

Public Seminar  
Toward Low Carbonization in Asian Cities  
through City-to-City Collaboration and Joint Crediting Mechanism(JCM)

# Feasibility Study on JCM Project by City-to-City Collaboration in Ulaanbaatar, Mongolia

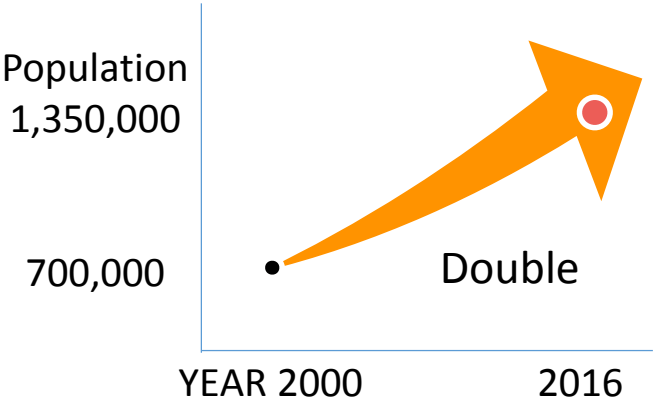
Monday 23, January 2017

Hokkaido Government, Sapporo City Government  
Hokkaido International Exchange and Cooperation Center (HIECC)  
Overseas Environmental Cooperation Center (OECC)

## Background

Various Issues are arising in Ulaanbaatar due to the recent rapid population increase and the sharp economic growth.

- Severe air pollution in winter (from October to May):
  - \*PM10 levels are 14 times higher than Japan ; twice the level of China
- Tight power supply situation
- Waste disposal



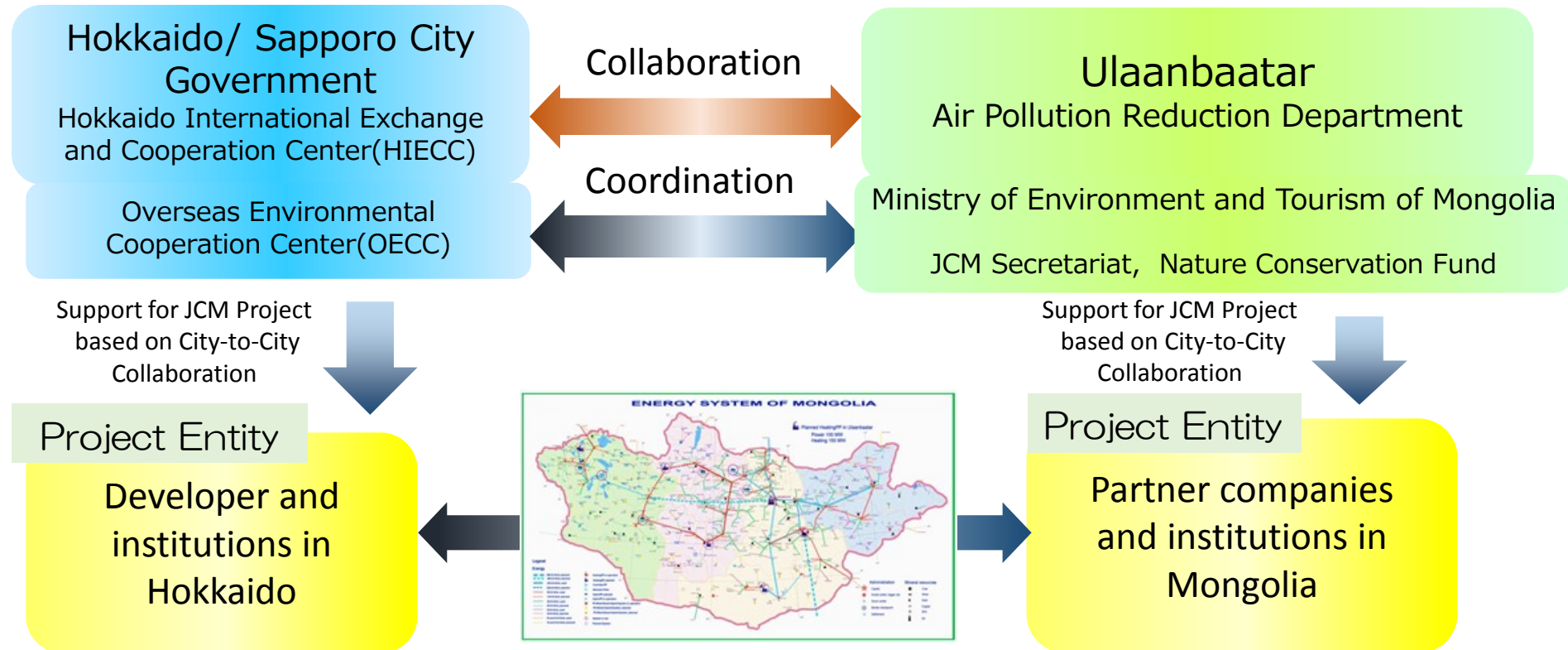
Hokkaido / Sapporo City Government have established a cooperative relationship with Ulaanbaatar.

Hokkaido	· MOU between Hokkaido and Mongolian Energy Ministry (Mar 2015)
Hokkaido Sapporo	· Economic and technical exchange between Mongolia, Hokkaido and Sapporo · Hokkaido Mongolia Economic Exchange Promotion Committee (Feb. 2017)
Sapporo	Ulaanbaatar Declaration (Jan. 2012) Sapporo & Ulaanbaatar



# Purpose of the JCM Project

- Based on the existing municipal relationships between Japan and Ulaanbaatar , the project aims to assist surveys in Ulaanbaatar and formulate a JCM project which applies low-carbon technology to cold climate.
- To promote exchanges from the viewpoint of environmental improvement and help low carbonization in overseas cities
- To create opportunities for local companies in Hokkaido to expand overseas.



# Survey (JCM Project Formulation)

## Renewable Energy Sector



**Solar power generation & power storage system**

This block contains two images. The left image shows a large-scale solar farm with rows of photovoltaic panels stretching into the distance under a clear blue sky. The right image shows several wind turbines silhouetted against a sunset sky.



Large capacity secondary battery


## Energy Saving Sector



**Introduction of heat pumps or thermal storage heater**

This image shows a large industrial building with a red facade. The text 'AIC'S TIGER BREWERY' is visible on the building. Several red trucks are parked in front of the building.

## Waste Material Sector



**Waste to Energy**

This block contains two images. The top image is a close-up of an egg production line, with the text 'Egg plant' overlaid. The bottom image shows an industrial facility with a large cylindrical tank and various pipes, with the text 'Biogas plant' overlaid.

# Information Exchange between Municipalities

## 1 Counterpart Meeting (October 18, 2016)

Participant	Ulaanbaatar Government Air Pollution Reduction Bureau Mongolia National University Hokkaido Government, Sapporo City Government, HIECC, OECC
Agenda	Hokkaido / Sapporo presentation: 1. efforts on energy conservation such as geothermal heat pumps (Hokkaido Industrial Research Institute) 2. regional heat supply system (a company in Sapporo) 3. storage heater (a company in Sapporo)
Result	Participants shared information and mutually understood each other.

# Center of Sapporo around 1960





# Information Exchange between Municipalities

## 2 Ulaanbaatar Workshop (October 27, 2016)

Participant	Mongolian Ministry of Environment and Tourism Ulaanbaatar City Government, Mongolian companies Sapporo City Government, HIECC, OECC
Agenda	<Workshop> 1. Outline of the JCM project and city-to-city collaboration survey 2. JCM projects of the Nature Conservation Fund 3. Issues and actions to reduce greenhouse gases in Ulaanbaatar 4. Energy saving businesses in Sapporo 5. Demonstration project on energy saving in cooperation with Hokkaido enterprises

Agenda	<Meeting with executives of Ulaanbaatar City Government> · Met with Mayor, Deputy Mayor (Environment Officer), Air Pollution Reduction Bureau and Natural Environment Bureau chiefs to discuss possibilities of a JCM project and promotion of municipal exchanges.
Result	<ol style="list-style-type: none"><li>1. Participants shared information</li><li>2. Confirmed that the project (installation of thermal storage heater) has been considered as one of the plans for alternative heating in Ulaanbaatar</li></ol>





# Information Exchange between Municipalities

## 3 Sapporo Workshop (January 20, 2017)

Participant	Ulaanbaatar Municipal Air Pollution Reduction Bureau Ulaanbaatar Natural Environment Bureau Hokkaido companies, Hokkaido Government, Sapporo City Government, HIECC, OECC
Agenda	<ol style="list-style-type: none"><li>1. Outline of the JCM system and city-to-city cooperation survey</li><li>2. Environmental pollution control plan in Ulaanbaatar</li><li>3. Consideration of a JCM project by city-to-city cooperation : Introduction of thermal storage heater</li><li>4. Possibility of a JCM project by cold climate technology</li></ol>
Result	<ol style="list-style-type: none"><li>1. Participants shared information.</li><li>2. JCM system was better understood.</li><li>3. Governments invited local companies to project formulation.</li></ol>

# Significance of City-to-City Collaboration Project

## 【Case where governments play a leading role】

- Japanese cities with advanced environmental technology and management system will cooperate with overseas counterparts.
- Cities can develop a trust, based on steady intergovernmental cooperation.
- Japanese cities will explore and propose the strategies to solve problems of overseas cities.
- Japanese cities will comprehensively provide know-how and systems to overseas cities

## 【Cases where companies play an active role】

- Companies will operate low carbon business abroad, in which, Japanese cities will be involved to collaborate with overseas cities.
- Existing municipal exchanges will help the project undertaken
- Companies will act mainly to explore and propose strategies to solve problems of overseas cities.

## Forming a cooperation project smoothly

<Overseas> Establishment of a low-carbon technology and system

<Japan> Acquisition of JCM credits and local companies entry to overseas markets

# Advantages of City-to-City Collaboration Project

- Japan will earn credits through to low carbonization in overseas areas
- Japanese cities will boost exchanges with overseas cities (Development of new exchanges)
- Japanese local SMEs will create opportunities expand overseas.

# Future Policy

- Continued efforts to strengthen the relationship with Ulaanbaatar
  - (Since the June 2016 election), Many directors have been replaced.
  - Improvement of the city's environment is an urgent issue
  - City-to-city exchanges need to be expanded for the city's environment improvement through cold climate technology
- JCM project undertaken by companies in Hokkaido
  - Governments support candidate projects.
  - Governments introduce JCM projects to Hokkaido companies and explore new candidate projects

# Challenges and Actions (and Requests)

- Methods for overseas cities' actively taking advantage of the projects  
(Formulation of projects based on proposals from overseas cities)
- Support of low carbon technology without (large-scale) equipment installation  
(It may be difficult to implement MRV)
- Long-term support for sustained cooperative relationship
- Increased awareness of JCM
- Increasing number of Partner Countries