Kitakyushu, as Green Growth City
- International Environmental Strategies -

Agenda
1. Industrial Development & Overcoming Pollution
2. International Environmental Cooperation & Business
3. Role of Kitakyushu to promote SDGs

I am an environmental mascot character of Kitakyushu. Nice to meet you!!

I am a friend of TEITAN. Welcome to Kitakyushu’s Presentation!!

City of Kitakyushu, JAPAN
Takanori ARIMA

TEITAN
BLACK TEITAN
Where is KITAKYUSHU?
- It is “Key to Kyushu”!! -

Population: 963,000
Area: 491.95 km²
Industrial Development as a gateway to Asia

International Trading Ports (1889-)

Imperial Steel Works in 1901

Railways Network (1890-)

Kitakyushu Industrial Zone in the 1950s

Coal mine fields
Severe pollution = Symbol of prosperity?  

1960s

Most deplorable air pollution in Japan

Tourist postcards of Kitakyushu characterized by rainbow color smoke

“Dokai Bay, the Sea of Death”  
Water pollution in the bay even E. coli could not be detected.
Overcoming Pollution
Regain blue sky, and blue sea
Present
How did we solve pollution problem?

- Spot inspection at factories
- Sending letters
- Study with academician
- Reinforcement of restrictions and supervision
- Agreement to prevent pollution
- Cleaner Production & Anti-Pollution Facilities

Partnership:
- Citizens
- Government
- Private Companies

Documentary movie
Kitakyushu leads as environmental advanced city

Pollution Control

Environmentally Material Cycle Based (3R) Society

Low-carbon Society

Symbiotic Society

Sustainable Society

Overcoming pollution

Partnership

Citizens

Government

Companies

International Cooperation

International Business

Environment Model City (2009)

Future City Initiative & Int’l Strategic Zone Model City (2012)

Basic Environmental Plan incorporating the SDGs (2017)

User fees System for waste disposal (2000, 2006)


Kitakyushu Eco-Town Project, 1998-
Accumulated Environmental Technologies

Cleaner Production (CP), Pollution Management (End of Pipe)

- CP
  * Change Product Design
  * Modify Making process
  * Utilize Byproducts and Unused Energy

End of Pipe
- Electric Precipitation Machine
- Flue gas desulfurization system
- Wastewater Treatment

Recycling, Waste Treatment

- Kitakyushu Eco-Town Project
  - Home Appliance
  - Plastic PET Bottle
  - Automobile
  - Office Equipment

Japanese first and largest project of facilitating resource circulation and eco-industries

Energy Management

Regional Energy-saving Station functions managing regional energy.

Energy Management

- Environmentally urban development Higashida District
- Kitakyushu Smart Community Creation Project

Water Business

Water Plaza: Demonstration research facility

- Advanced desalination system
- Integrating both membrane treatment of sewage and seawater desalination

Public-private partnerships

Hiagari Sewage Treatment Plant
International evaluation about Kitakyushu

1985 White paper by OECD as a city that has transformed itself “From Gray City to Green City”

1990 Global 500 Award from UNEP (1st local government achievement in Japan)

1992 Local Government Honours at the Rio Summit (one of 12 cities in the world)

2000 The 4th UNESCAP Ministerial Conference in Kitakyushu The Kitakyushu Initiative for a Clean Environment is adopted.

2002 Sustainable Development Award at the Johannesburg Summit (one of 2 recipients).

2011 Kitakyushu is selected as the first Asian Green Growth City by OECD

2013 OECD issues the Report on Kitakyushu’s Green Growth.

2016 G7 Kitakyushu Energy Ministerial Meeting in Kitakyushu “Kitakyushu Initiative on Energy Security for Global Growth Joint Statement” is adopted, and forward to G7 JAPAN 2016 Ise-Shima
Kitakyushu Asian Center for Low Carbon Society

The engine of Kitakyushu for building low carbon societies in Asia through environmental business skills, since 2010

Team Kitakyushu

Center Structure

City of Kitakyushu
- Administration & Coordination

Kitakyushu International Techno-cooperative Association
- Training of personnel or dispatch of experts

IGES Kitakyushu Urban Centre
- Research projects

Collaboration
- National Government, and relevant organizations
- JICA Kyushu Center
- Local private companies in Kitakyushu
- Industrial and economic associations
- Academic institutions

Overseas Cities
City-to-City Cooperation with South East Asian Countries

- **Hai Phong in Viet Nam**
  - “Sister City” since 2014
  - Formulating Green Growth Promotion Plan

- **Davao in Philippines**
  - “Green Sister City” since 2017
  - Introducing Waste to Energy Facilities

- **Phnom Penh in Cambodia**
  - “Sister City” since 2016
  - Waterworks Guidance (Phnom Penh’s Miracle)
  - Non-revenue water: 72% → 8%
  - 2005: Water declared potable

- **Surabaya in Indonesia**
  - “Green Sister City” since 2012
  - Composting of food waste

- **Introducing Waste to Energy Facilities**

- **Human Resource Training**

- **Manufacturing Environment, Energy**

- **Export of cities**

- **Surabaya in Indonesia**

- **Phnom Penh in Cambodia**

- **Hai Phong in Viet Nam**

- **Davao in Philippines**
Environmental technologies of Kitakyushu, leading the world

* About 60 cities in 14 counties
* Over 150 projects

**India:** Smart Grid Demonstration Project etc.

**China:** Air pollution control of PM2.5 etc.

**Myanmar:** Biogas Generation, Waste Management etc.

**Malaysia:** life-longer of waste disposal site, Producing alternatives for cement from waste etc.

**Thailand:** Promotion of Eco-Industrial Town Concept based on communities
Waste Management Projects in Surabaya, Indonesia (since 2002)

Landfill Site (Before)

- Valuables

Organic

- Composting
- Separating
- Recycling
- Intermediate Treating

Instructing how to make compost

Safe and hygienic recycling of plastic and metals in cooperation with waste pickers

- 30% reduction of solid waste landfill

![Graph showing decrease in amount of reclaimed solid waste](chart.png)
Promoting waste management project in Phnom Penh Capital City, Cambodia

Measuring to cope with rapid increase in waste generation volume due to population increase and high economic growth

* Duration 2018-2020, 3 years
* Fund: US$ 550,000 by JICA
* Entities: City of Kitakyushu, KITA, private companies in Kitakyushu, Phnom Penh Capital City, CINTRI, Local NGO in Phnom Penh, etc.

Formulation of waste treatment model in pilot area

- Designate 2 model areas
- Promote to solve the problems concerning garbage collection and transportation, reduction of household waste, and recycling within the areas
- Aim for spread to the entire city

Technical guidance on proper management of final disposal site

- On-site guidance for local staffs
- Construction of composting mechanism for further reduction of waste
- Enlightenment on functions and necessities of Intermediate treatment facilities
Challenges toward Localizing SDGs

1) Clarification of Role-sharing and milestone for Local multi stakeholders
2) Public awareness activities
3) Clear world standard guidelines and indicators
Hottest SDGs achievements of Kitakyushu

Basic Environmental Plan incorporating the SDGs (Nov. 2017)

SDGs Awards by Gov. of Japan (Dec. 2017)

Kitakyushu presented at the UN Forum by Foreign Minister (Jul. 2017)

PIKOTARO’s “PPAP” for SDGs!!

Start up to localize SDGs collaborating with international institutions

Pen-Pineapple-Apple-Pen  ➔  Public Private ACTION for Partnership!!
Kitakyushu’s Directionality of Environmental Strategies
- We will share the benefits, together. -

**Kitakyushu: Economic benefits**
- Activate the local economy
- Create new industries

**Asian Cities: Social benefits**
- Solutions for environmental problems
- Improved energy efficiency (CO2 reduction)

We would like to take advantages of intercity cooperation!!
- Develop comprehensive projects from initial stages.
- Long-term follow-up
- Direct access to partner city
- Human resources developed
- Fewer administrative costs

For Our Citizens!
For The Earth!!
For Next Generation!!!