

# IGES activities toward Low Carbon Cities

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NEASPEC North-East Asia Low Carbon Cities Platform  
(NEA-LCCP)

Expert Group Workshop (EGW)

2nd September 2016, Seoul



# Objectives

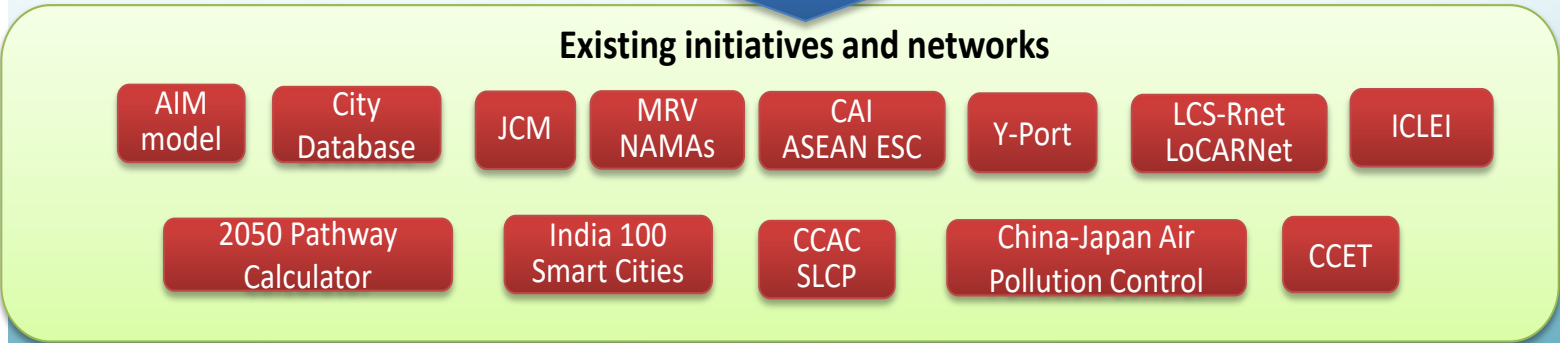
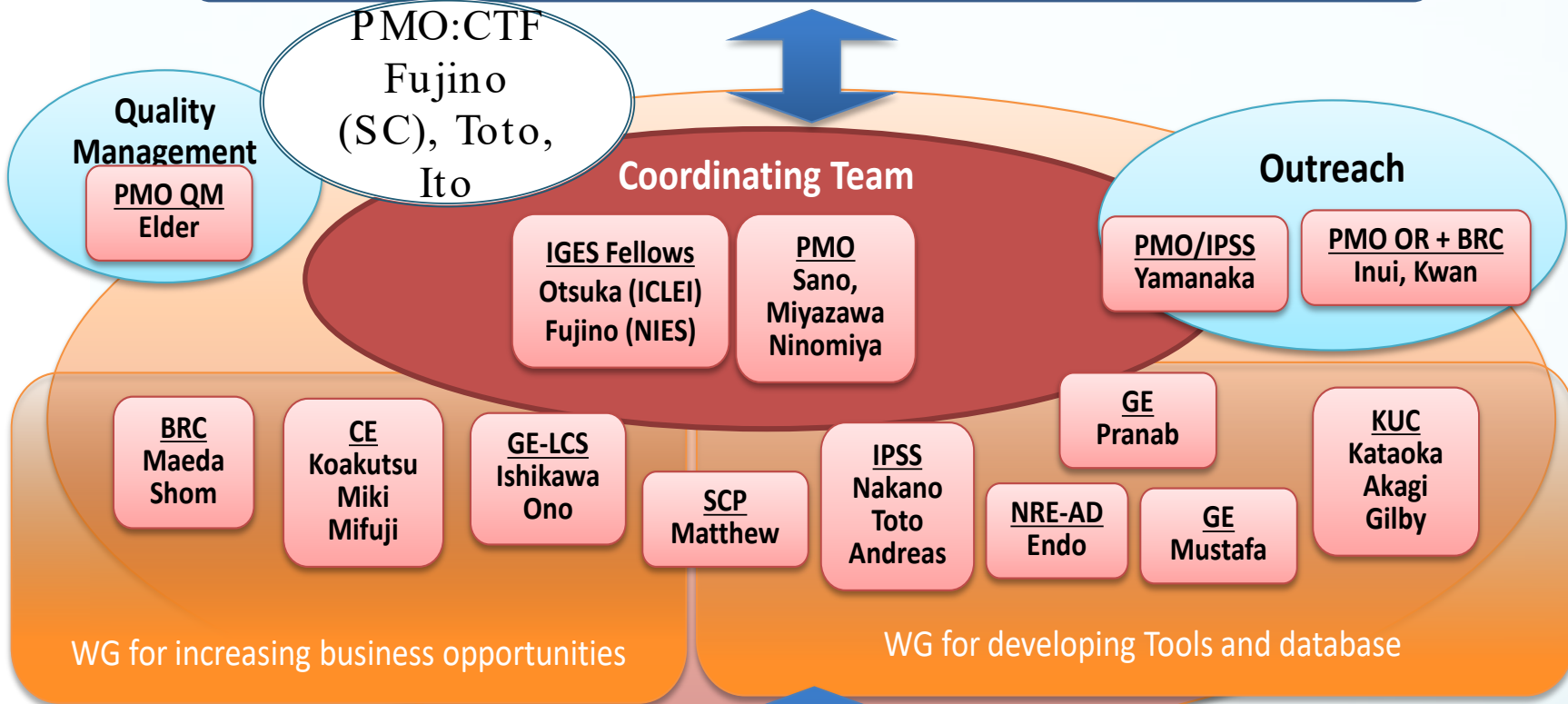
1. Share information on some of IGES' work on cities
2. Share some comments on the NEACCP
  - Peer review
  - Links to other initiatives (SDG)

# IGES City Taskforce

- Start Ad-hoc activity since June 2015, Formally set up in April 2016
- Explore transitions/pathways towards sustainable cities in Asia (resilient, low-carbon, resource efficiency)



**Advices from:  
IGES executive management/senior fellows etc.**



# LCS Scenarios and Plans in Asian Countries and cities

[http://2050.nies.go.jp/LCS/index\\_j.html](http://2050.nies.go.jp/LCS/index_j.html)



### LOW CARBON SOCIETY SCENARIOS VIETNAM 2030

Under the Asian scenario and green growth in achieving sustainable development, Vietnam aims (2030) to reduce greenhouse gas emissions by 25% compared to business as usual (BAU) scenario. The scenario is based on the Asia Local Scenario (ALS) and the Asia Scenario (AS).

| Year | Population (100 million) | GDP (100 billion USD) | CO2 emissions (100 million tons) | CO2 emissions per capita (100 million tons) |
|------|--------------------------|-----------------------|----------------------------------|---|
| 2005 | 75.5                     | 100                   | 1.2                              | 1.6   |
| 2010 | 78.5                     | 150                   | 2.5                              | 3.2   |
| 2020 | 82.5                     | 250                   | 5.5                              | 6.7   |
| 2030 | 86.5                     | 400                   | 12.0                             | 13.9  |

### Low Carbon Scenarios for Ho Chi Minh City, Vietnam 2030

Scenario for Ho Chi Minh City (HCMC) towards 2030, based on the Asia Local Scenario (ALS) and the Asia Scenario (AS). The scenario is based on the ALS and the AS.

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### Low-Carbon Society Vision 2030 Thailand

November 2010

### Roadmap to Low Carbon Thailand towards 2050

A Roadmap to Low Carbon Growth

### Low Carbon Development Strategy for Cambodia toward 2050

- A Preliminary Study -

### Low Carbon Society Scenario Toward 2050 INDONESIA Energy Sector

### Indonesia End-Use towards 2050

Low Carbon National Scenario for Indonesia

### as of October 29, 2014

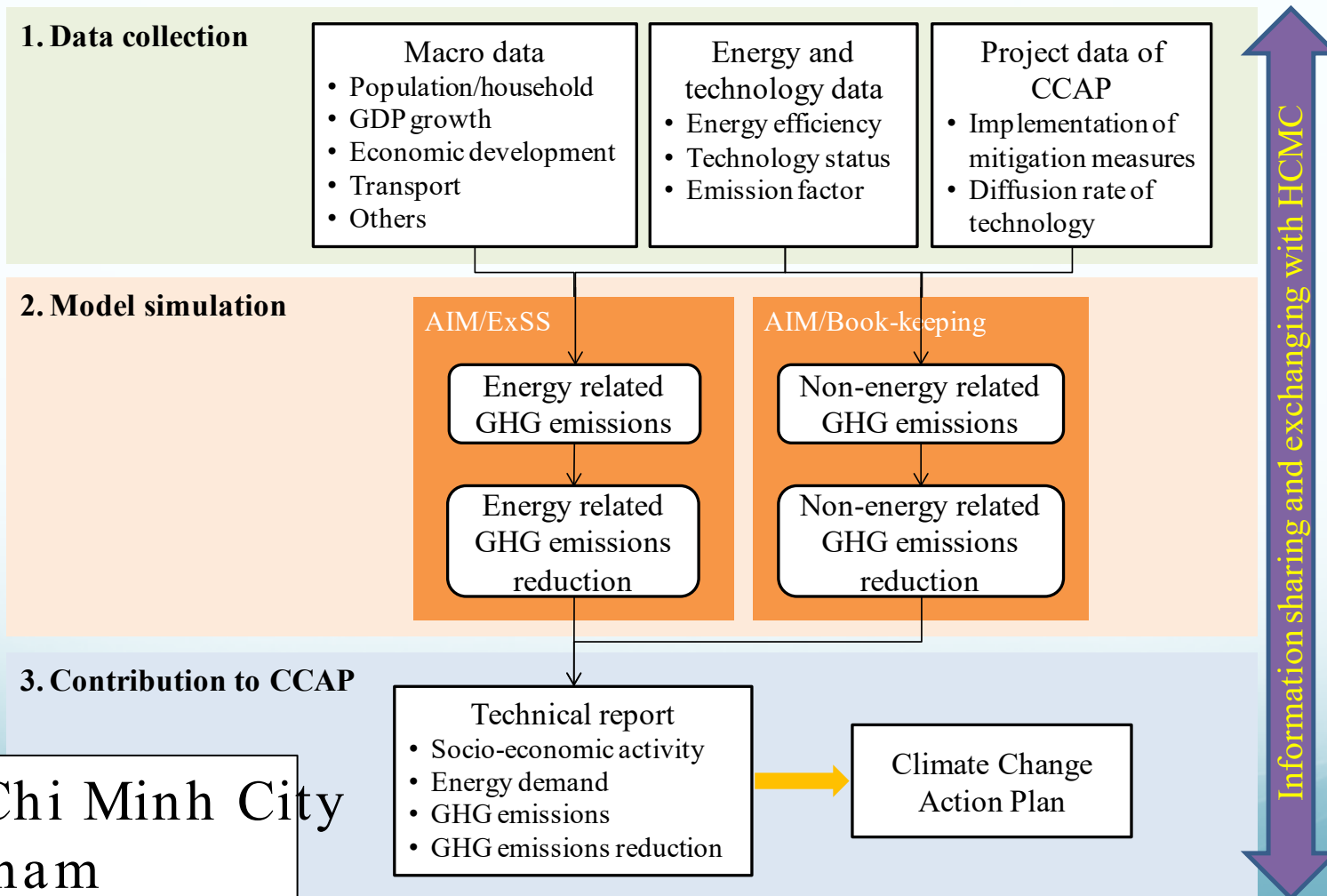
Country Scenario (Orange circle), Local Scenario (Red square)

### Scenario list

### LOW CARBON SOCIETY SCENARIOS MALAYSIA 2030

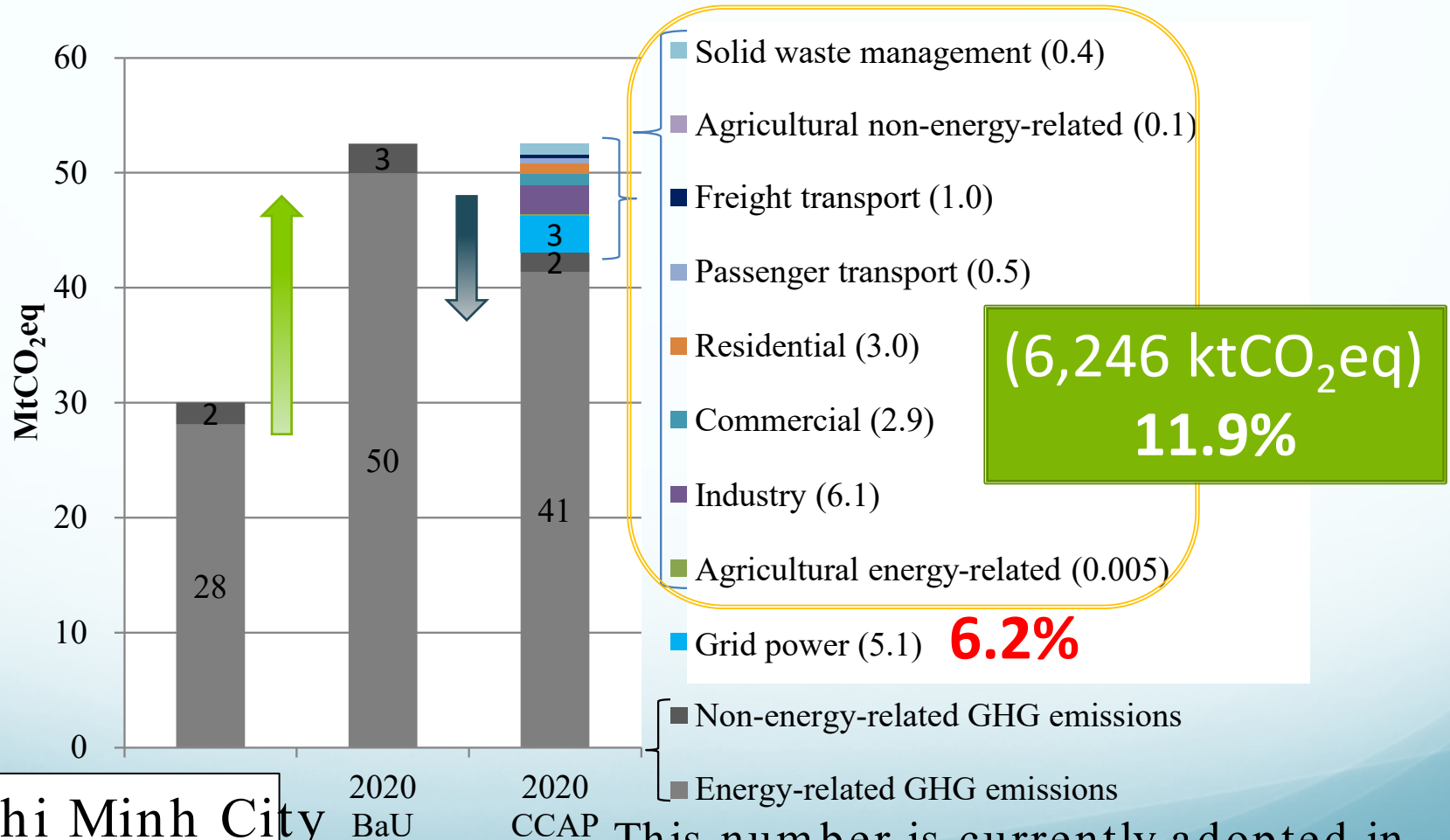
# Assistance for Making CCAP in HCMC with Osaka city

- Ho Chi Minh City LCS scenario towards 2020 is developed with AIM and it is utilized in the process of making Climate Change Action Plan for HCMC.
- Our activity is expanding to other cities such as Da Nang and Hai Phong.



# HCMC LCS Scenario towards 2020

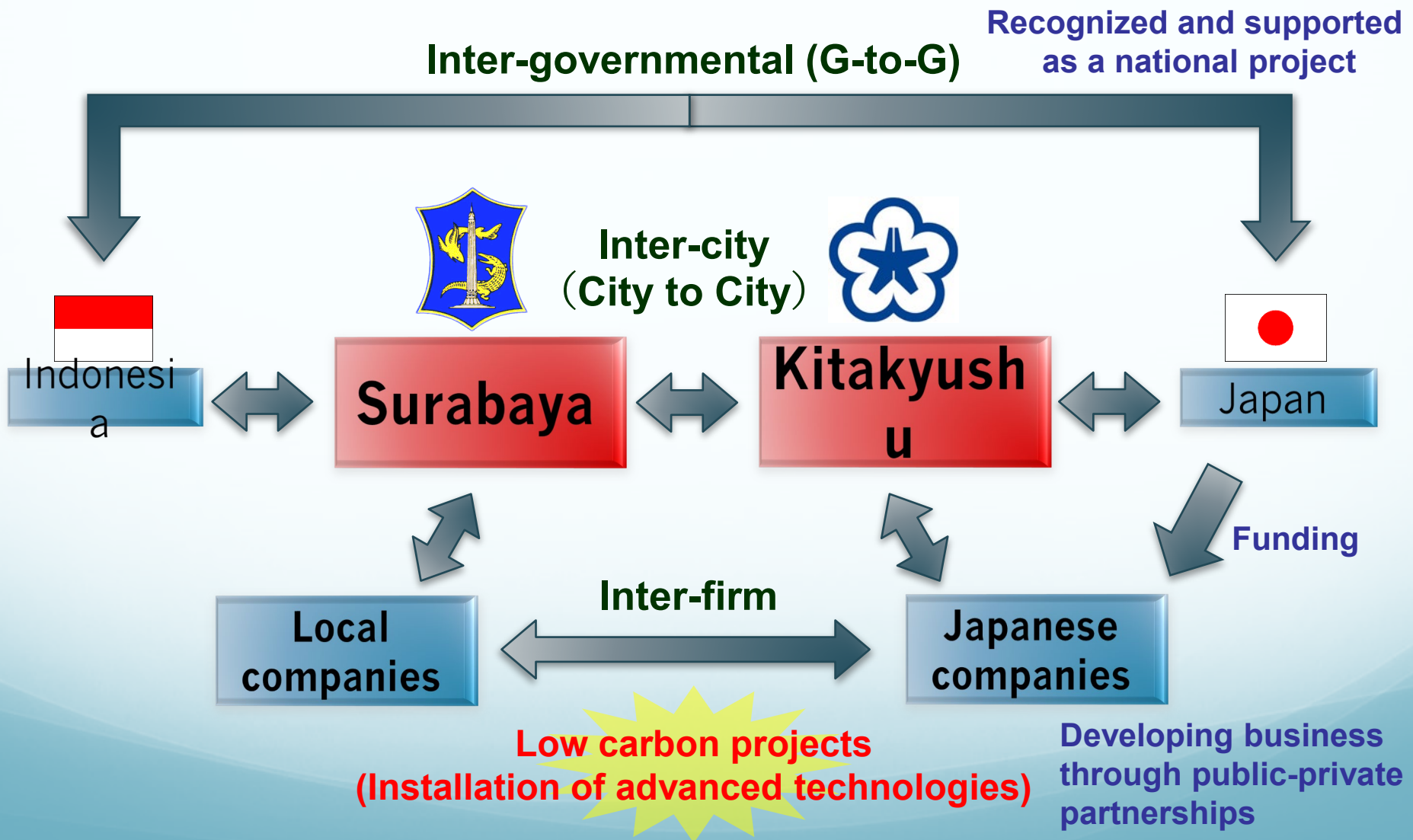
- By the 2020 CCAP scenario, the GHG emission reduction is 19.1% of total emission of Business as Usual (2020BaU) (including 6.2% reduction is expected from the mitigation of grid power)



Ho Chi Minh City  
Vietnam

This number is currently adopted in  
Climate Change Action Plan 2016-2020 toward 2030<sup>7</sup>

# JCM City-to-City Collaboration in Surabaya





# FY2015 JCM F/S Cooperation Structure

## Policy cooperation

City of Kitakyushu

City of Surabaya

Institute for Global Environmental Strategy (IGES)

Kitakyushu Asian Center for Low Carbon Society

- Development Planning Bureau (BAPPEKO)
- Cooperation Dep.
- Dept. of Cleanliness and Landscaping (DKP)
- Environment Dept. (BLH)
- Dept. of Industry

## Energy sector

NTT DATA  
Institute of Management Consulting, Inc.

NTT Facilities, Inc.  
Fuji Electric Co., Ltd.  
Nippon Steel & Sumikin Engineering Co., Ltd.

Local enterprises (Office buildings, Hotels, Shopping malls)

Sekolah Tinggi Teknik Surabaya

Green Building Association

Industrial estates (PT SIER, PT PIER)

## Solid waste sector

NTT DATA  
Institute of Management Consulting, Inc.

AMITA CORPORATION

Cement companies (PT Holcim Indonesia, PT Semen Indonesia),

B3 Licensed companies (PT Westec International, PLIB)



# Y-PORT Center was established to share Yokohama's experiences

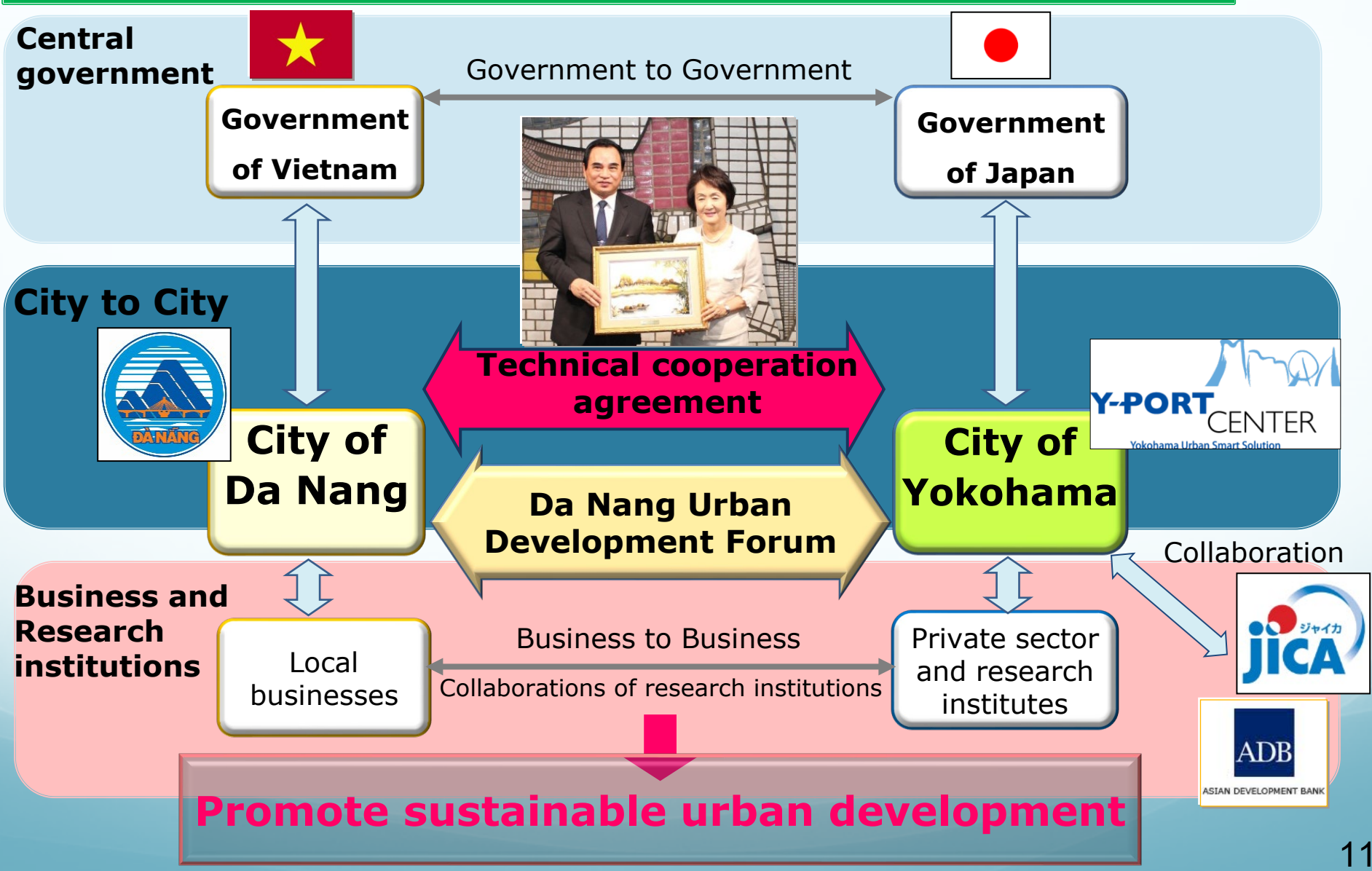
## Yokohama Partnership of Resources and Technologies (=Y-PORT)

Three objectives:

1. **Advisory services** in urban development
2. Supporting **human resources** development
3. Partnership with **private firms** and research institutions

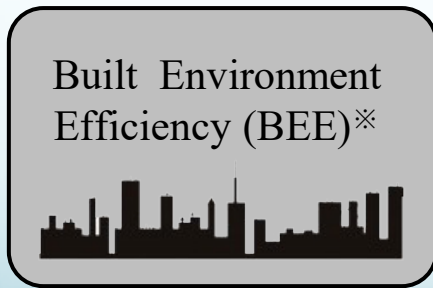
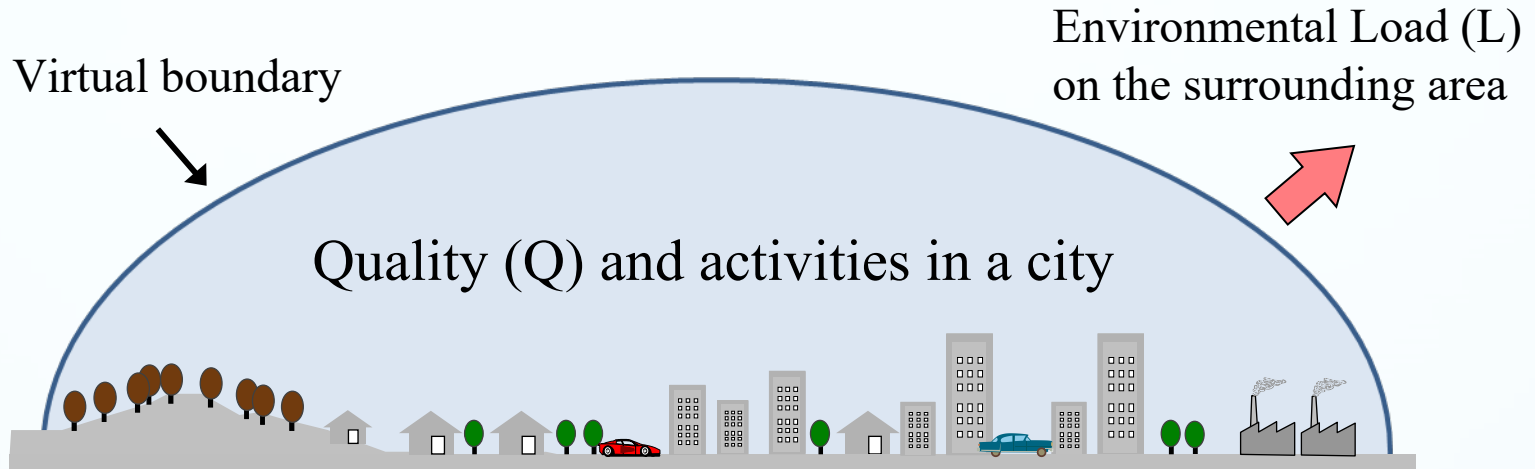


# Yokohama works city to city collaboration for sustainable urban development



# CASBEE<sup>®</sup> - City

Comprehensive Assessment System for Built Environment Efficiency



BEE: Built Environment Efficiency

=

Score for Quality (Q)  
(Environmental, Social and Economic aspect)

Score for Load (L)  
(CO<sub>2</sub> emissions per capita per year)

→ Assessment of a target city from both Quality and Load perspective



## SDG (candidate) indicators

Goal 1. No Poverty      Indicator1-1, Indicator1-2, ...

Goal 2. Zero Hunger      Indicator2-1, Indicator2-2, ...

Goal 3. Good Health...      Indicator3-1, Indicator3-2, ...

⋮

Goal 17. Partnerships for the Goals...



## ISO37120 indicators

Sustainable development of communities  
– Indicators for city services and quality of life

### Core indicators

- Indicator 1 (Core)
- Indicator 2 (Core)
- Indicator 3 (Core)
- ⋮

### Supporting indicators

- Indicator 1 (Supporting)
- Indicator 2 (Supporting)
- Indicator 3 (Supporting)
- ⋮

Total 100 indicators

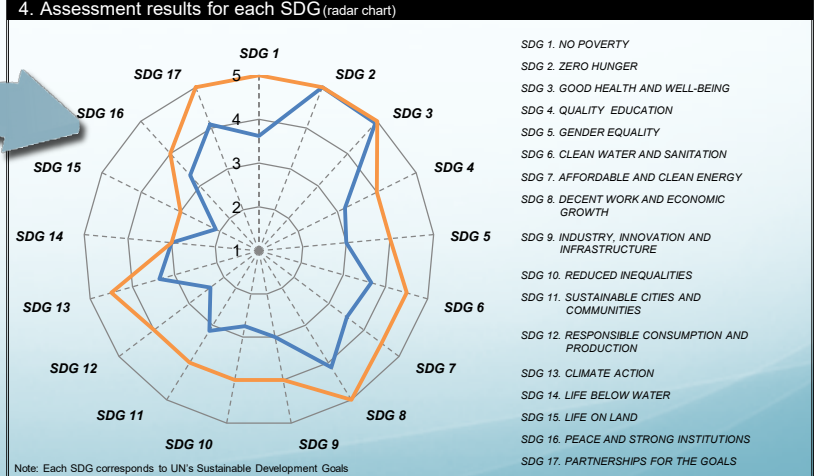
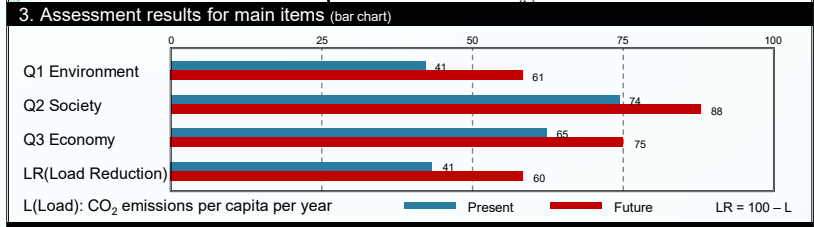
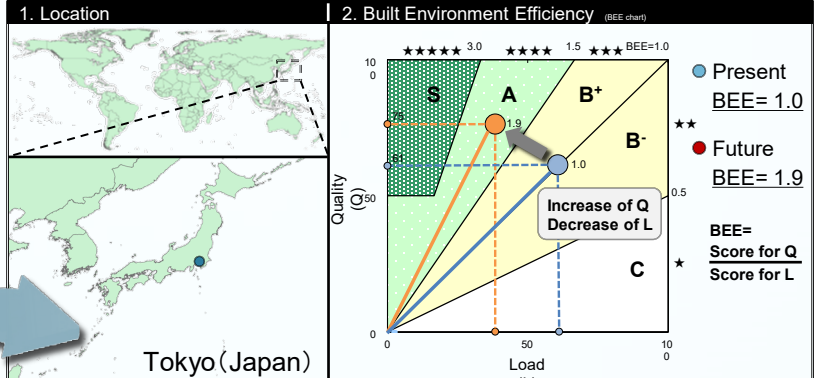
## Assessment Result

# Tokyo

Population: 9,077,177



- Pilot version for worldwide use -



# National ESC Awards / Networks as 'Building Blocks' to ASEAN ESC Model Cities



Thai  
Livable  
Cities  
&  
LA21



Indonesia  
Adipura  
Awards



Cambodia  
Clean City  
Awards

JAPAN CHINA KOREA  
U.S.A. NEW ZEALAND.  
INDIA Other countries  
AUSTRALIA

Supporting  
Organisations  
With Cities/Urban  
Projects



Philippine  
Eco  
Friendly &  
Healthy  
Cities



Galing Pook



Bandar Lestari  
MALAYSIA







ASEAN ESC  
MODEL CITIES

BRUNEI DARUSSALAM SINGAPORE VIET NAM  
LAO PDR MYANMAR

## Supported Model Cities Year 1 & 2

**Total: 31 cities**

| Country            | Year 1 <span>14</span>  | Year 2 <span>21 (+17 new)</span>  |
|--------------------|---|---|
| <b>Cambodia</b>    | Phnom Penh, Siem Reap   | <u>Phnom Penh</u> , Pursat  |
| <b>Indonesia</b>   | Palembang, Surabaya   | Balikpapan, Lamongan, Malang, Tangerang   |
| <b>Lao PDR</b>     | Xamneua       | Luang Prabang, <u>Xamneua</u>  |
| <b>Malaysia</b>    | North Kuching  | --                             |
| <b>Myanmar</b>     | Yangon  | <u>Yangon</u> , Mandalay, Pyin Oo Lwin  |
| <b>Philippines</b> | Palo (Leyte); Puerto Princesa   | Legaspi; San Carlos (Negros Occidental); Santiago   |
| <b>Thailand</b>    | Mae Hong Son, Muangklang, Phitsanulok   | Chiang Rai, Nongteng, Panusnikon, Pichit, Renunakon   |
| <b>Viet Nam</b>    | Cao Lanh, Da Nang <span>15,000 persons reached</span>   | Dalat, <u>Da Nang</u> <span>55,000 persons reached</span>   |

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Galing Pook



Bandar Lestari  
MALAYSIA



ASEAN ESC  
MODEL CITIES

BRUNEI DARUSSALAM SINGAPORE VIET NAM  
LAO PDR MYANMAR



Next LoCARNet WS is Bandung, 25-26 Oct!

# Low Carbon Asia Research Network



Toshihiko  
MASUI  
Japan



Mikiko  
KAIMUMA  
Japan



Ucok Wrsiagian  
Indonesia



Retno  
Gumilang Dewi  
Indonesia



Priyadarshi  
SHUKLA  
India



Jiang Kejun  
China



Bundit  
LIMMEECHOKCHAI  
AI



Srintonthep  
Towprayoon  
Thailand



Rizaldi BOER  
Indonesia



Ho Chin  
SIONG  
Malaysia



Hak Mao  
Cambodia



Nguyen Tung Lam  
Vietnam



# The NEACCP

- Clarify main objectives of NEACCP → Objective will influence the design of peer review (and others)
  - Sharing scientific information → focus on single sector maybe ok.
  - Improving performance → broader and more sectors but also more political
- Objective will determine which of type of peer review to apply
  - What type of outputs (i.e. outreach strategy).

Some questions I had:

- What is the reason that there is ‘relatively few international networking and cooperation dedicated to LCC, when compared to Europe’?
  - Political or technical barriers (lack of data or lack of trust)?
  - Lack of integration → influence scope and breadth of peer review.

# Linking with other initiatives: SDGs?

- For peer review choose only env targets/ indicators or broader approach?
  - If link with SDGs (PCI?)
- In mission statement include intention to feed into
  - NDCs
  - SDGs → SDG 11 (cities) and SDG 13 (Climate change)
- Can examine targets and indicators from cities compared to SDGs

# SDG 11: Make cities inclusive, safe, resilient and sustainable

- By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management
  - CO2 emissions are link between SDGs and climate change
- By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities
  - Create carbon sinks as well as spaces of recreation (mitigation + social dimension)
- Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning
  - Ensure that city initiative is coherent with national (and region)
- By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels

# Goal 13: Take urgent action to combat climate change and its impacts

- Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
  - How does this relate to any targets or indicators in the NEACCP?
- Integrate climate change measures into national policies, strategies and planning
  - Clear link
- Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
  - Public awareness++

# On Peer Review

- For the SDG peer review → contentious.
  - Reluctance towards being reviewed by other countries or external peers.
  - Different situation for cities or for climate change?
  - At least rhetorically, reviews should emphasize learning and capacity exchange for low-carbon transition rather than accountability issue.
  - Within that purview some type of voluntary review could be undertaken.
- If it is designed and operated from an overly scientific point of view and ends up as a quantified RANKING system, it could go to wrong direction because ranking is inherently political.
  - Non-scoring (qualitative and case studies, self-benchmarking) → easier to approach in the beginning
- One of the challenges as identified in the concept paper is lack of public information on cities performance. How will a peer review address this issue?
  - Contacting public educators, journalists etc.?
- What are key sector(s) for pilot?
  - Maybe a pragmatic approach to conduct first an inception study/ mapping as part of the pilot to identify 'low hanging fruit' i.e. sectors where indicators and data are not lacking.
- Who will be the 'target recipients' of result of the review? Is it a technical, political or public relations exercise?
  - Determining the key audiences will affect the design of the process of review and information to be collected.