



# **CJK Joint Work on Low Carbon Sustainable Cities**

**NCSC-IGES-KEI**

**September 29, 2020**

presented by Dr. **Sang In KANG**  
Chief Research Fellow  
Korea Environment Institute

# RECOGNITION OF NON-PARTY STAKEHOLDERS UNDER UNFCCC

## (LOCAL GOVERNMENTS, CITIES, COMMUNITIES, NGOs, 2010~)



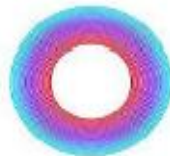
### recognition of local government

- UNFCCC에서 지방정부를 정부 이해당사자로 인정 [COP16, '10년 칸쿤]



### experience sharing of the best local climate actions

- 전 세계 도시·지방정부의 온실가스 감축 및 적응에 대한 우수사례와 경험 공유 강조 [COP19, '13년 바르샤바]



### Lima-Paris Action Agenda for non-party stakeholders

- 도시, 지방정부, NGO 등의 기후행동 참여를 독려하기 위해

Lima-Paris Action Agenda(LPAA) 출범 [COP20, '14년 리마]

LIMA COP20 CMP10

2014



COP21/CMP11  
PARIS 2015  
UN CLIMATE CHANGE CONFERENCE

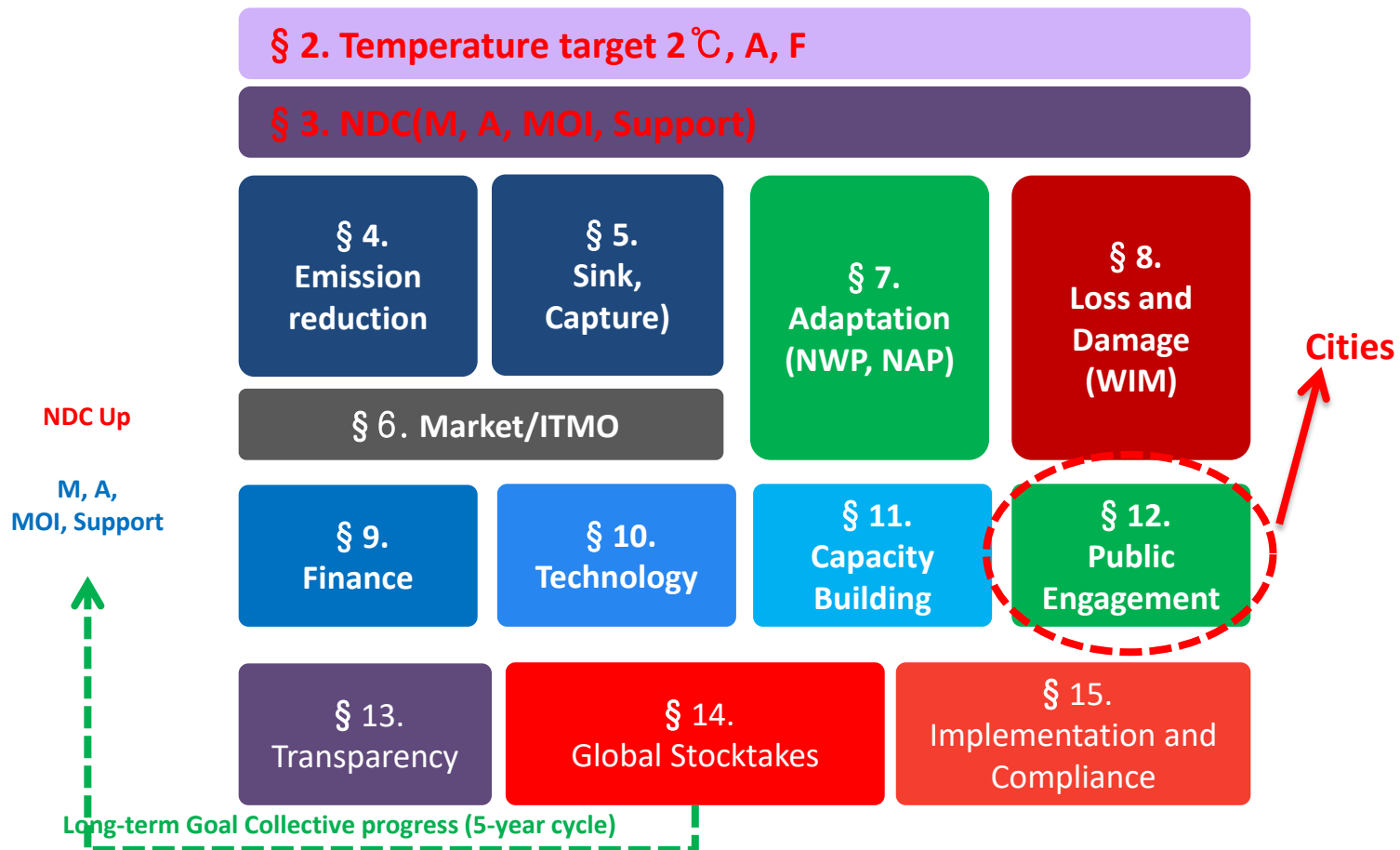
2015

### consensus on int'l cooperation of local actions

- 강력한 기후변화대응을 위해 지방정부, 지역사회가 참여하는 국제적 협력을 지속적으로 증진할 것을 합의[COP21, '15년 파리]

# “ARTICLE 8: PUBLIC ENGAGEMENT” OF PARIS AGREEMENT

(LOCAL GOVERNMENTS, CITIES, COMMUNITIES, NGOs, AS NON-PARTY STAKEHOLDERS)



# GLOBAL INITIATIVES FOR LOCAL ACTIONS

## (GLOBAL COVENANT OF MAYORS, 2017)

### Regional Covenants



### Supporting Partners



## Global Protocol for Community-Scale GHG Emission Inventories

- Covenant of Mayors(2008, EU Climate and Energy Package)  
+Compact of Mayors(2014, Ban & Bloomberg)

## = Global Covenant of Mayors

- 파트너기관: C40 (세계도시기후정상회의, 2005, 런던, 서울시); ICLEI (International Council for Local Environmental Initiatives(1990, UN 지방정부세계회의, 수원시) – Local Governments for Sustainability(2003)), UCLG (United Cities and Local Governments, 지방정부도시연합, 2004, 바르셀로나, 제주도), CITYNET (1987, 요코하마, 서울), UN Habitat,
- European Commission, European Union (Committee of the Regions), Climate Alliance, Council of European Municipalities and Regions (CEMR), Eurocities, Energy Cities and European Federation of Agencies and Regions for Energy and the Environment (FEDARENE), Joint Research Center (JRC), ...

## PREPARATORY WORK (SEPT. 2017)



**Date: Two days during 6th-7th September 2017**

**Venue: China People's Palace, Beijing**

**Host: Ministry of the Environment, Japan (MOEJ)**

**Co-organizers: Institute for Global Environmental Strategies (IGES)**

**Energy Research Institute of the National Development and Reform Commission  
(ERI)**



## PREPARATORY WORK (SEPT. 2017)



Sun Zhen, NDRC

I expect that this opportunity gives many Chinese cities to learn about not only mitigation policy but adaptation.



Kwon Sei-joong,  
MoFA, Korea

There are bilateral collaboration but this multi collaboration is quite new. City level is good starting point.



Hiroshi Ono  
MoEJ

What is your research schedule?

YR1: Show Case/Analysis  
YR2: Modeling/Prototype  
YR3: Application to cities towards decarbonized and sustainable cities during 2018-2020

Junichi Fujino  
IGES/NIES



4

We would like to bring our research output into COP24, based on our collaboration with cities + central government, business and others.



## PRE-TECHNICAL MEETING (GGGI, IGES, KEI, JUNE 2017)

Pre-Technical Meeting: China-Japan-Korea (CJK)  
Green Growth Collaboration Program on Low Carbon Cities  
20 – 21 June 2018, Seoul, Republic of Korea



# SUZHOU WORKSHOP (TEEM-20 SIDE EVENT)

(NCSC, IGES, KEI, 23 JUNE 2017)

What kind of impact we want to make  
and what we can produce?

**Share our challenge with the world!**

- Summarize Best practices of CJK cities!
- Learn each other among CJK cities and beyond
- Guide cities in the world based on our lesson learns

**by Case studies,  
Guidelines,  
Pilot projects, etc**



## LAUNCHING CJK JOINT WORK (GGGI, IGES, KEI, JUNE 2017)

- City Climate Actions in collaboration of China, Japan, Korea
- Introduction to China-Japan-Korea Joint Research Project on Cities
  - towards decarbonization and sustainable development –

### **Joint Communiqué** **The 20<sup>th</sup> Tripartite Environment Ministers Meeting** **among China, Japan and Korea**

23-24 June 2018, Suzhou, China



21. The Ministers welcomed the preparatory work done to date and agreed on launching the joint research on cities towards decarbonization and sustainable development in 2018.

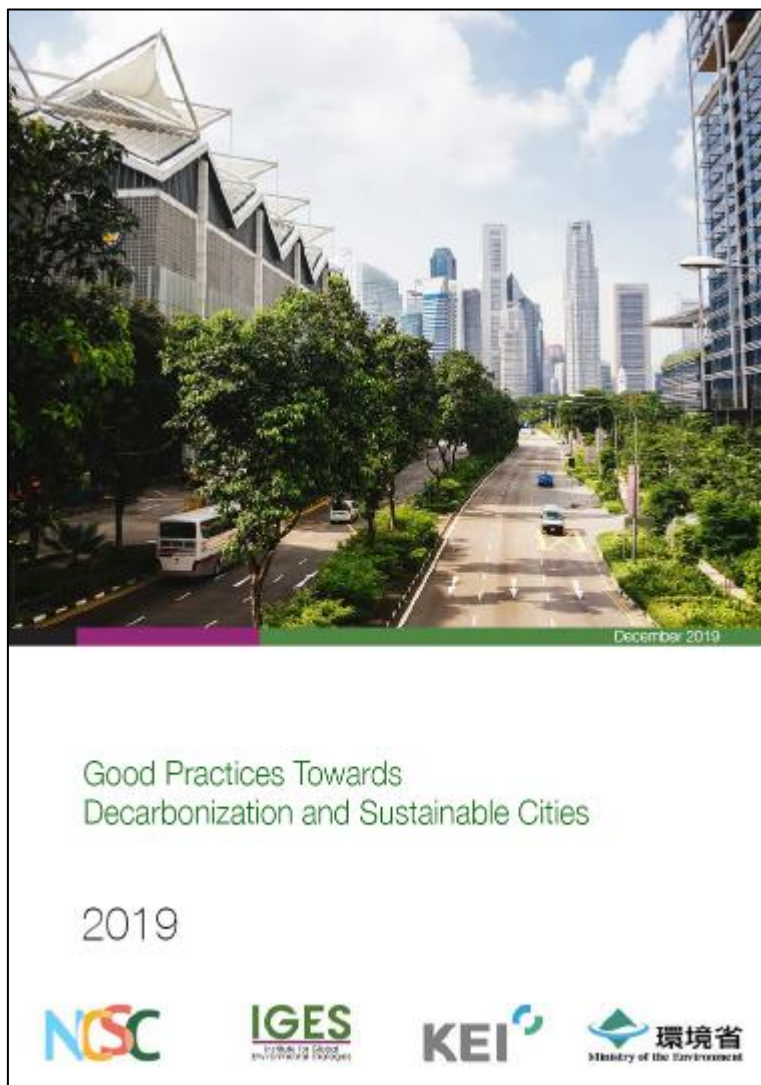
<https://www.env.go.jp/press/files/jp/109425.pdf>

## 2<sup>ND</sup> JOINT WORKSHOP YOKOHAMA 2019

(UNESCAP NEA (IN CHARGE OF NEASPEC INVITED))



## GOOD PRACTICES TOWARD DECARBONIZATION AND SUSTAINABILITY



This publication presents major output from the joint research program in the 2018-2019.

Good practices towards decarbonization and sustainable development are quoted from case studies within and outside of CJK joint study

It is expected that the CJK joint study outcome could help officers in charge of local climate actions the Asia and Pacific cities and communities.

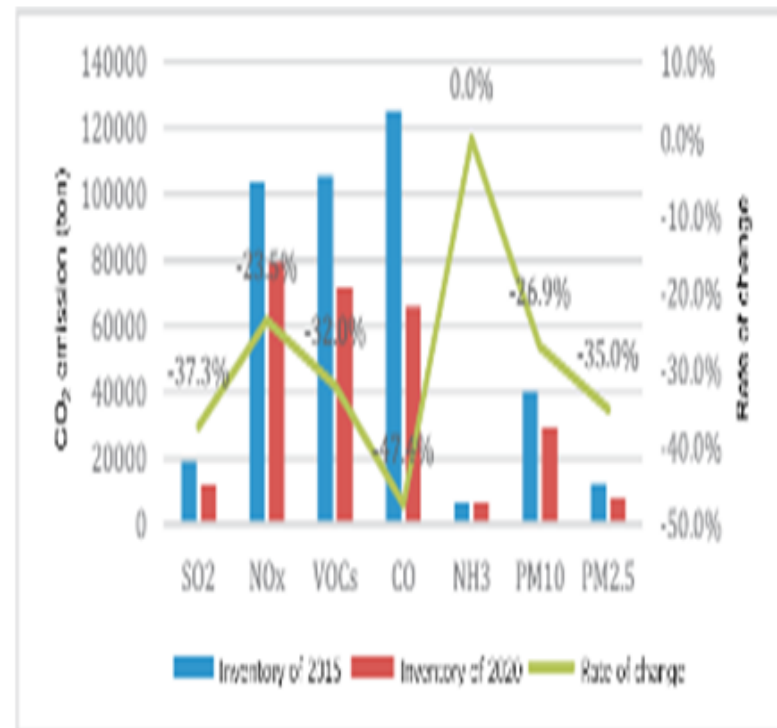
# SELECTED GOOD PRACTICES

## (CHINA, SHENZHEN)

### Shenzhen, China

synergy from CO<sub>2</sub> & PM<sub>2.5</sub> management

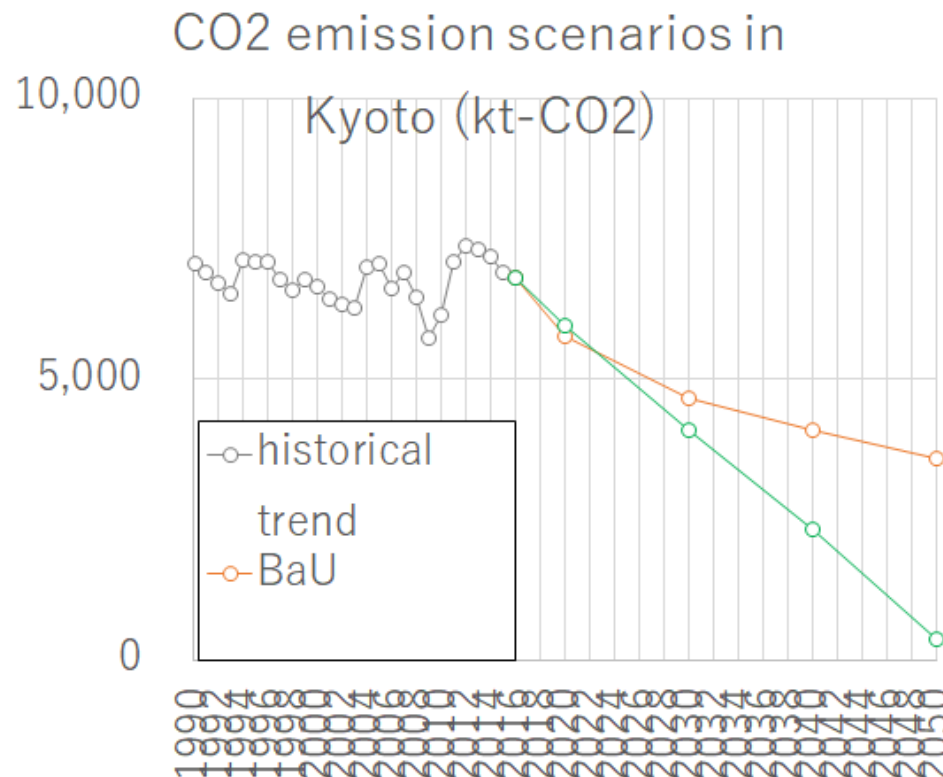
- An urgent policy issue for Shenzhen is air pollution control, with the city assigned a PM<sub>2.5</sub> concentration improvement target by the national government.
- Shenzhen has addressed this issue in two stages in order to understand the synergy between air pollution control and CO<sub>2</sub> reduction measures.
- In order to fulfil this air quality goal, Shenzhen did an analysis of common root on CO<sub>2</sub> and PM<sub>2.5</sub> (LEAP model and WRF / smoke / CMAQ air quality simulation platform were comprehensively applied).





# SELECTED GOOD PRACTICES

(JAPAN, KYOTO)



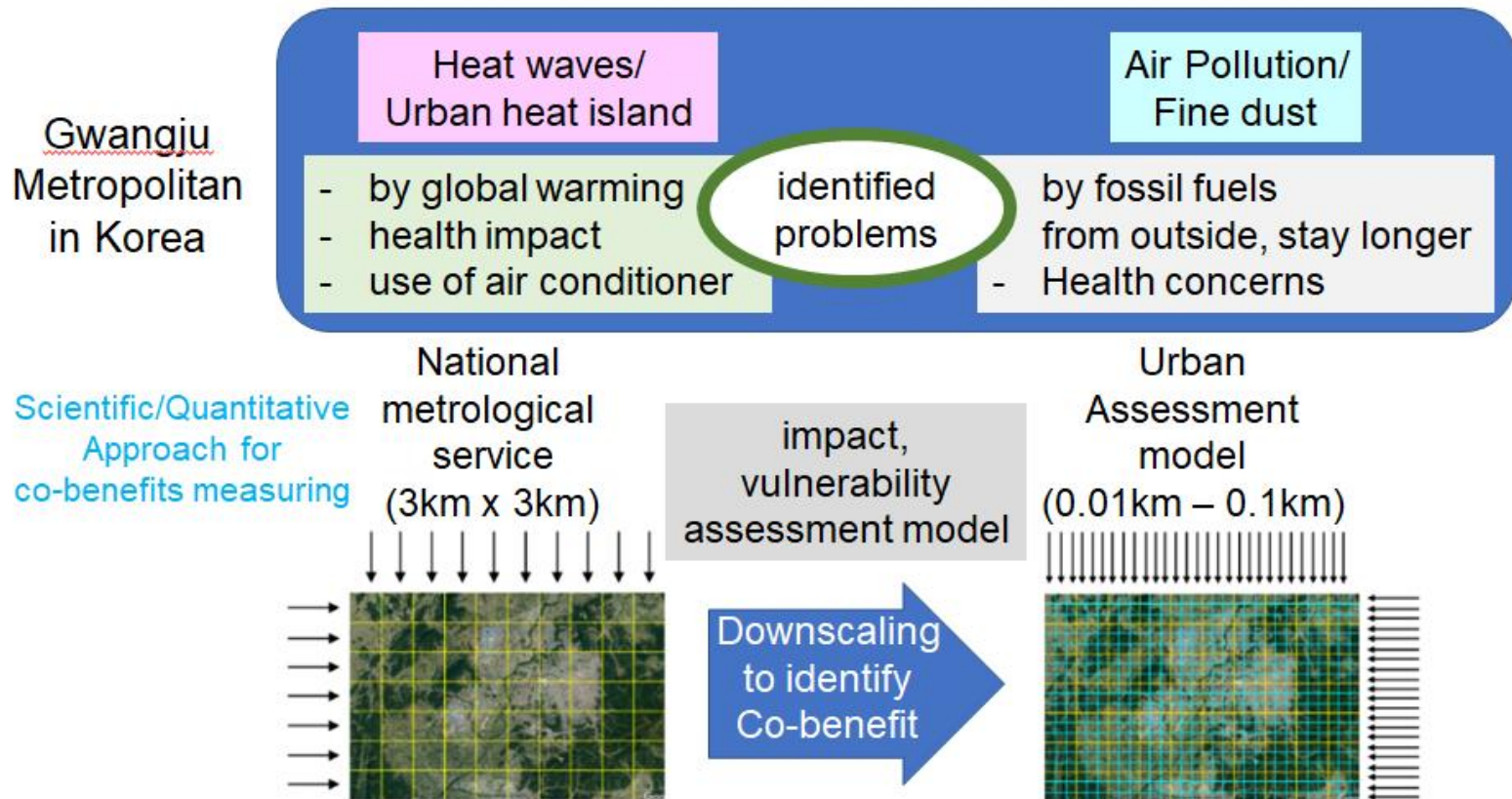
## Kyoto, Japan quantitative approach

- In 2019 to analyze the technical feasibility analysis in 2019 for Kyoto City to achieve a decarbonized society by 2050.
- Preliminary estimations of technical feasibility analysis in 2019 shows Kyoto can achieve a decarbonized society by 2050 of the city's energy consumption compared to the levels in 2015, and if electricity is fully sourced by renewable generation.



# SELECTED GOOD PRACTICES

## (KOREA, GWANGJU METROPOLITAN CITY)



ICEC Gwangju in the development of develops high resolution modeling tools to identify co-benefit solutions of CO2 reduction and local health issue

# 4 key elements of success

(from major lessons learned from case studies and expert consultations)

## **1. Science based approach comes first**

- quantitative targeting and monitoring
- solid supporting tools for decision making

## **2. Stakeholders engagement proves essential**

- effective implementation of local action
- allowing more ambitious visioning and targeting

## **3. Horizontal collaboration within local government.**

- implementation environment improvement (strategy, budget, planning, role sharing, ...)
- enhancing coordinated local actions

## **4. Co-benefits of local climate action**

- inter sectorial synergy for energy, water, sustainable urban-infra, community development, etc.

# MILESTONES (2018~2021)

(CJK JOINT WORK LED BY NCSC, IGES, KEI)

2018	October	1st Joint Research Workshop in Beijing (major outcomes of case studies presented)
	December	COP24 official side event with 3 Ministers (synthesis report presented)
2019...	...	Technical meetings (Handbook of Good Practices)
	July	2 <sup>nd</sup> Joint Research Workshop Kitakyushu in Japan
	September	<u>High Level Political Forum on SDGs in UNHQ, NY</u>
	October	<u>Senior Officer Meeting NEASPEC UNESCAP</u> (outreaching at Low Carbon City Platform)
	November	TEMM21 Kitakyushu in Japan COP25 side event at Japan Pavilion
2020	...	Technical meetings
	November	3 <sup>rd</sup> Joint Research Workshop Cheong-ju in Korea
	November	TEMM22 Cheong-ju in Korea
2021	...	preparatory workshops for next cycle of joint study
	(tbc)	TEMM23 in China
	Nov/Dec	COP26 side event

# FUTURE OF CJK JOINT STUDY FRAMEWORK (2021~)

Continue to work with cities and colleague institutes  
in the Asia and Pacific with a renewed program...