

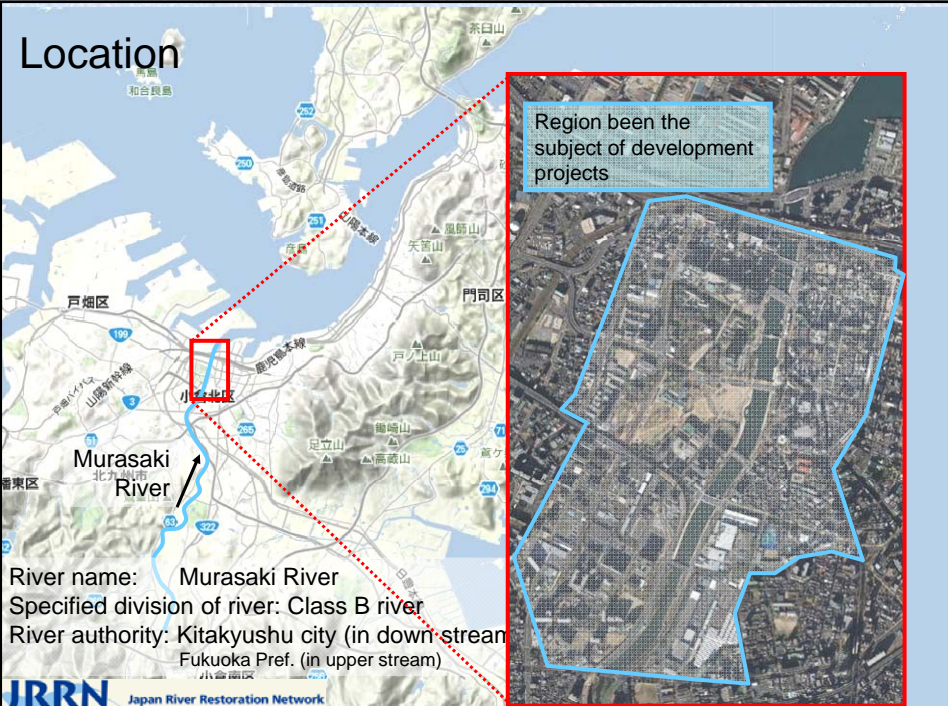


## Murasaki River / Kitakyushu city

Masafumi ITO  
Japan River Restoration Network


Panel on Urban Water/River Front Redevelopment  
World Bank Tokyo Office –May 30<sup>th</sup>, 2011

### Location



Region been the subject of development projects

River name: Murasaki River  
Specified division of river: Class B river  
River authority: Kitakyushu city (in down stream)  
Fukuoka Pref. (in upper stream)



## Background

### 1. Flooding

- The width of Murasaki river had been narrowed in its river mouth, was the situation in flood-prone lower reaches.
- The great deal of harm was caused in the flood that had occurred in 1953.



1953, Muromachi



1953, Daimon

**JRRN** Japan River Restoration Network

## Background

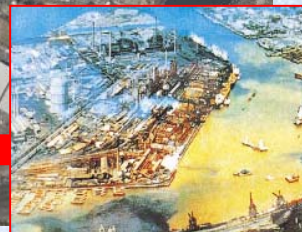
### 2. Water quality

- Till around in 1970's, the river was advanced by pollution occurred from industrial drain and the household effluent, etc. and the stink was tossed.



海へ流される汚れた工場廃水

industrial drain



Previous color of Dokai Bay

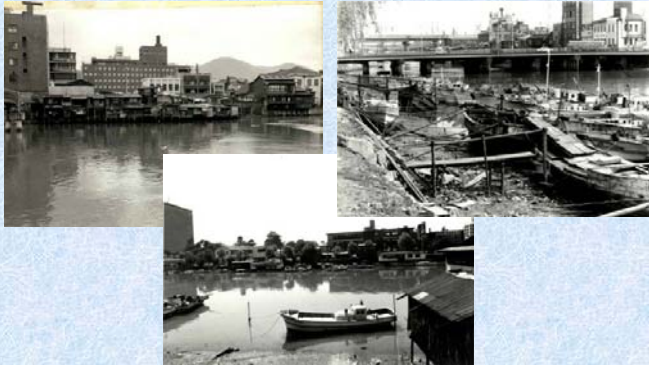
**JRRN** Japan River Restoration Network



## Background

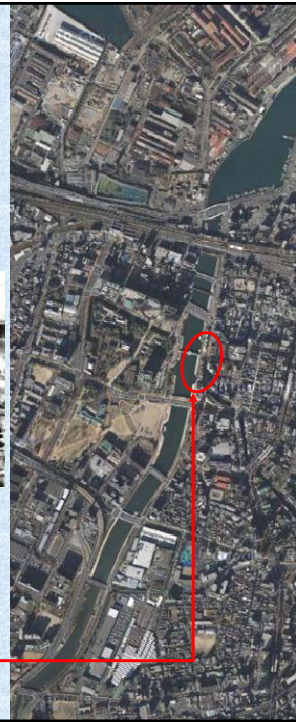
### 3. Land use

- Illegally constructed residences stood close together in the banks of a river.
- As for these illegal buildings had been one of the factor to contribute for water pollution and security deterioration, as well as breaking urban view.



Illegally constructed buildings (around in 1970 -1980)

**JRRN** Japan River Restoration Network



## The Murasaki River Restoration Activities

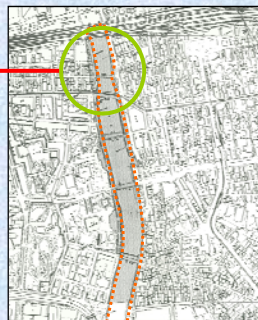
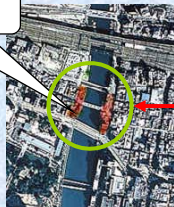
### 1. Flooding

1953; The great deal of harm was caused in the flood that had occurred.

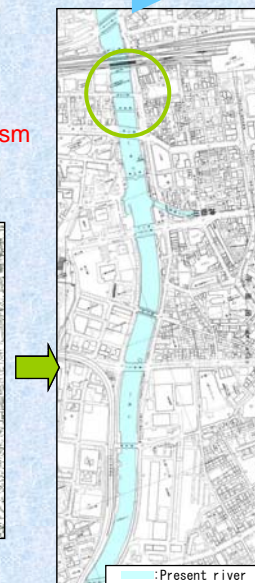
1969; River improvement works (such as riverbed excavation) had started.

1987; The Ministry of Land, Infrastructure, Transport and Tourism founds **"My town, my river development project"**.

The colored part of the province where the river is narrow river before renovation



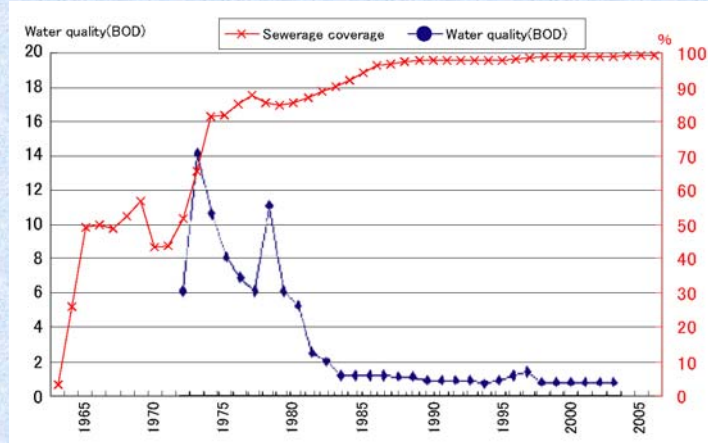
After improvement  
River Channel planning



## The Murasaki River Restoration Activities

### 2. Water quality

1963; River cleaning action had started by the citizen volunteer.  
 1967; Drainage maintenance was begun, and the spread of sewage became 99.8% by 2005.



JRRN Japan River Restoration Network

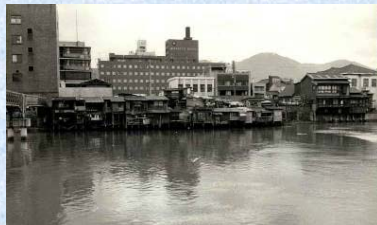
## The Murasaki River Restoration Activities

### 3. Land use

Before; Illegally constructed residences stood close together in the banks of a river, and the cause of the obstruction of the spectacle and the deterioration of the water quality before.

1966 ~ 1980; The an unlawful houses was executed. An illegal resident had migrated to the municipal dwelling house.

1988; "**Kitakyushu Renaissance plan (KR plan)**" was settled on, and enhancement and strengthening the urban function of the Kokura district, including Bashaku Area, were promoted.



Illegally constructed buildings  
(around in 1970 -1980)



After development  
(around in 1970 -1980)

JRRN Japan River Restoration Network

## 2 major River and city Improvement Projects settled

"My Town, My River Development Project" is ...

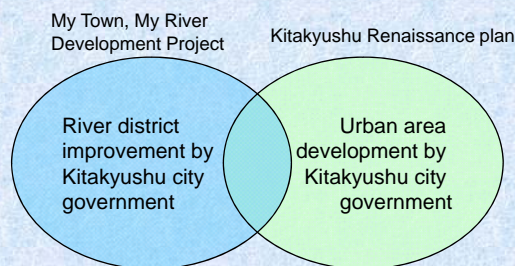
The project which aims not only to improve flood control and river improvement but also to form an attractive urban space by linking the river development with redevelopment and road construction that were planned around the city.

"The Master Plan to Develop Attractive Waterfront Development" was formulated by Kitakyushu city government in 1994.

"Kitakyushu Renaissance plan " is ...

Urban redevelopment plan to renewal Kitakyushu city central waterfront in the theme of "International technology city".

At the time plan has settled, the heavy industry, the major industry of Kitakyushu city, showed the tendency to stagnate by converting energy from coal to oil.



## Outline of Project

Under the operation of Kitakyushu City, projects which aimed not only for flood control but also to maintain the park improvement and the road in the waterfront additionally.

### River district improvement

In conjunction with urban area development, succeeded in creating an open space through the integration of water and river private land.

### Urban area development

Determined position of buildings along the river matching with the project consistent with river improvement, succeeded in the creation of a waterfront terrace which across private land and river bed. This waterfront terrace is also used as a passage for river management.



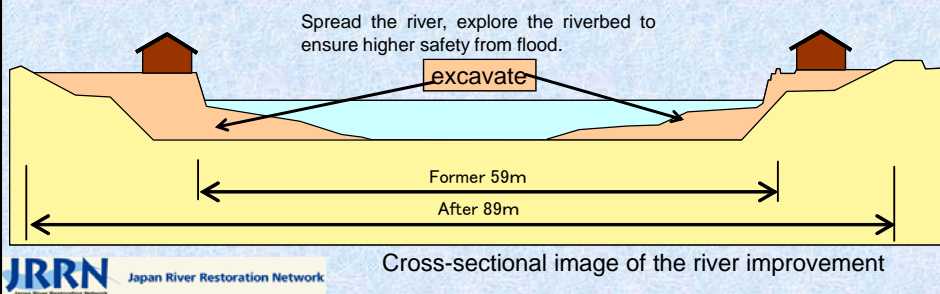
waterfront open space and terrace



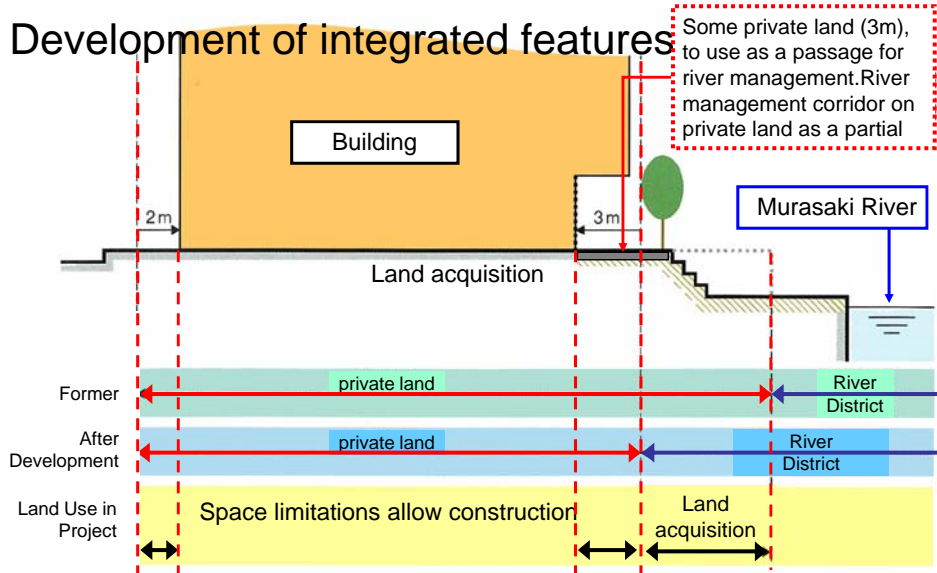
## Traverse planning of the Channel

Implementation of the Basic Plan of Murasaki River features are as follows.

- To ensure the flood channel wide as possible for the use of the river bank as a park.
- To increase hydrophilicity, the high-water revetment has to have gradient at least 20 percent.
- Low-ater embankments, taking into account the preservation of natural ecosystems and hydrophilic, with a gradient of 30% at least, and devised natural stone for habitat.
- Section that houses crowded along the river embankments and 5 percent for priority flood control function.



## Development of integrated features



- Reasons on the landscape and land use, river area of 1m to 6m in the first floor of the building set back on private land and 3m, and 4m in total to be used as a passage for river management.

## Effect of integrated development

### Effect on river improvement

- River site secured in a downtown redevelopment project, by using some private land, succeeded in securing the necessary space for river management.

### Effect on urban development

- Development of urban area projects as well as river district, waterfront space has been created in unified design with river views.

### Benefits for private sector

- As for projects management, including user fees in public facilities for river improvement, improved fee balance of urban redevelopment projects.
- As a good image of waterfront been formed, an improved **attraction** of hotel and restaurant.

## Effect of integrated development



Current state with no illegal buildings and ensured safety from the flood

The bridge was built connecting both banks of the river



## Effect of integrated development



Current state with city's historic castle and the urban area



Current state, children playing in tidal sandbar.



## Current situation

In presense various events are held in the maintenance interval of Murasaki river, throughout the year, which forms the bustling waterfront.



Oyster pan houseboat cruise in February



Ukai viewing pleasure boat cruise in May



Junior expedition event in July



Regatta boat race in March



Ribaasuron in August



Goby fishing competition in November



Dragon boat competition in April



Summer Festival in August



Illumination in December





**Thank you for your kind attention.**

***<http://www.a-rr.net/jp/en/>***

**Japan River Restoration Network secretariat**

Foundation for Riverfront Improvement and Restoration (RFC)  
7th Floor, 1-17-24 Shinkawa, Chuo-ku, Tokyo, JAPAN, 104-0033  
TEL: +81-3-6228-3860 FAX: +81-3-3523-0640  
E-mail: [info@a-rr.net](mailto:info@a-rr.net) Website: <http://www.a-rr.net/jp/>

Japan River Restoration Network (JRRN) is operated by *Foundation for Riverfront Improvement and Restoration* and *CTI Engineering Co., Ltd.* as joint study on development of Asian River Restoration network.

