

**The 3rd World Water Forum Presentation material**

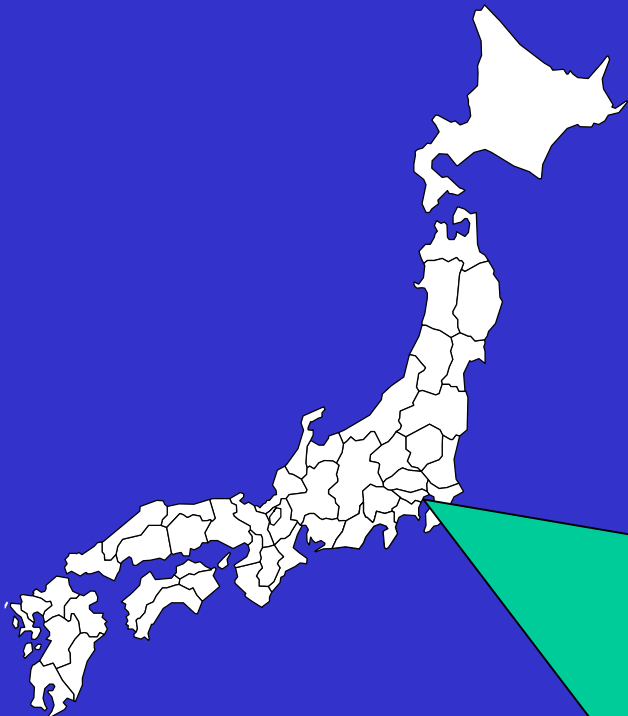
**Comprehensive  
Water Management in Japan**

**Shuji Unno**

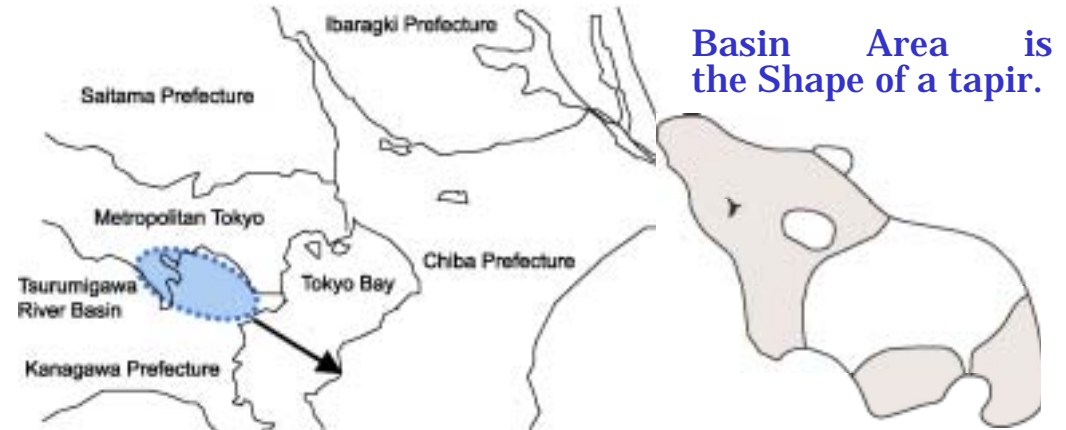
**Director-General, Keihin Branch Work Office,  
Kanto Regional Development Bureau,  
Ministry of Land, Infrastructure and Transport, Japan**

# 1 . Current situation and issues of Tsurumi River

# 1) Location of the Tsurumi River basin in Japan



- Basin area : 235km<sup>2</sup>
- River length: 42.5km

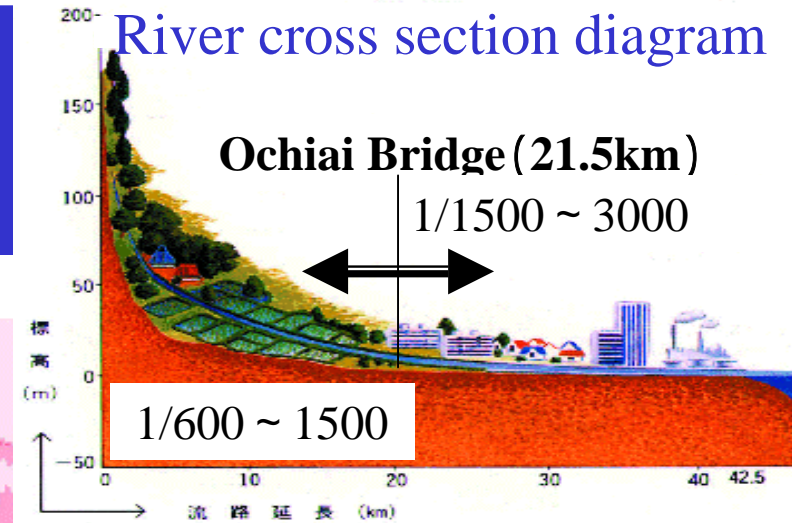
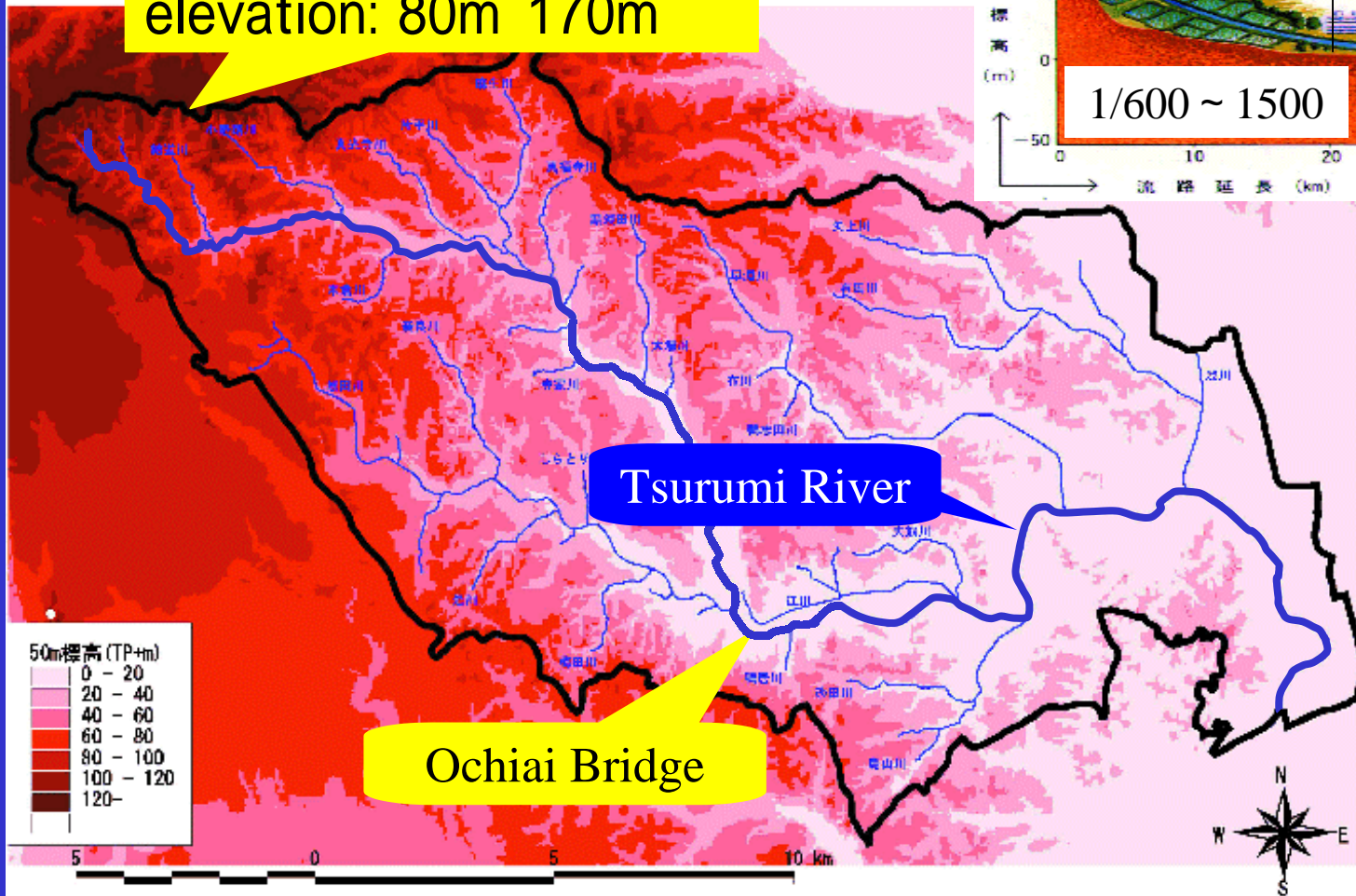




## 2) Current Situation of Tsurumi River basin

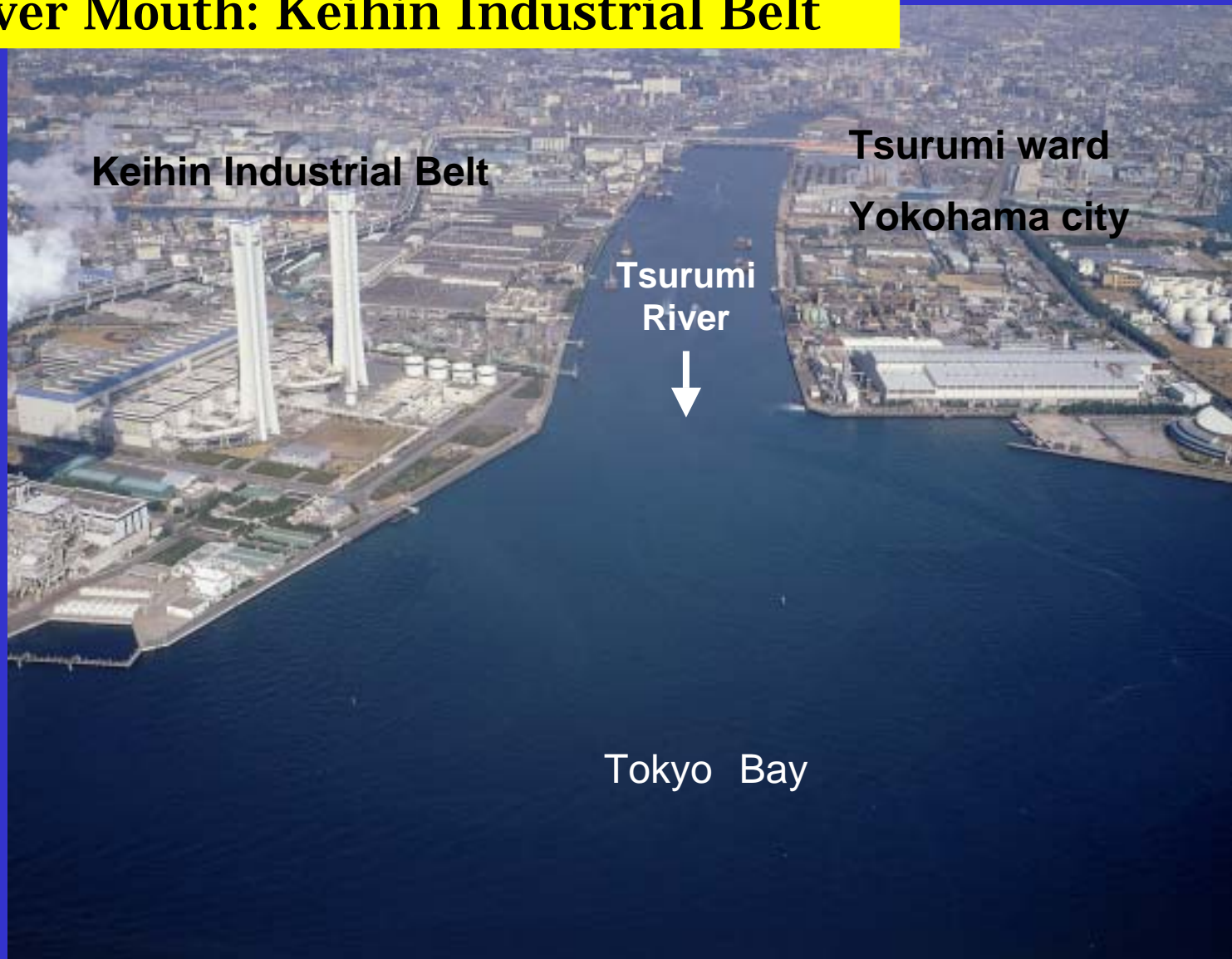
- 70% (167km<sup>2</sup>): Hills and Plateaus
- 30% (68 km<sup>2</sup>) : Alluvial Plain

Watershed topographic elevation: 80m 170m



## 2 ) Current Situation of Tsurumi River basin

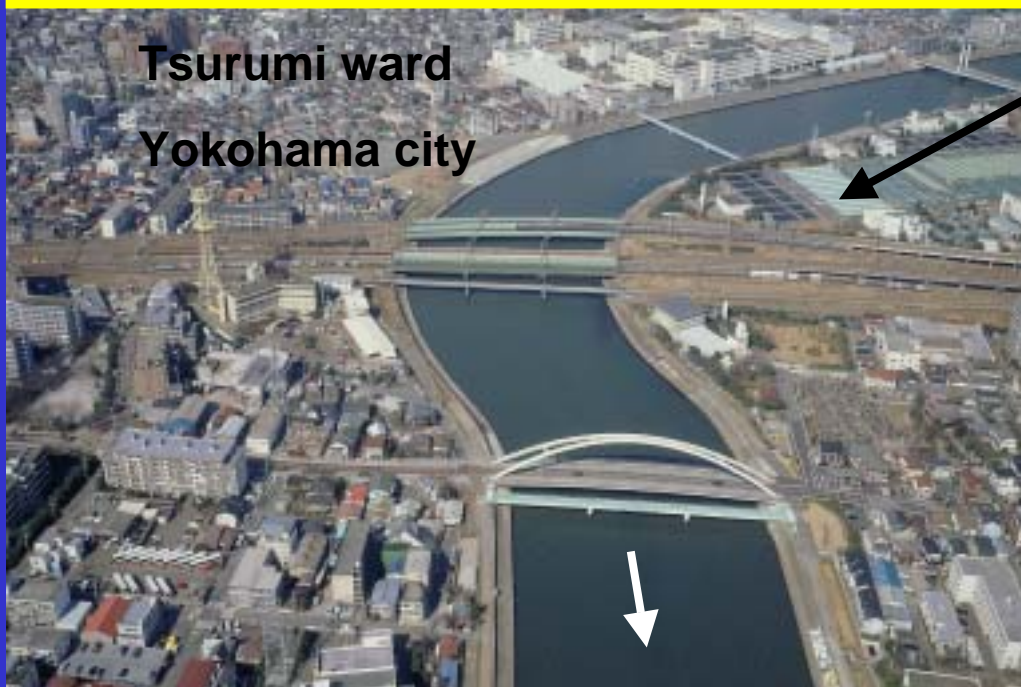
### ➤ River Mouth: Keihin Industrial Belt





## 2) Current Situation of Tsurumi River basin

➤ Lower reach ( 5 km : Neighborhood of JR Tokaido Main Line)

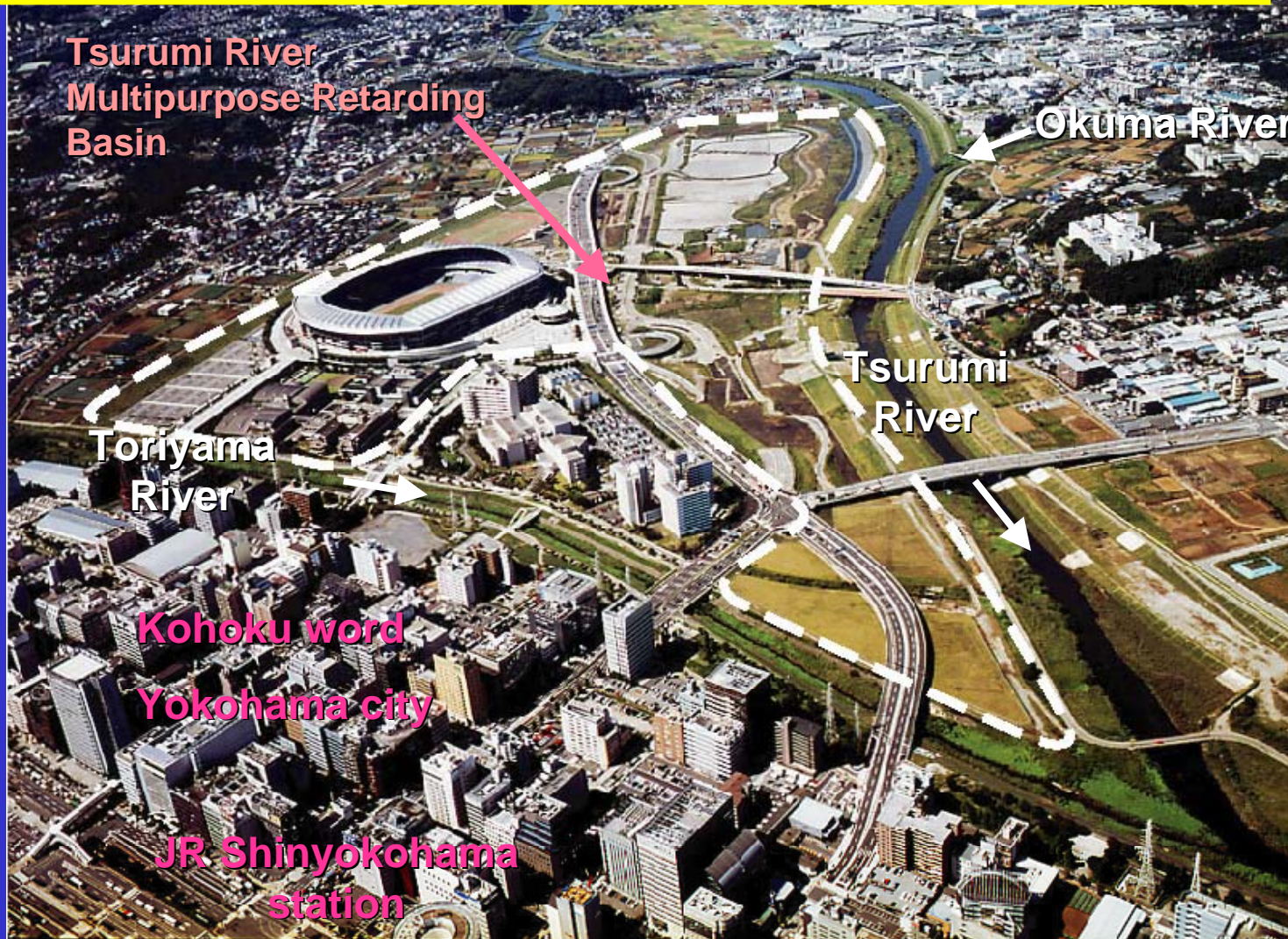


➤ Lower reach ( 11.5 km : Confluence of Hayabuchi River)



## 2) Current Situation of Tsurumi River basin

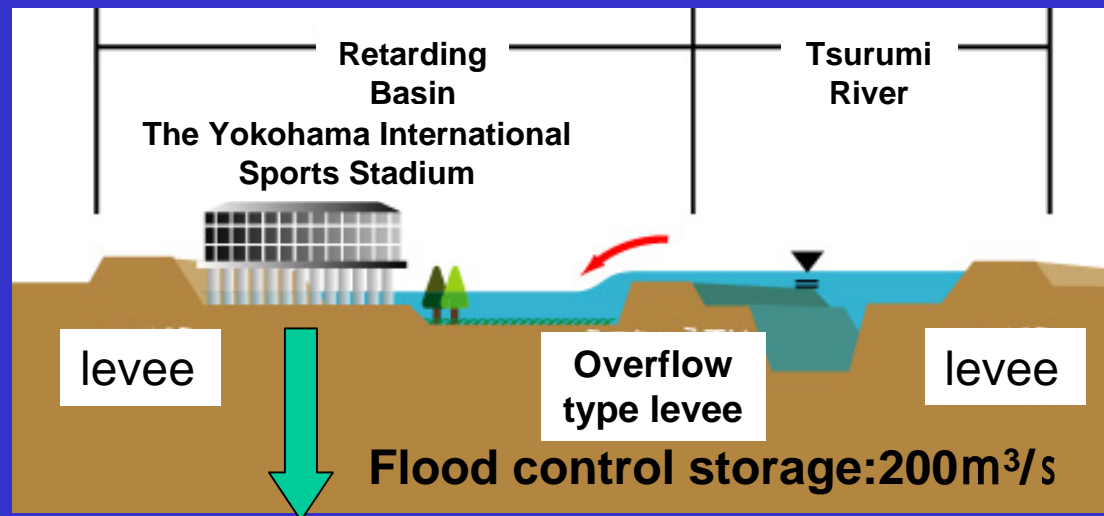
- Middle stream  
( 1.6 km: Tsurumi River Multipurpose Retarding Basin )





# Tsurumi River Multipurpose Retarding Basin

- Shinyokohama Dream Oasis -



Storage water volume

: 3,900,000m<sup>3</sup>

Area : 840,000m<sup>2</sup>



2002 FIFA  
World Cup  
championship

The Piloti method

A part of  
Retarding Basin





## 2 ) Current Situation of Tsurumi River basin

- Middle stream (21.5km: River confluence of main major tributary, Ondagawa River)



## 2 ) Current Situation of Tsurumi River basin

➤ Upper reach ( 3 2 km : Shinkojigawa River confluence )



➤ Uppermost reach  
( 4 2 . 5 km : End of river where River law is applicable )



## 2) Current Situation of Tsurumi River basin

### ➤ Headwaters (43.5 km)

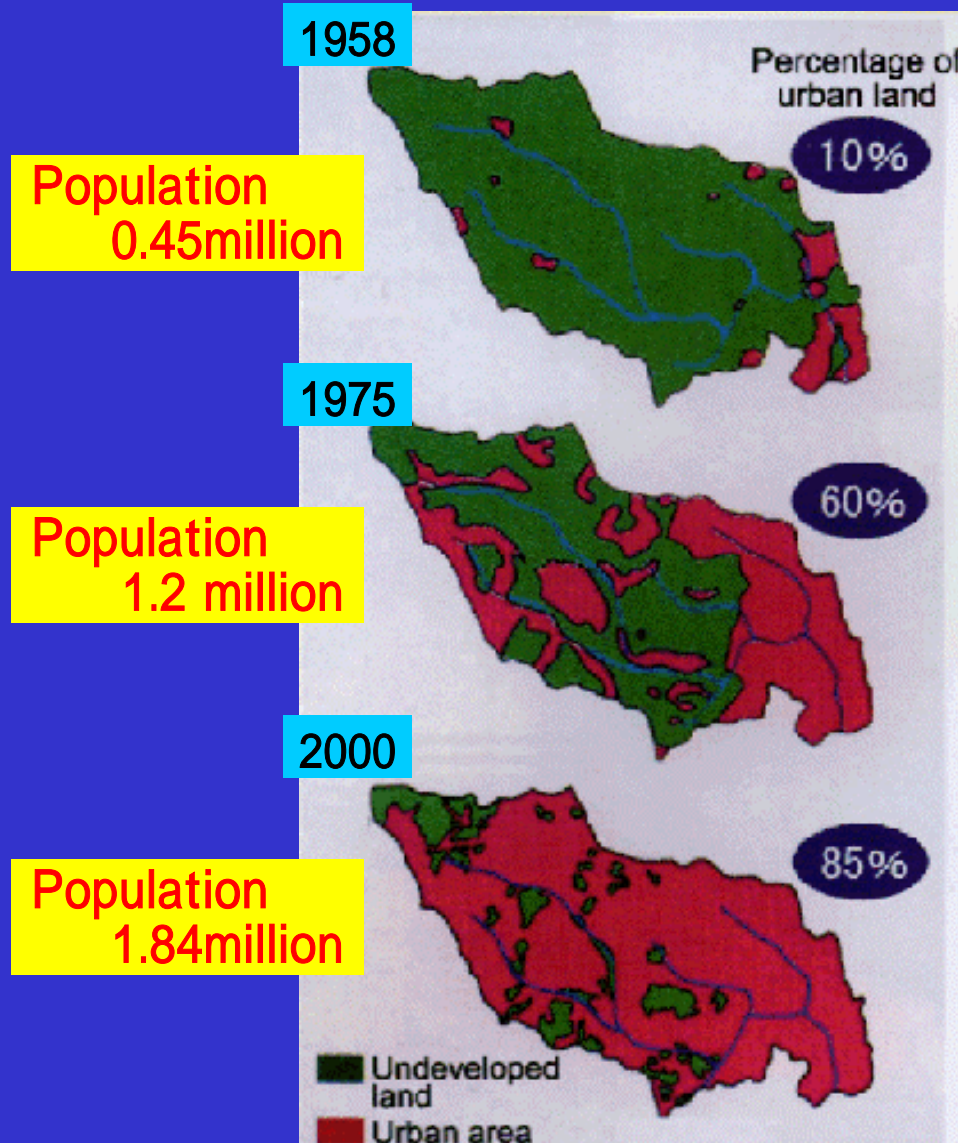


➤ Genryu no Izumi  
(Headwaters Spring): The  
daily outwell is 1,300 m<sup>3</sup>.



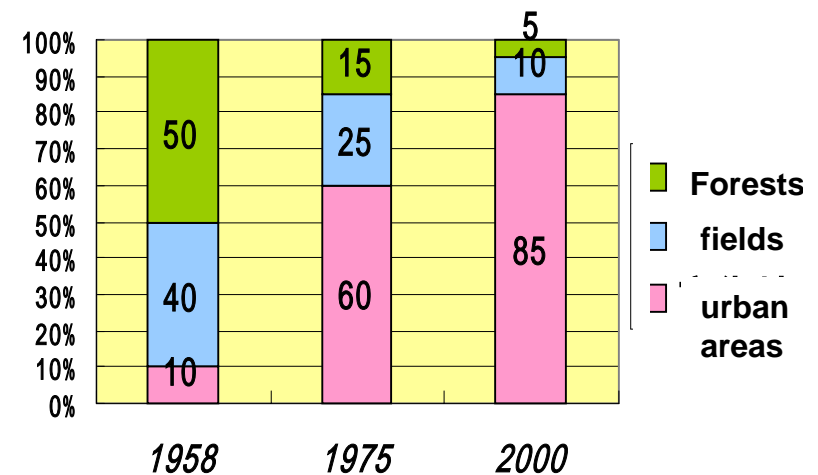
## 2) Current Situation of Tsurumi River basin

### ➤ Changes in the urban areas



Population Growth: 1.74 Millions during 40 years 85% of the Basin is Urban Area.

Tsurumi River has become Typical Urban River.



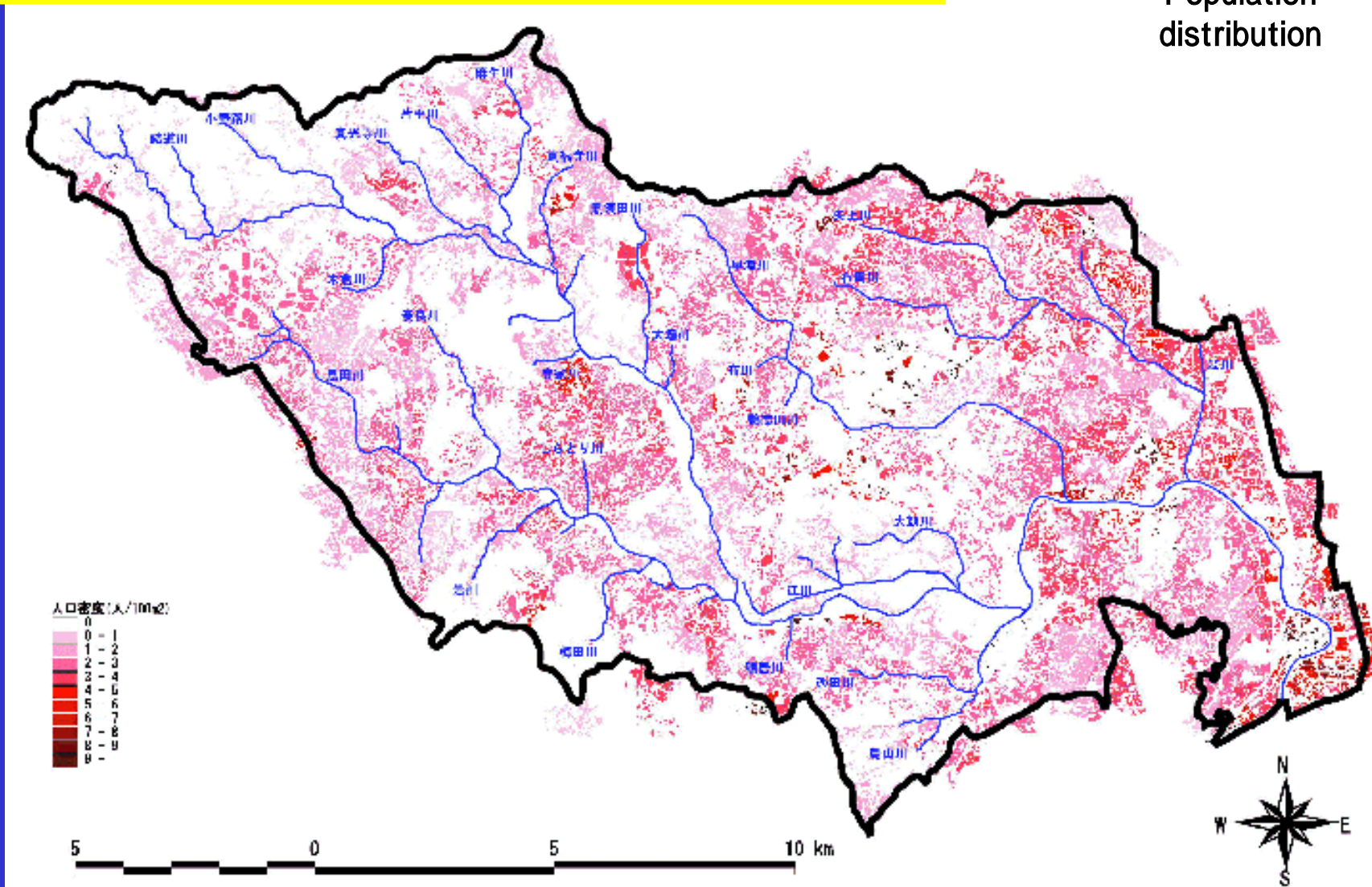
Changes in land use of the basin.



## 2) Current Situation of Tsurumi River basin

- High Population Density of the whole basin as well as the downstream

Population distribution





## 2 ) Current Situation of Tsurumi River basin

- Decreased greenery  
Frequent water problem as well as  
aggravation of natural environment

**Before development**



**After development**

