IGES's approach to Support Low-carbon, Resilient and Sustainable City Development

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Cities, a key for our future

Facts about Cities

Global Level

- √ 54% of World Population^{*1}
- √ 75% of GDP*2
- √ 78% of Global Energy Consumption*2
- ✓ 60 70% of GHGs Emission*²

■ Another 1.1 billion

is expected to add to the urban population in Asia by 2030 (including migration from rural areas) *3.

■ More settlements, more water, more roads
About 350 km² offices, 25,000 km of road lanes, are necessary to accommodate the increase of population.*³

Social and Environment Impacts



Re-recognize the Importance of Cities









Recognized "city" as "governmental 2010 stakeholder" @ COP16

2013 Inclusion of cities and regions for promoting mitigation is mentioned @ ADP-WS2

2014 Mentioned "NAZCA" @ ADP Lima-Paris Action Agenda

Welcomed actions of 2015 NA7CA" "NA7CA" was mentioned in the Paris Agreement













2016

Growing the importance of Cities

Communique of G7 EMM @ Toyama City, May 2016

- Underline "the growing importance of the role that cities can play in promoting environmental protection and in addressing climate change, including mitigation and adaptation measures to address climate change is ever more important."
- Recognize that "cities and other subnational actors are already implementing various strong and future-oriented environmental protection programs", while actively promoting many good practices which lead to more successful approaches to city management to improve the effectiveness of these actions.

Promoting low-carbon, resilient, and sustainable cities contribute to the achievement of SDGs

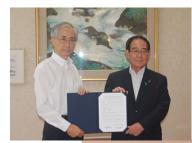


IGES's Work on Cities

IGES has been working on city issues since its establishment

- 1999: Established Kitakyushu Office (Urban Project) support activities under the Kitakyushu Initiative
- 2010: Renamed "Kitakyushu Office" to "Kitakyushu Urban Centre" and reinforce research and activities on cities
 - 1st High Level Seminar on Environmentally Sustainable Cities (IGES working as the secretariat)
- 2011: ASEAN Model Cities Programme (IGES working as the secretariat) was launched.
- 2013: General Agreement on Collaboration with the City of Kawasaki
- 2015: General Agreement on collaboration with the City of Yokohama
- 2015: MOU with ICLEI International on mutual cooperation to support local governments in the delivery of sustainability at the local level
- 2015: Launch the IGES-City Task Force







Working in more than 50 cities (FY2013-2016)



IGES's Work on Cities

- What we have done? -

(1) JCM City-to-City Collaboration

Advanced Low Carbon Technology



Japanese Experience, Knowledge and Know-how such on

- overcoming pollution
- transforming to low-carbon society
- institutional and urban infrastructure development and operation



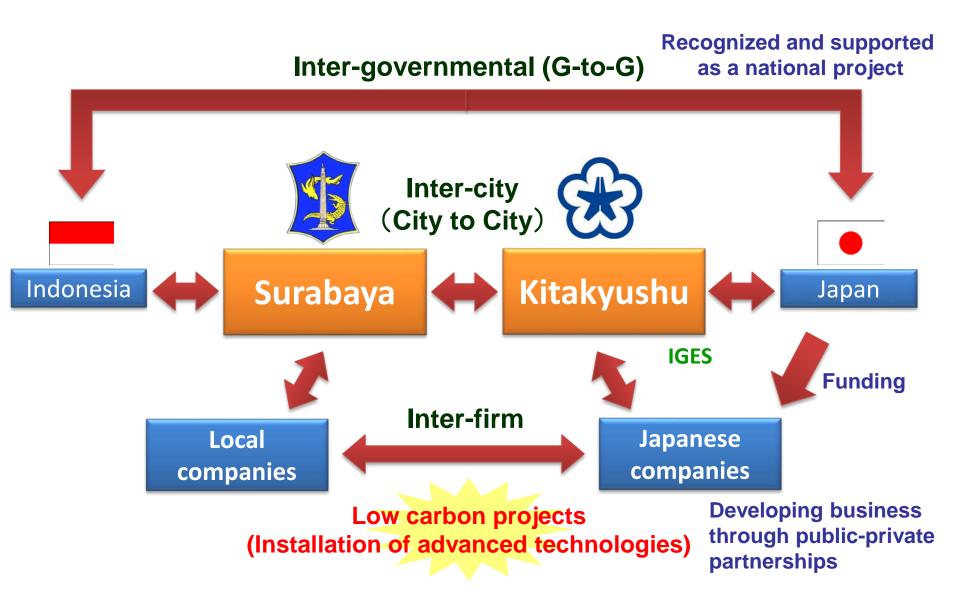
Transfer based on city-to-city collaboration framework

Contributing
Low-carbon City
Development in
Asia

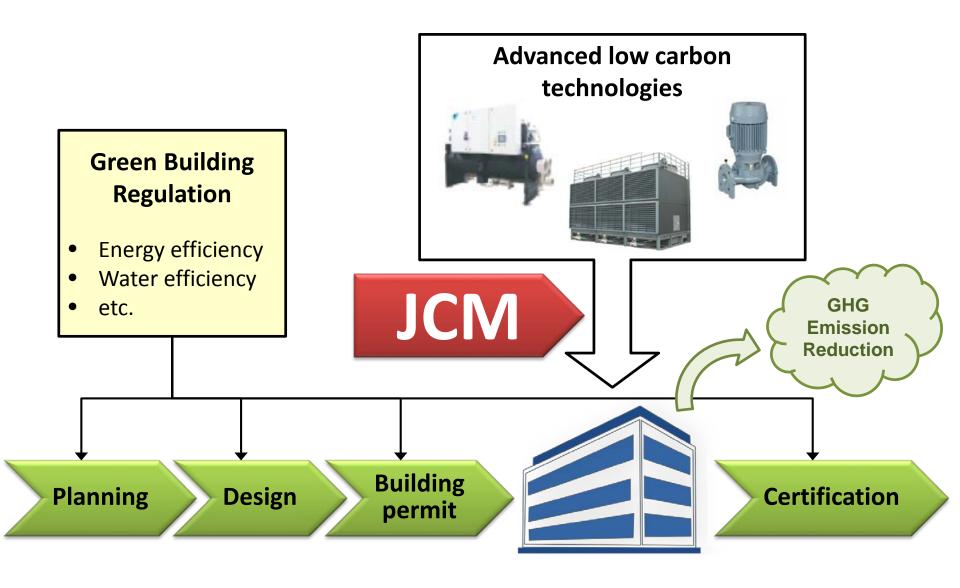
IGES involved the following JCM City-to-City Collaboration F/S studies

Kitakyushu	Surabaya (Indonesia), Hai Phong (Viet Nam), Islandar (Malaysia), Rayong (Thailand)
Yokohama	Batum (Indonesia), Danang (Viet Nam), Bangalore (India)
Kawasaki	Bandung (Indonesia)

JCM City-to-City Collaboration in Surabaya

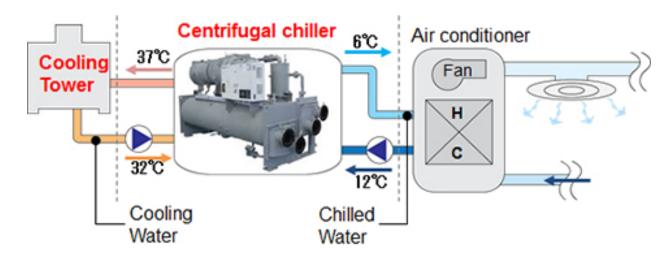


IGES contribution: Surabaya Green Building Regulation



Energy Saving at a Shopping Mall by Introducing High Efficiency Turbo Chiller (approved as a JCM model project)

NTT Facilities



Centrifugal chiller in the A/C system

- More than 30% energy saving by introducing:
 - ➤ Centrifugal Chillers: 569TR x 1 unit, 966TR x 4 units
 - Cooling Towers: 8 units

Capacity Building and Knowledge Sharing - Trainings and Workshops -

 JICA training on NAMA/MRV (FY2013, FY2014)

 E-learning module on low carbon transport in Asian Cities (in cooperation with World Bank Long Distance Learning)

 Workshops on the JCM City-to-City Cooperation (FY2013-2015)



Environmental Education

Environmental learning booklet "Ecology Note" for Mandalay City, Myanmar

- The original idea of the booklet comes from that of Kitakyushu City. The contents of the booklet was modified based on the local condition in Mandalay, Myanmar together with local stakeholders.
- Demonstration of environmental education class with the booklet was conducted at 3 schools in Mandalay in FY2015. The City of Mandalay and relevant stakeholders plans to expand the number of schools.

Kids Composting Manual

- The Manual was translated to several languages and utilized in training conducted in Kitakyushu City and other cities outside of Japan, Medan (Indonesia), Colombo (Sri Lanka) and Mandalay (Myanmar).



Support Local Government to Develop Plans and Strategies (1)

IGES-KUC supported the development of Local resilient plans at Cebu (Philippines), Nonthaburi (Thailand), and Shanghai (China) in partnership with local stakeholders.

- The plans of Cebu and Nonthaburi, including both adaptation and mitigation measures, were officially approved by the respective city councils.
- Cebu has further issued a city order to allocate 5% of the annual council budget for its implementation.
- Nonthaburi City was invited by ICLEI-South Asia to share its experience at the Asia-Pacific Resilient Forum (2015) as a good practice.





Support Local Government to Develop Plans and Strategies (2)

 Supported the development of Integrated Solid Waste Management plans/strategies in Cebu, Surabaya, Rayong City and Map Ta Phut and in Nairobi (Kenya).

In Cebu, the proposed MSWM plan and strategies were integrated into the city's 10-year solid waste management plan which started in 2013. (reduction target: 30% reduction in 2015 (the 2010 baseline).

- Just started to support national waste management strategy development in Myanmar and also local action plan on waste management in Mandalay, Myanmar.
- Supporting national government to develop national guidelines
 - "National Technical Regulation on Domestic Solid Waste Incinerator" (Viet Nam);
 - "Guideline Governing the Establishment and Operation of Waste-to-Energy Combustion Technologies for Municipal Solid Wastes" (Philippines)
 - "National Strategic Plan on Food Waste Management in Malaysia"



Networks of Cities: ASEAN ESC Model Cities & High Level Seminar

ASEAN ESC Model Cities Programme

<u>Objective</u>: Promoting ESC development by supporting capacity building for bottom-up initiatives of ASEAN cities and supporting formulation of national ESC frameworks.

Coverage: 31 cities in 8 countries

Outputs:

- Linked with existing ESC related national programmes
- Established city-to-city cooperation



High Level Seminar on Environmentally Sustainable Cities (HLS ESC)

1st: 2-4 Mar. 2010, Jakarta, Indonesia

2nd: 15-16 March 2011, Kitakyushu, Japan

3rd: 6 – 8 March 2012, Siem Reap, Cambodia

4th: 21 – 22 March 2013, Hanoi, Viet Nam

5th: 28 February – 1 March 2014 Surabaya, Indonesia

6th: 9 – 10 February 2015 Johor Bahru, Malaysia

7th: 3-4 March 2016, Hanoi Viet Nam



IGES's role

- Translate "experiences" or "good practices" (esp. of Japanese cities) to make them understood in local context;
- Support cities in vision-setting/policy and strategy-making for lowcarbon, resilient, and sustainable cities through provision of knowledge/technical support/tools;
- Contribute to enhancement of institutional capacity of local government, and also to capacity development of key stakeholders to make changes happen;
- Connecting stakeholders to be involved for ensuring implementation at local level;
- Facilitate networking of cities to encourage their action and knowledge-sharing.