Kitakyushu City’s Activities to address climate change (mitigation and adaptation)

City of Kitakyushu
Yuzo Yagai

Overcoming Severe Pollution: Kitakyushu’s Experience

1960s

Today

Environmental pollution (Sulfur oxides) (mg/SD/100 cm²/day)

Balance of environmental policies and economic policies in Kitakyushu City

Source: “Survey on the Japanese Experience” by the World Bank

Environmental pollution was removed along with economic development.

Key Factors: Partnerships among Multi-Stakeholders

Residents

Partnership

Residents observing a private company

Study session on air pollution measures with university professors

Local Government

Private Enterprises

Collection/treatment of rare metals

Taking on the Challenge of a Resource Recycling Society

Japan’s Largest Eco-Town

Approved 1997, Started operations 1998

No. business facilities: 29
No. research facilities: 16

- Investment ~66 billion yen
- Employees ~1,300
- CO2 Reduction 380 thousand tons a year
- Visitors ~1,500,000 (1998-October 2016)

R&D on recycling technologies for solar power systems

Automobile recycling

Collection/treatment of rare metals
Next-generation Energy Park

Formation of low-carbon society developing in each region

Kitakyushu Next-Generation Energy Park

- Photovoltaic power generation
- Coal gasification
- Wakamatsu Research Center, General Office, Electric Power Development Co., Ltd.
- Wind power generation
- Petroleum storage
- N.S. Wind Power Hibiki, Tetra Energy Hibiki
- Shirashima National Oil Storage Base
- Eco-town Center
- Kitakyushu Science and Research Park
- Photovoltaic power generation
- Fuel battery cogeneration (natural gas)
- Water power generation
- Tonda Power Station, Kitakyushu Waterworks Bureau
- Cooperation of enterprises for steam production: Kitakyushu Plant, Saibu Gas Kitakyushu Office, Nippon Cokes Industry

Creating a new lifestyle with locally produced and locally consumed energy

Selected as one of four bases in Japan in April 2010

Smart buildings
- IT grid
- Hydrogen network
- Natural gas cogeneration

Continuous "Collection of Knowledge"

~Kitakyushu Science and Research Park~

Graduate School, Waseda University
- Open in April 2001
- Promoting local industries and academic institutions, such as universities that apply "knowledge"
- Core science and research focal point in Asia
- Create new industries, advance technology

Graduate School of Information, Production and Systems Research Center

Graduate School of Engineering

Kyushu Institute of Technology
- Graduate School of Life Science and System Engineering Center for Human Quality of Life Through IT

University of Kitakyushu
- Faculty of Environmental Engineering

Environment & Information

Climate Change Impact and Adaptation

2 State of Climate Change and Future Forecast in our City

- Changes over Time of Annual Mean Temperature Deviation (1898-2014)
- Predicted Changes in Annual Mean Temperature

3 Impacts of Climate Change and Major Adaptive Measures

Adaptation measures have been extracted based on the regional characteristics of our city, from the national "Climate Change Adaptation Plan". Aiming to improve capacity through the "strengthening" of various adaptive measures together with a medium to long-term view.

- Promote introduction of high-temp.-resistant rice strains
- River projects (establish and maintain seawalls etc.)
- Erosion control projects (retaining walls etc.)
- Maintaining and securing an emergency medical system
- Surveys of mosquito habitats and viruses
- Providing infectious disease information to citizens
- Red tide measures
- Coastal projects (establish and maintain seawalls etc.)
- Disaster Prevention Guidebook development
- Heat stroke prevention awareness
- Infectious disease surveys
- Shimonsaeki City tap water agreement etc.