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REVIEW OF PROGRAMME PLANNING AND IMPLEMENTATION

(Item 5 (d) of the provisional agenda)

Low Carbon Cities

Note by the Secretariat

CONTENTS

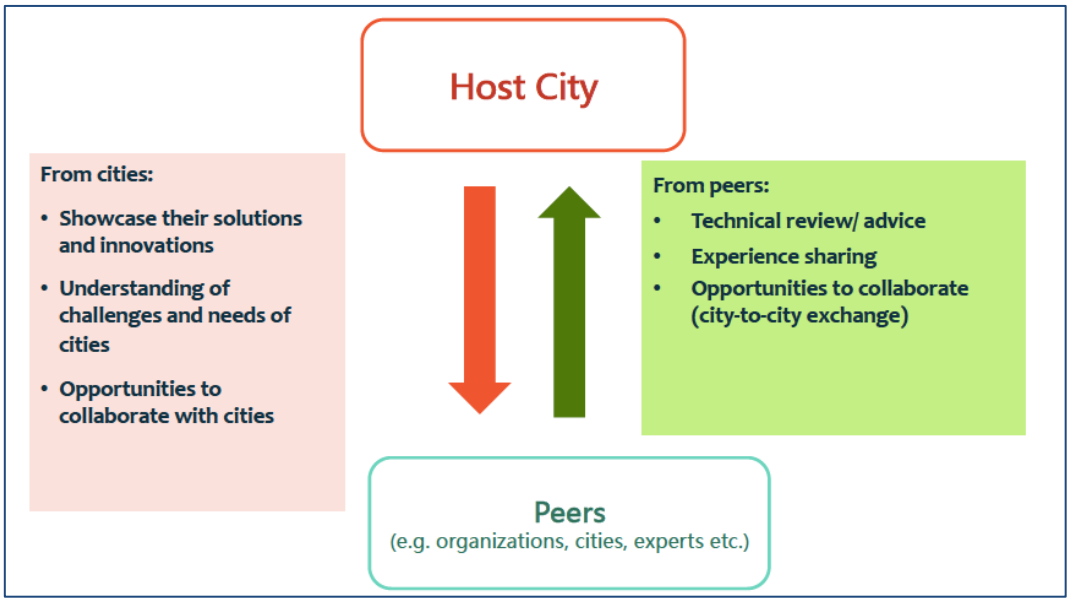
I. BACKGROUND

1. In view of the significance of cities in supporting national actions on climate change as well as environmental sustainability, NEASPEC held consultation of low carbon city activities in 2013, at which the need for further collaboration and the empowerment of local governments, peer-to-peer support as well as experience-sharing was emphasized. Subsequently, the SOM-19 in 2014 endorsed launching of the North-East Asia Low Carbon City Platform (NEA-LCCP) as a platform for organizations working on low carbon cities.

2. The SOM-20 acknowledged the NEA-LCCP as an open platform for organizations to jointly mobilize their efforts in adopting and advancing LCC development through four areas of activities: (i) information sharing and communications, (ii) technical assistance, (iii) analytical studies, and (iv) capacity building. The Secretariat then had a series of consultations including through a workshop in September 2016 with experts to further elaborate the approaches and activities of the Platform and reviewed the latest LCC development in the subregion and activities undertaken by other organizations.

3. The SOM-21 approved the peer review and comparative study under the NEA-LCCP at two levels: peer review at municipal level to support improving low carbon city plans and programmes in selected cities, and comparative study at national level to review government policies.

Figure 1 NEA-LCCP Peer Review Structure



4. Since then, the Secretariat in collaboration with the project partner, Innovative Green Development Programme (iGDP), a think-tank based in Beijing which operates the policy database and interactive platform on low carbon city policies in China, has carried out the first pilot peer review of Wuhan city and currently works with Guangzhou City, China for the second peer review. The Secretariat has also held consultation on methodology development and institutional arrangement with iGDP, Institute for Global

Environmental Studies (IGES) and the Korea Environment Institute (KEI) to conduct a comparative study of national policies on low carbon cities.

II. PROGRESS OF THE PILOT PEER REVIEWS

5. The Government of China is currently carrying out a national low-carbon pilot cities program in 6 provinces, 79 cities and 2 counties across the country. This program aims to promote cities' low-carbon transition by strengthening urban low-carbon policies. To better understand the low-carbon development of the Chinese cities, NEA-LCCP selected Wuhan as the first peer review case city.

6. Wuhan is a megacity located in central China, Hubei, which is one of the provinces in the first batch of China's national low carbon pilot provinces. It is the capital of Hebei province and is in the second batch of national low carbon pilot cities. Thus, Wuhan established new institutional mechanisms, strategic measures and policy tools for low carbon development.

Table 1. Policies for Low Carbon Development in Wuhan

Year	Key Policies
2017	Issued the Wuhan Carbon Peaking Action Plan (2017-2022)
2013	○ Issued the Wuhan Low Carbon Pilot Action Plan Pledged to peak carbon dioxide emissions by 2022 which was included in the 13th Five-Year Plan on National Economic and Social Development (2016-2020)
2011	○ Incorporated the concept of green and low carbon development into the 12th Five Year Plan for National Economic and Social Development ○ Issued the Comprehensive Work Program on Energy Saving, and Consumption Reduction and Climate Change

7. The peer review for Wuhan consisted of three stages: (1) analysis on Wuhan's low carbon development, (2) consultation with key stakeholders and (3) assessment and production of the report.

Table 2. Peer Review Stages

Preparation Stage	Consultation Stage	Assessment Stage
• Analysis of primary and secondary sources • Preparation of the background report on Wuhan's low carbon development	• A Peer Review Workshop in Wuhan City, focusing on focused on (1) Wuhan's low carbon management system and (2) Sectoral approach for Carbon	• Review of the inputs from the Workshop: Low carbon governance and sector-specific strategies • Production of the peer review report with

	peaking pathways in Wuhan	analyses and policy recommendations for Wuhan City

8. **In the preparation stage**, a background report on Wuhan's low carbon progress was developed (see attached the annex I of the peer review report). The report provides an overview of Wuhan's low carbon strategies and practices. It also identified two factor categories that influence Wuhan's low carbon development policy efforts (see below the table 3). They include Wuhan's economy-wide policies and sector-specific policies.

Table 3. Key factors in Low Carbon Development

Contextual Factors	**Strategy-driven factors**
A. Geographic Features - Climate and weather - Land area B. Demographic features - Population size and density - Urbanization rates C. Economic features - Economic growth and structure - Energy consumption and carbon emissions	A. Low carbon management system - Low-carbon governance - Low-carbon policy planning B. Sector-specific strategy and measures - Energy sector - Industry sector - Building sector - Transport sector - Environment and land use

9. **In the consultation stage,** a peer review workshop was organized in Wuhan on 11 June 2018. The workshop provided technical review and advice, focusing on the strategy-driven factors identified in the background report, and facilitated peer-to-peer networking and experience-sharing as per the structure presented in Figure 1. The workshop in Wuhan brought together about 100 participants, including experts from domestic and international peer cities and research institutes joined the review exercise of Wuhan city's low carbon development. It focused on (1) Wuhan's low carbon management system and (2) Sectoral approach for Carbon peaking pathways in Wuhan**.**

10. **In the assessment stage,** the peer review report (see attached the peer review report) was produced, incorporating comments, inputs and recommendations received in the Peer Review Workshop in Wuhan. The peer review exercise highlighted the drivers of Wuhan's energy consumption and carbon emission characteristics, the policies and the key areas that Wuhan should strengthen. **Key findings and recommendations on Wuhan's low carbon development as follows:**

Key findings on Governance

- **[Low carbon strategy]** Step-by-step approaches taken: (1) Development of a baseline GHG inventory to track the city's level and sources of emissions; (2) Establishment of aspired targets for GHG reduction, including a peaking year and emissions level, and carbon emissions intensity per unit of GDP; (3) Design of policies, measures and programmes covering relevant sectors, using scenario planning, hybrid modeling tools, etc.; and (4) Development of a GHG emission monitoring, reporting and evaluation mechanism to update its targets, policies and actions on annual basis.
- **[Coordinating bodies]** Establishment of a dedicated coordinating body "*Leading Group for the Municipal Low Carbon City Pilot*". Formulation and implementation of specific sectoral low carbon action plans by relevant government agencies and through consultations among the agencies.
- **[Evaluation mechanisms]** (1) Development of key indicators to track low carbon development; (2) Integration of carbon reduction intensity and carbon emission cap targets into a comprehensive assessment evaluation; (3) Lack of a systematic monitoring and evaluation system to track the performance of policies, actions and programmes.
- **[Supporting mechanisms]** Establishment of a special fund for low carbon development in the forms of grants, discount government loans, and so on; Energy service management contract with explicit financial incentives to deliver energy conservation and reduce carbon emissions; and capacity building pursued in collaboration with and support from foreign governments, international organizations and other bilateral and multilateral funds.
- **[Overall observations]** A **significant reduction in carbon intensity from the level in 2010** along with Wuhan's low carbon strategy. A **strong and sustained political will** to develop low carbon policy. **Low carbon strategy through successive stages**: (1) pilot action plan, local five-year plan, and peaking action plan. This can be modelled by other Chinese cities.

Sectoral Findings and Recommendations

- **[Industry]** Industrial sector (top three emitters: steel, petrochemical and building materials) accounted for 59% (including electricity emissions) of the city's carbon emissions in 2015. For the last 8 years, Wuhan has taken a set of strategies and measures to reduce carbon emissions in this sector. To significantly reduce carbon emission in the sector, reviewers suggested strategies including
  A. industrial structure optimization: to develop new strategic industries with a focus on advanced manufacturing;

B. improvement of energy efficiency: to increase the application of energy-saving and emission reduction technologies and energy-saving management mechanisms;
C. energy decarbonization: to promote coal-to-gas conversion and electricity—to- gas conversion;
D. upgrade of production structure: to support the extension of the supply chain and encourage R&D on hi-tech industrial products.

- **[Transportation]** This sector accounted for 10.7% of the total carbon emissions in 2015. However, it has been growing rapidly in the last 8 years. To control carbon emissions from the sector, Wuhan promotes the use of new energy vehicles and encourages the use of energy-efficient vehicles. Wuhan also develops transportation infrastructure to improve the public transport infrastructure and create a slow traffic system.

  Reviewers suggested that in addition to improving energy efficiency for passenger vehicles, the city should promote new energy vehicles in freight transport, given that Wuhan will become a national freight logistic base. Also, the reviewers recommend that promotion of new energy vehicles be complemented by policy support for clean electricity.
- **[Buildings]** As a key contributor to the carbon emissions, accounting for 30% of the city's total carbon emissions in 2015, Wuhan developed low carbon strategies in two areas:
  A. Developing green buildings: increasing the use of renewable energies and the use of ground, water and air sourced heat pumped system in new residential buildings;
  B. Promoting building energy efficiency: improving building materials technology and products (wall, roof and windows) and encouraging the use of energy saving appliances.

  Reviewers estimated the city's above-mentioned strategies could pay the way for its carbon peaking in the Sector. They also emphasized the importance of building data and technology to track and monitor energy use.
- **[Environment]** Wuhan has begun to take actions to improve air quality with the co-benefit approach, focusing on the following key areas:
  A. Pollution control in fields of coal utilization, dust production, motor vehicle emissions, and volatile organic compounds;
  B. Promotion of energy-saving emission reduction measures on the use of coal, low-emission unit transformation and emissions monitoring for highly polluting industries.

Reviewers noted that the strategies exerted positive effects in both reductions in carbon and air pollution. They also pointed out that the city needs to develop a holistic co-benefit approach that avoids raising emissions in other sectors.

Overall recommendations

- Low carbon city planning should develop an integrated and systematic framework that covers the whole design process - from setting and decomposition of emission reduction targets, the selection of optimal policies and actions, the implementation of new technologies and projects, to the evaluation of implementation effects and planning updates.
- The timeframe for low carbon development planning should be both medium- and long-term. It should fully reflect the expected impact of technological change and the behavioural changes that lead to the decoupling of carbon emissions from urban socioeconomic and physical infrastructure development.
- Low carbon planning should incorporate analysis on synergy effect and synergistic measures, and include optimization of urban infrastructure, urban environmental quality control, public health, transportation, buildings and other urban infrastructure development related fields.

11. The Secretariat and iGDP have worked to develop another peer review report of Guangzhou City, China, which is complementary to the peer review report of Wuhan. The Guangzhou report will involve a literature review, desktop research and field visits for data collection, and a peer review workshop. The workshop is tentatively scheduled in December 2018, inviting the local government, peer cities in North-East Asia and experts to review the report and share the experiences of their low carbon initiatives. The Secretariat is also working to identify potential cities in NEA region to host peer review exercises in 2019 and beyond.

III. PROGRESS AND PLANS OF THE COMPARATIVE STUDY

12. **Comparative study of national policies on low carbon cities** aims to generate a comprehensive and systematic overview of national approaches and the current state of low carbon development. It also intends to identify good practices from cities and on specific sector for sharing information and promoting cooperation.

13. Key components for comparative study approved in the SOM-21 are as follows.

- **Background and recent trends** on low carbon city development at a global, national and local levels (in North-East Asia)
- **Analysis and comparison** on LCC development modes including planning, approach and evaluation systems etc.

- **Case studies** of selected LCCs in the subregion to showcase a diversity of cities, their challenges and approaches
- **Identification of good practices** through the review and collection of good practices across sectors (e.g. financing, mitigation planning and evaluation etc.) as well as cities with different characteristics
- **Conclusions and recommendations** on the way forward for cities and cooperation of key stakeholders

14. The comparative study will be implemented under new partnerships with the Institute for Global Environmental Studies (IGES) and the Korea Environment Institute (KEI) in addition to the exiting partner, iGDP. Each partner is tasked to conduct a study at national level to review national progress and government policies on low carbon development by carrying out literature review, site visits, and interviews. The iGDP will play a leading role in compiling inputs from each partner into an overall report on the comparative study. This study is also intended to identify good practices from cities and on specific sector for sharing information and promoting cooperation. Therefore, the outputs of the study, as well as peer review, could provide practical references and recommendations for governments and stakeholders in China, Japan and the ROK as well as other NEASPEC member countries.

Table 4. Tentative timeline for the Comparative Study

Timeline	Activity
October 2018	Finalizing the methodology and literature review
November -December 2018	Studies on Japan and Republic of Korea
December 2018 – January 2019	Integration of country studies into an overall report on comparative study
February 2019	Consultation meeting on the draft report
March—April 2019	Editing, designing, and printing
May 2019	Launch of the report

IV. ISSUES FOR CONSIDERATION

15. The Meeting may wish to request Member States to provide their views on project progress and recommendations.

16. The Meeting may further wish to request member States to guide and express their interests in the areas of the North-East Asia Low Carbon City Platform, recommend host cities of peer review and potential projects under the Platform.

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