

## International Symposium on “Realizing Low Carbon Cities in North-East Asia”

5-6 December 2013, Beijing, China

### REPORT OF THE SYMPOSIUM

1. UNESCAP-ENEA serving as the Secretariat of NEASPEC and the Chinese Academy of Social Sciences (CASS) jointly organized the International Symposium on “Realizing Low Carbon cities in North-East Asia” on 5-6 December 2013 in Beijing, China. The symposium brought together experts, academia, subregional and international agencies and city representatives to exchange and discuss on various issues related to low carbon cities (LCC), including policy, tools and methodology, financing, and knowledge sharing on LCC development practical experiences and challenges. At the workshop on the second day, agencies working on LCC in the subregion also presented their work and joint initiatives, and discussed on the need of creating a subregional partnership.
2. **[LCC Initiatives in North-East Asia]** The Symposium reviewed North-East Asian countries’ various initiatives on promoting and implementing LCC development. In China, the National Development and Reform Commission (NDRC) has designated 42 *Pilot Low Carbon Cities* since 2010 to attain the national goal of 17 percent reduction of carbon intensity during 2011-2015. These pilot cities would develop a comprehensive low carbon development plan, GHG emissions inventory and management system, establish GHG emission targets as well as promote low carbon lifestyle and consumption pattern. More recently in December 2013, the State Council unveiled the *National Resource-Dependent Cities Sustainable Development Plan (2013-2020)* as the first national framework to transform 262 resource-dependent cities into sustainable cities. These resource-dependent cities are categorized into 4 groups (growing, mature, declining and regenerative) and will transform in their own path according to their grouping and individual characteristics.
3. Sub-national initiatives and programmes in China related to LCC have also been shared at the Symposium, including: (i) the Tianjin Economic-technological Development Area (TEDA), as a highly industrialized area, TEDA has provided eco-infrastructure and services to promote low carbon development. These include infrastructure on energy, wastewater and solid waste disposal, and services such as low carbon information platform, consulting and training. It has established targets including the reduction of CO<sub>2</sub> emissions per capita of GDP by 21% in 2015 compared to 2010; (ii) Hunan province, has established GHG emissions inventory, developed a work plan and mid-term plan (2010-2020) to limit GHG emissions. Under this plan, the province has also launched its own carbon pilot programme which consists of 5 cities and involves tasks on GHG accounting and reporting system.

4. Japan has a mid- to long-term goal to cut 60-80% of emissions by 2050, to be achieved through the development and adoption of innovative technology, decarbonization via emissions trading, tax reform etc., and the development of eco-model cities. The Government launched the *Eco-model City Initiative* in 2008 and selected 13 cities, ranging in size from Shimokawa Town with population of 3,900 to City of Yokohama with more than 3.5 million residents. The selection was based on city governments' proposals reflecting their individual needs and comparative advantages. The proposals of selected Eco-Model Cities include various low carbon projects involving building renovation, sustainable energy, recycling, etc. Further to the Eco-model City Initiative and the Fukushima incident with its implications on energy, the Japanese government launched the "*FutureCity*" Initiative in 2011 and selected 11 cities<sup>1</sup> (including some of the Eco-model cities) to realize sustainable cities that address environmental and socioeconomic challenges such as climate change and aging; and promote international dialogue through hosting international forums at the selected cities. Proposals from the selected cities include projects on forests, intelligent transportation system, recycling, renewable energy and smart grid in disaster-affected coastal areas.
5. The Republic of Korea has a number of government-led initiatives related to low carbon city concept, commissioned by the central government and implemented by municipal governments. These include pilot projects on *Eco Rich City*, *Pilot City Development for Climate Change*, *Low-Carbon Green Community* and *Sustainable Newtown Planning*. These projects involves different areas of work such as urban planning at city-level, creating guidelines (eg Low-Carbon Green City Guideline) and have resulted in a number of concrete outcomes such as the Wonju City Masterplan, Gangneung Green City Development, and Geomdan New Town Development. At city-level, the Seoul Metropolitan Government introduced in 2012 the *One Less Nuclear Power Plant Initiated*, an energy policy initiative to save 2 million TOE of energy, equivalent to the capacity of one nuclear reactor. It also aims to promote the adoption of renewable energy sources such as solar power and fuel cell. The initiative includes ten key actions on buildings, lighting, transportation and city master plan etc, and a number of voluntary community programmes such as the Eco-Mileage Programme.
6. **[Key topics in LCC development]** The Symposium reviewed a number of topics related to LCC development on transportation, finance, research and tools. The significance of shifting transportation in LCC development and its interrelations with city planning which is vital for the successful uptake of public transportation was highlighted.
7. Financing LCC and green development was emphasized in providing incentive and startup capital in moving towards a low carbon pathway. The China Banking Regulatory Commission has published the Green Financing Guidelines to support green transformation of development, and provided green credits for low carbon industries and construction of LCC infrastructure.

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<sup>1</sup> The FutureCity Initiative includes: Shimokawa Town (Hokkaido), City of Kashiwa (Chiba), City of Yokohama (Kanagawa), City of Toyama (Toyama), City of Kitakyushu (Fukuoka), City of Iwanuma (Miyagi), City of Higashimatsushima (Miyagi), City of Minamisoma (Fukushima), Sinchi Town (Fukushima) and the Kensen Regional FutureCity includes the City of Ofunato, City of Rikuzentakata and Sumita Town.

8. The Symposium shared various research output and programmes on national and regional policies, modeling and LCC framework. This includes collaborated research on urban infrastructure investment in China, Indonesia and Japan, low carbon initiatives framework capacity building and carbon sequestration etc. An overview study is being carried out by ICLEI on Low-carbon Eco City Projects and Networks reviewing work and activities by agencies working on LCC in East Asia. In Japan, research has led to the development of a number of computer simulation models including regional integrated assessment model (Regional AIM) and spatial planning model which enables the design of sustainable cities and regions. This experience has also demonstrated roles of the private sector in providing technological support in integrating energy-sensing and real-time energy management.
9. **[An overview of agencies, services and tools]** The Symposium provided an overview on the activities, services and tools provided by agencies, organizations and institutions. Numerous initiatives and programmes in the subregion have been started, which include the *Low Carbon City Initiative (LCCI)* of WWF and its partners to carry out pilot projects in Shanghai and Baoding, exploring low carbon development models and improving energy efficiency; *Climate+ Development Programme* of C-40 to reduce on- and off-site emissions through adopting the target-based guiding framework; *Sustainable and Livable Cities Initiative (SLC)* of World Resources Institute, involving demonstration projects, capacity building, policy recommendations at national level, and communications; *Low Carbon Initiatives Framework* of the Asia-Pacific Network for Global Change Research to integrate models, carry out cross-cutting research, capacity building activities and networking between researchers and policy-makers.
10. Agencies have also worked together on providing services and developing tools. To assist local governments on GHG accounting, the *Global Protocol for Community-Scale Greenhouse Gas Emissions (GPC)* was jointly developed by WRI, C-40 and ICLEI, providing consistent and practical methodology in building GHG inventory at a local level. GPC is linked to another tool, *HEAT+*, which is a GHG accounting and management tool, provided by ICLEI. It provides an internet-based and multilingual tool for local governments to account and track emissions related to the city's various activities. This tool aims to enable local government to forecast its BAU scenario, set targets, prioritize areas, plan actions and report on progress.
11. For consistent assessment and monitoring of LCC development, the Chinese Academy of Social Sciences has developed the *Low-carbon City Index System (LCCC)*, consisting of 15 main indicators and 52 supporting indicator. It is a tool for LCC development through systematic assessment of current LCC development, commitment and management, in order to assist the development LCC development and implementation plan.
12. **[Subregional Platform]** The Symposium had provided an opportunity to review and share works carried out by key actors across sectors in LCC development. Several issues were raised and discussed after the review, providing ideas on the roles and activities to be carried out by the platform. Cities in the subregion vary in a range of characteristics such as geography, population size, socioeconomic activities and infrastructure. It was

suggested that systematic LCC approach should be applied but when developing actual work plans and targets, local factors must be taken into consideration. For this reason the involvement of local stakeholders and empowering local governments through capacity building and providing access of information is important for widespread and efficient LCC development. Peer-to-peer support and experience sharing was also considered useful and attractive mode of exchange for city governments.

13. The overview of current work done within the subregion shows that there has been on-going work to provide tools and guidelines, research and modeling, as well as working directly with local governments. Some collaborated work has been carried out yet there is much room for further collaboration and communications between agencies and organizations working in this field. This will allow resources to be pooled and more efficiently utilized, whilst minimizing duplication and potential competition. With the numerous tools and guidelines available, local governments should also be sufficiently informed and supported on making choices.
14. In light of the range of on-going work and activities undertaken by various stakeholders, the approaches that cities have taken, and their needs in overcoming barriers to LCC development, the Symposium supported the proposal to launch a subregional platform for information sharing and communications, joint studies and assessments, and capacity building amongst all stakeholders. In terms of modality, the Symposium discussed an internet-based platform as the primary communication channel, and other joint activities such as workshops, trainings and field visits on specific themes or topics. With the views and suggestions received at the Symposium, NEASPEC Secretariat will produce a concept paper on roles and work plan of the platform and circulate amongst participants and other key stakeholders for comments and their participation in the platform.