

Future City, Kitakyushu

Kitakyushu's Miraculous Recovery from Soot-filled Sky and Dead Sea

Kitakyushu and vicinity is considered one of the four major industrial regions of Japan. It developed as a heavy chemical industrial area and played a pivotal role in the modernization and rapid economic growth of Japan. Unfortunately, such thriving industry led to severe pollution problems. In the 1960s Kitakyushu had the worst air pollution in all of Japan, and wastewater from factories pouring into the Dokai Bay turned the waters into a "Dead Sea" nearly devoid of life.

The first people to take a stand and demand something be done about the pollution were mothers concerned about their children's health. Residents' actions and media coverage helped spread awareness of the problem and prompted corporations and government to strengthen anti-pollution measures.

The efforts of corporations, government, and the public working together in unity led to the rapid improvement of the environment. In the 1980s Kitakyushu was introduced throughout Japan and abroad as a miraculous city that successfully restored their environment.



Smoke-covered sky (1960s)



The restored blue sky (today)



The Port of Dokai, said to be so polluted that not even E. coli could survive. (1960s)



The restored Port of Dokai (today)

Global Environmental Network

Through cooperative efforts in the environmental field with Kitakyushu's friendship city Dalian in China, Kitakyushu has affirmed the effectiveness and importance of international cooperation on the local level through cooperating with local residents.

And in order to further drive cooperative activities between cities, Kitakyushu has proposed and built an international inter-city network, and has initiated cooperative environmental projects between member cities.

The goal of each member city is to become an Environmentally Advanced City in Asia. A number of measures have already begun to advance that goal.



Selected as a Green Growth Model City by OECD

In June 2011 Kitakyushu was selected as a Green Growth Model City (a model of development that harmonizes economic development and environmental quality) by the Organisation for Economic Co-operation and Development (OECD) with Chicago, Paris and Stockholm.

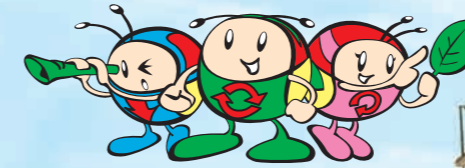
This is the first time a city in Asia was chosen. Through the environmental information about our city spread by the OECD, Kitakyushu takes one step closer to its goal of branding itself as the World Capital of Sustainable Development.

Selected as a Future City

On December 22, 2011, the national government announced that Kitakyushu was selected as Future City with other 10 regions.

The city will strive to create new human-centered value through tackling issues such as the environment, the increasing aged population, and internationalization, in order further its goal of becoming a city that everyone wants to live in, and where all its residents live in vitality.

北九州市 環境 ミュージアム KITAKYUSHU ENVIRONMENT MUSEUM



- **Open**
9 am - 5 pm
(Exhibition area)
No admittance after 4:30 pm
9 am - 7 pm
(Information Library,
Reuse Corner and other areas)
* Closes at 5 pm on Saturdays,
Sundays, and national holidays
- **Closed**
Mondays and New Years Holiday



Kitakyushu has prospered as an industrial city, built on the backbone of the manufacturing industry. Throughout the city's long history, it has advanced a number of measures to tackle environmental problems including international environmental cooperation efforts leveraging its experience of overcoming severe pollution problems, initiatives to build a sustainable society, and measures to promote residents' environmental actions.

Thanks to these efforts, in 2008 Kitakyushu was designated by the federal government as an Eco-Model City, and in 2011 it was selected as a Green Growth Model City by the Organization for Economic Co-operation and Development (OECD). Since then, exercising the environmental capabilities of its citizens, Kitakyushu has driven initiatives with the dual aim of solving global warming problems and maximizing its economic vitality; and it has shared the results with other countries in Asia. Throughout all of Kitakyushu's environmental efforts, its citizens have remained the driving force.

The City of Kitakyushu strives to maintain the name of World Capital of Sustainable Development. And Kitakyushu Environment Museum is the city's environmental learning and community center.

Three Environmental Centers in One

Environmental Learning Center

Schools, corporations, and other organizations can use the museum as an environmental learning center. The museum provides support to cultivate environmental leaders with the capability to notice the existence of a problem, conduct research, make a decision, and act to solve today's environmental problems.

Environmental Information Center

The museum provides information on environmental related events held by NPOs, corporations, and governments in Japan and around the world.

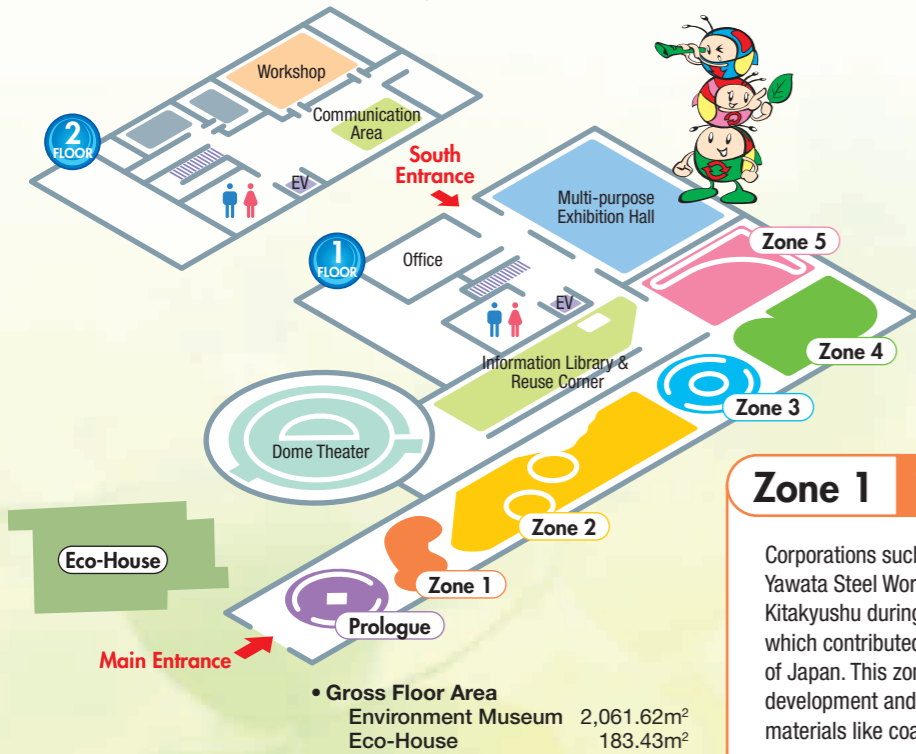
Environmental Activity Center

NPOs and community organizations conducting environmental activities in Kitakyushu can use the museum to hold meetings and activities.



- **Access**
- By car
Take Kitakyushu Expressway and get off at the Otani exit. Turn right at the Harunomachi 5-chome intersection and take Route 3.
- By train
Get off at the JR Space World Station. The museum is a 5-minute walk from there.

Kitakyushu's Environmental Learning and Community Center



Prologue

Because Kitakyushu developed as an industrial city, most people associate the city with sprawling factories. But in actuality, it possesses rich natural beauty. It is surrounded by ocean on three sides and 40% percent of the city area is covered in forest. A river flows through the center of town, and a vast expanse of tidal flats stretch out along Suonada Sea. These abundant nature is shown by pictures and movies.



Zone 1 The Development of Kitakyushu

Corporations such as the former state-owned Yawata Steel Works constructed factories in Kitakyushu during Japan's modernization period, which contributed greatly to the economic growth of Japan. This zone displays the history of the city's development and exhibits industrial goods and raw materials like coal and iron ore used in its factories.



Zone 2 Overcoming Pollution

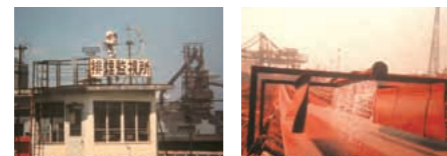
Initiated by citizens, corporations, universities, and government untied to tackle the city's numerous population problems.

Citizens stand up against pollution



- Concerned after finding that their laundry hung outside was becoming soiled with air pollution, the Tobata Ward Women's Association began studying inspection methodologies with a university professor.
- Based on their learnings, they embarked on various actions such as visiting city council meetings and corporations.
- We Want a Blue Sky, a 8 mm documentary film, was produced to educate others about the environment.

Corporate efforts



- Corporations responsible for the pollution drastically reduced waste and pollutants by implementing cleaner production initiatives and switching to resource conserving and energy efficient production processes.
- Implemented measures to prevent pollution such as flue gas and wastewater treatment.

Government efforts



- Implemented environmental monitoring and factory guidelines, and formulated an Environmental Improvement Plan.
- Dredged the Dokai Bay to remove pollutants.
- Developed a green buffer zone and public sewerage system.

Bringing technology and know-how cultivated by overcoming pollution to the world

International training programs



- Under the cooperation of Japan International Cooperation Agency (JICA) and the Kitakyushu International Techno-cooperative Association (KITA), Kitakyushu has invited a great number of trainees from abroad to participate a wide range of training programs, from programs to improve air and water quality, to programs to implement energy-saving initiatives and contribute to building a low carbon society.

International cooperation in the field of green technology

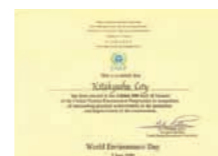


- Public participatory projects to control waste using kitchen waste composting techniques have been implemented in developing countries. In Surabaya, Indonesia, the project was implemented in 20,000 households, resulting in a 30% reduction of waste.
- In Cambodia, technological cooperation efforts and training programs through a waterworks project to prevent water leaks were implemented.

International Awards



UN Local Government Honours at the UNCED Earth Summit



Global 500 from United Nations Environment Programme in 1990

Cambodia's Grand Cross medal (awarded at the Kitakyushu City Water and Sewer Bureau's 100 year anniversary ceremony in 2011)



Zone 3 The Environment and Us

Hands-on attractions where visitors can learn about environmental problems that directly affect humans through educational games.



One Earth is not enough!?

Use scales to learn about the concept of the ecological footprint.



Where does fuel come from?

Learn about fossil fuel and renewable energy sources through this ghost leg game.



Japanese Cuisine?

Make your own bento to find out how many food miles each ingredient has travelled.

Water and us



This zone also exhibits an immense pyramid made entirely of plastic bottles to illustrate how much water the average person in Kitakyushu uses in one day.



Learn hands-on about the cycle of water with this manual ball coaster game.

Zone 4 Green Technology and Eco-Friendly Living

Here visitors can learn about the concepts of the 3Rs (reduce, reuse, and recycle) and resource circulation. Displays show the process in which recycled materials are reborn as new products and introduce visitors to eco-friendly products.



Guides

Knowledgeable guides help visitors deepen their understanding of the facilities.



Zone 5 Future City

This zone features photos illustrating Kitakyushu's Future City Initiative efforts such as its water business, smart community creation project, Kitakyushu Asian Center for Low Carbon Society, and collaborative environmental activities between the public, organizations, corporations, and schools.



Environmental Learning Supporter

Volunteers in the "Play and Learn Environmental Lab" assist visitors to learn about environmental problems through fun educational games.



Wind power



- Wind lens turbine** (Generates 3 kw/h) Used by the museum to generate electricity.

Green walls



- Climbing vines** Transpiration from the vines covering the outer walls helps prevent heat buildup inside the museum.

Scrap Wood Usage



The flooring of the museum is made from old scaffolding used in construction.

Rainwater Usage



Rainwater is collected in a tank under the dome theatre and reused to flush the toilets in the facility.

Eco-House



A model house that places no burden on the environment and is comfortable to live in. It is equipped with a solar power system, solar heating, and cool tubes.