

Society in May 2010, where a number of activities and achievements of the KIN and KI programme are expected to be continued. IGES has also expressed their desire to support the new activities of Kitakyushu City and will remain to promote the replication of good environmental practices in the region.

Key messages to be delivered to the MCED 6 in Astana, Kazakhstan in October 2010 were presented by ESCAP based on the above achievements and lessons learned from the KI activities. Several recommendations were also put forward for action for national governments in the

region including supporting the actions of local governments and integrating them into national policies as required, supporting the environmental commitments of the KIN member cities, building a business case for environmentally sustainable practices, utilizing public funding to leverage private funding and creating the necessary business environment, building capacities at the local level to implement national policies and promoting participatory approaches and establishing effective partnerships. As for regional partners, strengthening national, regional and international networks, facilitating access to resources and supporting champion cities to spread the

message were recommended.

**Environmental Targets**

As a response to the call of continuing the legacy and achievements of the KI programme, 17 network member cities have expressed their environmental visions and targets taking into account the lessons learned and information shared by the KI programme. The individual environmental targets are supported by a set of action plans that are achievable within a timeframe set by the local governments.

City	Environmental Target
Dhaka City Corporation, Bangladesh	To implement ward based SWM in 20 wards and implement waste reduction and recycling to 20% by 2011.
Surabaya City, Indonesia	To decrease waste generation percentage by 80 % by the year 2015.
Fukuoka City, Japan	To improve the ratio of citizen's opinion on nature conservation to 70% by 2015 and reduce waste generation to 25% by 2010 based on 2002 figures.
Kitakyushu City, Japan	To reduce carbon dioxide (CO2) emissions in the city to 740,000 tonnes by 2013.
Ooki Town, Japan	To implement the Mottainai Declaration Achievement Goals for Ooki Town.
Minamata City, Japan	To decrease the ration of greenhouse gases (GHG) to 32% by 2020.
Ube City, Japan	To reduce waste generation per capita per day to 840 grams by 2021.
Yokohama City, Japan	To reduce waste generation to 35% by 2010 and reduce 30% GHG emission per capita by 2025.
Sibu City, Malaysia	To decrease waste generation by 20-25% (based on 2009 figures) by actively promoting Reduce, Reuse and Recycle practices throughout the municipality by year 2015.
Kathmandu Metropolitan City, Nepal	To continue and complete with the leading initiative of the central government, the synergic effort to finalize the processes of the public-private-partnerships venture in waste management, converting wastes into socio-economic resources within 2 years to come (2010-2011).
Bago City, Philippines	To decrease waste generation by 30%, intensify campaign on waste segregation, expand source-level composting and establish better linkages with other local government units (LGUs) in the country for technology sharing by year 2012.
Cebu City, Philippines	To decrease waste generation by 50% and extend livelihood opportunities by promoting waste segregation at source and composting, targeting 20% levels by 2013, and 35% by 2016.
Puerto Princesa City, Philippines	To increase waste diversion rate target at 80% by 2013.
San Fernando, Philippines	To improve the SWM program of the city through the institutionalization of segregation at source and recycling programs at the household level including commercial establishments and increase waste diversion rate up to 60-80% by the year 2012.
Sto. Tomas Municipality, Philippines	To further increase its waste reduction schemes, enforce an institutional tree planting campaign and initiatives and establish a concrete Municipal Environmental Management Office to be able to address all the environmental concerns that are around our vicinity and to develop a more responsive and environmentally conscious populace beyond 2010.
Bangkok Metropolitan Administration, Thailand	To increase the amount of waste utilization to 30% by the year 2011.
Nonthaburi Municipality, Thailand	To revive and restore Nonthaburi's rivers by the year 2022 through installation of central wastewater treatment plant and measurement for water quality protection and improvement.

The above table is only a partial representation of the environmental targets; to view the full version of the environmental targets you may visit the KI website at: [www.kitakyushu.iges.or.jp](http://www.kitakyushu.iges.or.jp).

The Kitakyushu Initiative for a Clean Environment, a programme of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), was adopted at the 4th Ministerial Conference on Environment and Development in Asia and the Pacific in 2000. The Kitakyushu Initiative has mandated to achieve measurable progress in improvement of the environment in Cities in the Asia-Pacific region and focuses on the sharing of experiences to improve the urban environment.

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# ECO-NEWS

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Your gateway to a clean environment

## Kitakyushu Initiative Programme takes the Final Bow at the 5th Meeting of the Kitakyushu Initiative Network



Honourable Kenji Kitahashi, Mayor of Kitakyushu City

outcomes of the KI programme, has enabled local governments to share and learn important lessons and experiences and establish mutual support and cooperation among other cities. Now that the programme has reached its final stage, the Fifth Kitakyushu Initiative Network (KIN5) meeting was organised to share the outputs of the KI programme, evaluate the programme's impact on the cities and discuss the ways to continue the legacy of the programme after its completion.

The meeting was held on February 10 and 11, 2010 at Kitakyushu City, Japan and was organised by the United Nations Economic and Social Commission in Asia and the Pacific (ESCAP) together with the Institute for Global Environmental Strategies (IGES), the Ministry of the Environment, Japan, City Government of Kitakyushu as well as the Ministry of Foreign Affairs, Japan as a co-organiser. The meeting successfully brought together representatives from 22 local government units in the region including Dhaka City Corporation (Bangladesh), Weihai City (China), Surabaya City (Indonesia), Sibu



Some of the participants and organizers of the KIN5 meeting

Municipal Council (Malaysia), Kathmandu Metropolitan City (Nepal), Bago, Cebu, Puerto Princesa, San Fernando City, Sto Tomas Municipality (Philippines), Dushanbe City (Tajikistan) Bangkok Metropolitan Administration, Nonthaburi Municipality (Thailand), Kitakyushu, Yokohama, Kyoto, Ube, Fukuoka, Minamata City, Shiga Prefecture and Ooki Town (Japan) and Ulsan Metropolitan City (Republic of Korea), as well as government ministries, international organizations, the private sector, local NGOs and research institutes.

The two-day meeting was comprised of four thematic sessions featuring different replication models of successful local environmental initiatives such as Sanitation and Low-cost Wastewater Management System Models, Municipal Solid Waste Management Models, Improving Waste Management Systems and Final Disposal Sites and Energy and Air Quality. Thematic sessions on Long-term City Visions on Development and Environment and Ongoing and Future Regional Initiatives on Sustainable Urban Development were also included to discuss and review the current city-wide and regional initiatives on sustainable urban development in the region. Finally, the programme's outcomes, achievements and plans for a way forward were laid out during the plenary session on the second-day including the messages that will be delivered for the 6th Ministerial Conference on Environment and Development (MCED6) on October 2010 in Kazakhstan.



Professor Hironori Hamanaka, Chair-IGES Board of Directors welcoming the participants during the KIN 5 reception.

# Replication Models

In line with the objective to promote replication of good practices in the region, KIN5 meeting showcased four thematic sessions on successful environmental practices that were developed under the KI programme and other network organizations and initiatives. Under each theme, key factors for the successful implementation were discussed and their subsequent scaling-up and replication to other cities.

## Sanitation and Low-cost Wastewater Management Systems Models

The Decentralized Wastewater Treatment Systems method or DEWATS adopted by the Sanitasi Masyarakat (SANIMAS) programme in Indonesia is considered as one of the outstanding models for low-cost wastewater treatment system. The Ministry of Public Works (PU), in its strong commitment to expand the positive health and environmental benefits of the treatment system supported its replication to 400 individual projects across provinces, cities and communities in Indonesia. Local NGO's and international organizations were also important partners of the programme providing technical support and an avenue to promote the method to other countries like the Philippines. The session also featured the successful Nightsoil Management System of Nonthaburi Municipality, Thailand. By treating the human waste residue of the Municipality, improvements in health condition were achieved and additional external benefits were fertilizer production that helped to support the cost of operation of the environmental learning facility of the Municipality.

Other successful wastewater treatment systems featured in the meeting include the domestic wastewater treatment system in rural China which stressed the use of local

available materials and the Build-Operate-Transfer model of Weihai City, China that resulted to a high wastewater treatment rate of 83.9% in the city. Ulsan Metropolitan City, Republic of Korea also presented its success story on overcoming water pollution problem caused by industrial pollution through the Tachwa River rehabilitation highlighting the importance of political commitment and leadership, effective governance, precautionary approach and public awareness. Finally, Kitakyushu City presented the Japan International Cooperation Agency (JICA) technical cooperation project that contributed to the improvement of the water supply system in Phnom Penh City, Cambodia. The income from water tariff increased from 13% to 92% and the non-revenue water decreased from 72% to 8% as a result of the project.

## Community-based Solid Waste Management (SWM) Models

Five outstanding SWM programs that feature community-lead practices from Surabaya City, Indonesia, Bago and Cebu City and Sto. Tomas Municipality, Philippines, Bangkok Metropolitan Administration, Thailand and Sibul Municipal Council, Malaysia were presented. This session highlighted the important contributions of community-based SWM initiatives to the overall environmental condition of cities particularly from the reduction of the total amount of municipal waste generation which was demonstrated by all the cases presented. In Surabaya City, a 10% waste reduction was achieved since the inception of community and household-based composting and at-source waste segregation. Similarly, the dramatic decrease of the average daily waste generation from 368 tonnes to 6.8 tonnes in Sto. Tomas Municipality is attributed to the rigorous implementation of local SWM policy in the entire municipality imposing a strict observance of waste segregation at-source to all the residents.

The successful cases presented showed various policy mecha-

nisms and strategies to implement and scale-up community-lead SWM initiatives within the city and replicate it in other cities. One of the common policies identified was the implementation of waste-segregation at source supported by proactive waste activities like composting. Factors for successful implementation were also identified such as strong political will, multi-stakeholder partnerships, provision of incentives and continuous public awareness campaigns. To scale-up community-based SWM activities innovative strategies, were adopted including technology enterprising, localization of technologies and mobilizing local stakeholder's networks such as communities and the private sector while trainings, workshops and meeting were effective means to promote these practices to other cities.



Ganesh Rai, Acting Executive Officer of Kathmandu Metropolitan City receiving the Certificate of Appreciation to Outstanding KI Network Members from Professor Hironori Hamanaka, Chair of the Board of Directors, IGES

## Improving Waste Management Systems and Final Disposal Sites

This session featured a number of waste management systems and efficient waste disposal facilities developed by local governments in the region such as Fukuoka City, Ube City and Ooki Town, Japan, Dhaka City Corporation (DCC), Bangladesh, Kathmandu Metropolitan City (KMC), Nepal and San Fernando City, Philippines. The Fukuoka Method, one of the successful models presented, is an effective landfill site management system that contributes to climate change mitigation. The same system was adopted by DCC and KMC, which proved to be advantageous due to its low-cost design that allows the use of local materials and alternative land use.

The waste management system and disposal facility adopted in San Fernando City demonstrated the significance of community-based initiatives on at-source waste segregation and recycling as a useful means to prolong the lifespan of the disposal system. Similarly, waste management initiatives in Ooki Town are focused on creating a recycling-based community thereby establishing a recycling system where kitchen wastes, raw sewage and septic tank sludge are converted to resources like biogas and fertilizer.



Some of the participants of the Thematic Sessions



Hon. Mayor Bambang Dwi Hartono, Surabaya City Mayor receiving the Certificate of Appreciation to Outstanding KI Network Members from Mr. Shigeru Mochida, Deputy Executive Secretary of ESCAP

In Ube City, the world renowned "Ube Method" has been adapted not only to control local pollution problems such as solid waste and water pollution but to address global environmental issues such as global warming. The method, advocating for public participation and involvement, successfully established a partnership among the city's citizens, businesses and academics, with each player fulfilling its respective role.

## Energy and Air Quality

The potential for energy efficiency in buildings and air pollution initiatives of local governments were presented and discussed in this session. A general overview of the opportunities for implementing energy efficiency in buildings was supported by a case study in Dushanbe City, Tajikistan. A study was conducted that shows an estimated energy savings of 50% for municipal buildings that could be achieved with a payback period of two years. In the Philippines, a number of innovative government programmes for air quality improvement have been implemented as well as civil society initiatives. Partnerships and stakeholder involvement were highlighted as important criteria

for the success of these programmes.

## Promoting Sustainable Urban Development in Asia and the Pacific Region

Attaining sustainable urban development for cities is a goal shared by many state and non-state actors in development and environment in the region. Local governments in particular, have taken a step forward by establishing visions and goals aimed toward the achievement of environment and economic sustainability in their respective cities. Similarly, many regional initiatives like that of the KI programme have emerged to support the initiatives and activities of local governments towards the realization of sustainable urban development.

Six environmental model cities namely Puerto Princesa City, Philippines, Ulsan Metropolitan City, Republic of Korea, Yokohama, Minamata and Kitakyushu City, Japan presented their long-term visions on

development and environment and their supporting activities or action plans. In Puerto Princesa, the vision of becoming a "Model City in Sustainable Development" is applied through the city's three environmental management concepts and they are to protect, rehabilitate and plan for the sustainable utilization of resources that were developed in 1992. In Ulsan, the vision of an "Ecopolis Ulsan" aims to bring people, nature, industry and the environment to co-exist and co-prosper. The vision is focused on creating a world-class eco city by creating a clean living environment, securing green space, conserving and restoring ecosystems and creating ecological spaces as well as raising citizen's awareness. Climate change mitigation is a goal that is shared by the Eco-model cities of Japan including Yokohama, Minamata and Kitakyushu. In Yokohama, a target of reducing carbon dioxide (CO2) emissions by 30% by 2025 and 60% by 2050 was set. Minamata City on the other hand has established a target of 32% reduction in CO2 emissions by 2020 and 50% by 2050 while Kitakyushu City plans to reduce 50% of its CO2 emission by the year 2050.

Current and future initiatives by IGES, CityNet, Clean Air Initiative Asia (CAI-Asia), UN-Habitat, ICLEI and Kitakyushu City were also presented to review the current and prospective regional initiatives on sustainable urban development. The discussions acknowledge the need for regional cooperation in advancing the sustainable urban development agenda in terms of sharing good practices, identifying policy options, building capacity and transferring technology.



Hon. Mayor Kenji Kitahashi, Kitakyushu City Mayor and Professor Hironori Hamanaka of IGES during the ceremonial toast.

# Achievements, Way-Forward and Messages for MCED 2010

Enabling tangible improvements in the environment of cities in the region is considered to be one of the main achievements of the KI programme. Overall municipal waste generation reduction, improved water and air quality and provision of sound environmental services are few of these improvements where local governments have played a key role. Over the years, the implementation and focus of the KI programme evolved from basic methodological development of identifying

and collecting successful local environmental practices to their actual implementation. By advocating city-to-city cooperation, a number of innovative environmental practices and policies have been shared, promoted and replicated by local governments.

The member cities of the Kitakyushu Initiative Network (KIN), one of the main pillars of the programme, were seen to be actively involved by supporting and partici-

pating in many sustainable environmental movements in the region. A network of aware and motivated leaders have been developed over the years. Given these unique characteristics and significant achievements of KIN, Kitakyushu City, as one of the main partners of the KI programme, proposed to continue and further strengthen the existing cooperation between cities. Kitakyushu City also announced the inauguration of the Kitakyushu Asian Centre for Low Carbon