

Water Supply in Japan

Water Supply and Sewerage International Affairs Office
Ministry of Land, Infrastructure, Transport and Tourism,
Government of Japan



Outline of the workshop in the Pacific Islands

- Ministry of Land, Infrastructure, Transport and Tourism (MLIT), the Japanese ministry responsible for water supply and sewerage administration, has held workshop to promote cooperation in the water supply sector in the Pacific Islands region since 2023.
- The purpose of the workshop is,
 1. Exchange of the initiatives, achievements, and challenges of water supply.
 2. Make an opportunity to match technologies, products and services that Japanese companies have, with the challenges facing Pacific Islands countries related to water supply.

Previous Workshops

	2023	2024	
Venue	Suva, Fiji	Port Moresby, PNG	
Participants			
Countries in Pacific Islands region	Fiji, Samoa, Papua New Guinea, Tonga, Palau, New Caledonia, American Samoa	PNG, Tonga, Marshall Islands, Cook Islands	
International Organization	Japan International Cooperation Agency (JICA), Asian Development Bank (ADB), EU, Pacific Islands Center (PCI), etc.	JICA, ADB, EU, PCI, etc.	
Japanese Participants	MLIT, Ministry of Health, Labour and Welfare, Embassy of Japan in Fiji, 3 companies from Japan, etc.	MLIT, Embassy of Japan in PNG, 7 companies from Japan, etc.	
Program	<ul style="list-style-type: none"> • Introduction of policies and issues from participating countries. • Presentations by Japanese companies and development donors. • Q&A and discussion. 	<ul style="list-style-type: none"> • Introduction of policies and issues from participating countries. • Presentations by Japanese companies and development donors. • Q&A and discussion. • Individual meeting among participants. 	Workshop in PNG (2024)

- Pacific islands are connected to Japan by the Pacific Ocean, have deep relationship historically, and are important partners in international cooperation and the supply of fisheries and natural resources.
- Since 1997, Japan has held the Pacific Islands Leaders Meeting (PALM) every three years, working to strengthen the relationship with Pacific islands. In 2024, Japan hosted the PALM10 in Tokyo and confirmed to enhance cooperation between Japan and Pacific islands.

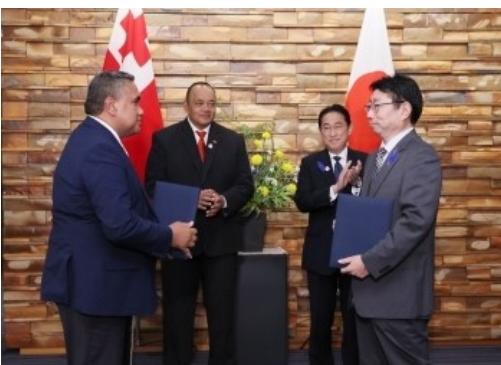
The Tenth Pacific Islands Leaders Meeting (PALM10)

July 18, 2024

PALM10 was held under the co-chairmanship of Prime Minister of Japan, and Prime Minister of the Cook Islands, with the participation of leaders and representatives from 19 countries and regions, including Japan, 14 Pacific Island countries, New Caledonia, French Polynesia, Australia and New Zealand, and the Secretary General of the Pacific Islands Forum (PIF)



Memorandum of Cooperation in water supply and sewerage with Tonga and Samoa at PALM10



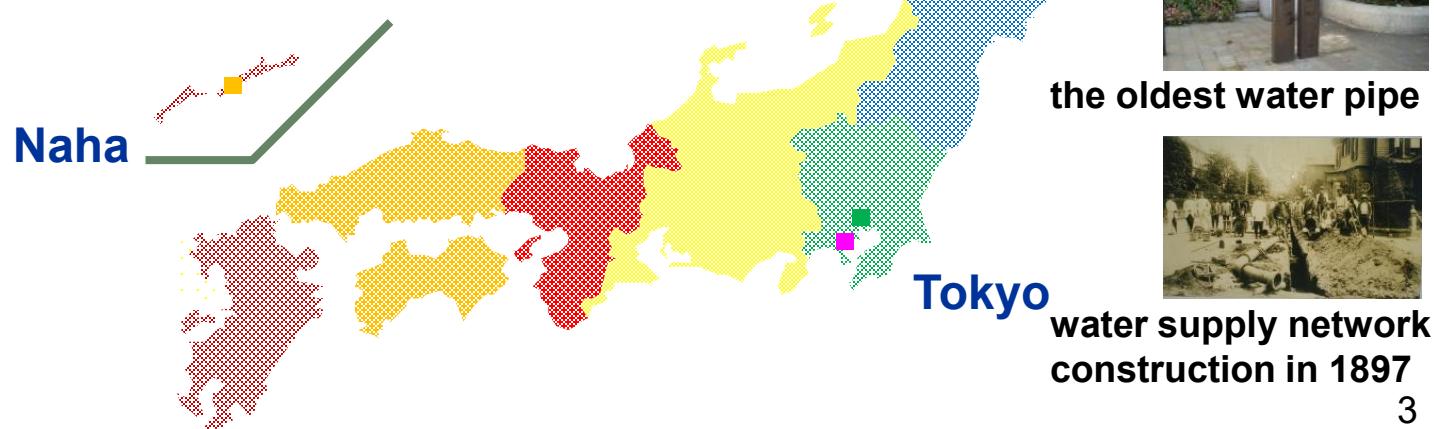
MOC between the Ministry of Public Enterprise of the Government of the Kingdom of Tonga and MLIT



MOC between the Ministry of Natural Resources and Environment of the Independent State of Samoa and MLIT

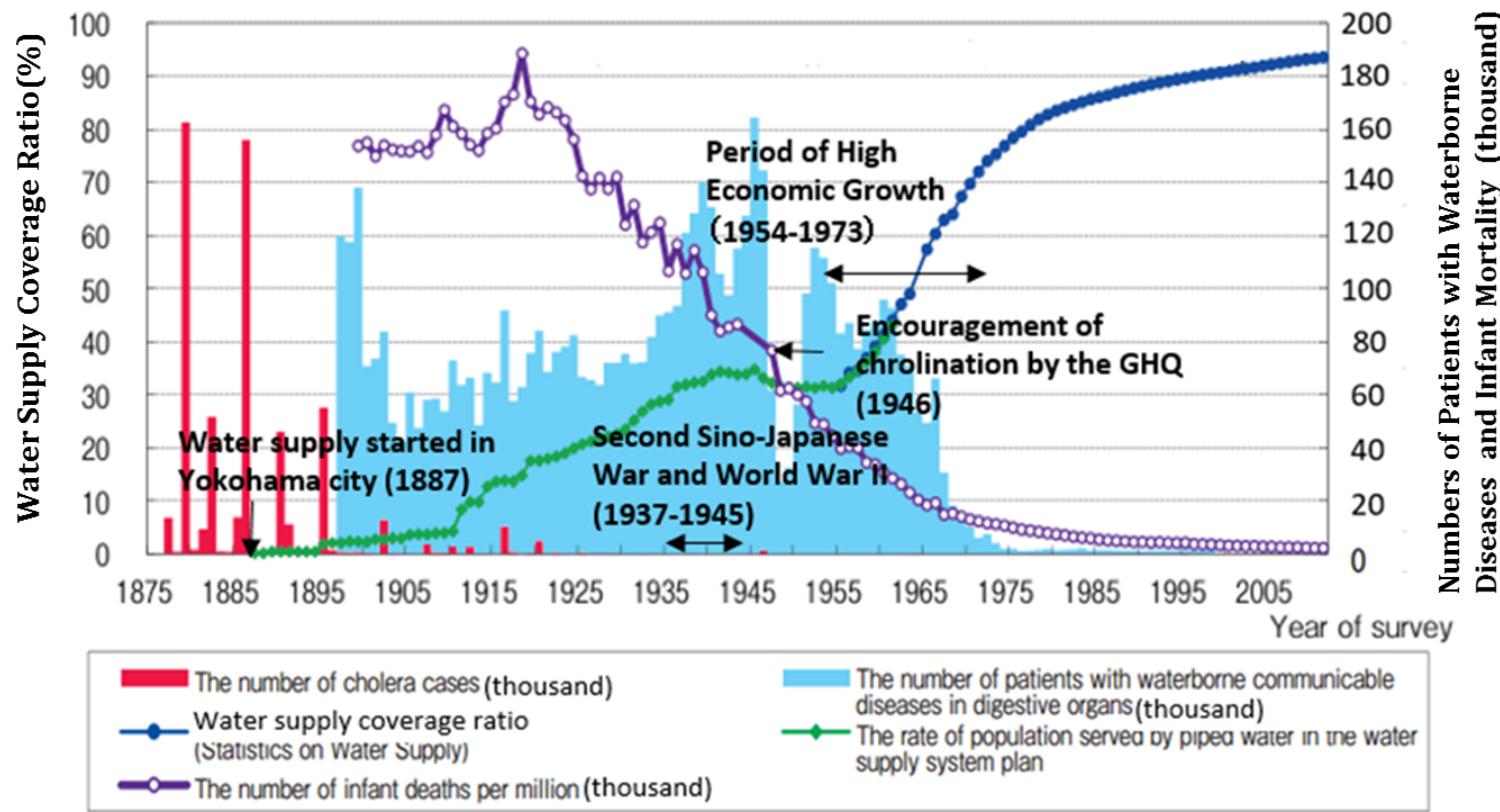
General information on Japan

land size	377,900	km ² (61 st in the world)
The number of islands	14,125 (417)*	islands (in 2025) *inhabited islands (in 2020)
population	123,890	thousand (in 2024, 12 th in the world)
population growth rate	-0.48	% / year (in 2023)
annual precipitation	1,668	mm (in 2025, twice the world average)
the amount of available water resources	3400	m ³ /year per capita (in 2025, less than half the world average)
GDP per capita	33,950	USD (in 2023, 34 th among the OECD countries)
water supply population coverage ratio	121,961 98.2	thousand people (in 2024) % (in 2024)



Water supply coverage and water quality

- Water supply coverage ratio is almost 100% in Japan.
- Japan is one of the few countries in the world where tap water is safe to drink.



Countries where tap water is safe to drink as is:
Japan, New Zealand, Austria, Denmark, Finland, Iceland, Netherlands, Norway, Sweden.

Source: "Reiwa 7 nen ban Nihon no mizushigen no genkyo", MLIT

In Japan, you can access tap water with drinkable quality anywhere, anytime.

Reducing Non-Revenue Water

Japanese water utilities are generally operated just through water tariff. To achieve water supply service with high quality within a limited budget, effort to reduce non-revenue water has been made.

➤ Non-Revenue Water rate

Example of Non-revenue water rate in Japan (2021)

Tokyo Metropolitan (4.02%), Yokohama City (6.68%), Osaka City (8.51%), Nagoya City (4.80%), Kitakyushu City (9.40%), Fukuoka City (3.44%), Naha City (4.03%)

Source: JWRC suido hot news, No.883

Smaller NRW enable water utilities to

- Improve financial situation
- Efficient use of water resource
- Supply water with adequate pressure
- Keep water quality clean in water pipes

➤ Accurate measurement of water use



Water meter

Measurement Act requires certain water meter accuracy and replacement every 8 years.

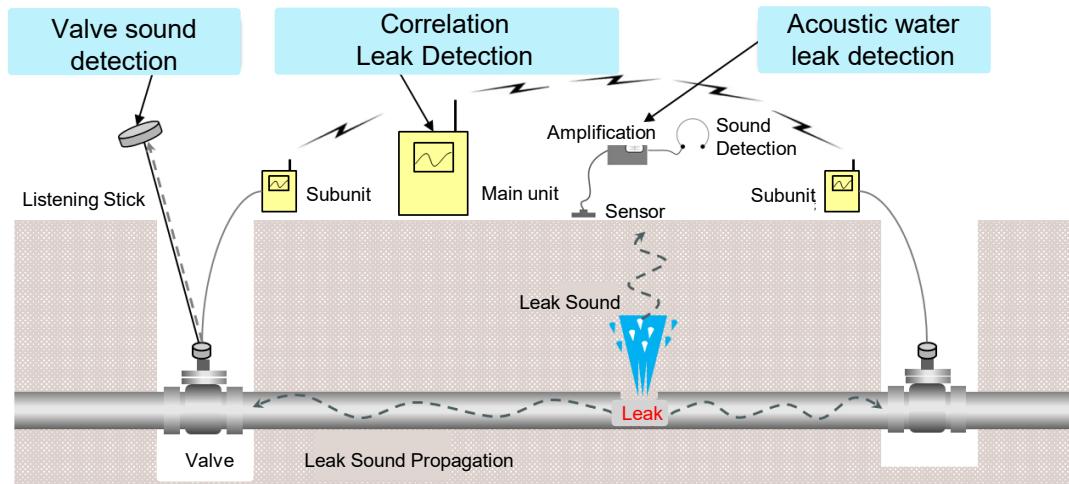
Install of water meter enable to

- Reduce commercial loss
- Reduce customer's water wastage

Source: "Japan's Experiences on Water Supply Development", JICA

➤ Leak detection

Since direct visual inspection of pipelines is difficult, acoustic surveys (valve listening road surface listening, correlating leak detection, etc.) are conducted in Japan.



Damage to Water Supply Systems Caused by Earthquakes

Damages caused by Major Earthquakes

*1 Excluding areas with damaged houses, areas requiring full evacuation, tsunami zones, etc.

Earthquake Name, etc.	Date of Occurrence	Maxi Intensity (1~7)	Magnitude (M)	Number of Households Without Water	Duration of Water Outage
Great Hanshin-Awaji Earthquake	January 17, 1995	7	7.3	Approx. 1.3 million	Approx. 3 months
Niigata Chuetsu Earthquake	October 23, 2004	7	6.8	Approx. 130,000	* ¹ Approx. 1 month
Niigata Chuetsu-Oki Earthquake	July 16, 2007	6+	6.8	Approx. 59,000	20 days
Great East Japan Earthquake	March 11, 2011	7	9.0	Approx. 2.5 million	* ¹ Approx. 5 months
Kumamoto Earthquake	April 14 and 16, 2016	7	7.3	Approx. 446,000	* ¹ Approx. 3.5 months
Hokkaido Eastern Iburi Earthquake	September 6, 2018	7	6.7	Approx. 68,000	* ¹ 34 days
Earthquake off the coast of Fukushima Prefecture	March 16, 2022	6+	7.4	Approx. 70,000	7 days
Noto Peninsula Earthquake	January 1, 2024	7	7.6	Approx. 136,000	* ¹ Approx. 5 months
Earthquake off the coast of Aomori Prefecture	December 8, 2025	6+	7.5	Approx. 1,600	10 days



Great Hanshin-Awaji Earthquake (1995)



Great East Japan Earthquake (2011)

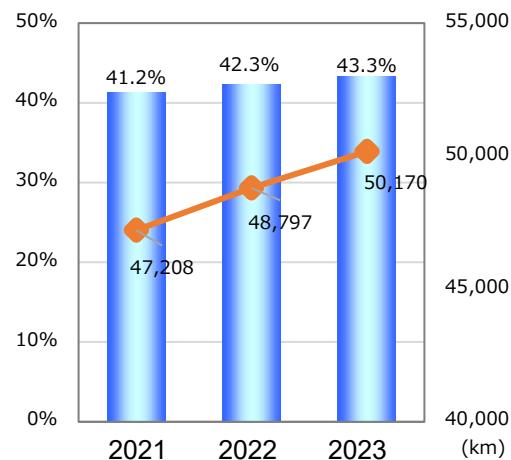


Noto Peninsula Earthquake (2024)

Status of Seismic Reinforcement for Water Supply Facilities

Main pipeline

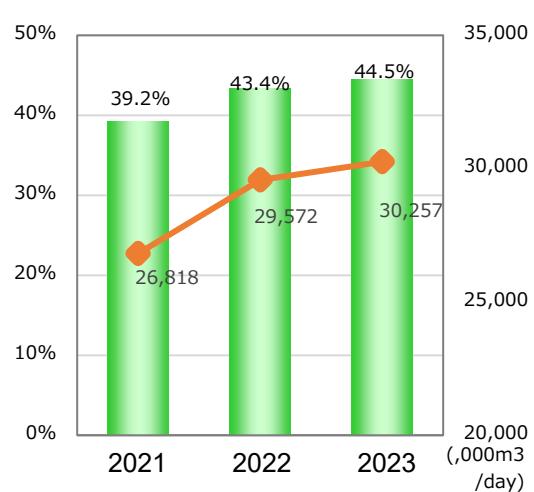
Seismic compliance rate of main pipelines (%)



■ Seismic compliance rate
 └ Seismic compliant pipeline length

Water Treatment Facility

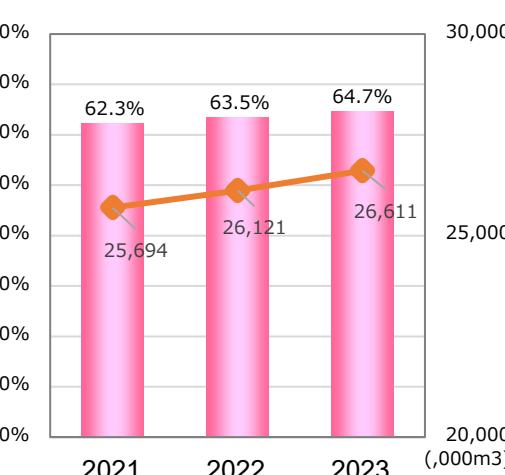
Seismic retrofitting rate of water treatment facilities (%)



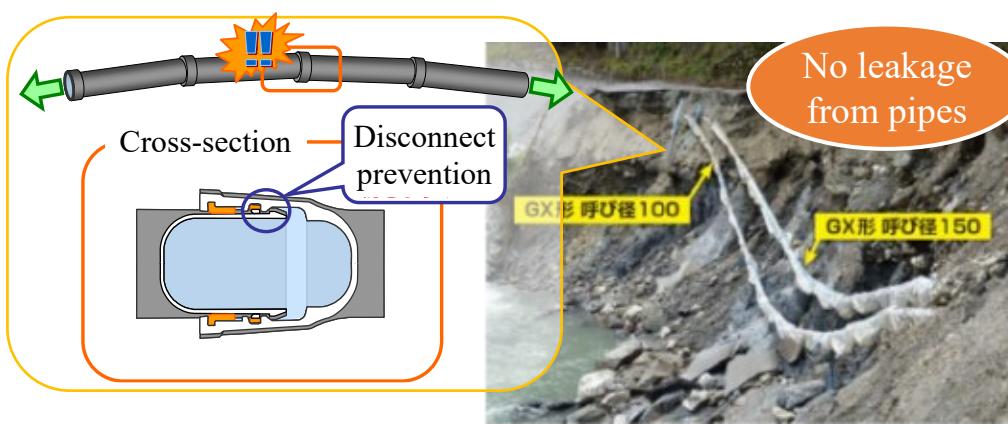
■ Retrofitting rate
 └ Retrofitting treatment volume

Distribution Water Tank

Seismic retrofitting rate of distribution water tank (%)



■ Retrofitting rate
 └ Retrofitting storage volume



Seismic reinforcement joint pipe



Installation of seismic reinforcement walls

Development Cooperation Charter

-Japan's Contributions to the Sustainable Development of a Free and Open World-

- Basic policies

- (1) Contributing to peace and prosperity
- (2) Human security in the new era
- (3) Co-creation of social values through dialogue and cooperation with developing countries
- (4) Leading the dissemination and implementation of international rules and guidelines based on inclusiveness, transparency, and fairness

(3) Co-creation of social values through dialogue and cooperation with developing countries

In the current era with its compound crises that has an accumulation of new issues yet without clear solutions, it is necessary to jointly create new solutions through dialogue and collaboration, with the partner countries at the core, involving a variety of actors that each brings its strengths under equal partnerships. Japan aims to generate new value through such “co-creation” by leveraging its traditions of supporting self-help efforts, dialogue, and collaboration.

In addition, Japan will aim to bring back home the new solutions and social values generated in this way. Through such efforts, by developing human resources who will lead the future generations in Japan and developing countries, Japan will aim to have such co-creation lead to solutions for its own economic and social challenges and to its economic growth on a domestic level.

- Japan has long been one of the major **ODA (Official Development Assistance) donors** to the **WASH (Water, Sanitation and Hygiene) sector**, consistently contributing to global water and sanitation development.
- It is important to strive for **co-creation through dialogue and cooperation** considering the situation of each country.
- We hope this workshop will be the first step toward co-creation.