

UNITED NATIONS

ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

Nineteenth Senior Officials Meeting (SOM) of NEASPEC

22-23 September 2014

Moscow, Russian Federation

REVIEW OF PROGRAMME PLANNING AND IMPLEMENTATION

(Item 5 (d) of the provisional agenda)

Eco-efficiency Partnership with a focus on Low Carbon City

Note by the Secretariat

CONTENTS

I. BACKGROUND OVERVIEW.....	2
II. OVERVIEW AND PROGRESS ON ECO-EFFICIENCY PARTNERSHIP	4
III. NORTHEAST ASIA LOW CARBON CITY PLATFORM.....	5
IV. ISSUES FOR CONSIDERATION.....	6

Annex I. Meeting Report of International Symposium on “Realizing Low Carbon Cities in North-East Asia”

Annex II. Call for Partnership: Subregional Platform for Low-Carbon City in North-East Asia

I. BACKGROUND OVERVIEW

A. Overview of Low Carbon City (LCC) in North-East Asia

1. North-East Asia (NEA) has a rapidly growing urban population alongside economic development. This trend implicates environmental vulnerabilities that accompany urbanization and the life of cities. In this subregion, urban population had already exceeded 830 million in 2009 and the share of urban population is expected to be over 70 percent by the next decade. Among the 30 world largest urban agglomerations ranked by population size in 2010, eight cities came from this subregion.¹

2. North-East Asian countries, in particular China, Japan and Republic of Korea, have recognized the significant potential of lowering carbon emissions through promoting low carbon city development and its related activities (Table 1). Various initiatives, policies and programmes have been in place across different levels of governments, with each country taking a different approach.

[Table 1] - LCC Initiatives and programmes in North-East Asia

China	Japan	Republic of Korea
Legal policy/ national measures for LCC		
12th Five Year Plan targets: <ul style="list-style-type: none"> • Energy intensity reduction by 16% • Carbon intensity reduction by 17% 	Bill of the Basic Act on Global Warming Countermeasures (2010) Specified Japan's strategy to build a low-carbon society	The Low Carbon, Green Growth Basic Act (2010) Urban Planning Guidelines for Low-carbon Green Growth (2009)
Programmes and initiatives		
Low Carbon Pilot Cities and Provinces (2010, 2012) Pilot Low Carbon Transportation System (2011)	Eco-model City Programme (2008) Future City Initiative (2010)	Climate-model city and Eco-rich City (2007)
GHG emissions reduction goals in selected cities		
<i>Based on carbon intensity per GDP</i> Baoding: 35% (2010-2020) Hangzhou: 50% (2005-2020) Jilin: 60% (2005-2030) Shenzhen: 45% (2005-2020) Guiyang: 45% (2005-2020) Tianjin: 15.5% (2010-2015)	<i>Based on the absolute reduction target</i> Kyoto: 40% (1990-2030) Toyama: 30% (2005-2030) Kitakyushu: 30% (2005-2030) Yokohama: 30% per capita (2004-2025) Minamata: 33% (2005-2020)	<i>Based on absolute reduction target or business as usual (BAU)</i> Seoul: 25% (1990-2020) Suwon: 5% (2010-2015) Kangreung: 49% (BAU, 2020) Jeju: 41% (BAU, 2020) Kwangju: 40% (BAU, 2020)

3. Recently Mongolia developed a specific plan for green city under the *Mongolian Green Development Plan* endorsed by the Parliament in June 2014. The Policy defines green development as “a development model with efficient and effective use of natural resources, ecosystem services support, lower greenhouse gas emission, wasteless, reduced

¹ *World Urbanization Prospects (2011)*.

poverty through inclusiveness”, and includes six strategic objectives in the areas of resource efficiency and greenhouse gas emissions; ecosystem balance; incentives such as tax and financing; green employment, poverty reduction and green lifestyle; living and cultural values; and population settlement plan with consideration of climate change, resources and capacity. A number of implementation measures regarding cities have been identified, including: the development of self-sufficient “green” and “smart” small cities, reduction of pollution through better urban land use planning, increasing green area share by 15% by 2020 and 30% by 2030 through the re-planning of Ulaanbaatar city and other urban settlement areas; development of greener public transportation and increasing spaces for pedestrians and bicycle riders etc. Under the measures stated in this Plan, the urban areas of Mongolia especially Ulaanbaatar is expected to undergo significant changes in population settlements, infrastructure and energy, green areas etc. and moving towards lowering carbon and other environmental footprints.

4. Mongolia has also taken leadership in promoting urban sustainability and development in the subregion, through hosting the first North-East Asian Mayors’ Forum in August 2014 under the theme “Sustainable and Inclusive Cities”, which was hosted by Ulaanbaatar City and opened by the President of Mongolia. Over twenty Mayors from all NEASPEC member States and representatives from municipalities and international organizations including ESCAP and ADB, participated and exchanged on policies and practices for sustainable development of cities, urban management and services, economic development and environmental management.

5. Moscow has strengthened urban policies for addressing the need of ecologically sustainable urban development, energy conservation and ecologically-focused development of the Greater Moscow. Under the *Moscow Law on the Master Plan 2025*, key programmes of Moscow city for ecologically sustainable urban development aims to ensure the priority of environmental requirements for the period up to 2025. In this connection, the programmes put a significant emphasis on two areas, namely, energy conservation and environmental protection.

- Engineering infrastructure: implement integrated development and modernization of services such as gas, energy and water, and ensure its reliability, quality and accessibility;
- Energy conservation: improve efficiency of resources uses including electric and thermal energy, water and nature gas, improve service reliability and safety, and increase use of renewable energy sources to 4.5% by 2020;
- City planning policy: create a better balance between built-up areas, open and green spaces of the city, aiming that 30% of the total area of the city should consist of green areas and open spaces.

- Environmental protection: reduce pollution from motor transport, power stations, and other enterprises, improve water quality, increase recycling and waste management efficiency, protect and restore nature reserves, expand public spaces and improve landscape.

6. In this regard, the city of Moscow in 2010 also approved rules and regulations for disseminating and putting effective environmental and climate change technologies into practice. These rules and regulations propose measures to improve the energy and environmental efficiency of municipal services to limit greenhouse gas (GHG) emissions. These measures should improve the energy efficiency of Moscow by 43% between 2010 and 2025.²

7. Meanwhile, at regional and international levels, a number of networks and programmes have been established across the civil and academic communities to support and accelerate this movement. These include local governments and cities networks such as the ICLEI-Local Governments for Sustainability, C40 Cities Climate Leadership Group (C40), Asian Cities Climate Change Resilience Network (ACCCRN), and research initiatives such as the Low Carbon Initiatives (LCI) Framework and International Research Network for Low Carbon Societies and Low Carbon Asia Research Network (LoCARNet).³

II. OVERVIEW AND PROGRESS ON ECO-EFFICIENCY PARTNERSHIP

A. Post-SOM18 and the International Symposium on “Realizing Low Carbon Cities in North-East Asia”

8. Building on the consensus and support at SOM-17 on launching an information platform for low carbon city strategies and support received from member States at SOM-18, NEASPEC, together with the Institute for Urban and Environmental Studies under the Chinese Academy of Social Sciences jointly held the international symposium “Realizing Low Carbon Cities in North-East Asia” in Beijing on 5-6 December 2013. The meeting report is attached as Annex I.

9. It brought together experts, academia, (sub)regional and international agencies as well as city representatives to exchange and discuss on various issues related to LCC. The symposium provided an opportunity to review and share works carried out by key actors across sectors in LCC development. Topics of discussions covered: policy perspectives and roles of stakeholders; LCC research, tools and methodology; LCC finance and

² Irina Ivashkina, *Moscow and Moscow Region: Ecological Focus for Sustainable Development, Sociology Study, July 2012, Volume 2, Number 7, 540-550*

³ For further information, please refer to table 3, selected networks and programmes, in the annex 2.

economics on funding and mobilizing capital to meet finance needs; and knowledge sharing on LCC development practical experiences and challenges.

10. Several issues were raised and discussed after the review, providing ideas on the roles and activities to be carried out by the platform. Some key points and observations were noted as follows:

- When developing actual work plans and targets for low carbon city, local factors such as geography, population size, socioeconomic activities and infrastructure must be taken into consideration. **Empowerment of local governments, peer-to-peer support and experience sharing** were highlighted as useful and attractive for city governments.
- Some collaborated work has been carried out yet there is **much room for further collaboration and communications** between agencies, allowing resources to be pooled and more efficiently utilized, whilst minimizing duplication and potential competition.
- In light of the range of on-going work and activities undertaken by various stakeholders, the Symposium **supported launching a subregional platform for low carbon cities to facilitate information sharing and communications, joint studies and assessments, and capacity building amongst all stakeholders**

III. NORTH-EAST ASIA LOW CARBON CITY PLATFORM

11. Considering the broad range of stakeholders involved in LCC development, the various current programmes and most importantly, the variety of needs from cities with different characteristics, the subregion is in need of a platform for communications and exchange on the development, demand and supply of services and information.

12. This Platform aims to support national and local LCC development through: providing access to information and current activities; channeling to express needs, discussing and implementing actions required for the subregion; linking to wider LCC development beyond the subregion; and acting as a focal point for cooperation and partnerships. Members of the platform shall comprise of public institutions and non-profit organizations working on relevant programmes.

13. Further to the series of consultation and support received on launching a subregional LCC platform, a paper to call for partnership of the Platform has been prepared, which also outlines the background and operation of the North-East Asia Low Carbon City Platform. The Paper, which is attached as Annex II, calls for partnership in three areas of proposed activities:

- a. **Information sharing and communications:** As a core service of the platform on information dissemination, promoting contacts and cooperation among stakeholders, this can take place in various forms including events such as

symposiums, workshops and expert group meetings; and through a web-based platform containing LCC information such as case studies, relevant activities in the subregion, updates and publications, etc.

- b. **Peer Review/ Analytical Studies:** In peer reviews, cities are invited to submit their LCC development plan/ approach for peer and experts to review and provide recommendations. For analytical studies, cities that are relatively new to LCC can indicate their interests and provide baseline information for peer and expert analytical support and advisory services.
- c. **Capacity building:** To directly enhance local capacity and to share first-hand experiences, capacity building can target specific audience or technical aspects, and be tailored at request of local governments. It can also be part of other activities such as workshops or to support implementation of recommendations from peer review etc.

IV. ISSUES FOR CONSIDERATION

- 14. The Meeting may wish to request member States to guide and express their interests in the areas of the North-East Asia Low Carbon City Platform and potential projects under the Platform.
- 15. The Meeting may wish to invite member States to nominate national institutions, municipal institutions and non-profit organizations to become members of the Platform.

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[Annex I]



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 CO₂ 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 cities⁴ (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

⁴ 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 Kansen Regional FutureCity includes the City of Ofunato, City of Rikuzentakata and Sumita Town.

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.
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.

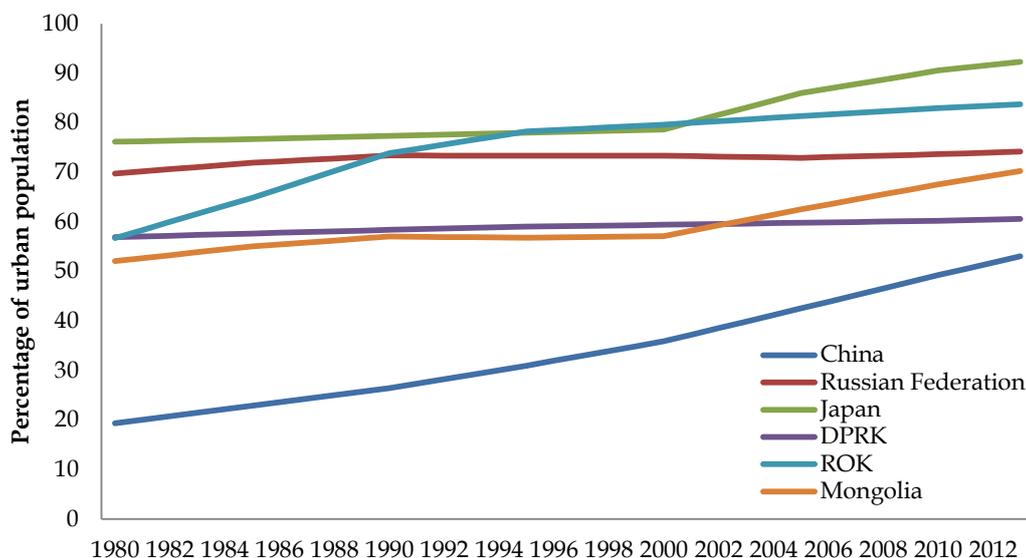
[Annex II]

North-East Asia Low Carbon City Platform: call for partnership

1. Why low carbon cities matter in North-East Asia?

North-East Asia (NEA) has a rapidly growing urban population alongside economic development [Figure 1]. This trend implicates environmental vulnerabilities that accompany urbanization and the life of cities. In this subregion, urban population had already exceeded 830 million in 2009 and the share of urban population is expected to be over 70% by the next decade. Among the 30 largest urban agglomerations ranked by population size in 2010, eight cities came from this subregion.⁵

[Figure 1] Share of urban population in North-East Asia, 1980-2013



North-East Asia accounts for around 32% of the world's energy consumption and encompasses some of the most resource-rich and most resource-dependent countries in the world. In particular, three countries in North-East Asia, i.e. China, Japan and the Republic of Korea are ranked among the top five importers of major fossil fuels, accounting for 26.5 percent and 49.5 percent of world imported oil and coal in 2012, respectively. Furthermore, the high energy intensity of North-East Asian economies contributes to the subregion's significant share of 37% of global carbon emissions.⁶

⁵ *World Urbanization Prospects (2011)*.

⁶ *Key world energy statistics 2013, IEA*

2. Low Carbon City Development in North-East Asia

North-East Asian countries, in particular China, Japan and Republic of Korea, have recognized the significant potential of lowering carbon emissions through promoting low carbon city development and its related activities. Various initiatives, policies and programmes have been in place across different levels of governments, with each country taking a different approach. Meanwhile, a number of networks and programmes have been established across the civil and academic communities to support and accelerate this movement.

2.1. China

China has initiated national policies and targets that are closely related to LCC, these national policies and targets are often incorporated and implemented at provincial level and below:

- The *12th Five Year Plan* (12-5 Plan) lays out China's national approach and key targets on development, including the reduction of greenhouse gas emissions per unit of GDP by 40-50% by 2020 (compared to 2005), reduction in energy intensity by 16% and carbon intensity by 17% by 2015.
- The *National New Urbanization Plan (2014-2020)* is a strategic plan which includes principles and goals of urbanization on social, infrastructure, economic and environmental aspects, with emphasis on green city development through addressing the areas of energy, buildings, transportation, consumption and lifestyle etc.
- The *2014-2015 Energy Conservation and Emissions Reduction Low Carbon Development Implementation Plan* detailed approaches and targets on reducing national emissions, such as targets on selected cities' vehicle emissions and green building construction.
- The *Low Carbon Province and City Pilot Project* involves developing low carbon development plans and its supporting policy measures, low carbon industrial and production strategy, greenhouse gas accounting mechanisms and green lifestyle

models etc. Its second phase launched in 2012 expanded to a total of 42 cities and provinces across China.

- The *Low Carbon Community Pilot Project* launched in 2014 to promote low carbon development at community-/district-level, approximately a thousand pilot communities will participate by 2015

[Table 1] Low carbon development targets and actions proposed by Chinese cities⁷

City	Low Carbon Strategy or Target	Relevant Document
Baoding	By 2020 reduce CO2 intensity by 35% compared to 2010; reduce CO2 per capita to less than 5.5 tons.	“Opinion on Constructing Low Carbon City (draft),” 2008; “Baoding Low Carbon City Development Plan,” 2008
Chang-ZhuTan	This city is part of a pilot “Resources Saving and Environment Friendly Comprehensive Reform Area.”	Chang-Zhu-Tan City Cluster Regional Plan, 2009
Chengdu	By 2020, reduce CO2 intensity by 35% compared to 2010; reduce CO2 per capita to less than 5.5 tons; make new energy account for 25% of industrial value.	“Action Plan on Constructing Low Carbon City in Chengdu,” 2010
Chongqing	By 2015, reduce energy intensity by 16% compared to 2010.	“Chongqing Low Carbon Transformation Research: Case Study in Chemical, Automobile And Energy Industries,” 2010
Guiyang	By 2020, reduce energy intensity by 40% and carbon intensity by 45% compared to 2005.	“Guiyang Low-Carbon Development Action Plan (2010-2020)” July 2010
Hangzhou	By 2020, reduce carbon intensity by 50% compared to 2005 levels; increase forestry coverage above 68%.	“Implemented Opinion on the Construction of Low-Carbon City,” November 2009.
Jilin	Emissions for Jilin City could peak in about 2020 and decline to 60% of the business-as-usual scenario by 2030.	“Low Carbon Development Roadmap for Jilin City,” 2010

⁷ Berkeley National Laboratory (2012) *China's Development of Low-Carbon Eco-Cities and Associated Indicator Systems*.

	Primary energy demand not to exceed 28.18 million and 33.51 million tons of coal equivalents (tce) in 2020 and 2030, respectively.	
Nanchang	By 2015 reduce CO2 emissions per unit of GDP by 38% compared to 2005 levels; increase the ratio of non-fossil fuels in primary energy consumption to 7%, and increase forest coverage to 25%. By 2020, reduce CO2 emissions per unit of GDP to 45%-48% of 2005 levels; increase the share of non-fossil fuels in primary energy to 15%; increase forest coverage to 28% and the forest stock to 420 million cubic meters.	“National Low-carbon City Pilot Nanchang Implementation Plan” reported to NDRC, October 2010
Shenzhen	Reduce carbon intensity 32% by 2015 and 45% by 2020 compared to 2005. Make non-fossil energy account for 15% of primary energy by 2015.	“Shenzhen Low Carbon Development Medium and Long-Term Plan (draft),” April 2011
Tianjin	By 2015, reduce carbon intensity by 15.5% compared to 2010; reduce energy intensity by 15% compared to 2010.	“Tianjin Climate Change Program,” March 2010
Wuxi	By 2020, reduce carbon intensity by 45%.	“Wuxi Low-Carbon City Development Strategic Planning,” 2010
Xiamen	By 2020, reduce energy intensity by 40% compared to 2005; total carbon emission should peak by 2020.	“Xiamen Low Carbon Development Master Plan,” 2010.

2.2. Japan

Japan has also adopted a number of national initiatives:

- The *Bill of the Basic Act on Global Warming Countermeasures* was approved in 2010 by the Cabinet, which specified Japan’s mid- and long-term targets to reduce 60-80 percent of GHG emissions by 2050, to be achieved through developing innovative technologies, mainstreaming existing advanced technologies, and promoting

renewable energy and energy conservation so that the mechanisms can mature and drive towards a low-carbon society nation-wide.

- The *Low Carbon City Development Guidance* (2010) outlines a comprehensive approach to low carbon urban development, including description of a systematic approach with basic concepts and specific measures for creating a low-carbon city, and a set of simulation methods to estimate changes in carbon dioxide emissions at city-level.
- The *Eco-model City Programme* since 2008, aims to create a low-carbon society shifting from single innovations to collaborative social innovations via structural innovations in the social system. The comprehensive approach utilizes concerted low-carbon efforts by cities and communities.
- The *“Future City Initiative*, created in 2011, aims to create and disseminate the best practices of low carbon, green cities in Japan and abroad.

[Table 2] Targets of 13 Eco-Model Cities

Cities	Population (thousand)	Area Size (sq.km)	Reduction Goal (mid-term)	Reduction Goal (by 2050)	Base Year
Kitakyushu	990	488	30% by 2030	50-60%	2005
Kyoto	1,470	828	40% by 2030	60%	1990
Sakai	840	150	15% by 2030	60%	2005
Yokohama	3,670	434	+30% per capita by 2025	+60% per capita	2004
Iida	110	659	40-50% by 2030	70%	2005
Obihiro	170	619	30% by 2030	50%	2000
Toyama	420	1,242	30% by 2030	50%	2005
Toyota	420	918	30% by 2030	50%	1990
Shimokawa	3,900	644	32% by 2030	66%	1990
Minamata	29	163	33% by 2020	50%	2005
Miyakojima	55	205	30-40% by 2030	70-80%	2003
Yusuhara	4,000	237	50% by 2030	70%	1990
Chiyoda	45	12	25% by 2020	50%	1990

Source: Regional Revitalization Bureau, Cabinet Secretariat, Government of Japan, 2009

2.3. Republic of Korea

The Republic of Korea's efforts include a range of policies under the framework of green growth, from a national stimulus plan to local city initiatives:

- Under the concept of "low carbon, green growth" announced in 2008, seven cities were selected as *EcoRich City* focusing on the improvement of the city environment as well as on creating new jobs in energy, commuting, recycling, etc. This concept combines policies from various ministries to provide a comprehensive approach for the green growth of cities.
- The *Urban Planning Guidelines for Low-Carbon Green Growth* (2009) involves establishing standards, evaluation, and countermeasures concerning the application of low-carbon green growth concepts to urban planning factors.
- The *Low Carbon, Green Growth Basic Act* passed in 2010, requires local governments to set the targets for energy savings and GHG emissions reduction. For example, Gangneung City, the first Low-Carbon Green Demonstration City designated by the Central Government, aims to reduce greenhouse gas emissions by 49 percent by 2020.

2.4. Networks and Programmes

Alongside the global movement in sustainable and low carbon development, numerous networks and programmes have been established to promote LCC development. These efforts play different roles such as technical advancement, city groups, financing and international cooperation etc.

[Table 3] Selected Networks and Programmes

Name	By	Description
GreenClimateCities® network	ICLEI ⁸	Network for transforming local building stock and urban infrastructure for higher energy-efficiency and lowering carbon emissions through capacity training and exchange opportunities.
carbon Cities Climate Registry (cCCR)	ICLEI	World's largest global database of local climate actions, providing an online platform for cities to self-report GHG emission reductions and adaptation targets, achievements and actions

⁸ International Council for Local Environmental Initiatives (ICLEI)

Name	By	Description
Harmonized Emissions Analysis Tool Plus (Heat+)	ICLEI	multilingual online emissions inventory tool to help Local Governments account for greenhouse gas emissions and air pollutants in local communities
Global Protocol for Community-Scale GHG Emissions (GPC).	WRI ⁹ , ICLEI, C40 ¹⁰	A methodology that harmonizes greenhouse gas emissions measurement and reporting processes for cities and community-scale GHG emissions
Initiative on Urban and Regional Carbon Management (URCM)	Global Carbon Project (GCP)	A scientific initiative aimed at supporting policies for urban carbon management and sustainable urban development.
Cities Development Initiative for Asia (CDIA)	ADB ¹¹ , GIZ ¹²	A regional initiative cooperates with other existing city networks and provides direct technical assistance to cities and advisory support to link cities to finance for infrastructure investments.
Asian Cities Climate Change Resilience Network (ACCCRN)	-	A network of ten cities across India, Indonesia, Thailand and Vietnam. It aims to enhance the resilience by creating robust models and methodologies for assessing and addressing risks.
Climate Positive Development Program (Climate Positive)	C40, Clinton Climate Initiative and the U.S. Green Building Council	Programme that brings district-scale new build and regeneration projects to become 'climate positive' and serve as pilot cities to seek growth that is environmentally sustainable, climate resilient, and economically viable.
Low-Carbon, Livable Cities (LC2) Initiative	World Bank	An initiative that works with partners with focuses on planning and financing of low carbon development.
City Creditworthiness Programme	World Bank	Programme designed to help financial officers to review city revenue management systems and to qualify for a rating, to support cities in accessing private financing.
Cities and Climate Change Initiative	UN-HABITAT	Initiative seeks to enhance the preparedness and mitigation activities of cities in developing and least developed countries. It emphasizes good governance, responsibility, leadership and practical initiatives for local governments, communities and citizens.

⁹ World Resources Institute

¹⁰ C40 Cities Climate Leadership Group

¹¹ Asian Development Bank

¹² German Federal Ministry for Economic Cooperation and Development

Name	By	Description
Low Carbon Initiatives (LCI) Framework	Asia-Pacific Network for Global Change Research	It supports regional research, capacity development and networking activities related to low carbon development, with three approaches: regional-based research activities; capacity building activities; and communication and networking activities.
International Research Network for Low Carbon Societies and Low Carbon Asia Research Network (LoCARNet)	-	It aims to establish research capacity in the region based on South-South-North cooperation, and to reflect research findings into actual policies through enabling a sufficient amount of dialogue between scientists and policy makers.

3. North-East Asia Low Carbon City Platform

North-East Asian countries have mixed pace in LCC development as Japan and Republic of Korea are advanced in LCC history and technology, while China as well as other countries are more recent starters and are quickly catching up. The subregion has both strong demand and supply in LCC development, with plentiful experiences and expertise to offer. It is evident that the governments of North-East Asian countries are in support of LCC development as seen in the various national initiatives and targets established, which are implemented across different levels. To achieve these national goals, cities and communities as implementing units, are facing the challenge of formulating individual approaches tailored to each city's unique setting and characteristics, as well as to simultaneously address changes in multiple sectors. It is therefore key to support cities directly and respond to their needs.

In view of the broad range of stakeholders in LCC development and the variety of needs from cities with different characteristics, the subregion is in need of a platform to communicate and exchange on the demand and supply of services and information. The platform will provide access to information and current activities; channels to express needs, discuss and implement actions required for the subregion; linkages to wider LCC development beyond the subregion; and focal point for cooperation and partnerships.

The North-East Asian Subregional Programme for Environmental Cooperation (NEASPEC) launched the Eco-efficiency Partnership Programme in 2007, followed by the Suwon Conference on Low Carbon, Green Cities in North-East Asia in 2011 to consult and discuss ways on addressing resource efficiency and urban challenges. Great interest and

support had also been shown on further cooperation to accelerate LCC development in the subregion, and to attend to specific subregional trends such as emerging cities and small and medium cities. The Conference proposed NEASPEC to act as a locus of information platform for collecting, analyzing and distributing strategies and plans for low carbon, green cities in Northeast Asia, and as a catalyst for capacity development programmes among cities.

As practical means to address the need expressed by countries and to support individual country's national initiative for reducing urban energy intensity and carbon intensity, the proposal to launch the Subregional Partnership on Low Carbon City was presented and received support by member States at the 18th Senior Officials Meeting (SOM-18) held on 5-6 November 2013, in Ulaanbaatar, Mongolia.

As a follow-up to the proposal, an international symposium on "Realizing Low Carbon Cities in North-East Asia" was jointly held with the Chinese Academy of Social Sciences in Beijing on 5-6 December 2013. It brought together experts, academia, subregional and international agencies as well as city representatives to exchange and discuss on various issues related to LCC. The symposium provided an opportunity to review and share works carried out by key actors across sectors in LCC development. Some key points and observations were noted:

- Empowerment of local governments, peer-to-peer support and experience sharing were highlighted as useful and attractive for city governments
- Some collaborated work has been carried out yet there is much room for further collaboration and communications between agencies, allowing resources to be pooled and more efficiently utilized, whilst minimizing duplication and potential competition
- 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

4. Partnerships on North-East Asia Low Carbon City Platform

Further to the series of consultation and support received on launching a subregional LCC platform, this paper is prepared to outline the background and operation of the

North-East Asia Low Carbon City Platform, as well as to call for partnership of the Platform.

4.1. Objectives and Key Areas of Partnership

The key objectives of the platform are to: (i) support communications and cooperation; (ii) linking cities and major stakeholders; and (iii) promote awareness and capacities. Members of the platform shall comprise of public institutions and non-profit organizations working on relevant programmes. For further information on the modality of the platform, please refer to the Annex. The Platform has three areas of proposed activity that are calling for partnership:

1. Information sharing and communications

This will be the core service of the platform for information dissemination, promoting contacts amongst stakeholders, increase visibility and awareness. This can operate in various forms including:

- (i) Events such as symposiums, workshops, field visits, topic-specific/expert group meetings; e.g., finance, GHG accounting, transport etc. Events can be jointly organized with regional or global partners to connect subregional LCC development to wider geographical and/or context scope
- (ii) Web-based platform containing subregional LCC information, case studies sharing, relevant activities, platform events, updates and publications, etc.

Potential partners for the above proposed activities include all platform members from public sector (national or local), academia and research initiatives, NGOs, international organizations, networks and programmes. Field visits in particular, will require local government co-host.

2. Peer Review/ Analytical Studies

Peers (cities) and experts can provide practical and direct assistance to cities through the platform in two ways:

- (i) **Peer review:** Cities are invited to submit their LCC development plan/approach for peer or experts to review and provide recommendations. It can be a benchmarking exercise to compare overall LCC or specific

sectoral performance with peers, and an opportunity to discuss and learn from each other's experiences. For example, in the OECD Peer Review, each country's policy in a particular area is examined by fellow members on an equal basis and the key to effectiveness is the 'peer pressure' exerted by the states carrying out the review and the willingness of the examined state to accept it. In this case, there is no standardized mechanism however a common set of structural elements are employed such as an agreed set of principles, standards and criteria etc. From the lessons of OECD Peer Review, the success of the review is built upon value-sharing, mutual trust and credibility.

- (ii) **Analytical Studies:** Cities that are relatively new to LCC and would like to develop a LCC approach, can indicate their interests and provide baseline information for peer and expert analytical support and advisory services. For instance the UNEP Green Economy Advisory Services consist of assessment to identify opportunities and options, policy advice, technical assistance and capacity building that support governments to transform and revitalize their economics.

The peer-support nature and technicality of the studies will require active participation of experts, researchers and local governments, including cities of various sizes and characteristics so that cities in more similar setting facing similar challenges can be linked with each other.

3. **Capacity building**

With both the demand the supply of knowledge and experiences available within the subregion, capacity building activities can directly enhance local capacity and enable first-hand experiences to be shared. Capacity building can target specific audience or technical aspects, and tailored to requests of municipal governments. Capacity building elements can also be incorporated into other activities such as at workshops or to support implementation of recommendation from peer review etc. Partners needed include training providers and recipients, as well as organizers of other events and programmes that includes capacity building.

Annex

NORTH-EAST ASIA LOW CARBON CITIES PLATFORM

Terms of Reference

Objectives

Support communications and cooperation to overcome subregional challenges, gaps and barriers, through providing a focal point for discussions.

Linking cities and major stakeholders both within and beyond the subregion for peer support and two-way exchange to promote LCC development.

Promoting awareness and capacity by enhancing information sharing, facilitate knowledge exchange and capacity building activities.

Activities Areas

Information sharing and communications on a web-based platform containing subregional LCC information, case studies sharing, relevant activities, platform events and publications etc.

Peer Review/ Analytical or Comparative Studies to link, mobilize and connect peers and experts to review and analyse city's LCC approach, as well as provide recommendations and support.

Capacity building matching the demand the supply of knowledge and experiences especially within the subregion to enhance local capacity and enable first-hand experiences to be shared.

Platform operation

Membership

- 'Member' shall comprise of public institutions and non-profit organizations, research institutions, UN and international organizations working on relevant programmes

Membership Registration Process

- Membership registration form is submitted to and accepted upon satisfaction of the membership criteria via the Secretariat.

Roles and responsibilities of Members

- Attend and actively participate in Platform meetings and related events, providing input to the Platform and its ongoing projects.
- Collaborate with other members in promoting and expanding relevant programmes in low carbon city development
- Collaborate as “technical experts” or advisors to other members’ work development and assist in developing or advancing their low carbon city development-related works.

Secretariat

- UNESCAP-ENEA, in the capacity as the Secretariat of North-East Asian Subregional Programme for Environmental Cooperation (NEASPEC) will serve as the Secretariat and shall be responsible for the following tasks: (1) Providing administrative and financial support to the operation of the Platform; (2) Facilitating the development and operation of programmes; (3) Facilitating collaboration among members and relevant stakeholders; and (4) Liaising with relevant regional and global programmes.

Resource Centers

- Specialized institutions can be invited to serve as resource centres, to lead partnership in specific programme areas and provide technical support.

Financial resources

- Secretariat operation: In-kind and financial contributions will be provided by the institutions hosting the Secretariat
- Programme and activities: Institutions hosting activities will make efforts for mobilizing financial resources while other members shall contribute to the activities by sharing the costs of their participation.