Theme1 Governance
Theme 1-1
Legislation and Organization

Contents

1. Introduction

What is the role of legislation and organization?

- The cost of the project for the water resources management should be borne by various stakeholders, including the governments, municipalities, water services, private companies and agricultural parties.
- The legal system should stipulate the demarcation of roles and cost allocation of water resources development and management among the related parties.

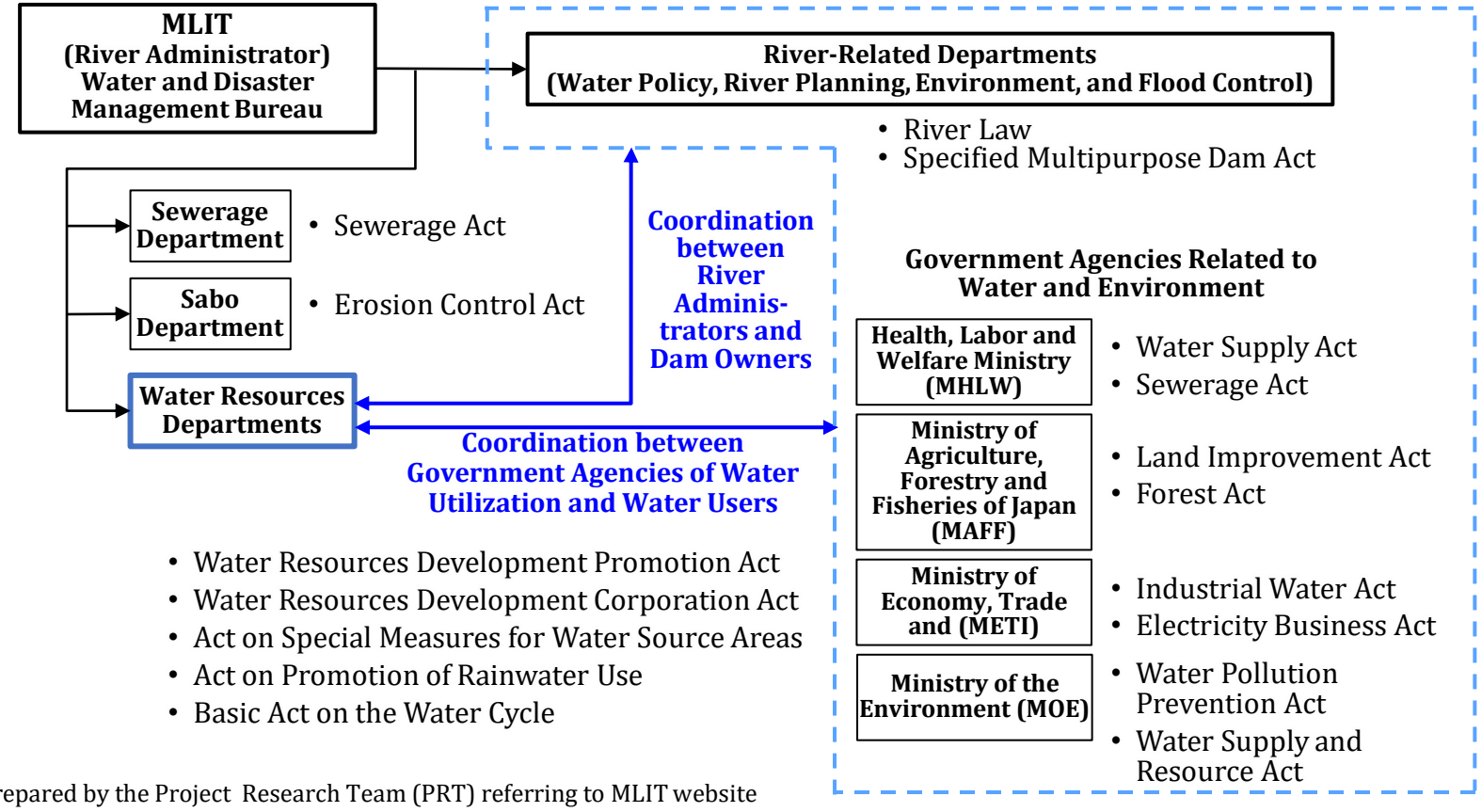
Theme 1-1 describes:

- How Japan established and improved the legal system and organizational structure for water resources management.

2. Coordination among Parties

(1) Organization for Coordination

1) Government Organization for Water Resources Management



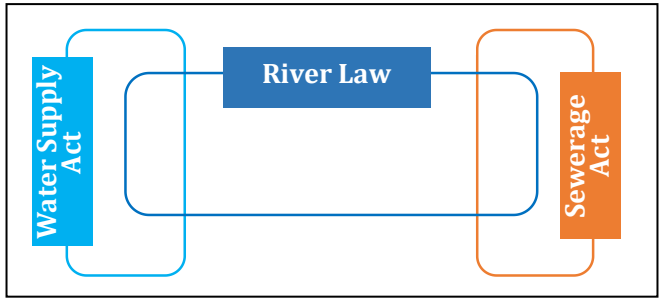
Source: Prepared by the Project Research Team (PRT) referring to MLIT website

Entities Involved in Water Resources Development and Concerned Law and Acts

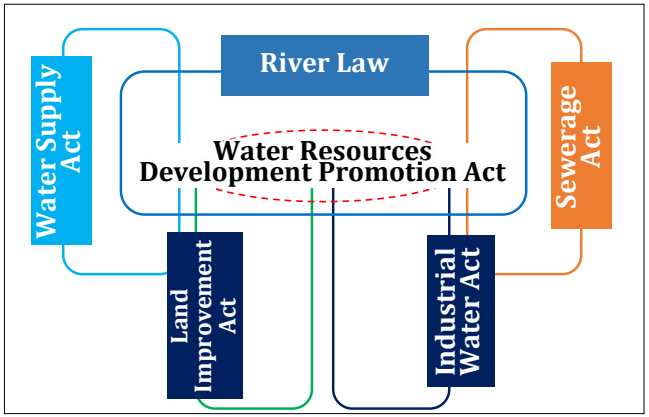
2. Coordination among Parties

(1) Organization for Coordination

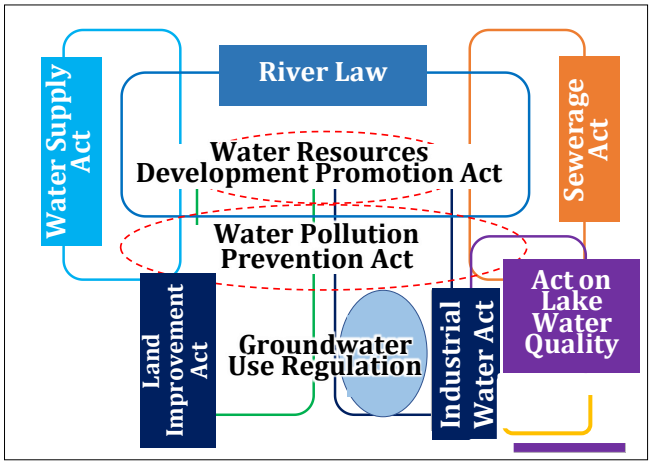
2) Concept and Changes in Legal System



Modernization: End of 19th Century-Mid 20th Century, Flood Prevention and Public health



High Economic Growth: Mid 20th Century to 1970, Water Resources Development



Sustainable Growth :1970-Present, Environment

Source: Modified figure of Water-Japan by PRT

History of the Legal System related to Water in Japan

2. Coordination among Parties

(1) Organization for Coordination

3) Concept and Changes in the Legal System

Law and Acts which Contributed to Water Resources Management

Year	Law and Act
1986	Old River Law
1957	Specific Multi-Purpose Dams Act
1961	Water Resources Development Promotion Act
1961	Water Resources Development Corporation Act
1964	New River Law
1997	Revised River Law
2014	Basic Act on the Water Cycle

2. Coordination among Parties

(1) Organization for Coordination

4) Concept and Changes in the Legal System

Acts Regulating Water Resources Management with River Law

Category	Related Acts
Measures for Flood	Flood Control Act, Basic Act on Disaster Management, Flood Prevention Association Act, Act on Erosion and Flood Control Emergency Measures, Flood Control Special Accounting Act
Utilization of Water Resources	Water Supply Act, Industrial Water Act, Land Improvement Act, Electricity Business Act
Transportation on Water	Act on Port Regulation, Port and Harbor Act
Pollution, Effluent, Environmental Conservation	Basic Environment Act, Water Pollution Prevention Act, Act on Special Measures concerning Conservation of Lake Water Quality, Sewage Act, Nature Conservation Act, Natural Parks Act, Waste Management and Public Cleansing Act, Mine Safety Act
Water Cycle, Underground Water, Land Subsidence	Basic Act on the Water Cycle, Industrial Water Act, Act on Regulation of Groundwater Extraction for Buildings, Act on Promotion of Rainwater Use
Land Conservation	Act on Special Measures for Water Source Area, Water Supply Act, Erosion Control Act, Building Stander Act, Forest Act, Landslide Prevention Act, Act on Prevention of Disasters Caused by Steep Slope Failure
Mining of Riverbed Material	Mining Act, Quarrying Act, Gravel Gathering Act

Source: Main Report on Water Right System in People's Republic of China, 2006, JICA

2. Coordination among Parties

(2) History of River Law and the Role of River Administrators

1) History of Water Use in Japan before Modern Age

Ancient Time

- People developed their agricultural land and irrigation system.

7th Century

- Rivers were **administrated by local governments**.
- Water in rivers was considered as **public property**.

8th Century

- The government allowed **private ownership** of agricultural land and water use.

17th~19th Century

- Developed **Civil Engineering Technology.**

2. Coordination among Parties

(2) History of River Law and the Role of River Administrators

2) Implementation of Integrated River System Management by River Administrators under New River Law

Old River Law

- Three Acts for flood protection: River Law, Forest Act and Erosion Control Act
- Conventional and customary irrigation water system
- Based on the "section principle"

Note: "section principle" is that the prefectural governors had the primary responsibility for flood protection

New River Law in 1964

- Abolish the "section principle"
- Manage important rivers directly by the River Administrator of national government
- Regulation for river water utilization
- Flood protection by using dam reservoirs

2. Coordination among Parties

(2) History of River Law and the Role of River Administrators

3) Characteristics of the River Law in Japan compared to the Water Laws in foreign Countries

Japan

- The River Law
- Flood protection, river water utilization, and the river environment
- Comprehensive and basin-based water management
- No international river

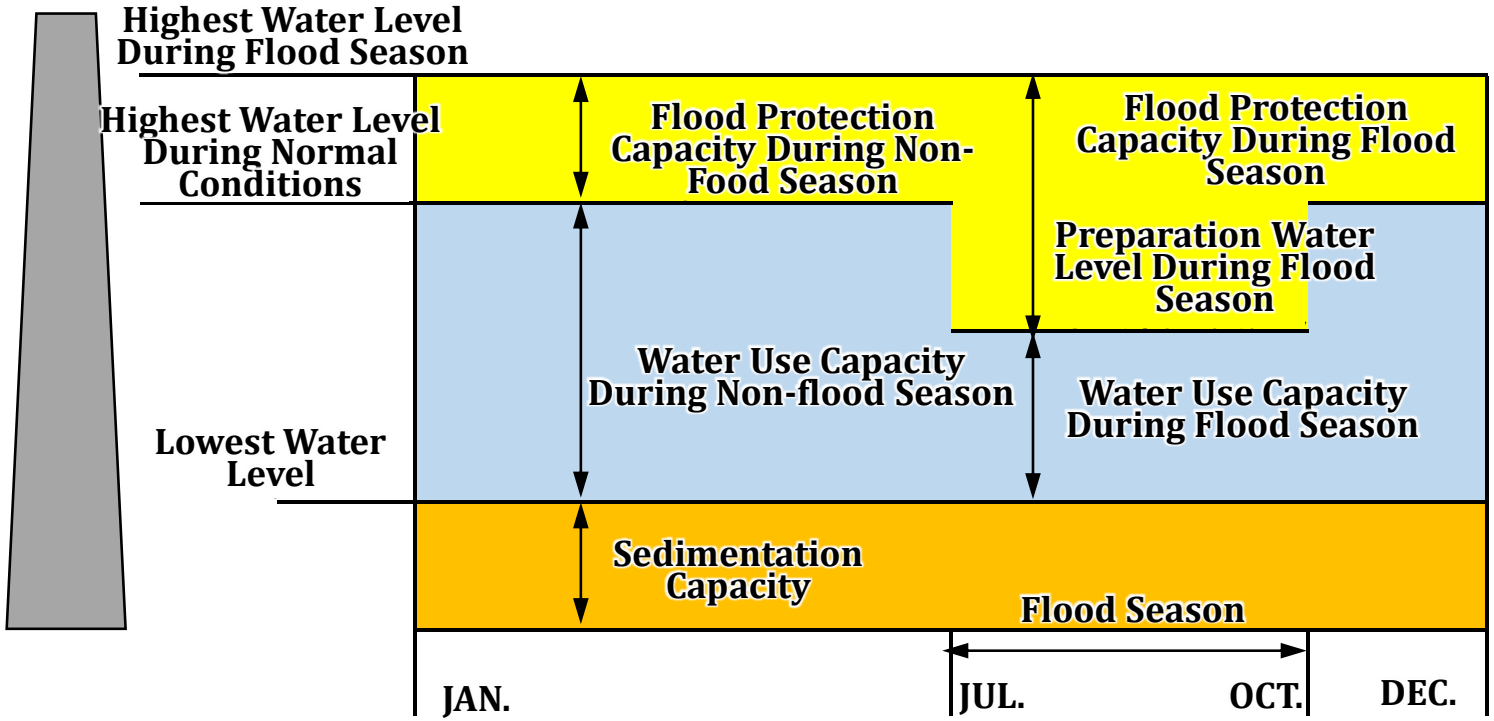
Foreign Countries

- Water Law
- Provisions of water quality, purification, drainage, replenishment, groundwater, rainwater, or navigation
- Riparian Rights
- International River

2. Coordination among Parties

(3) Water Resources Management by Multi-purpose Dams

1) History of Multi-purpose Dams in Japan



Source: Disaster Information for River, MLIT

Operation of Multi-purpose Dam which Store River Water in Flood Season and Supply Water in Non-flood Season

2. Coordination among Parties

(3) Water Resources Management by Multi-purpose Dams

2) Specific Multi-Purpose Dams Act

Purpose

The Specific Multi-Purpose Dams Act stipulate the method of **cost allocation**, **the responsibility** for the facility management, **the ownership** of the facilities and **the rights for using the dam**.

Responsibility

- Minister of Minister of Land, Infrastructure, Transport and Tourism

The Dam Utilization Right

- Power generation and water supply companies who shared the construction cost

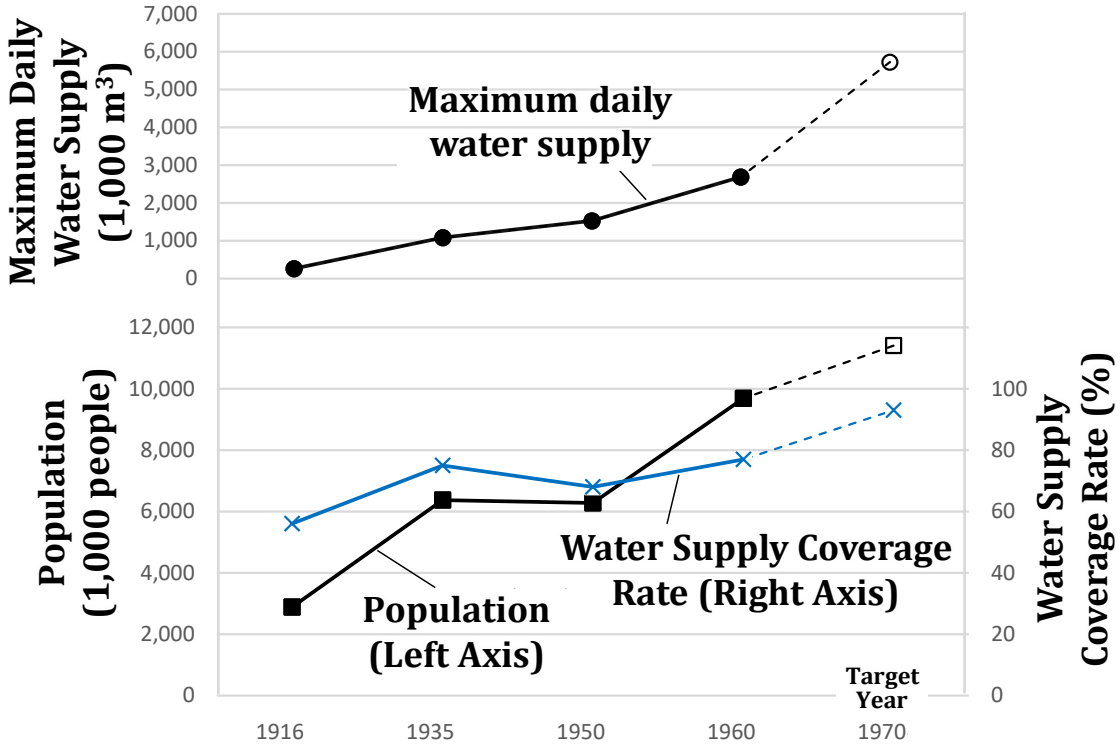
Ownership of Dam

- Minister of Minister of Land, Infrastructure, Transport and Tourism

2. Coordination among Parties

(4) Coordination for Water Resource Development

1) Coping with Water Shortages in Tokyo during the Period of High Economic Growth



Source: A Historical Study of Modern River Projects Leading to the Comprehensive Revision of the River Law, Saburo Yamamoto

Amount of Water Supply in Tokyo

Source: Water Cycle Policy 2017

Ogouchi Dam Reservoir during the Olympic Drought

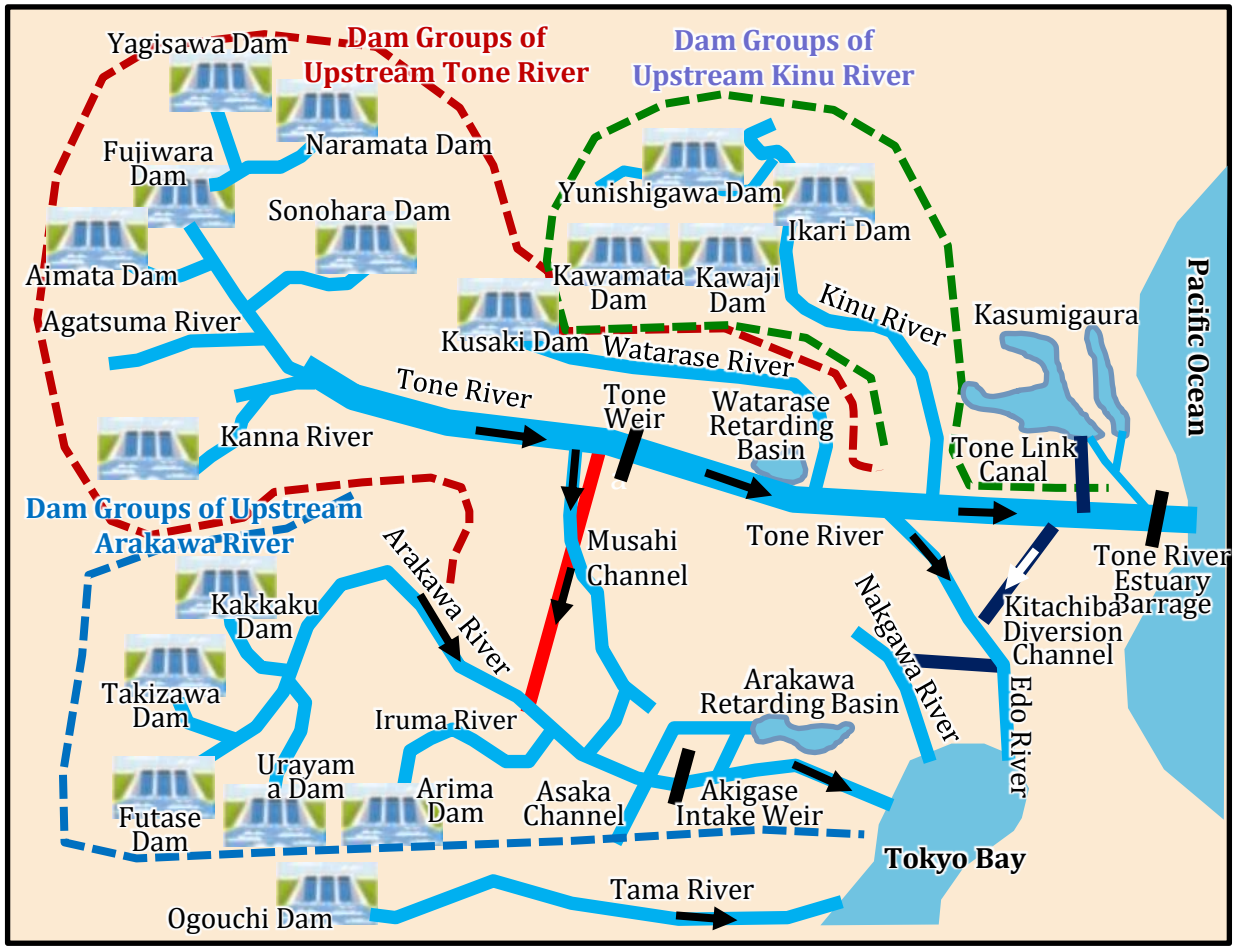
Source: Water Cycle Policy 2017

Emergency Water Supply

2. Coordination among Parties

(4) Coordination for Water Resource Development

2) Institutional Problems in the Development of Water Resources in a Wide Area



Source: Prepared by PRT based on Summary of drought in 2009, MLIT

Major Dams and Water Networks in the Tokyo Metropolitan Area, Centering on the Tone and Arakawa Rivers

2. Coordination among Parties

(4) Coordination for Water Resource Development

3) Water Resources Development Promotion Act and Water Resources Development Corporation Act

Water Resources Development Promotion Act

- The act promote projects according to evidence-based plans.
- **Designate Water systems** that is required to be developed comprehensively from the perspective of **water supply** and **demand** for the entire basin.

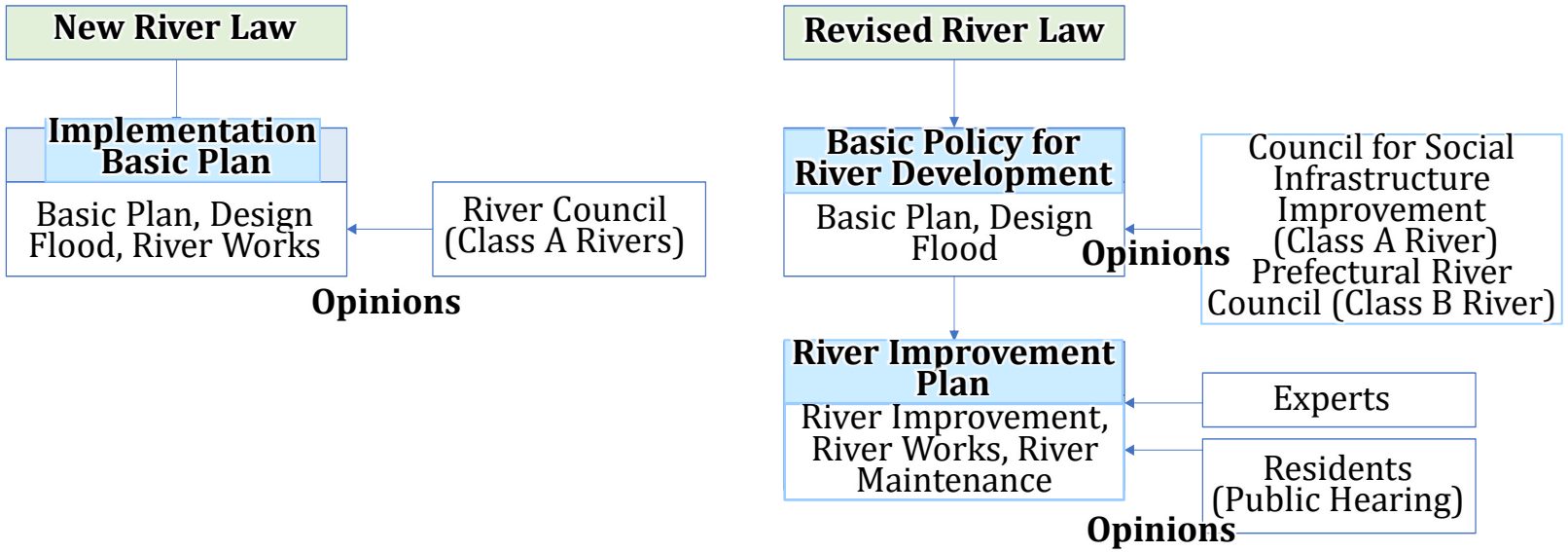
Water Resources Development Corporation Act

- The Water Resources Development Corporation implemented **construction projects based on the Basic Plan for Water Resources Development**.
- The Act stipulates the organization, operations, and government supervision for the public corporation

2. Coordination among Parties

(5) Response to Diversifying Needs

1) Revision of the River Law for the Conservation of River Environment



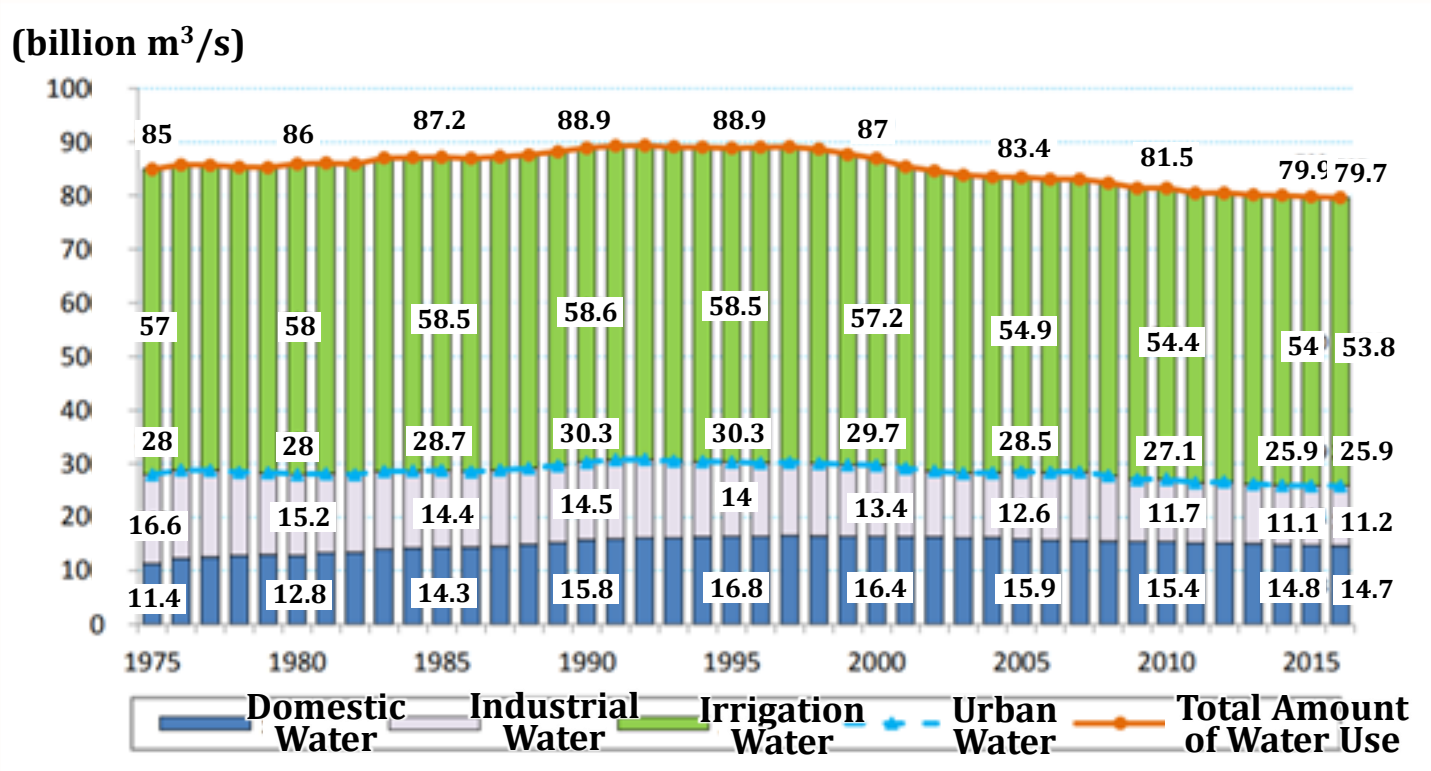
Source: Project Research Team

Difference in River Planning under the New River Law and the Revised River Law

2. Coordination among Parties

(5) Response to Diversifying Needs

2) Transition from Water Resources Development Organization to the Japan Water Agency



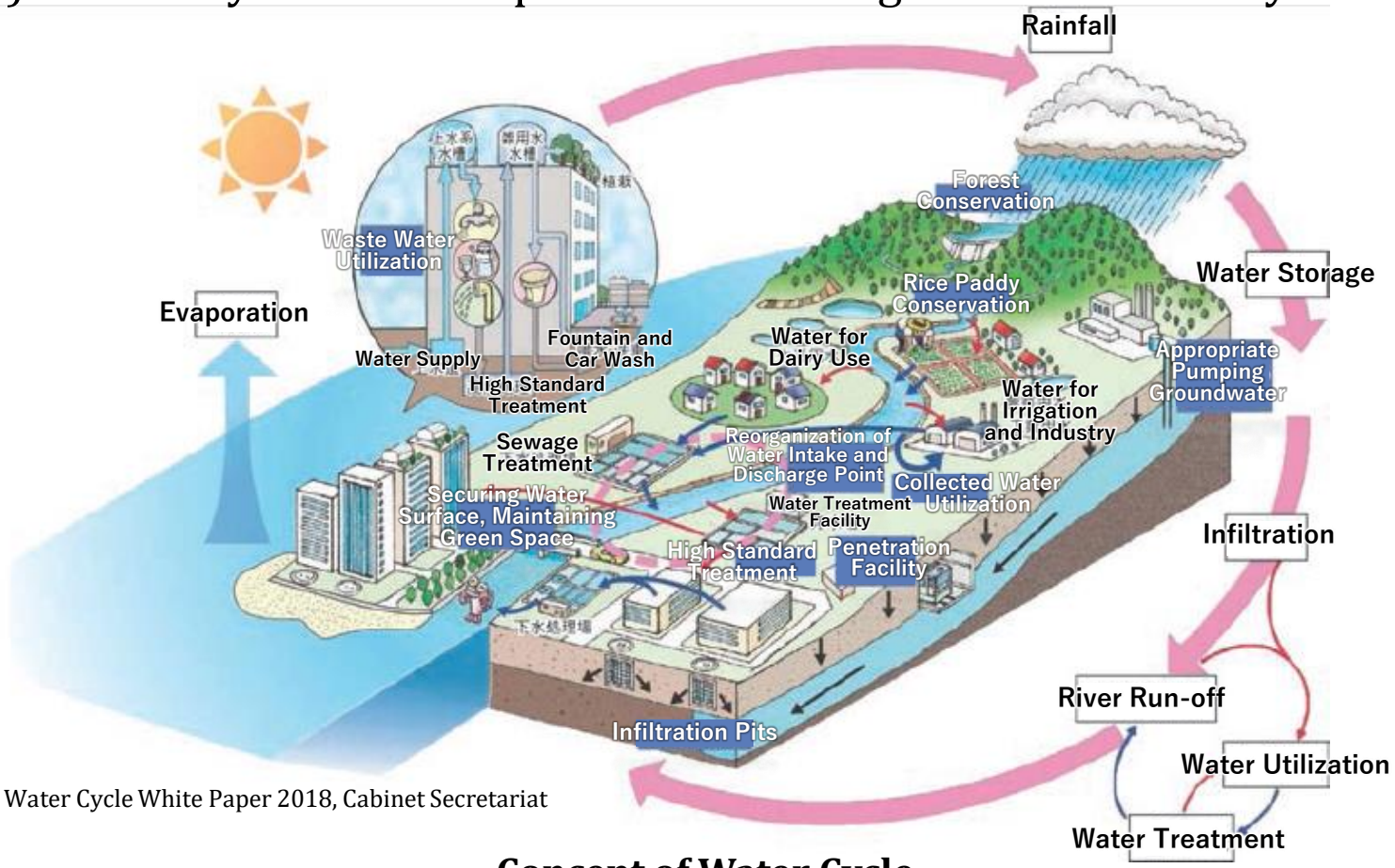
Source: Current Water Resource in Japan 2019

Water Use Trend in Japan

2. Coordination among Parties

(6) Initiatives for a Healthy Water Cycle

1) Necessity for the Comprehensive Management of Water Systems



Source: Water Cycle White Paper 2018, Cabinet Secretariat

Concept of Water Cycle

2. Coordination among Parties

(6) Initiatives for a Healthy Water Cycle

2) Basic Act on the Water Cycle

Purpose

The Basic Act on the Water Cycle aims to **maintain or restore a healthy water cycle** and contribute to the healthy development of Japan's economy and society and the stable improvement of people's lives.

Definition

The **"Healthy Water Cycle"** is defined as a state in which the functions of water for human activities and environmental conservation are properly maintained.

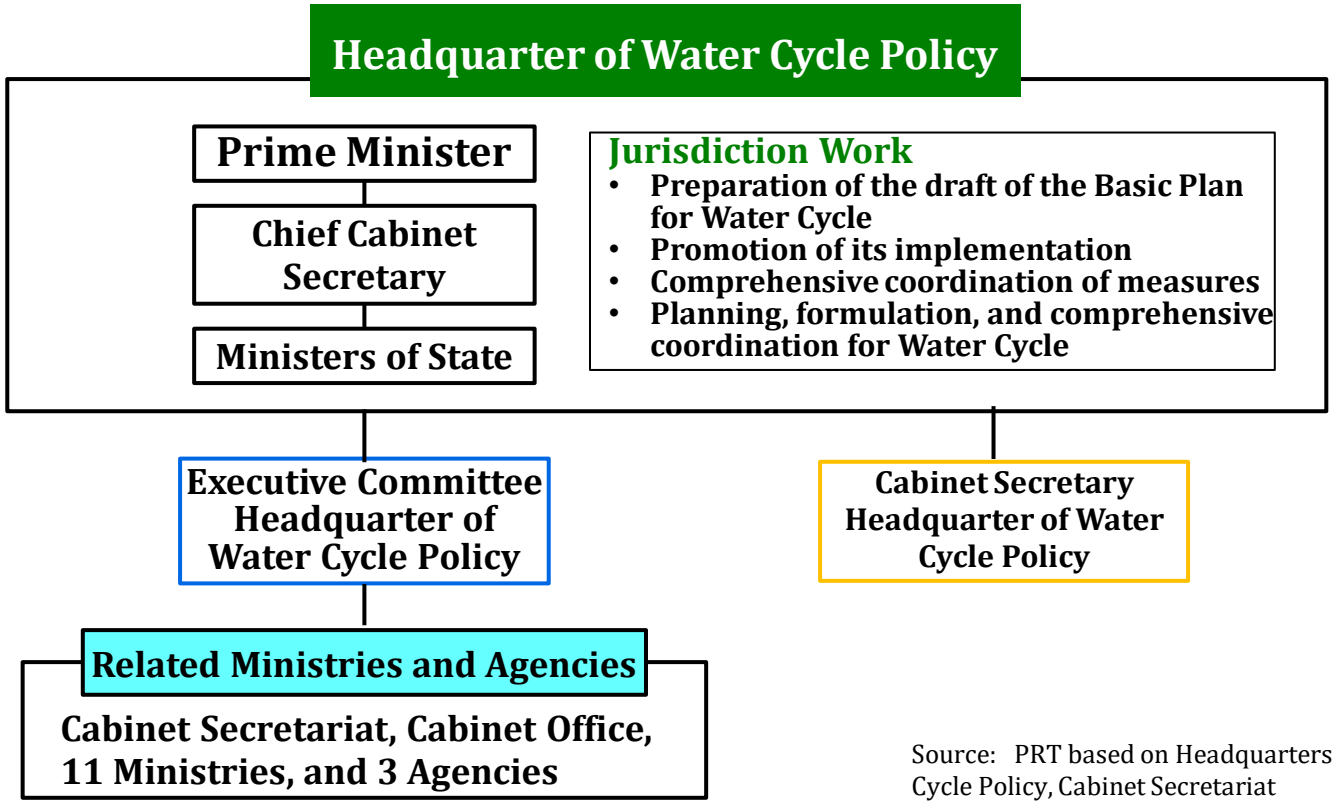
Measures

Facilities for water storage, recharge for water source, and underground infiltration, as well as the rationalization or regulation of water use

2. Coordination among Parties

(6) Initiatives for a Healthy Water Cycle

3) Basic Plan for the Water Cycle



Source: PRT based on Headquarters for Water Cycle Policy, Cabinet Secretariat

Relationship Between the Water Recycling Policy Headquarters and Ministries and Agencies

3. Countermeasures against Climate Change

(1) Climate Change and Legal Systems

Abstract of the Climate Change Adaptation Act

Items	Contents
Promotion of Comprehensive Adaptation	● Clarify the roles of each parties ● Formulate a climate change adaptation plan. ● Assess the impact of climate change every five years
Development of Information Platform	● Provide information on climate change impacts and adaptation ● Technical assistance
Intensifying Regional Adaptation	● Formulate regional climate change adaptation plans ● Collect information on climate change impacts ● Organize a Regional Council for Climate Change Adaptation
International expansion of adaptation, etc.	● Promotion of international cooperation on climate change adaptation and project activities

3. Countermeasures against Climate Change

(2) Impacts of Climate Change on the Water Resources

Impacts of Climate Change on the Water Resources and Disaster Departments in Japan

Department	Evaluation	Impacts
Water Resources	Current Evaluation	Drought, shortage of irrigation water, shrinking freshwater lenses on small islands
	Future Prediction	Worsening of drought, increase in river flow, shortage of agricultural water, saltwater intrusion, increasing polarization of drought and flood risk, increase in slope failure
Disaster	Current Evaluation	Upward trend in sea level, large-scale complex disasters, changes in typhoon intensity and path, increase in insurance payments due to natural disasters
	Future Prediction	Increase in extraordinary rainfall, number of affected people, rising sea level, and storm surge

4. Lessons Learned (1)

(1) Stakeholders should be coordinated by establishing a legal system.

Various stakeholders are involved in water resources management. These are the users of agricultural, domestic, and industrial water, as well as hydropower companies. It is necessary to resolve inter-sectoral conflicts regarding water use and environmental conservation, and between water sources and beneficiary areas. The River Law and related Acts aim to integrate river basin and water use management in Japan.

(2) Various acts should be implemented to cope with the increased water demand.

The establishment of a legal system facilitated coordination among stakeholders and enabled water resource development to cope with the rapidly increasing demand in Japan. The Specific Multi-Purpose Dams Act stipulates the roles and authorities of dam owners and users and promotes the construction of multi-purpose dams. The Water Resources Development Promotion Act and the Water Resources Corporation Act coordinate the relevant ministries, departments, and parties involved in water use, prepare of the basic plan for water resource development, and promote a comprehensive and systematic development of water resources over a wide area, including major cities.

4. Lessons Learned (2)

(3) The legal system should be revised as needs change.

Various acts and regulations have been revised in accordance with changing needs and values in Japan. When the country stated modernization, related acts aimed at mainly flood protection and water supply. To reconstruct national lands devastated by WWII and supply urban water during the high growth, legislation was developed to generate hydroelectricity and to supply irrigation and urban water. When the economy matured, the growth in water demand ceased, and the demands for and values of rivers and water resources became more diverse. The River Law was revised in 1997 to address the needs of the river environment and include public participation. The Basic Act on the Water Cycle of 2014 promoted comprehensive measures to maintain and restore a healthy water cycle.

(4) The roles and measures should be clarified to respond to climate change.

The roles of national and local governments, the private sector, and citizens in climate change mitigation and adaptation measures were clarified through legislation. Japan is implementing countermeasures in collaboration with its stakeholders.