

Institutional Framework for Sewerage Systems in Japan

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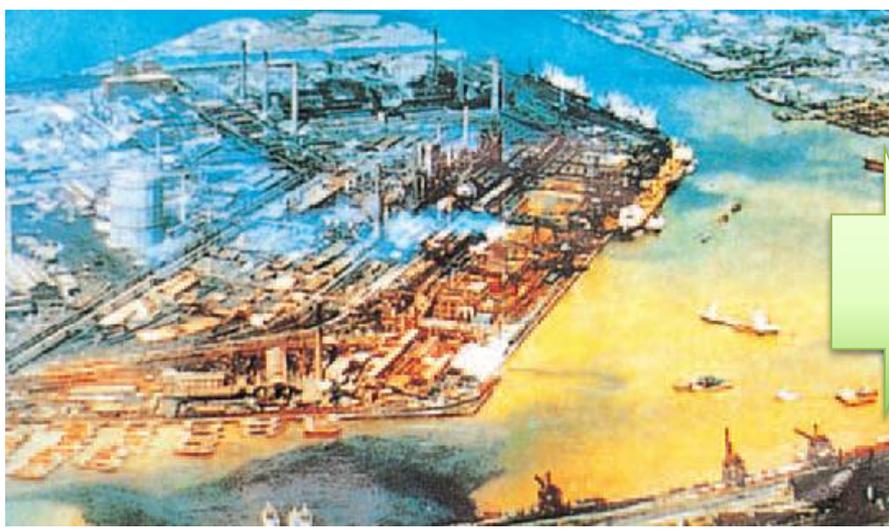
Director for Watershed Management

Sewerage and Wastewater Management Department

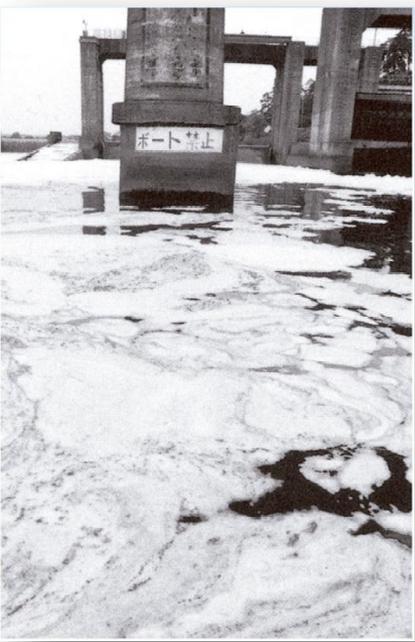
Water and Disaster Management Bureau

Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Japan

Water Pollution in Japan in 1960's



Dohkai Bay, Kitakushu City



Tama river, Tokyo



Pollution Diet in 1970

Pollution Session of Diet (1970)

- Discussed intensively on the pollution issues and developed the framework of environment/sanitation policies



Pollution Diet in 1970

Major achievements of the Pollution Session

- Water Pollution Control Law
- Amendment of Sewerage Law

Enactment of Water Pollution Control Law

Basic law for environmental pollution control (1967)

※ Replaced by the Basic Environment Law in 1993

- Establishment of Environmental Quality Standard (EQS)
 - EQS for the protection of human health (Health Item)
 - EQS for the conservation of the living environment (Living Environment Item)

Water Pollution Control Law (1970)

- Nationwide effluent regulations on factories or commercial facilities
- Water Quality Monitoring at Public Water Area
- Domestic Wastewater Control
- Total pollutant load control in enclosed coastal seas

Sewerage Law (Some Key Points)

- Obligation to formulate a **sewerage master plan** to improve the water quality of public water bodies
- Project implementation bodies (i.e. **Local governments**)
- Structural standards and effluent quality standards
- National government **subsidies** for construction
- **Charge from individuals** for the use of sewerage systems

Roles of National and Local Governments

National Government



Vision

Technology Standards

Law/Regulation

National Subsidy

Local Government

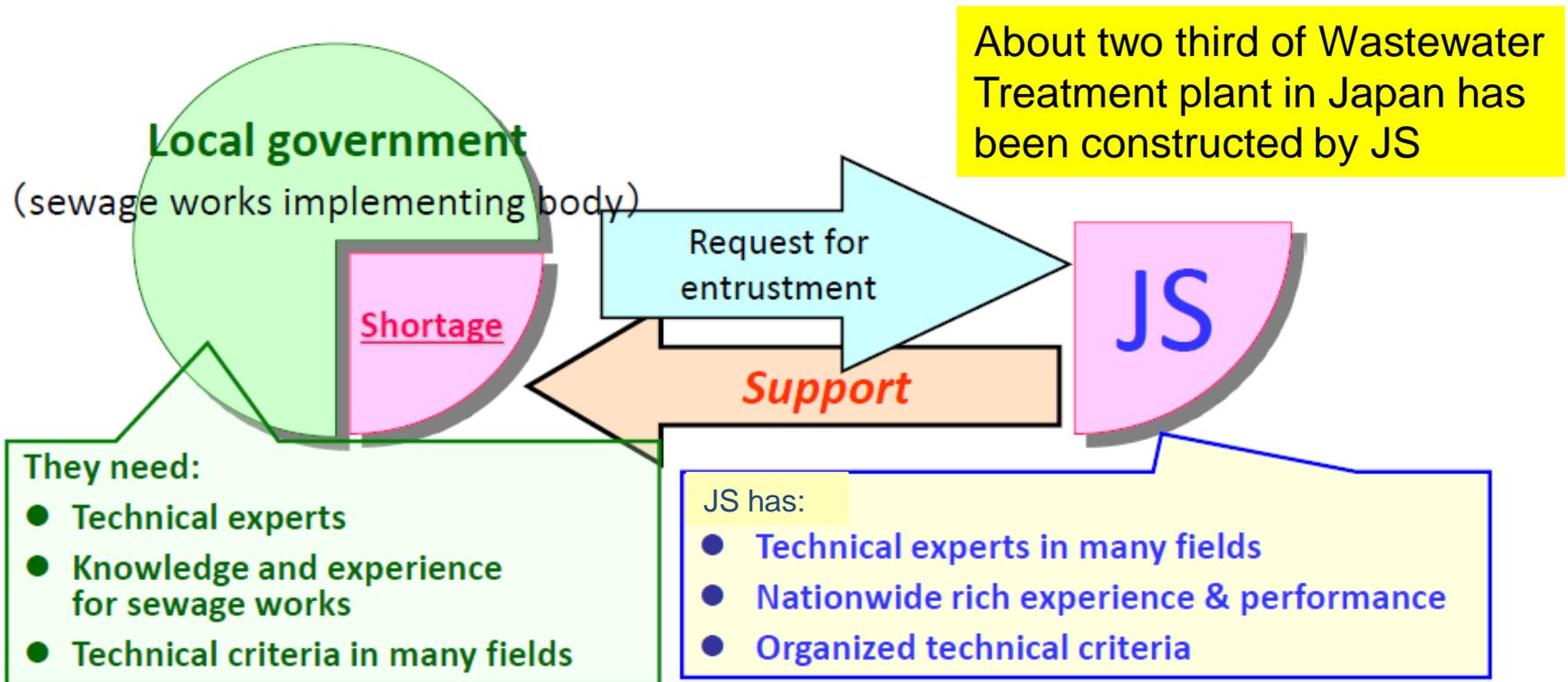
Sewerage Master plan

Ordinance

Construction, Operation
and Management
of sewerage facility

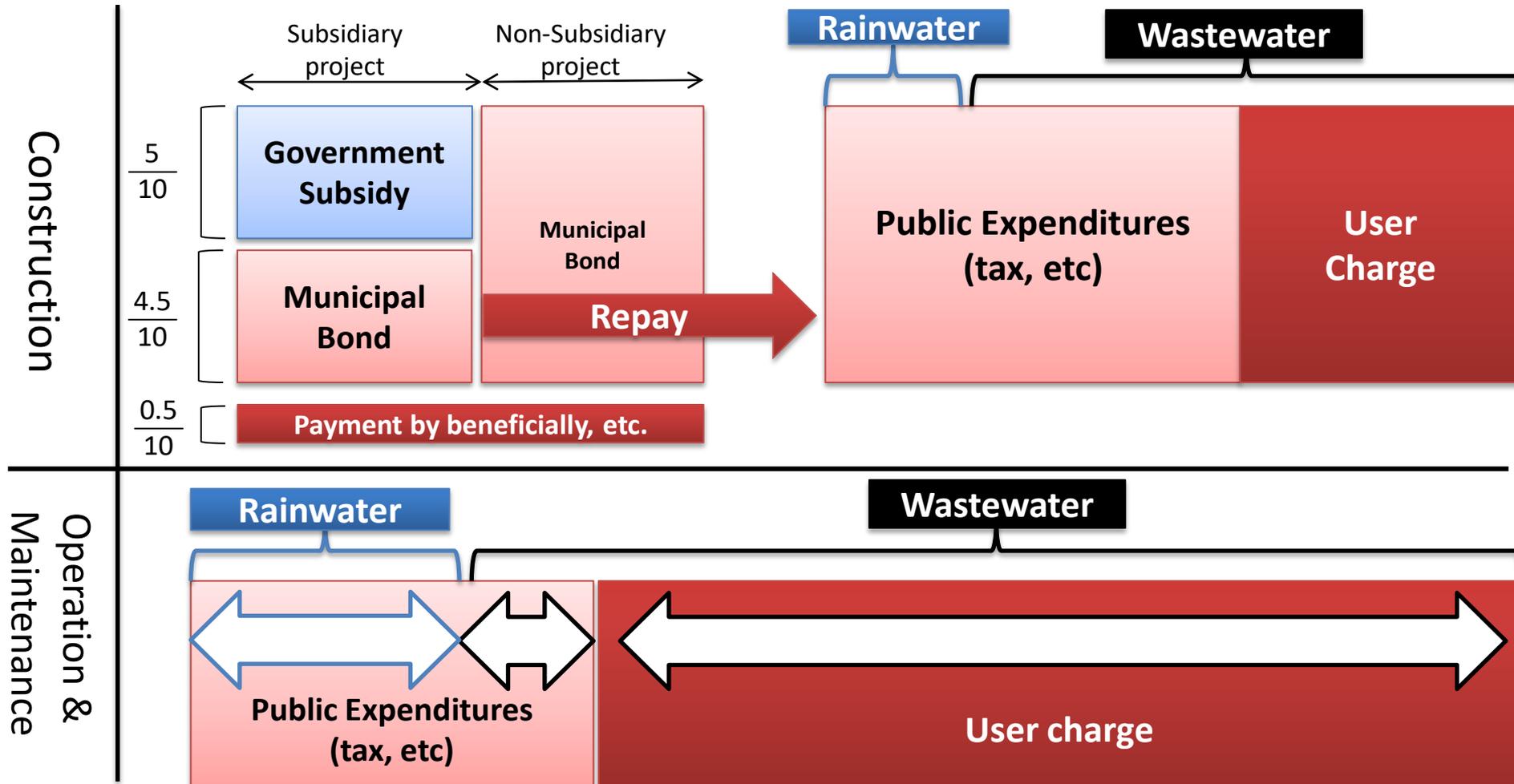
Japan Sewage Works Agency (JS)

- The organization of sewerage technical experts, supporting improvement of sewage works upon the requests from local governments
- Contributed to rapid development of sewerage systems in Japan



Financial system of sewage works in Japan

- Sewage works are implemented by national expenditures, local expenditures and user charge appropriately



- National Government develops Technology Standards in collaboration with local governments, Japan Sewage Works Association and Japan Sewage Works Agency

- Design guideline
- Maintenance guideline
- Standards for estimation
- Others

Design guideline



Standards for estimation

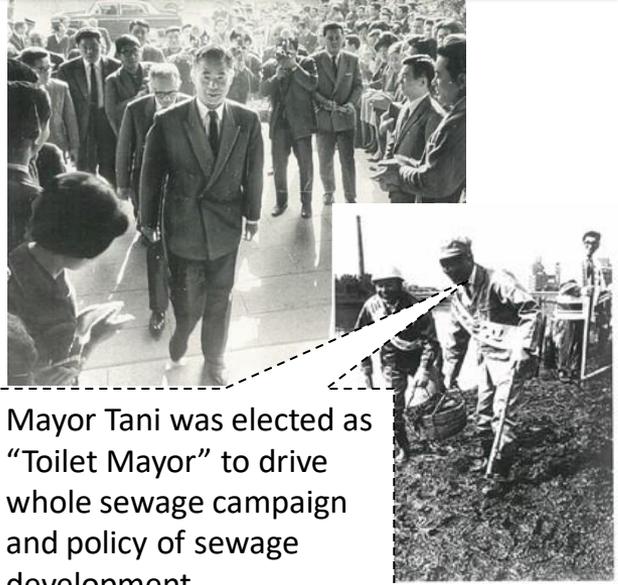


Technology Standards helps local governments to conduct sewage works properly.

Regional Initiatives for Sewerage Development

In Kitakyushu-City, and many other municipalities, 3 points were very important to initiate the development of sewerage.

1. Leadership as "Toilet Mayor"



Mayor Tani was elected as "Toilet Mayor" to drive whole sewage campaign and policy of sewage development.

2. Public Officials' leadership



Meeting to explain to local residents by public officials to implement mayor's decision and policy

3. Community leaders

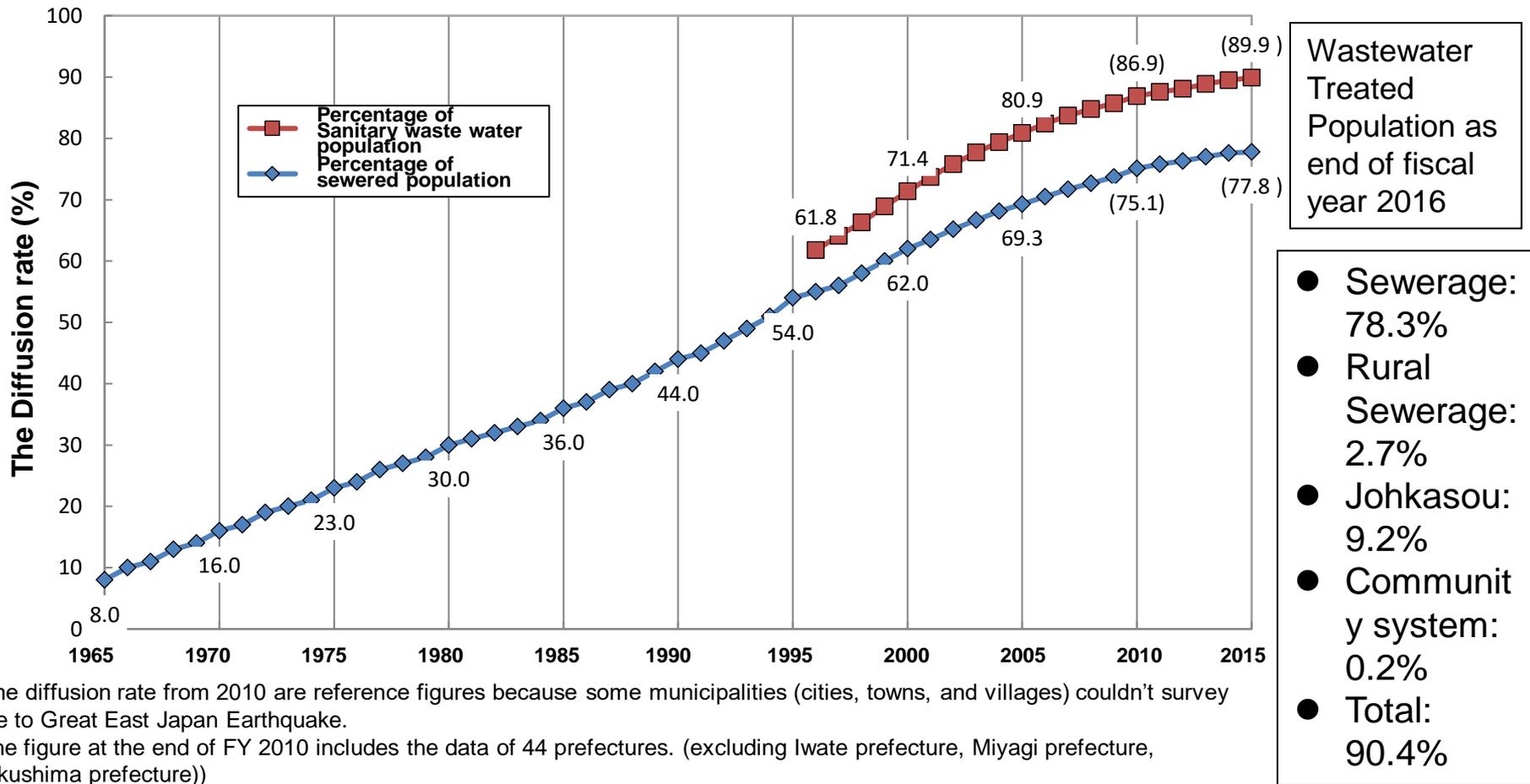
- Junior Chamber**
 - ✓ Invited slum residents to charity campaign
- Civil group**
 - ✓ Created movies to clean the river
- Restaurants/Bars**
 - ✓ Fund raising activities

↓

**Decision Making to proceed
Clean the River Campaign → Construction of Sewerage System**

Transition of percentage of sewerage population

- The percentage of sewerage population is steadily rising.



*The diffusion rate from 2010 are reference figures because some municipalities (cities, towns, and villages) couldn't survey due to Great East Japan Earthquake.

(The figure at the end of FY 2010 includes the data of 44 prefectures. (excluding Iwate prefecture, Miyagi prefecture, Fukushima prefecture))

(The figure at the end of FY 2011 includes the data of 45 prefectures. (excluding Iwate prefecture, Fukushima prefecture))

(The figure at the end of FY 2012, 2013, 2014 includes the data of 46 prefectures. (excluding Fukushima prefecture))

(The figure at the end of FY 2015 doesn't include the data of Souma city, Minamisouma city, Hirono town, Naraha town, Tomioka town, kawauchi village, Ohkuma town, Futaba town, Namie town, Katsurao village, Idate village.)

Recovery of water environment by sewerage works



Sunago waterway, Kadoma-city, Osaka



(Firework display)



Sumida River, Tokyo

Conclusion:

- In Japanese case, we implemented following policies;
 - Legal System
 - Institutional and Management Arrangements
 - Financial System for Sanitation
 - Technology Options; Manuals
 - Public Relation and Citizen's Participation
- Establishment of **institutional framework** (as above) plays a crucial role for the improvement of water environment in Japan
- Water environment improvement brings not only environmental but also economic effect

Proposal; The Asia Wastewater Management Partnership (AWaP)

Each country is necessary ...

- To approach its own policies depending on its conditions
- To exchange each country's experience/knowledge on sewerage works

MLIT, Japan would like to propose ...

- Establishment of the **Asia Wastewater Management Partnership** to enhance government capacity by sharing information.



Thank you for your attention!