Urban Planning of Kitakyushu City

City of Kitakyushu
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City Profile

Location: between Tokyo, Japan and Shanghai, China

Population: 1 million
Area: 488 km²
Status: Designated City
(as same as Prefecture Government)
Kitakyushu City merged from 5 Cities in 1963
for strengthening governance capability

- Efficient governance in wide point of view
- Integration of each characteristics and resources
- Transportation system connecting each compact district
- Strengthening environmental control authority

50th anniversary in 2013
City Profile

History and City Growth

1901 Yawata Steel Works
1920 TOTO
1925 Yasukawa

Industries born in Kitakyushu

1935 Moji Port
Tachinoura Container Terminal

International Trade
City Profile

Rich Nature with Biodiversity

Sone Tidal Flat

Larus Saundersi
(Migratory: China~Japan)

Limulina
Largest number in Japan

Hiraodai Karst Plateau

Biodiversity

Largest number in Japan
City Profile

Industrialization that Supported Modernization

Governmental Yawata Steel Works (1901)

Kitakyushu industrial zone in the 1950s
Overcoming Severe Environmental Pollution

In 1950s & 1960s

Severe Air Pollution

“Dokai Bay, Sea of Death”
Corroded boat propeller and E. coli bacteria died.

Present

Residents enjoying blue sky
Swimming at Dokai Bay

Recovered Blue Skies and Sea,
people enjoying the clean environment
Kitakyushu’s Environmental Assets for Sustainable Development

~Green Frontier~  City of Kitakyushu’s Environmental Policy

Government-run Yawata Steel Works  We have developed as an Industrial City

Industrial Wastewater  Exhaust Emission

Aggravation of Pollution Problems

Women’s Movement against Environmental Pollution

City Government
Organizational Arrangement, Ordinance, and Pollution Control Agreement with Companies

Private Enterprise
Cleaner Production
Improvement of Production Process
Treatment of Pollutant, Tree Planting

Overcoming Environmental Pollution

Establishment of “KITA” (1980)

KITA: Kitakyushu International Techno-cooperative Association

1901

1950

1960’s
Pollution Control Policy

1980’s
Local Diplomacy Policy

Resource-Circulating Society Policy

2002
Sustainable Society Policy

2008
Low Carbon Society Policy

Creation of Local and Global Sustainable Society

Environmental International Cooperation (1988～)

Agenda 21 Kitakyushu (1996)

Kitakyushu Eco-Town(1998)
Environmental Preservation and Industrial Promotion

Johannesburg Summit (2002) identified Kitakyushu Initiative for a Clean Environment

Decision of Establishing PCB Treatment Facility (2001)

Implementation and Evaluation of Practical Activities

Grand design on World Capital of Sustainable Development (2004)

2. Urban Planning of Kitakyushu City
   a. Trends of urban structure/environment

(1) Expansion of urban areas
   → Reduction in population density

(2) Decline in population and aging of population in old urban areas
   → Decrease in public service efficiency

(3) Hollowing out of industries
   → Decline in vitality and vigorousness in the central urban areas

(4) Delay in renewal of urban areas
   → Renewal is difficult due to the existence of residential areas on slope ground and road conditions

(5) Rarely used or unused industrial areas
   → Found in coastal areas due to downsizing or withdrawal of companies
Respect for “intown area”: Expansion of town areas by suburb development

\[ \Rightarrow \text{Regeneration of the intown areas} \]

Utilization of “stock”: Promotion of new developments

\[ \Rightarrow \text{placing importance on efficiency by utilizing the stock} \]

Respect for “quality”: Placing importance on size and quantity

\[ \Rightarrow \text{respect on high quality} \]

Respect for “collaboration”: Leadership by administration

\[ \Rightarrow \text{collaboration among various players} \]
Town development Kitakyushu City intends to promote: direction of urban formation
2. Urban Planning of Kitakyushu City
   (c) Town development utilizing characteristics of the city

- Kokura city center area
  Kokura as a characteristic city center

- Higashida area
  Higashida area new town development

- Hibikinada area
  Kitakyushu Eco-Town project aiming to be an ecological metropolis
(1) Kokura city center area
Kokura as a characteristic city center

Kokura is creating the town as a characteristic center of the two-million city, by developing the JR Kokura Station area and river as well as roads, bridges, parks, and city area zones in an integrated manner. City’s comprehensive projects include “my-town and my-river development project” for creating safe and comfortable town.
Public Infrastructure Development
(Extension of monorail)

▲ Kokura Station
Redevelopment of Kokura City Center Area

Comprehensive Redevelopment of Murasakigawa River Area

Before

After
Redevelopment of Kokura City Center Area

- Urban Redevelopment Project

Before

After

Riverwalk Kitakyushu
Public Infrastructure Development
(Improvement of bicycle lanes)

Before

After

▲ Model District: Kokura City Center
Community Bike Program

▲ In front of Kitakyushu City Hall
Introduction of Eco Vehicles and Driving with Low Emission

Kitakyushu ECO DRIVE project

ECO DRIVE
- soft acceleration
- idling stop, etc.

Effect
- Increasing of fuel efficiency
- reduction of cost and pollutants
- reduction of traffic accidents

IT technology development on EV driving

Feasibility Study:
- Supplying EV charger information by car navigation system, etc.

Institutes: Yaskawa Information CO., Nissan CO., Zenrin CO.

Cooperation: City of Kitakyushu, FAIS

Charger Network for EV

TOYOTA's Fuel Cell Vehicle

Electric Vehicle and Quick Charger

Kokurakita-Ward Office
Every day and 24 hours
Free of Charge
Low Carbon Urban Structure and Citizens' Recognition
“Murasakigawa River with Renewable Energy Project”

Source: Environment Bureau, City of Kitakyushu
The citizens create the sustainable society by himself/herself (society, environment, economy)

Governance and Collaboration among Stakeholders

Independent Citizen Society & New Public Commons

Kitakyushu Eco Life Stage

Flower plantation by citizens

Joint Declaration by local multi-stakeholders
In the Higashida area, a “land readjustment project” is implemented utilizing large idle sites owned by enterprises, aiming to promote functional integration of commercial, office and residential quarters to ensure new town development. A “Yawata Higashida green village project” is promoted through cooperation among the industrial, public and academic sectors to develop an environment-conscious town, as a model of world’s ecological metropolis that Kitakyushu City aims to be.
Development Projects (Higashida area)

- Land Readjustment Project
- Smart Community Creation Project
and other projects

Before

After

JR Space World Station (new station)
Integrated Local Energy System with 30% Reduction of CO₂

Higashida Co-Generation System with high efficiency

- Thermal Supply for Factories
- Electric Supply for Town
- Micro grid
- Photovoltaic generation

Higashida Green Village Area

- Factory Area
- Information Industry Area
- Community Centre
- Education Area
- Water Front Area
- Space World
- Environmentally Friendly Housing
- Residence
- Train Station
Kitakyushu Smart Community

Industrialization of Green Policy: Local Energy Generation

- **Term:** 2010 to 2014
- **Investment:** $190 million
- **CO₂ Reduction:** 50%
- **Renewable Energy:** 10%

Realization of optimized energy use per region, through coordination between new and mainstay energy sources and introduction of a control system for both energy supply and demand.
Since July 1997, the city has been promoting the Kitakyushu Eco-Town Project, aiming to take a leadership role toward the realization of a sustainable and evolvable society on an axis of the promotion of the environment/recycling industry. The project is based on the alliance among citizens, enterprises, and government that has been developed in the process of overcoming environmental pollution. The project is also based on the technologies, human resources, and industrial infrastructure the city has cultivated as “the town of manufacture” as well as the systematic international environmental cooperation structure having experience for more than 20 years.
Facilitating Resource Circulation and Eco-Industries

Practical Research Area
- Practical Research Facilities: 16
- Practical Research Projects: 56

Comprehensive Eco-Industrial Complex,
Hibiki Recycling Area
- Industrial Plants: 29

Outcome of Projects

**Environment:** Reduction of Environmental Impact / 0.38 million ton CO₂,
Saving Resources and Energy

**Economy:** Investment: 66 billion yen
- Private sector: 71.7%,
- National Government: 18.2%, Local Government: 10.1%

- Employees: 1,340 people
- Visitors: 1 million people (as of October 2011)

Source: Environment Bureau, City of Kitakyushu
Development Projects around JR Stations

- JR Moji Station
- JR Jinnoharu Station
Development Projects around JR Stations (JR Moji Station)

- Land Readjustment Project
- Residential Area Development Project
Development Projects around JR Stations
(JR Jinnoharu Station)

- Land Readjustment Project

JR Jinnoharu Station (new station)