reducing Chemical Oxygen Demand (COD) and SO<sub>2</sub> emissions respectively, increasing the treatment rate of domestic sewage and advancing the de-sulfurisation of coal power plants. Five specific initiatives by the government which may offer useful ideas and experiences to ASEAN Member States are: (i) Environmental Protection Target and Responsibility System; (ii) Urban Air Quality Reporting System; (iii) Quantitative Examination on Integrated Treatment of Urban Environment (QEITUE); (iv) National Model City for Environmental Protection (NMCEP); and (v) Pilot City for the Construction of Ecological Civilization (NPCCEC).

A distinctive feature of China's urban environmental protection system is the application of quantitative examination methods. Through the QEITUE and NMCEP, the local governments of the 655 most important cities are subject to an annual performance assessment by the central government, and the results are announced in a public manner. Out of the 655 cities, 84 most outstanding cities are expected to maintain above average levels of performance through the award of 'National Model City Title'.

China's experience suggests that it is useful to establish a scientific, practical and quantitative evaluation system for measuring local government performance and to implement it with a progressive approach, making improvements in programme design over time. City governments should be recognised as playing a leading role in the creation of model cities, while the central government is responsible for the provision of effective incentives, including for achieving meaningful public participation in the development process. It is important to actively promote the commercialisation of pollution control and enhance the quality of construction and operations of urban environmental infrastructure.

## **India**

Urbanisation is advancing steadily in India. Presently, 37% of the population already lives in 54 'Million Plus Metros', while projections by the Government of India (GoI) indicate that over half of India's population will be urban by 2050. Environmental challenges in Indian cities are diverse and there are many ministries involved in ESC promotion. The key ministries (Urban Development, Environment & Forests, Power, New & Renewable Energy etc.) have each adopted policies and strategies to address the challenge of urbanisation.

Transport is seen as key priority for ESC by the GoI, where the government is expected to take the lead in making capital investments from the private sector. GoI's National Urban Transport Policy (2006) focuses on realising high quality public transport with Mass Rapid Transit Systems (MRTS) as the backbone of urban transportation. Under the policy, adequate MRTS are to be developed in large cities with innovative financing.

There are many pioneering initiatives within Indian cities on ESC. For instance, Delhi Metro is operating the first metro rail and rail-based system in the world certified by the United Nations to be contributing towards pollution reduction while also being eligible for carbon credits for reductions of approximately 630,000t of carbon emissions per year. Another example is Gandhinagar City, the capital of Gujarat State, which has launched an innovative 5MW solar rooftop public-private partnership project and plans to install 500MW of solar capacity by 2014. The city has also invested significantly in energy efficiency initiatives which have resulted in

sizeable savings in energy costs. Finally, sustainable buildings are also deemed a key component of ESC. In Delhi, the Indhira Paryavaran Bhavan 'Net Zero Energy' building with 100% onsite power energy generation has been built.

Finally, national rating and award schemes, such as the scheme for promoting sanitation, have also been instrumental in promoting ESC through wide-scale and systematic assessment, extensive stakeholder consultations as well as recognition of excellent performance.

## **Japan**

The Government of Japan (GoJ) is implementing the Joint Credit Mechanism (JCM), a bilateral mechanism between the Government of Japan and the participating host countries to help realise ESC and shift towards low-carbon societies. JCM projects are conducted in agreement with host countries with achievements in terms of GHG emission reductions monitored, reported and verified to generate credits. Part of these credits will be utilised as contributions towards Japan's emission reduction targets. So far, agreements have been officially signed with 10 countries in the Asia-Pacific region, including the ASEAN Member States of Indonesia, Lao PDR and Viet Nam.

The JCM is part of the GoJ's strategy to promote the introduction of advanced low-carbon technologies and support the creation of an enabling policy environment for such technologies, such as legislation, strict environmental standards, action plans and new financial support programmes for the international deployment of low carbon technologies. The GoJ intends to help Asian Pacific countries to 'leapfrog' into low carbon societies by decarbonising social infrastructure such as those for waste management, water supply, wastewater treatment, energy supply and other key urban services. However, it must be noted that this approach does not have a singular focus of facilitating large-scale deployment of technologies but also on transferring appropriate know-how and social systems as a 'package'. On this, the GoJ is collaborating with JICA and ADB, agencies involved in providing direct assistance to countries on the delivery of low-carbon urban and social services.

City-to-city cooperation is a key element of the JCM strategy. Presently, a number of feasibility studies in sectors such as energy, waste management, water and transport have been initiated in selected cities of JCM host countries. For instance, cooperation is proceeding between the City of Surabaya and the Kitakyushu, as well as between the City of Ho Chi Minh and Osaka. Through these activities, some 140,000t of CO<sub>2</sub> reductions are expected in the coming years.

## **Republic of Korea**

The UEA is a key initiative to promote ESC in the Republic of Korea and globally. In October 2011, Mayors and officials from over 80 cities gathered at the UEA Summit in Gwangju, Republic of Korea. They pledged to steer cities across the developed and developing world towards a green, resource-efficient and low-carbon trajectory. Based on the Gwangju Declaration derived from the 2011 UEA Summit, the Secretariat has been developing the Urban Clean Development Mechanism (CDM) and the Urban Environmental Evaluation Index with the United Nations Environment Programme (UNEP) since 2011. The outputs of these projects will be available and disseminated globally in mid-2014.

Meanwhile, Gwangju City and the UEA Secretariat co-developed the first version of Green House Gas Projections & Diagnostics Program (GPD) last year. Before the development of the GPD, the Gwangju Metropolitan City has implemented a project called the Carbon Bank System (CBS), focusing on the reduction the consumption of electricity, gas and drinking water, which are the major emission sources of household and commercial sectors (<http://www.ueama.org/sub/sub.php?subKey=06020100>). The CBS has led to a reduction of 85,000tCO<sub>2</sub> for four years (2008 – 2012) with an estimated 973,188tCO<sub>2</sub> of accumulated reductions by 2020. Due to the successful outcomes of the CBS in the previous years, Gwangju City and UEA decided to further improve this system by developing the GPD so as to analyse previous energy use, as well as project future energy consumption and GHG emissions.

The GPD aims to assist cities to: (i) prepare GHG inventories at a macro and aggregated manner at the city-scale; (2) develop effective tools for the creation of baseline scenarios through the use of statistical projection methods; (3) measure collective performance with a credible monitoring system; (4) conduct systematic planning and quantitative data support for low-carbon city development; and (5) access to climate finance opportunities.

Gwangju City and UEA have been further enhancing the GPD to include more emission sources to cover the entire city. The second version will be ready for distribution in early 2015 to all UEA member cities and global cities showing special interests. The outputs of the GPD along with the aforementioned two projects will also be introduced at the next UEA Summit in October 2015 in Iloilo City, Philippines. Interested parties are welcome to join this Summit.

## **United States**

USAID presented an update on its ESC-related initiatives reported at the 4<sup>th</sup> High Level Seminar on ESC last year. Its global strategy for urban activities and the environment has been approved

and is now being adopted in activities that work in conjunction with cities and the environment under USAID's Asia Regional Urban Program. New activities are also being launched. For instance, USAID is entering into a large partnership with the Rockefeller Foundation to promote urban resilience, which will have an Asia hub. In addition, agreement has been reached with the ADB to enter into a Trust Fund programme called the Urban Climate Change Resilience Partnership, which is backed by the Government of United Kingdom (through UKAid) and the Rockefeller Foundation. This initiative hopes to leverage a sizeable amount of funds to promote from the ADB and private sector, as well as governments.

USAID is supportive of balancing both the mitigation and adaptation/resilience dimensions of addressing climate change in the urban context. As witnessed in the case of Typhoon Haiyan, the science is underscoring the fact that there will be a more rapid onset of disasters in urban coastal areas where populations are highly concentrated. There needs to be a focus on the poor and underprivileged, as they are the ones who are disproportionately affected by climate change.

Overall, USAID's activities will move towards the direction of helping to advance the plethora of existing analytical and assessment products into planning and strategy, and further on to actual implementation, replication and scaling-up. A particular focus will be on innovative financing mechanisms, which will be vital for helping efforts to move from plans to reality.

## **Discussion**

*Thailand:* The developing ASEAN region is still struggling to address basic environmental management problems, such as those on solid waste management, wastewater, water and air pollution. On the other hand, organisations and developed countries are moving in the direction of mitigating climate change, which is being addressed on a voluntary basis in developing countries, such as Thailand. What are your suggestions for balancing pollution control with climate change mitigation measures?

*Japan:* The Government of Japan is aware of the challenge in balancing local and global issues. It is understandable that environmental pollution issues are being prioritised in developing countries, and that developed countries are more able to allocate resources to address climate change. The notion of 'co-benefits' is proposed as an approach in addressing this. There are numerous interventions which help to improve local environmental quality and also reduce GHG emissions, such as waste-to-energy and industrial wastewater treatment, which could be expanded through the JCM programme.

*India:* Innovative financing can be helpful to raise funds for more resources, such as in the case of MRTS. It is found that the government provides the investment in mass rapid transport, yet the benefits of investment largely accrue to the private sector in terms of increased land prices and building values along metro and rail lines. The Bangalore State Government adopted an instrument which will levy a 5% 'charge' on the value of all future developments occurring within the specified boundaries of the 2<sup>nd</sup> phase of the metro rail project. The funds will be credited to an infrastructure fund that be shared by three responsible government authorities to help fund future initiatives. Another approach that can be helpful is the enactment of minimum standards through laws, such as in building codes, which may help channel more resources from the commercial and private sector towards environmentally friendly investments in infrastructure.

*Chair (Japan):* In conclusion, there is no 'one-size-fits-all' approach. It is hoped that countries and cities can learn from each other and adopt appropriate solutions to help accelerate the speed of transformation towards more sustainable and low-carbon societies.