

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



TEITAN

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



BLACK TEITAN

Where is KITAKYUSHU ?

- It is "Key to Kyushu" !! -



Kitakyushu Airport



Fukuoka Int'l Airport



Kokura Station,
Shinkansen Bullet Train

Industrial Development as a gateway to Asia

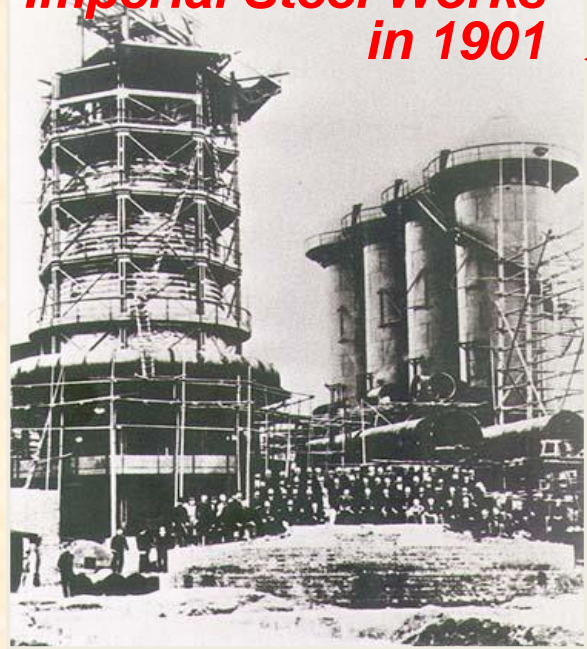
International Trading Ports (1889-)



Railways Network (1890-)



Imperial Steel Works in 1901



Coal mine fields



Kitakyushu Industrial Zone in the 1950s

Severe pollution = Symbol of prosperity ?

1960s

Most deplorable air pollution in Japan



Tourist postcards of Kitakyushu characterized by rainbow color smoke



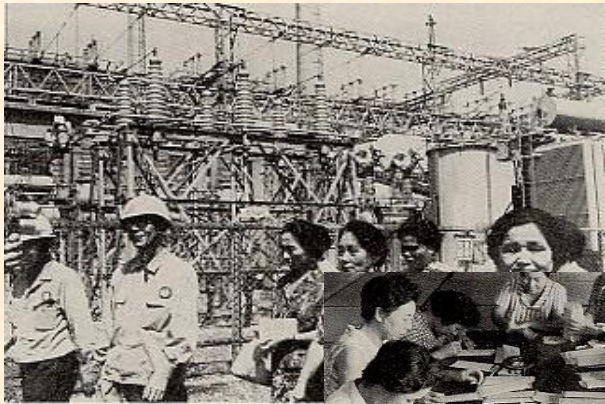
“Dokai Bay, the Sea of Death”
Water pollution in the bay even E. coli could not be detected.

Overcoming Pollution Regain blue sky, and blue sea

Present



How did we solve pollution problem ?



Spot inspection at factories



Documentary movie



Study with academician



Sending letters

Citizens

Partnership

Government

Private Companies



Reinforcement of restrictions and supervision



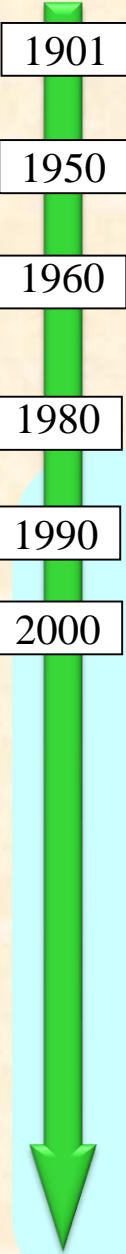
Cleaner Production & Anti-Pollution Facilities



Agreement to prevent pollution



Kitakyushu leads as environmental advanced city



1901
1950
1960
1980
1990
2000

Steel Works

Industrial Development

Pollution Control

Citizens

Partnership

Government

Companies

Overcoming pollution

International Cooperation

Environmentally Material Cycle Based (3R) Society

Kitakyushu Eco-Town Project, 1998-

User fees System for waste disposal (2000, 2006)

Environmental Capital of the World Grand Design (2004)

Agenda 21 (1996)



日本の環境首都コンテスト第7回表彰式

International Business



Low-carbon Society

Symbiotic Society

Sustainable Society

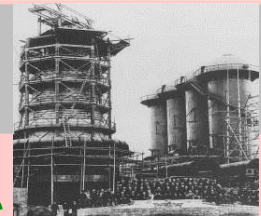


Designated

Environment Model City (2009)

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

Basic Environmental Plan incorporating the SDGs (2017)



Accumulated Environmental Technologies

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

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

→ **Pollutant Reduction
Energy-Saving
Resource Recovery**

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

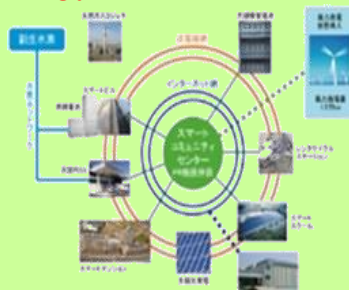
Public-private partnerships

Energy Management

Regional Energy-saving Station functions managing regional energy.



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

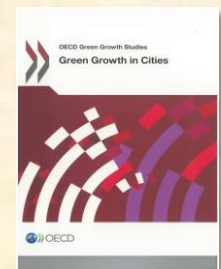


Hiagari Sewage Treatment Plant

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

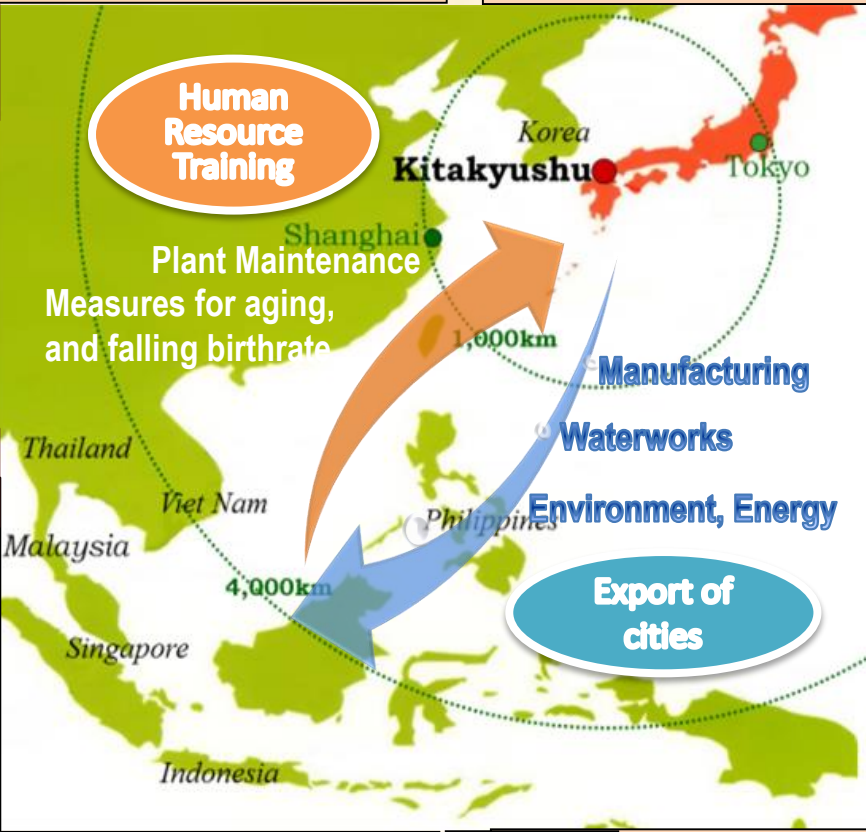


City-to-City Cooperation with South East Asian Countries

 **Hai Phong in Viet Nam**
 “Sister City” since 2014

 **Davao in Philippines**
 “Green Sister City” since 2017

Formulating Green Growth Promotion Plan



Introducing Waste to Energy Facilities

Waterworks Guidance (Phnom Penh's Miracle)

Non-revenue water: 72% → 8%
 2005: Water declared potable

Composting of food waste

 **Phnom Penh in Cambodia**
 “Sister City” since 2016

 **Surabaya in Indonesia**
 “Green Sister City” since 2012

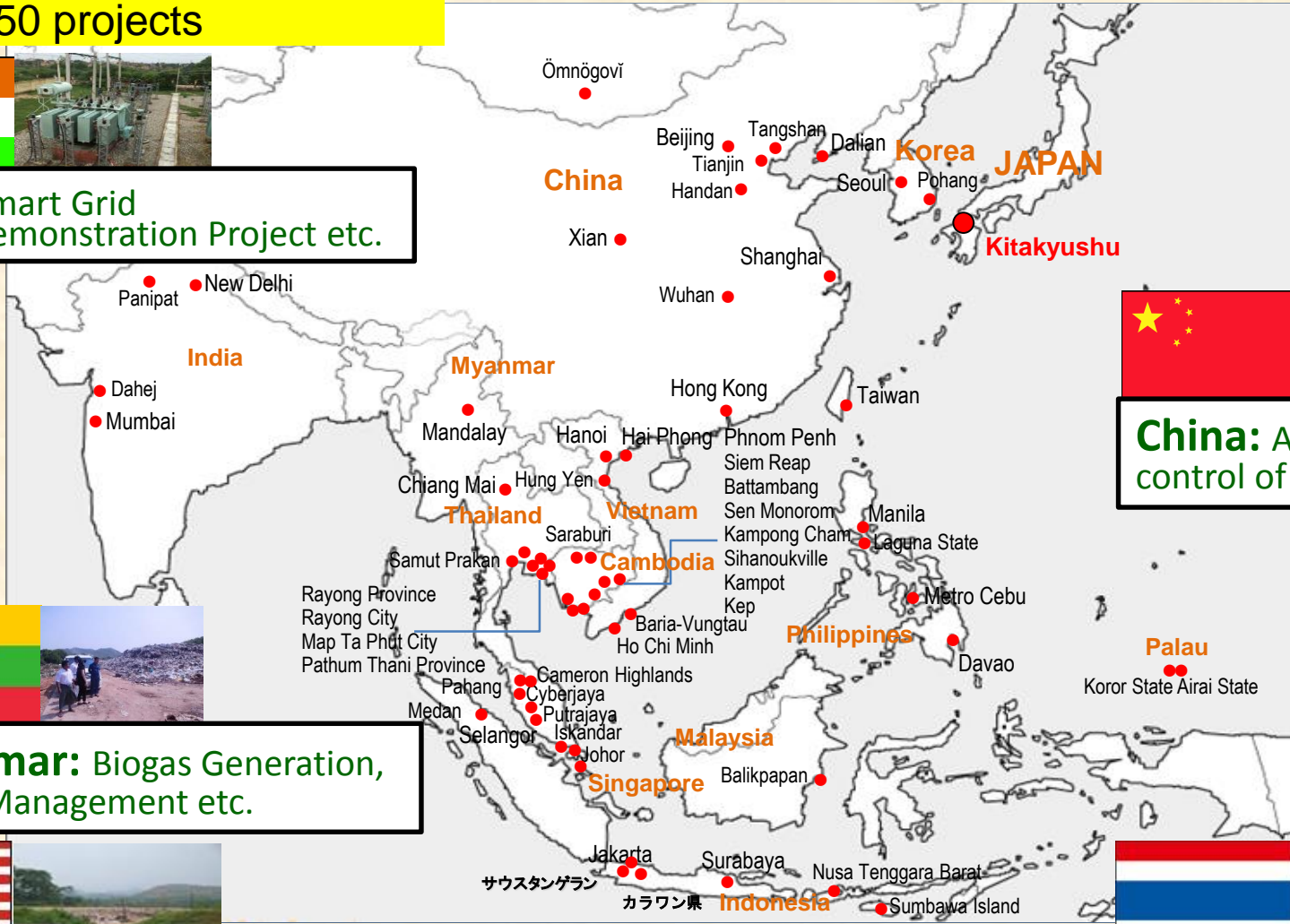
Environmental technologies of Kitakyushu, leading the world



- * About 60 cities in 14 countries
- * 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.



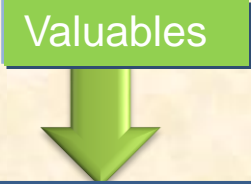
Thailand: Promotion of Eco-Industrial Town Concept based on communities



Waste Management Projects in Surabaya, Indonesia (since 2002)



Landfill Site (Before)

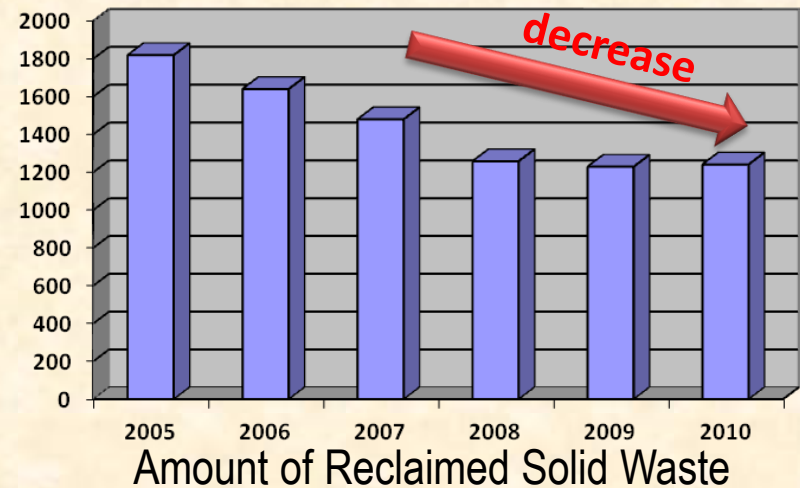


Instructing how to make compost



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

■ 30% reduction of solid waste landfill



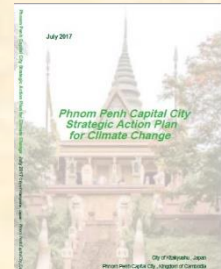


Promoting waste management project in Phnom Penh Capital City, Cambodia



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.



Phnom Penh Capital City Strategic Action Plan for Climate Exchange (2017)

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

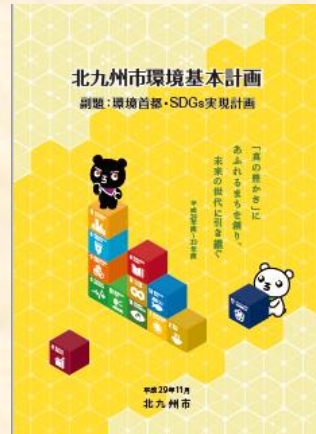


**Nation
to
Local**

- 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



**Mayor of Kitakyushu
Kenji Kitahashi**

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