



An Affluent Society Supported by Water

-Outline of Japan Water Agency-



Incorporated Administrative Agency **Japan Water Agency**

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*JWA=Japan Water Agency	

Management Policy of Japan Water Agency

“Stably supplying safe and quality water at low cost”

Japan Water Agency (JWA), as the implementing organization of government policy on the supply of water, which is vital for the lives of our people and economy, are engaged in providing safe and good-quality water stably and reasonably for the people and as well as protecting them from disasters caused by flood, thus contributing to build safe and affluent society.

As there are increasing water-related risks in recent years such as the occurrence of extraordinary droughts, extraordinary floods, and other large-scale disasters caused by the climate change in addition to the increase of degrading facilities, JWA is doing its utmost to quickly and appropriately resolve those issues with its engineering power of accumulated professional group skills on water.



We, Japan Water Agency, is Contributing to the Development of Japan

We are providing stable supply of “Water”, which is essential for the lives of our people, with the proper construction and management of necessary facilities such as dams and canals, and securing their comfortable lives.

The “water” we are providing plays the following major roles in your lives and social activities:

Domestic water

We are supplying raw water to the water purification plants, which provide about half of the entire Japanese population with domestic water.

Irrigation water

We are supporting the enhancement of agricultural productivity with the stable supply of water to the area where the irrigation water supply used to be unstable.

Industrial water

We are contributing to the industrial development in the area where the water is used for cooling, cleaning and the raw material of industrial products.

Furthermore, the facilities we manage have the following functions:

Flood control

We are protecting your lives from the flood caused by a heavy rain or a typhoon.

Drought measures

We are supplying water from the dams so that water intake in the downstream can be made on a stable basis even when the river water level lowers due to little rainfall.

River Environment

We are securing the river environment with adequate water supply to rivers from the dams for river maintenance flow.

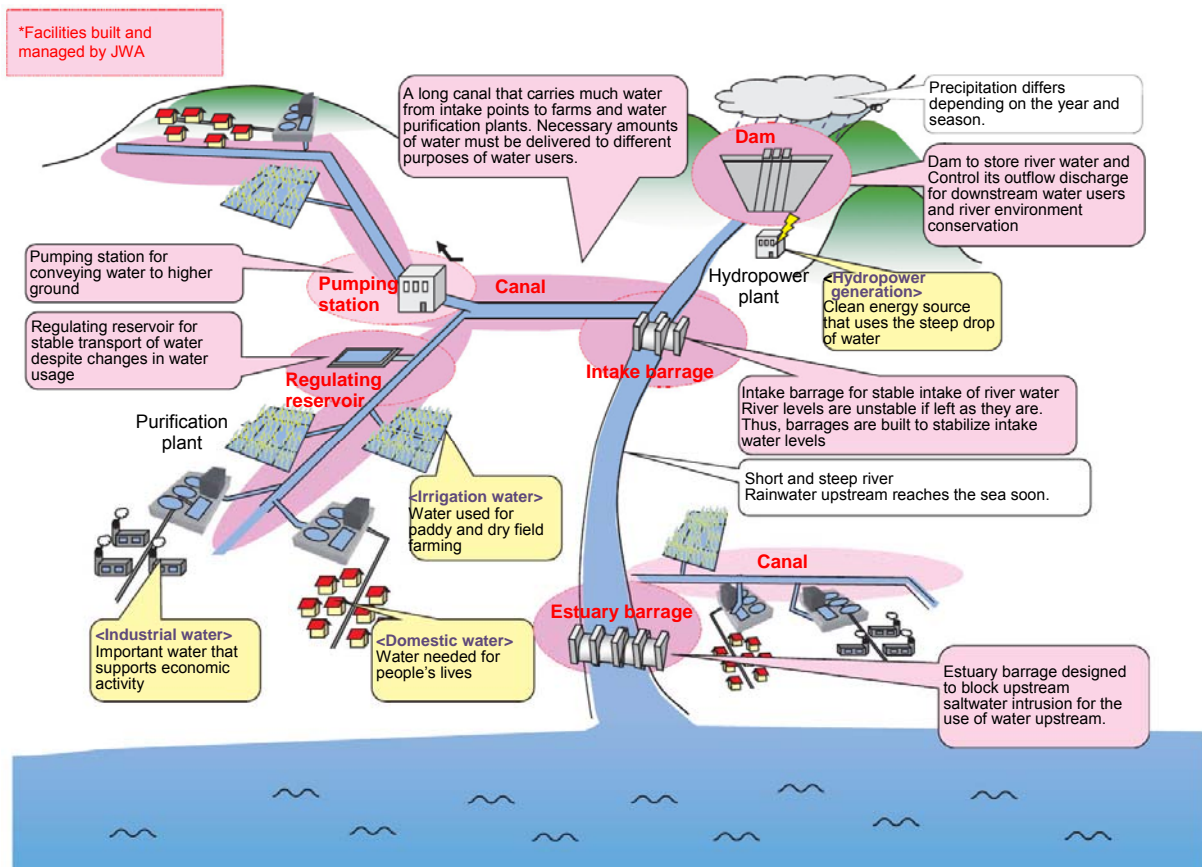
We are trying our best to materialize the following management philosophy:

“To stably supply safe and quality water at low cost”.



How Water is Delivered

- Water resources such as river water and groundwater are used for domestic water, irrigation water, and industrial water. In Japan today, river water accounts for about 90% of these resources.
- Rain, the source of river water, is not constant in its pattern. Lack of rain, if it continues, will reduce the amount of river water, which in turn causes a drought. Torrential rains due to a typhoon and a heavy rain in the rainy season can cause floods.
- Rivers in Japan are generally steeper than those in other countries, and there is a large gap between the amount of river water during a drought and that at the time of flood. It is therefore necessary to stabilize the amount of river water as much as possible with dams or other means to increase the availability of river water.



- To stably supply water to meet the increasing water demand, many dams, canals, barrages, and the like have been constructed with support from many quarters.

In addition, to meet with the risks such as large-scale disasters as earthquakes and others involved in the climate change caused by the global warming, and also our facilities degradation, we are now proceeding with the enhancement of our facilities for earthquake resistance, our stock management, and risk management capabilities.



JWA's Roles

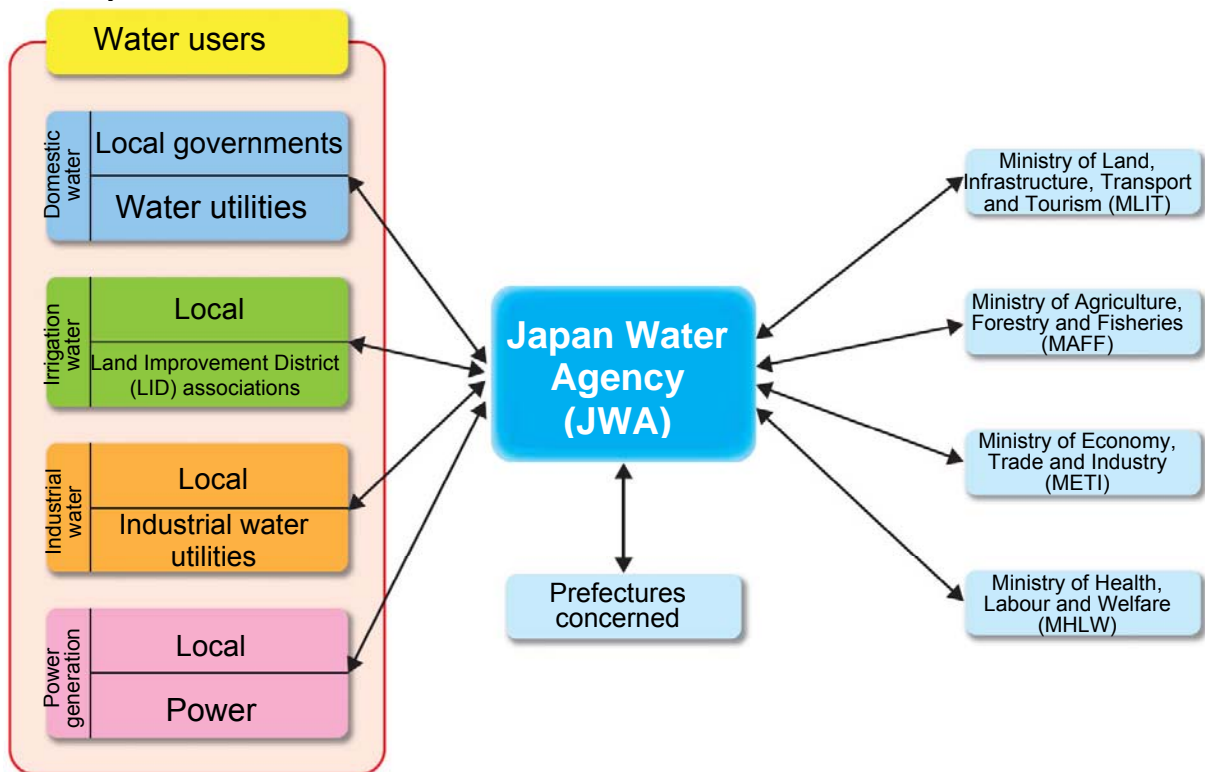
● Developing and managing water resources in the areas where water is in much demand

The Japan Water Agency (JWA) constructs and manages many water-related facilities in the designated seven river systems of, namely, Tone, Ara, Toyo, Kiso, Yodo, Yoshino, and Chikugo River System.

The reasons behind is to ensure stable supply of water to the areas where water is in much demand caused by the concentration of population and the development of agriculture, industry and other sectors.

● Taking charge of inter-prefectural water supply

JWA's work is inter-prefectural in nature: it delivers domestic, irrigation and industrial water to the areas that span two or more prefectures and conduct flood control there. Users of the water JWA supplies are related to the central and local governments. Taking a neutral stance among different stakeholders, JWA constructs and manages dams, canals and other facilities efficiently.



Inbanuma administration council
(Chiba Canal)



Kanna River vision promotion council
(Shimokubo Dam)

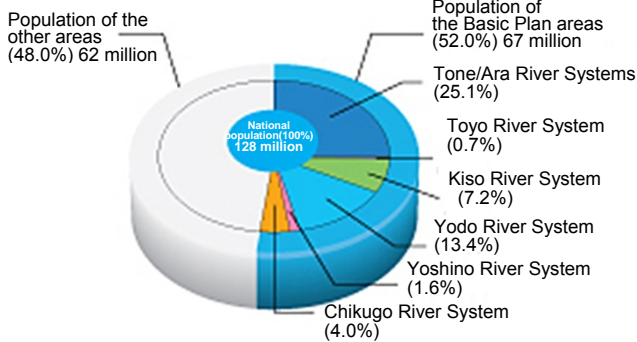
● Budget of JWA

JWA is financed by the central and local governments, Land Improvement District (LID) associations, and power producers among others, which shoulders its construction and administration costs. It remains committed to cost reduction and operational efficiency.

Water Resources Development Today

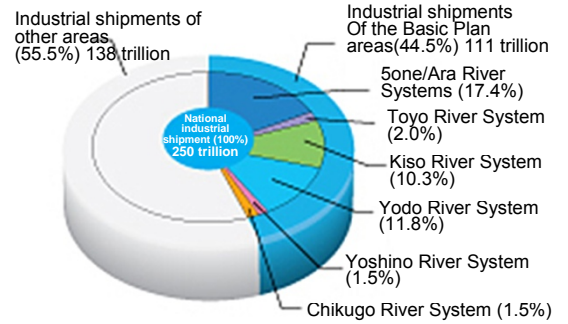
The total basin area of the designated seven river systems account for approx. 17% of the total national land, approx. 52% of the national population, and approx. 47% of the nation's industrial shipments. Water resources developed by JWA's projects totals approx. 347 m3/s, accounting for approx. 87% of total developed water in the seven river systems of approx. 398 m3/s

Share of the areas of the Basic Plan of Water Resources Development in total population (2013)



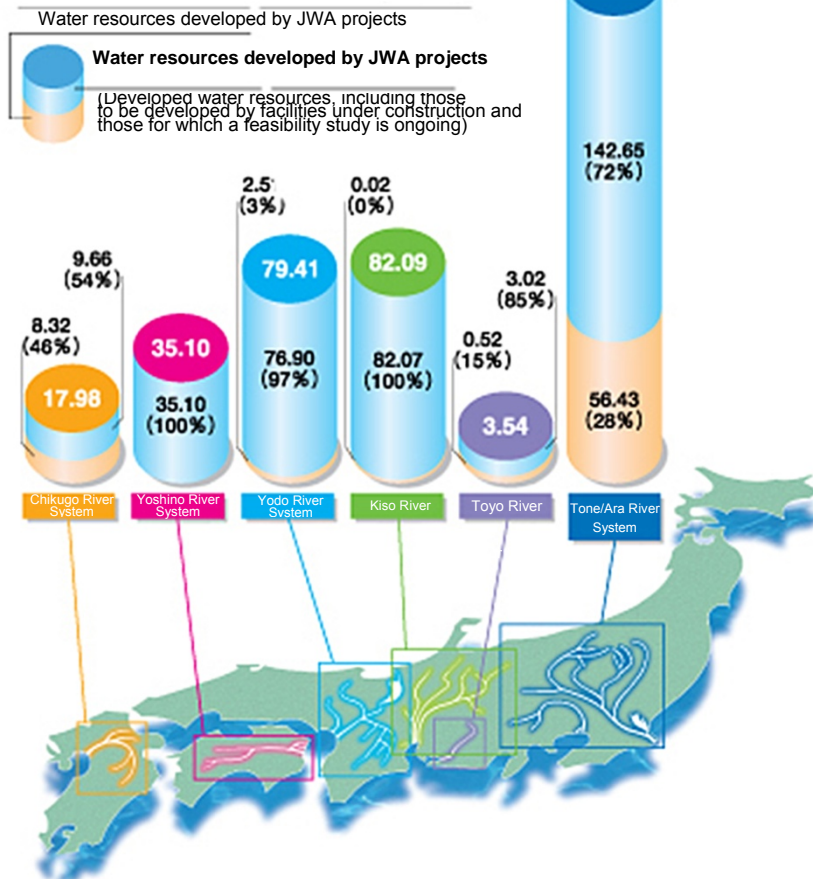
Source: Water Resources Department, MLIT
 Note: *Full plan area means the region which water is supplied within the seven river systems shown below.

Share of the areas of the Basic Plan of Water Resources Development in national industrial shipments (2011)



Source: Water Resources Department, MLIT
 Notes: 1. Shipments represent those from business establishments with 30 or more employees based on the prices in 2005.
 2. The grand totals may not match the totals of individual items due to round-offs.

JWA's share in developed water resources in each river system (m3/s)



As of April 2015

Developed water resources:
 Water resources made available by the construction of dams and other similar facilities



JWA's Projects/ Facilities and Funding

JWA's Projects/ Facilities

The Japan Water Agency (JWA) has completed 63 facility construction/reconstruction projects in the seven river systems that the government has designated for the purposes of water resources development, namely, Tone, Ara, Toyo, Kiso, Yodo, Yoshino, and Chikugo River Systems. 11 other projects are ongoing in these systems. JWA is currently manage 52 facilities, including 30 dams, and canals extending 3,030 km.

LEGEND

- Completed (Construction)
- Completed (Reconstruction)
- Project underway

Chikugo River System

- 1 Ryochiku-heiya Canal
- 2 Terauchi Dam
- 3 Chikugo Barrage
- 4 Chikugogawa-karyu Canal
- 5 Fukuoka Canal
- 6 Oyama Dam
- 7 Koishiharagawa Dam
- 8 Ryochiku-heiya Canal Stage II

Yoshino River System

- 1 Sameura Dam
- 2 Ikeda Dam
- 3 Kagawa Canal
- 4 Shingu Dam
- 5 Kyuyoshinogawa Estuary Barrage
- 6 Kochi Canal
- 7 Tomisato Dam
- 8 Emergency Reconstruction of Kagawa Canal Facilities

Yodo River System

- 1 Yodogawa Barrage
- 2 Takayama Dam
- 3 Shorenji Dam
- 4 Shorenjigawa Development
- 5 Muro Dam
- 6 Hayase Channel
- 7 Hitokura Dam
- 8 Lake Biwa Development
- 9 Nunome Dam
- 10 Hiyoshi Dam
- 11 Hinachi Dam
- 12 Kawakami Dam
- 13 Niu Dam

Toyo River System

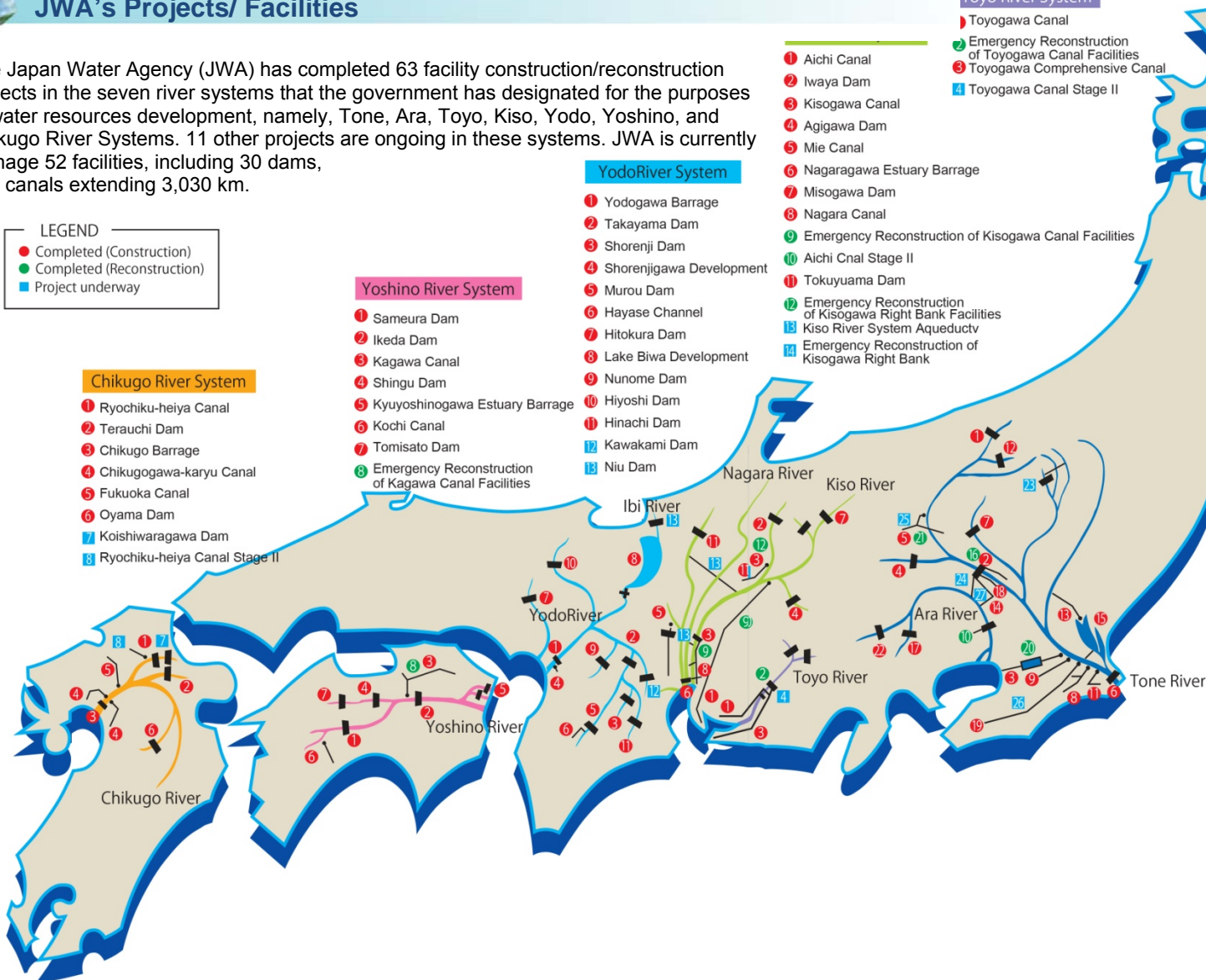
- 1 Aichi Canal
- 2 Iwaya Dam
- 3 Kisogawa Canal
- 4 Agigawa Dam
- 5 Mie Canal
- 6 Nagaragawa Estuary Barrage
- 7 Misogawa Dam
- 8 Nagara Canal
- 9 Emergency Reconstruction of Kisogawa Canal Facilities
- 10 Aichi Cnal Stage II
- 11 Tokuyuama Dam
- 12 Emergency Reconstruction of Kisogawa Right Bank Facilities
- 13 Kiso River System Aqueduct
- 14 Emergency Reconstruction of Kisogawa Right Bank

Toyo River System

- 1 Toyogawa Canal
- 2 Emergency Reconstruction of Toyogawa Canal Facilities
- 3 Toyogawa Comprehensive Canal
- 4 Toyogawa Canal Stage II

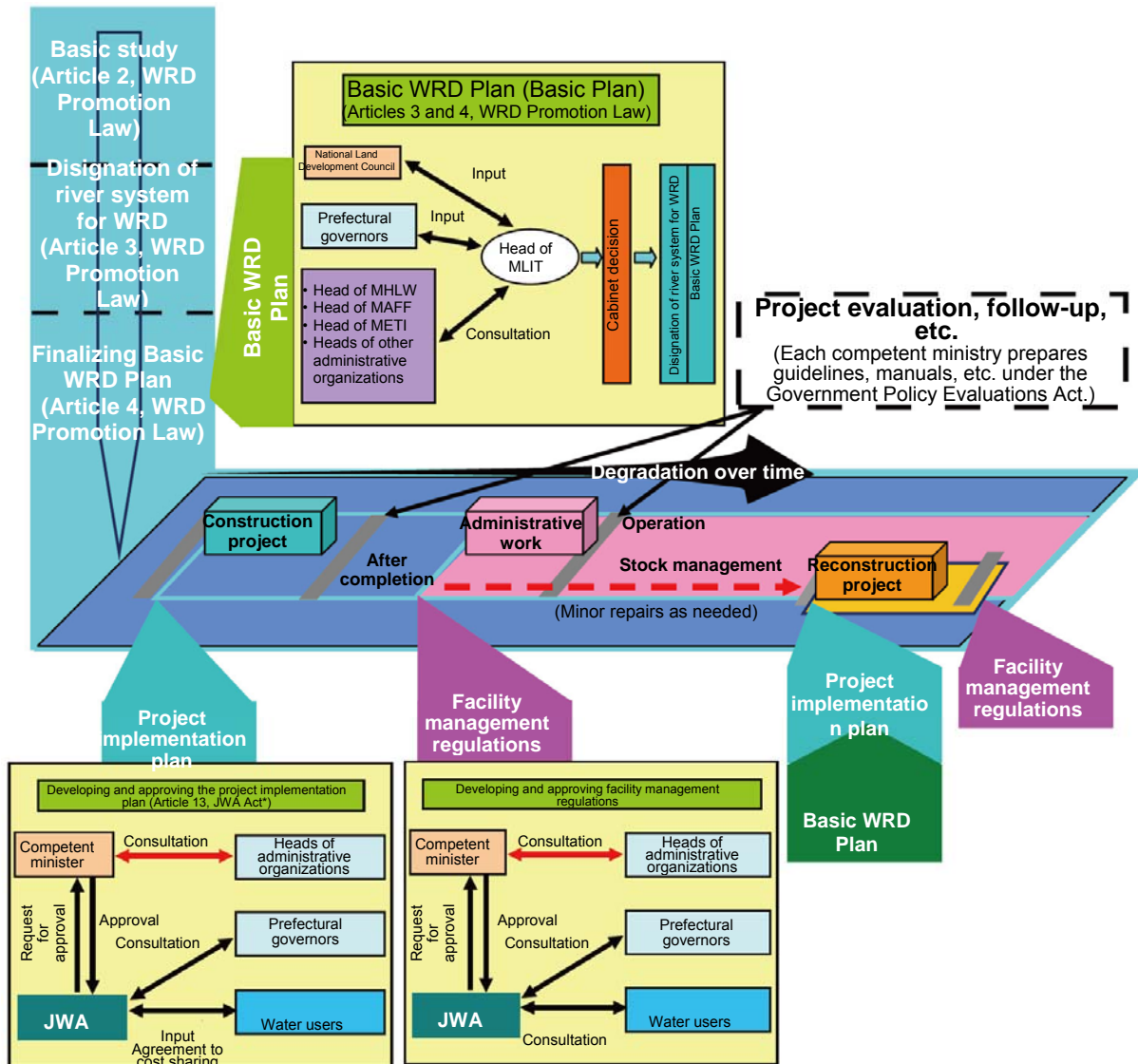
Tone/Area River Systems

- 1 Yagisawa Dam
- 2 Tone Canal
- 3 Inbanuma Development
- 4 Shimokubo Dam
- 5 Gunma Canal
- 6 Tonegawa Estuary Barrage
- 7 Kusaki Dam
- 8 Hokusotobu Canal
- 9 Narita Canal
- 10 Reconstruction of Asaka Canal
- 11 Toso Canal
- 12 Naramata Dam
- 13 Kasumigaura Canal
- 14 Saitama Goguchi Stage II
- 15 Kasumigaura Lake Development
- 16 Emergency Reconstruction of Tone Barrage Facilities
- 17 Urayama Dam
- 18 Tone-chuo Canal
- 19 Boso Canal
- 20 Emergency Reconstruction of Inbanuma Development Facilities
- 21 Emergency Reconstruction of Gunma Canal Facilities
- 22 Takizawa Dam
- 23 Omoigawa Development
- 24 Reconstruction of Musashi Canal
- 25 Emergency Reconstruction of Gunma Canal Facilities
- 26 Emergency Reconstruction of Boso Canal Facilities
- 27 Measures for Tone Canal against Large-scale Earthquake



Project Implementation Procedures

For construction/reconstruction projects, JWA works to reach a consensus on such matters as project design and cost sharing after following the procedures at each phase and consulting with and gathering input from the heads of the administrative organizations concerned, the governors of the prefectures concerned, and the water users concerned.



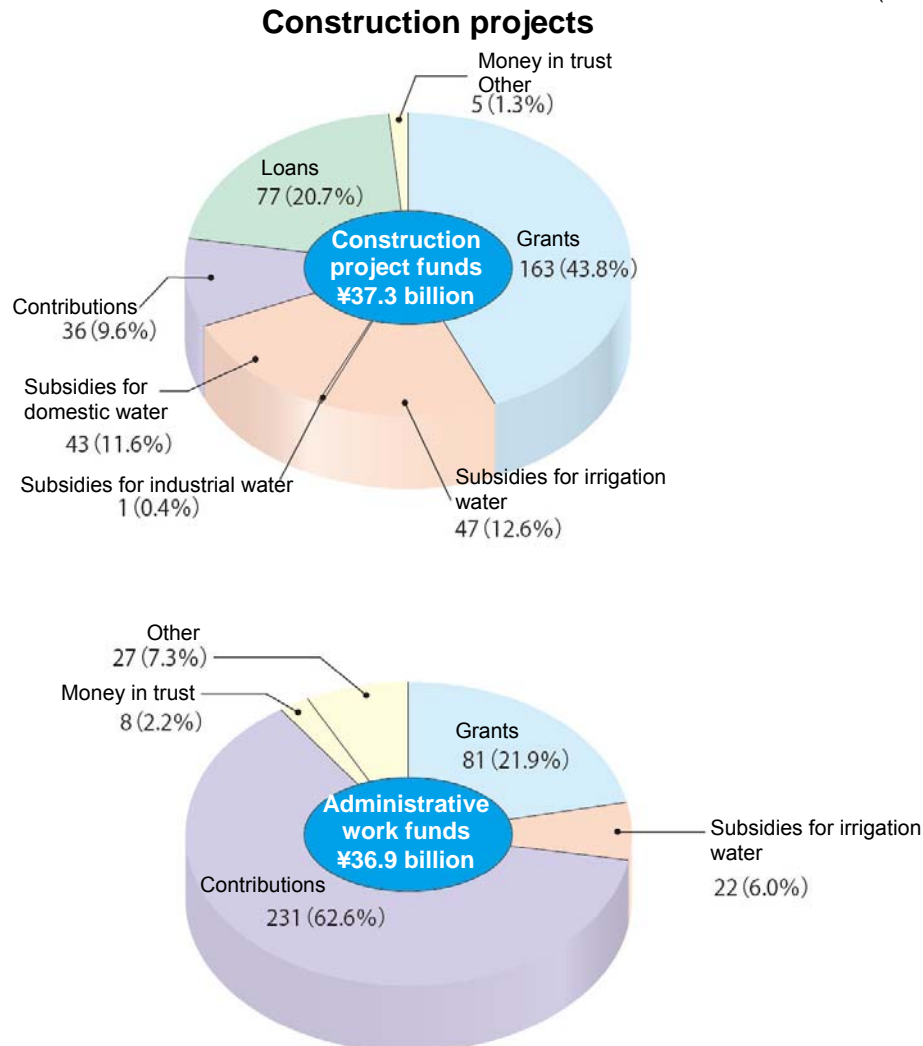
*Note: In this chart, "WRD Promotion Law" stands for the Water Resources Development Promotion Law (Law No. 217 of 1961) and "JWA Act" for the Japan Water Agency Act (Act No. 182 of 2002).



Financing Composition

JWA's construction projects and administrative work are financed largely by grants, state subsidies, contributions from water users, and loans.

FY2014 (100 million yen)



Note: The grand totals may not match the totals of individual items due to round-offs.

Grants

The central government (MLIT) provides grants to finance JWA's activities to control floods and storm surges and maintain and support the normal functions of river water.

Subsidies

The central government (MAFF, MHLW, and METI) provides subsidies to JWA so that it can lessen the financial burden on water users (LID associations, water utilities, and industrial water utilities).

Contributions

Water users pay their contributions to finance facility construction (paid during the construction phase) or facility management.

Loans

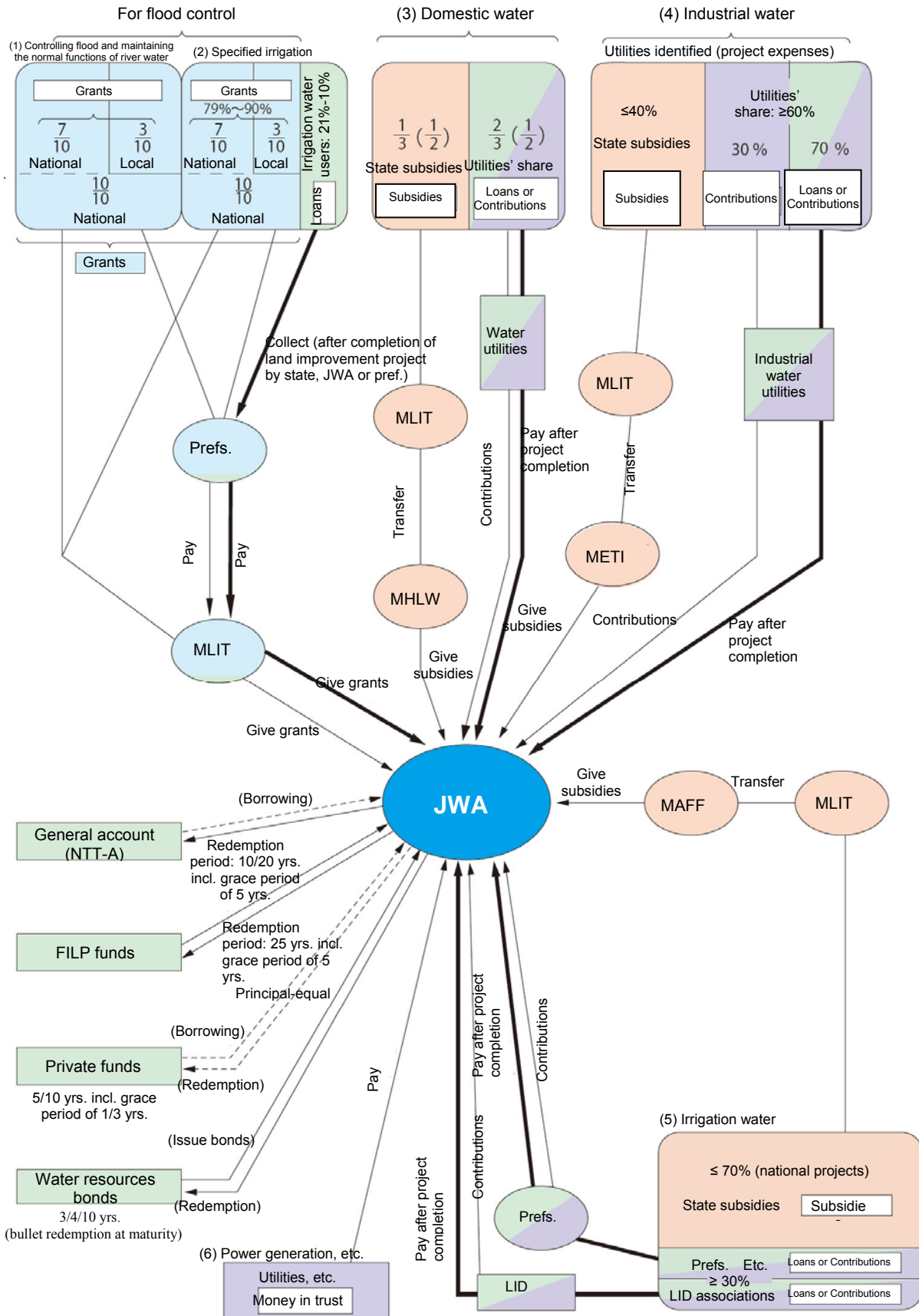
JWA receives long-term loans from government funds, that is, FILP (Fiscal Investment and Loan Program) funds to allow water users to pay their contributions for the facility construction by installments. It also issues water resources bonds (FILP bonds).

Money in trust

A sum of money given in trust by power producers to finance the construction and management of dam components that concern power generation.



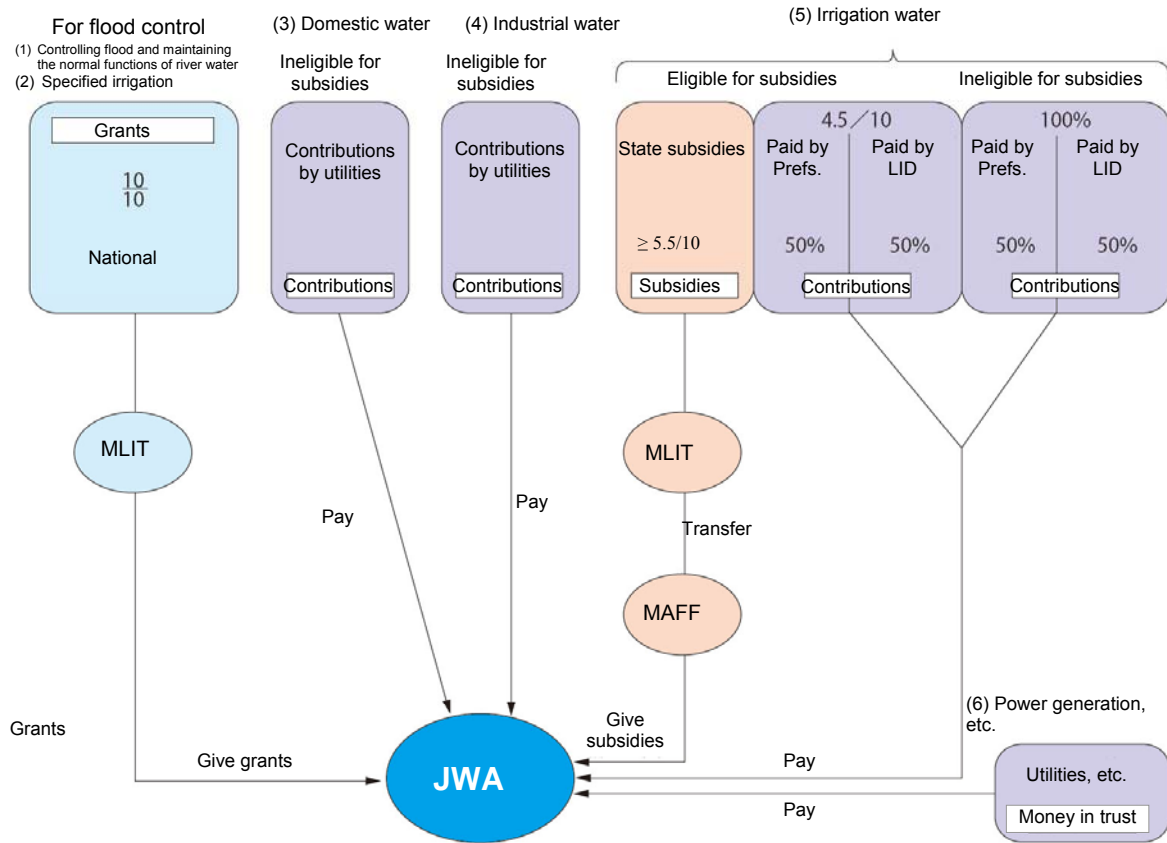
Construction projects



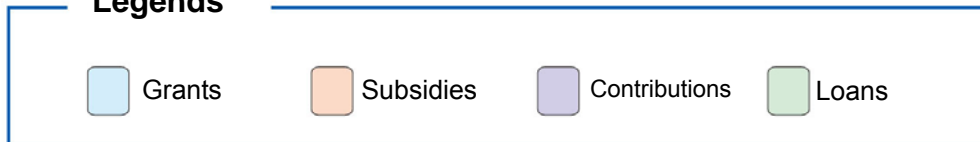
* Currently, JWA does not receive loans indicated in dotted lines.

** Of the amount of grants for the construction or reconstruction of specified facilities, the amount of administrative costs shall not be paid by prefectures under Article 22, paragraph 2 of the Enforcement Order of the Japan Water Agency Act.

Administrative work



Legends



Payment Options

Construction projects	Domestic and industrial	_____	Payment by installments, one-time payment, or payment during the year
	Irrigation water	_____	Payment by installments, one-time payment, or payment during the year
Administrative work	Domestic and industrial	_____	Payment during the year
	Irrigation water	_____	Payment by installments, one-time payment, or payment during the year

Notes:

- Water users can choose these payment method according to their needs.
- Water users are encouraged to opt for "payment during the year" as much as possible with regard to construction projects. JWA offers information on estimated annual contributions if this option is selected.



Overview of the Medium-term Plan

The Japan Water Agency (JWA) strives for better service and more efficient operational administration under the Third Medium-term Plan, a five-year plan from April 1, 2013 to March 31, 2018.

● Measures to be taken to attain the goals for better quality of public services and other operations

1. Stably supplying safe and quality water, and preventing and mitigating flood hazards

1-1. Stably supplying safe and quality water

- JWA will continue to supply necessary amounts of water, with no shortfall or excess, in a timely manner through appropriate facility management. It will also continue to facilitate reconciliation of conflicting interests among water users even at the time of drought.
- JWA will ensure constant supply of safe and quality water to water users, not least the end users.

1-2. Preventing and mitigating flood hazards

- JWA will continue to control floods appropriately with dams and work with river administrators and local governments concerned to ensure the security of river basins.
- JWA will explore ways to operate the existing facilities so as to maximize their flood control capacity in an effort to reinforce measures to prevent and mitigate flood hazards and thus be better prepared for extreme floods.

1-3. Responding appropriately to crises

- JWA will check and improve the seismic performance of water supply facilities more systematically so as to be able to meet the minimum water supply requirements even in the wake of a major earthquake. It will also upgrade various kinds of installations and equipment to cope adequately with any contingency.
- JWA will review its operational plan for disaster prevention as appropriate and take necessary measures, including conducting practical emergency drills.
- JWA will respond appropriately to any crisis; it will work to keep the damage to a minimum, ensure stable water supply, and recover facility integrity as soon as possible.

1-4. Ensuring integrity of facility functions

- To ensure facility integration, JWA will make an across-the-board implementation of stock management, an effective approach to prolonging facility life and reducing life-cycle cost. Specifically, JWA will conduct regular functional diagnostic checks to keep track of facilities and to be able to take actions as appropriate in an effort to cope appropriately with facility deterioration, in addition to systematic patrol and inspection of facilities, installations and equipment.

1-5. Developing facilities in a systematic and appropriate manner

- JWA will implement construction and reconstruction projects for dams, canals and other facilities in a systematic manner and appropriately, with an eye on appropriate facility management in the future.

2. Enhancing comprehensive technical capabilities to fully carry out JWA's missions

2-1 Maintaining and enhancing JWA's technical capabilities

- JWA will systematically sort out technologies concerning large-scale reconstruction, redevelopment, and seismic engineering for facilities. It will also gather information on new technologies and explore ways to apply them to practical use.
- JWA will systematize and upgrade technologies concerning the inspection and structural integrity evaluation of dams, enhance technologies to prolong the life of canal facilities, and explore a system that can analyze groundwater and surface water in an integrated manner.
- JWA will identify challenges in the face of the expected renewal (redemarcation) of surface rights (superficies) and sectional surface rights (sectional superficies), which will be in full swing during a decade from 2018. It will organize itself to address such challenges.
- JWA will work to ensure that its advanced technologies, crisis management skills and advanced capabilities for consultation and coordination with other institutions concerned will be handed down to coming generations. It will also put technical information it has accumulated to effective use.

2-2. Conserving the environment

- JWA will appropriately conserve the natural environment in and around its project areas with steady implementation of environmental conservation activities under its Environmental Action Guidelines. It will also carry out activities to address global warming.
- JWA will improve its skills to operate equipment designed to protect water quality for more efficient and effective operations. It will also take steps to assess the impact and applicability of water quality protection measures.

2-3. Exploiting the potential JWA has in operating dams, canals and other facilities

- Given the need for energy saving, effective use of resources, and better performance of the existing facilities, JWA will explore ways to tap and collect renewable energy resources such as hydropower and biomass and manage these facilities in an integrated manner.

2-4. Strengthening coordination with institutions and headwaters communities concerned

- JWA will further strengthen relations with institutions concerned, in the field of information sharing among others, to facilitate its operations. It will also work with headwaters communities to develop their areas.

2-5 Enhancing public relations

- JWA will proactively offer accurate information to water users and the public at large. To accurately assess the needs of water users and the public, JWA will also strive for better quality of its public relations.

3. Technical assistance that capitalizes on JWA's technical capabilities

3-1. Offering technical assistance to other institutions in Japan

- Making use of the technical capabilities JWA accumulated, it will offer technical assistance to central and local governments, thus promoting contribution to society.

3-2. Promoting international cooperation

- JWA will continue to offer technical information and knowledge it has accumulated to institutions in the developing world that are responsible for water resources development through its dispatch of its staff members to such institutions, working with water-related institutions in Japan and other countries.
- Through its continued activities at the Network of Asian River Basin Organizations (NARBO), JWA will offer advice to those who want to establish river basin organizations and help NARBO members with capacity building.
- JWA will take advantage of disaster-response skills it has accumulated to date in its international cooperation activities. These include extending assistance for water-related disasters such as floods and droughts in other countries, including support during the reconstruction phase.

4. Strengthening internal control and increasing accountability
 - JWA will further promote compliance to ensure proper operational administration.
 - JWA will ensure the full audit functions in place in such a way of implementation of the audit and extraordinary audit for the internal control as deemed necessary, coordination with the lawyers, the certified public accountants, making use of an assistant to the auditor, etc.
 - JWA will ensure the competitiveness and transparency of the tendering and contracting system.
 - JWA will take measures to ensure that its employees will not engage in any bid-rigging. These include promoting compliance and reviewing tendering and contracting procedures.
 - JWA will take information security measures, including efforts to ensure operational continuity even when cyberterrorism occurs.
 - JWA will disclose information on JWA retirees and former employees who landed a new job with affiliated organizations and contracts with such organizations.
 - JWA will ensure the transparency of its financial information and makes itself fully accountable.
 - JWA will set the environmental management system in place, reduce greenhouse gas emissions, and procure appropriate eco-friendly goods and services.

● **Measures to be taken to attain the goals for more efficient operational administration**

1. Responsive and flexible organizational administration
 - JWA will make focused and efficient organizational arrangements to make its organizational administration more responsive and flexible.
 - JWA will further improve the qualifications of its employees with better use of the personnel system and human resource development program.
2. More efficient operational administration
 - JWA will pursue more efficient and economical operations through operational improvement with computerization and digitalization as well as by continued integrating operations and expanding outsourcing.
3. Reducing project expenses and overall costs
 - JWA will continue its efforts to reduce costs in view of severe financial conditions and the need to lessen the burden on water users.
 - JWA will reduce project expenses by 5% by FY2017 over FY2012 levels, except for expenses of construction and reconstruction projects.
 - JWA will reduce administrative expenses (except personnel expenses, taxes, and public charges) by 15% by FY2017 over FY2012 levels.
 - JWA will reexamine its pay levels and work to optimize them as necessary.
4. Appropriate asset management
 - JWA will ensure appropriate asset management and review JWA's assets to identify redundancies, if any.

● **Other important matters concerning operational administration**

1. Plans concerning facilities, installations and equipment
 - During the period of the Third Medium-term Goals, JWA will systematically introduce, replace, and repair information devices and laboratory installations at its headquarters and regional bureaus, etc. as deemed necessary.
2. Plans concerning personnel matters
 - JWA will draw up personnel assignment plans for its headquarters, regional bureaus and all other offices every year after systematically reviewing the personal assignments, including possible personnel reduction.

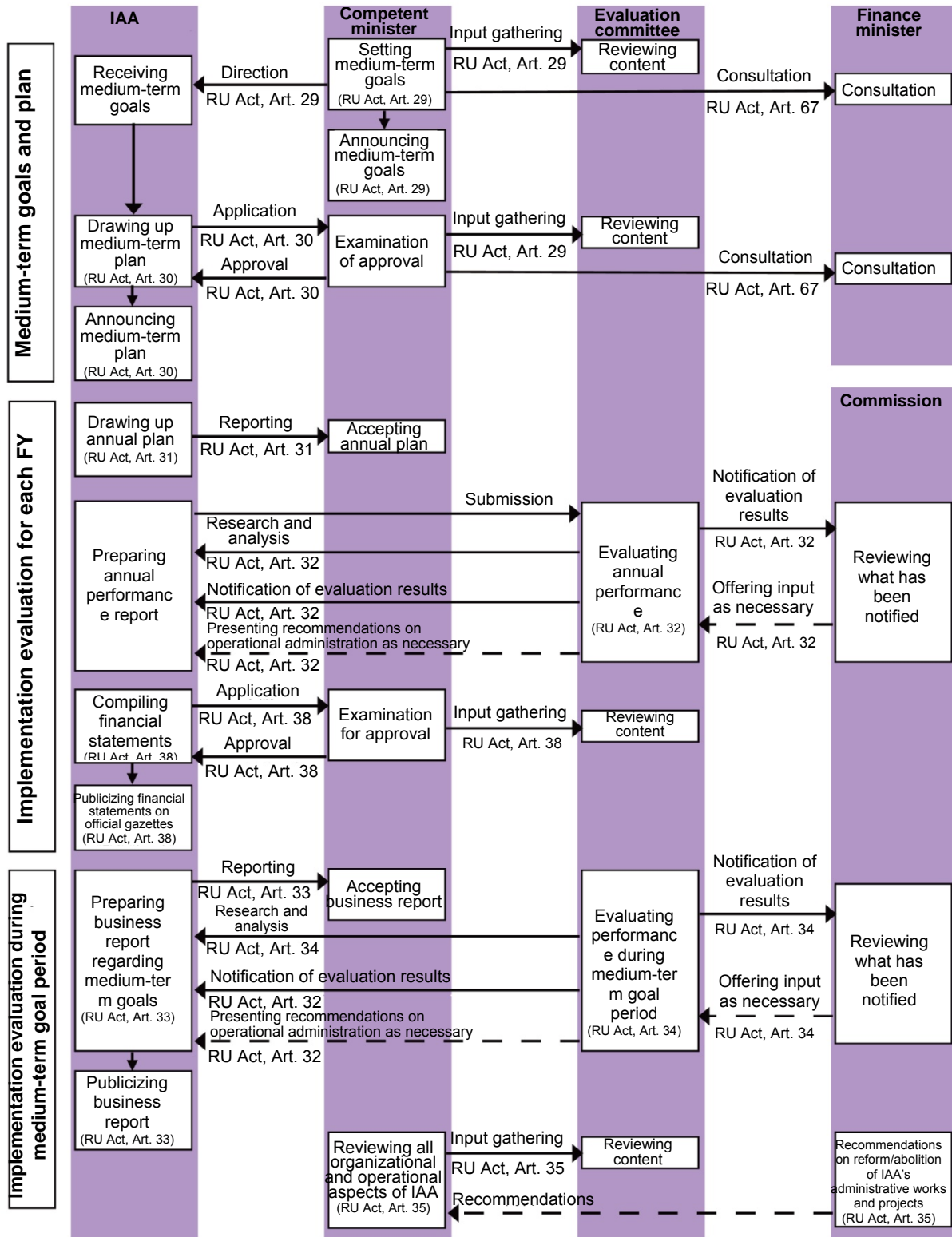
3. Uses of reserve funds

- JWA will use its reserve funds for three major purposes. One is to update the facility management systems in an effort to curtail operation and maintenance costs, which are on the rise due to facility deterioration. The idea is to reduce the burden on water users with respect to construction and reconstruction projects as well as administrative work. The second purpose is to put in place facilities that will build up fuel installations for disaster prevention and mitigations and those that will promote the use of renewable energy resources. The third purpose is to finance studies and technology development efforts aimed at maintaining and enhancing JWA's technical capabilities that will help to improve the seismic performance of facilities, prolong their lives, and reduce costs.

(Medium-term Plan URL:<http://www.water.go.jp/honsya/honsya/outline/tyuki/index.html>)



Operational Flows of a Typical Incorporated Administrative Agency (IAA)



Notes:

1. "GR Act" refers to the Act on General Rules for Incorporated Administrative Agencies (Act No. 103, 1999).
2. "Commission" refers to the Commission on Policy Evaluation and Evaluation of Incorporated Administrative Agencies that has been established under the Ministry of Internal Affairs and Communications in accordance with Article 1 of the cabinet order on common matters on the organization, administration and management of Incorporated Administrative Agencies (Cabinet Order No. 316 of 2000).



2013

- April 1 Third Medium-term Plan (FY2013-2017) launched
- 1 The initial filling of the Oyama Dam across the Akaishi River in the Chikugo River System is completed, putting the dam into full operation.
 - 1 The Land Department of the Headquarters is transformed into the Land and Property Department, in which the property administration and consolidation office is created.
- 16-18 The Additional Secretaries of the Ministry of Irrigation and Water Resources Management and the Ministry of Disaster Management of Sri Lanka visit the Headquarters and some facilities of JWA.
- May 18 The fifth general meeting of the Network of Asian River Basin Organizations (NARBO) is held in Thailand.
- June 14 In the face of water intake restrictions in the Kiso River System, the Chubu Regional Bureau sets up a drought response taskforce (disbanded on June 29).
- 14 Solar power plants (a total of 6,10 kW each) are installed along the Aichi Canal and Kisogawa Canal and put into full operation.
 - 21 In the face of water intake restrictions in Tone River System, the Headquarters sets up a drought response taskforce (disbanded on September 18).
- July 4-10 The secretary of the National Environmental Commission of the Royal Government of Bhutan visits the Headquarters and some facilities of JWA.
- 16 JWA receives a letter of thanks from the Sho-nai-ryo-yo-aku-suiroLand Improvement District for its contribution to irrigation water supply.
(JWA deploys a pump truck for any contingency for eight days from May 5.)
 - 26 In the face of water intake restrictions in the Toyo River and Kiso River systems, the Chubu Regional Office sets up a drought response taskforce (disbanded on September 18).
- August 2 In the face of water intake restrictions in the Yoshino River System, the Shikoku Regional Bureau sets up a drought response taskforce (disbanded on September 4).
- 19 In the face of water intake restrictions in the Chikugo River System, the Kyushu Regional Bureau sets up a drought response taskforce (disbanded on August 30).
- September 3-4 Typhoon No. 17 brings heavy rains to Western Japan, putting 29 JWA offices on disaster alert.
- 15-16 Typhoon No. 18 brings heavy rains to many parts of Japan, putting 37 JWA offices on disaster alert.
- October 1 JWA marks 10th anniversary.

- 15-19 Typhoon No. 26 brings heavy rains to Eastern Japan, putting 34 JWA offices on disaster alert.
- November 26 JWA dispatches a staff member to the Republic of the Philippines as a member of the Japan Disaster Relief expert team in response to the damage due to a typhoon.
- December 25 The Tone Large Barrage counts the run-ups of 18,696 salmon going upstream, an all-time high and a 12-fold increase over a ten-year period.
- 29 In Japan Dam Award 2013, the Hiyoshi Dam wins the dam grand prize and the flood control prize. The low water management* prize goes to the Sameura Dam.

*Note: Low water management and high water management

Low water management is to manage the flowing river water to meet the demand in the downstream even at the time of drought based on the long-term prediction of flowing water rate, observation of it, monitoring the water intake amount by water users. The high water management is to control the flowing river water rate at the time of high water, i.e. flood time.

2014

- February 18 JWA installs a small-scale hydropower plant (150kW) across the Hatsuse Canal (under the management of the Kizugawa Integrated Operation and Maintenance Office), putting it into operation.
- 18 The solar power plant (49kW) at JWA's Water Resources Engineering Department is put into operation.
- April 1 JWA reshuffles its organization.
- April 14 Three JWA staff members are awarded for Distinguished Creative Worker Prize from the Minister of Education, Culture, Sports, Science and Technology thanks to the dedication of their idea of creating the size indicator for aerating circulation equipment to efficient work for removal of algae bloom.
- May 15 JWA's three projects are awarded for Technology Development Prize of Japan Society of Dam Engineers.
- June 13 "Flood Control of Yodo River system at the time of Typhoon No. 18 of 2013" is awarded for group I engineering prize of Japanese Society of Civil Engineers.
- March 18 JWA installs a solar power plant (49kW) at the Togane Dam across the Boso Canal (under the management of the Chiba Canal Integrated Operation and Maintenance Office, putting it into operation.)

2014

- April 1 JWA reshuffles its organization.
- April 14 Three JWA staff members are awarded for Distinguished Creative Worker Prize from the Minister of Education, Culture, Sports, Science and Technology thanks to the dedication of their idea of creating the size indicator for aerating circulation equipment to efficient work for removal of algae bloom.
- May 15 JWA's three projects are awarded for Technology Development Prize of Japan Society of Dam Engineers.

- June 13 "Flood Control of Yodo River system at the time of Typhoon No. 18 of 2013" is awarded for group I engineering prize of Japanese Society of Civil Engineers.
- July 2 The Chubu Regional Office sets up a drought response taskforce. (Disbanded on July 11.)
- 6 The JWA headquarters and Shikoku Regional Office respectively set up a drought response taskforce. (Both disbanded on July 10.)
- 8-11 Typhoon No. 8 brings heavy rains across Japan, putting 53 JWA offices on disaster alert.
- 29 The Kansai Regional Office sets up a drought response taskforce. (Disbanded on Aug 14.)
- 31 Water Resources Engineering Department and one member of JWA are awarded for a person of distinguished services related to MLIT of 2014 for their renovation study work of their Nagayasuguchi Dam facilities.
- August 1-5 Typhoon No. 12 brings heavy rains across Japan, putting 12 JWA offices on disaster alert.
- 8-11 Typhoon No. 11 brings rains across Japan, putting 55 JWA offices on disaster alert.
- 16-18 The rain front brings heavy rains to the western part of Japan, putting 25 JWA offices on disaster alert.
- 25 MLIT decides its policy to continue working on the Kawakami Dam
- 26 Earthquake resistance measures by rectangular siphon adopting box-type steel pipe insertion method of Toyogawa Canal is awarded for best engineering report prize by the Japanese Society of Irrigation.
- September 27 Mt. Ontake irrupted. JWA takes measure to respond to the flowing turbid water and increased sedimentation caused by erupted materials.
- October 4-6 Typhoon No. 18 brings heavy rains across Japan, putting 57 JWA offices on disaster alert.
- 11-14 Typhoon No. 19 brings heavy rains across Japan, putting 60 JWA offices on disaster alert.
- November 19-20 NARBO holds 10th anniversary meeting on the outskirts of Manila, the Philippines.
- November 21 Our staff member receives the visit of his Imperial Majesty and her Imperial Majesty thanks to his work as a member of the international emergency rescue team at the time of the typhoon attack in the Philippines in November 2013.
- 22 Kagawa Canal marks 40th anniversary to celebrate its continuous services.
- December 17 Project implementation plan is approved for JWA's emergency reconstruction projects of Gunma Canal and Boso Canal.
- 27 2014 Japan Dam Award Ceremony is held to praise the dedication for the dams. Sameura Dam is awarded for Grand Prix Prize and Flood Control Prize.

2015

February 2 Project implementation plan is approved for JWA's Tone Canal large-scale earthquake measures.

March 31 Kiso River right bank facility emergency reconstruction project completes.

2015

April 1 Kansai Regional Office and Shikoku Regional Office unified into Kansai/Shikoku Regional Office.

12-17 JWA participates in the 7th World Water Forum held in Daegu and Gyeongju cities, South Korea.

27 Opening ceremony of Futagawa Hydropower Plant (Toyogawa Canal) is held.

June 19 JWA sets up a drought response taskforce of Kanto region (disbanded on July 17).

July 14-30 The rain front and Typhoon No. 11 bring heavy rains across Japan, putting 21 JWA offices on disaster alert.

August 24 The meeting to report the completion of seismic reinforcement works is held for Hattachi Reservoir.

September 8 Typhoon No. 17 and No. 18 bring heavy rains across Japan, putting 22 JWA
-19 offices on disaster alert.

10-13 JWA supports rehabilitation work of flood damage in Oyama City, Tochigi Prefecture, caused by 2015 Kanto-Tohoku Heavy Rainfall Disaster.

October 4 Completion ceremony of Oshima Dam Hydropower Plant (Toyogawa Canal) is held.

December 1 Project implementation plan is approved for Emergency Reconstruction of Kisogawa Right Bank Facilities Project.

6 JWA signs an agreement for "Nepal's Bagmati River Basin Improvement Project" with Federal Democratic Republic of Nepal.

2016

January 14 Project implementation plan change is approved for Toyogawa Canal Stage II Project.

February 18 Nagara Canal achieves 1 billion tons of water conveyance.

March 12 Completion ceremony is held for Musashi Canal Reconstruction Project.

31 Musashi Canal Reconstruction Project completes



Examples of JWA's Responses to Floods and Droughts

The year 2013 saw many natural disasters including typhoon disasters, making us realize anew how devastating a natural disaster can be. The Japan Water Agency (JWA), which manages water-related facilities that are primarily designed to serve public interests, has two important functions: (1) responding appropriately to natural disasters such as storms, floods and droughts to mitigate the damage they cause; and (2) ensure stable supply of water, which is essential for people's lives. The following paragraphs introduce two examples of how JWA responded to floods and droughts in 2013.

[Hiyoshi Dam: the most severe flood it experienced since its inception]

Typhoon No. 18 prompted the Japan Meteorological Agency to issue a heavy rain emergency warning for Kyoto, Shiga and Fukui prefectures for the first time for the region. Officials at the Hiyoshi Dam recorded a peak hourly rainfall of 34.5 mm and a cumulative rainfall of 345 mm. They reported that the inflow due to this rain reached an all-time high of 1,694 m³/s, well above the designed inflow of 1,510 m³/s.

The area around Togetsu Bridge over the Katsura River was inundated. The river overflowed the right bank at Hazukashi downstream. Given these emergencies, operators at the Hiyoshi Dam stored a total of approx. 44.6 million m³ of water in the dam reservoir, above the surcharge water level. (This was the largest amount of water stored in the reservoir; the volume could fill Kyocera Dome Osaka approx. 37 times.) Some 90% of the peak inflow into the reservoir was blocked.

We believe that due to this operation at the Hiyoshi Dam, the water level of the Katsura River at Hozu Bridge was approx. 1.5 m lower than would have been without the dam, reducing inundation hazards. We also believe that the dam blocked large quantities of driftwood, helping to reduce the damage by such wood downstream.



Flood storage at the Hiyoshi Dam
Photo courtesy of Kinki Regional Development
Bureau, MLIT



The Hiyoshi Dam blocks driftwood.

**[Sameura Dam:
addressing a drought by limiting water supplies to water users to a required
minimum]**

The storage rate above the Sameura Dam, which stood at 100% in early July, began to dwindle due to a low rainfall and a subsequent decrease in the streamflow. To maintain intakes from the river, operators at the dam continued to preclude the possibility that supply water downstream, decreasing the storage even further. JWA restricted water intakes by 20% from August 2. The rate was raised to 35% on August 11 and further to 50% on August 19. JWA feared that no restrictions would completely deplete the dam reservoir soon, making water supplies from the dam and intakes from the river impossible. This in turn would substantially affect people's lives and economic activities. These intake restrictions allowed JWA to supply 161 million m³ of water in total from the dam in July and August. (The amount could fill Kyocera Dome Osaka approx. 134 times.) With effective use of the Lake Hozan along the Kagawa Canal, as well as water saving efforts by the public, JWA successfully mitigated the impact of the drought on people's lives and economic activities even in Kagawa Prefecture, which was hit hardest. Eventually, Typhoon No. 17 brought long-awaited rain, allowing JWA to lift water intake restrictions altogether on September 4.



A dwindling water level in Sameura Dam Reservoir
August 27, 2013 (storage rate: 25.9%)



Rain fills the the Sameura Dam Reservoir
September 5, 2013 (storage rate: 100%)



Work of the Japan Water Agency (JWA)

JWA Supplies you with Safe and Quality Water

JWA supplies safe and quality water to meet the demand of large areas that often go beyond prefectural borders. To ensure stable supply of such water, JWA works around the clock, 365 days a year, to operate and maintain its water supply facilities, including dams and canals.

Stably supplying safe and quality water

● Stable water supply (Water supply from dams)

The streamflow changes depending on the rainfall. When it decreases due to poor rainfall, for example, JWA supplies water that has been stored in the dam reservoir to the river downstream so as to ensure that necessary amount of water can be taken stably from the river.

JWA also supplies necessary amount of water to facilitate water transportation, fisheries, and conserve the river environment.



Water supplies to water users from the Hinachi Dam



Decreasing water level in the Yagisawa Dam reservoir due to water supplies to downstream water users

(Water Supply for different purposes from canal facilities)

JWA meticulously operates, maintains and manages its canals that extend approx. 3,030 km in total length.



An operator at Gunma Canal facilities



Taking water from the Tone River to Gunma, Saitama, and Tokyo prefectures at the Tone Large Barrage

● **Safe and quality water supply**

JWA conducts water quality surveys and facility patrols to monitor day-to-day water quality. It also addresses eutrophication and water turbidity with effective use of its facilities.

In the event of pipeline leakage or a water quality hazard due to an oil spill in a river or canal, JWA takes prompt action to prevent the damage from spreading and notify water users for information sharing.



Water survey above the Nunome Dam



An oil fence is installed across the Kisogawa Canal to address a water quality hazard



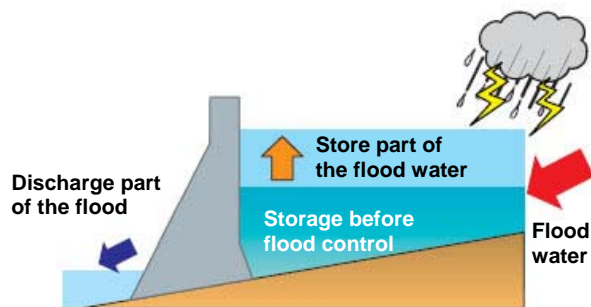
Removal of volcanic ashes from Mt. Ontake (Makio Dam-Aichi Canal)

Preventing and mitigating flood hazards

● **Flood control with dams**

Dams perform an important function of storing river water that increases rapidly in volume due to heavy rain and regulate discharges downstream (flood control function). Weirs and barrages raise water levels with their gate shut down in normal times. At the time of flood, however, the gate is opened to allow excessive river water to flow downstream safely.

When a heavy rain that may cause floods is expected, JWA accurately assess weather information and streamflows and operate its dams, weirs/barrages, and facilities accordingly.



Conceptual rendering of flood control



Flood control at the Shorenji Dam



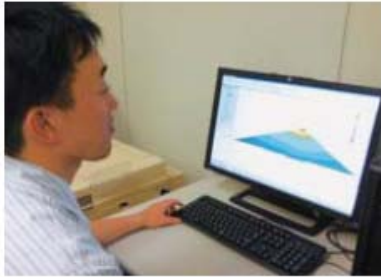
Facility patrol by car at the Takizawa Dam



The gate at the Nagaragawa Estuary Barrage is widely opened to discharge flood water

● **Better aseismic performance**

JWA keeps improving the aseismic performance of its canals and other facilities, thereby enhances public confidence in their security. To this end, JWA checks their performance and assess their risks in relation to major earthquakes. Based on the findings of such checks and assessment, JWA is conducting aseismic measures to its facilities systematically.



Checking aseismic performance
(Resources Engineering Department)



Aseismic engineering
(replacing a flexible pipe)
(Fukuoka Headrace)



Bracing for an possible major earthquake
(Inserting a steel pipe into the existing siphon)
(Toyogawa Canal)

● **Routine training for major disasters**

JWA works with the central government, water users, the police, fire and disaster management authorities and other institutions concerned to conduct flood response exercises and earthquake and disaster management drills regularly to prepare for floods, major earthquakes and other natural disasters, as well as water quality hazards.

JWA also has a stockpile of steel pipes, pump trucks and other equipment and materials in preparation for any contingency on its canal facilities.



Earthquake and disaster management drill
(Headquarters)



Installation practice for central disaster emergency communications network equipment (Headquarters)



Water quality accident response drill
(Gunma Canal)



Pump truck water-supply drill
(Tone Canal)

Ensuring facility integrity

● Facility inspection and maintenance

JWA works to conserve and manage its facilities through routine patrol, inspection and maintenance. On dam reservoirs, it collects driftwood and solid waste using work boats.

JWA also strives to find any malfunction of its canal facilities and leakage from them as early as possible. It promptly repairs any leak from such facilities so that water supply can be smooth without interruptions.



Measuring the leakage inside the body (Shimokubo Dam)



Inspecting the inside of a tunnel (Kasumigaura Canal)



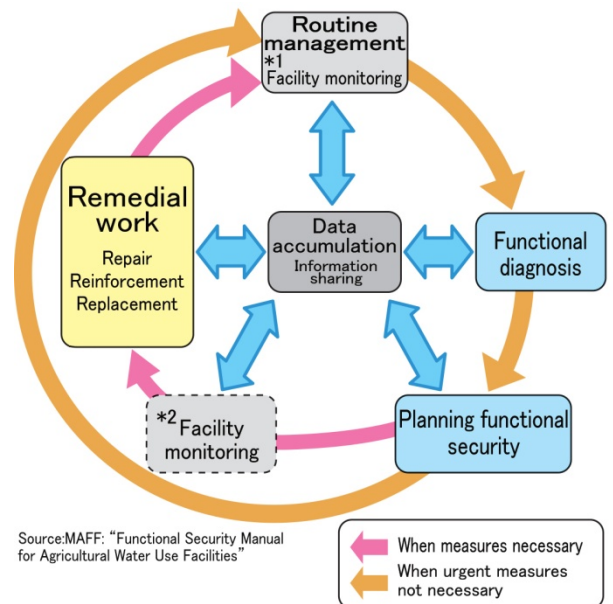
Facility operation support, using a head-mounted tablet display (Trial run) (Lake Biwa Development)

● Stock management of canals and other facilities

JWA conducts routine inspection, maintenance and regular functional diagnostic study to accurately assess the state of each facility and share the information on their risks and their effects to water users so as to take necessary measures appropriately to extend the facility life and reduce its life-cycle costs.



Replacing a branch pipeline at the Kisogawa Canal



*1 Continual facility monitoring as part of the routine management (The resulted data are used for functional analysis and planning of functional security.)

*2 Facility monitoring regularly conducted to enhance the quality of functional security plan and to find the right timing of remedial work

● Extending the life of dams

To secure the safety and long life of functions of dams, JWA conducts periodical inspections every three years and for the dams with 30 years services since the start of management, JWA implements the comprehensive inspection of each of them. Based on the result of that inspection, it makes the plan to extend the life of the dam, in which a medium and long-term maintenance and management policy of individual facilities comprising the dam is formulated and systematic maintenance and management work for them are carried out.



(Muroo Dam)

Equipment check as part of dam's regular inspection



(Hitokura Dam)

Inspection of the hydropower plant

● Construction and reconstruction of dams, canals and other facilities

JWA constructs and reconstructs dams, canals and other facilities systematically so that water resources can be used stably.



Oyama Dam construction project (completed in FY2012)



Musashi Canal reconstruction project (Change to double-way canal)



Toyogawa Canal Project Stage II (Renewal of the canal)



Ryochiku-heiya Canal Stage II (Reinforcement of inner tunnel surface)

● Cost reduction drive

JWA strives to reduce costs to lessen the burden on water users through such means as utilizing new technologies and optimizing the planning, design, and construction processes.

Selected cases of reduction efforts

Reviewing the excavation depth for the dam foundation through geological reevaluation

A detailed geological survey and meticulous evaluation, diagnosis, and stress analysis of the bedrock during the design and construction phases based on it allowed JWA to reduce the depth of the excavation for the foundation of the dam, thus to substantially reduce the volume of excavation for the dam foundation, the amount of concrete to be used to build the dam body, and the volume of quarry to be excavated.



Initially planned and actual extents of excavation

Reviewing the reconstruction method for the existing lining canal

In reconstructing the existing concrete lining canal, JWA has adopted non-destructive inspection and other new methods to make a shift from total reconstruction to partial reconstruction



Partial replacement of the lining

Taking on Various Challenges

WA deliberately conducts research and development of technologies for conserving the natural environment, improving water quality, and addressing climate change.

● Conservation of the natural environment

JWA engages in environmental survey, revegetation, and vibration and noise pollution control to conserve the natural environment, including the local flora and fauna, ecosystems and landscapes. In addition, as a member of the local community, it engages in environmental conservation activities proactively.



Environmental Survey
Installation of dormice
(Koishibara River Dam)



Participation in floating hearts
preservation activities (Lake
Biwa Development)

● Reduction of greenhouse gas emissions

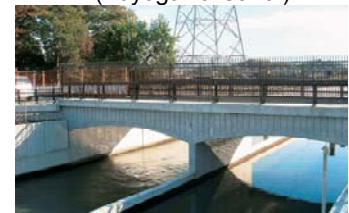
JWA takes measures to reduce greenhouse gas (GHG) emissions. They include promoting the use of clean energy sources that do not emit greenhouse gases (GHGs) such as hydropower and solar power, as well as power usage reduction and other energy saving measures.



Futagawa Power Station
(Toyogawa Canal)

● Facility development that respects the landscape

To dedicate to the enhancement of value of local community with creation of quality environmental space, JWA organizes the facilities to match the local landscaping.



Bridge with an arch design
(Musashi Canal)

● Improvement of environment of downstream river

We are working on the improvement of river environment for the fish and other river creatures, providing a large amount of sand and gravel to the downstream rivers of the dams and flashing discharge within a short time to flash away the mud and mosses adhered to the gravel in the river and refresh them.

As a result of such measures, in the case of Hitokura Dam of Kawanishi City, Hyogo Pref., there were increasing number of small creatures on the bottom of the river such as may-fly, stone fly, and caddis fly, etc. and clean-water fish by about 5 times compared with the days before such river refreshment measures.



In 1976, when the river
condition was good. (Gravel
and sand spread on the
surface.)



In 2002, about 20 years passed
since management start. The
river condition was bad. Gravel
and sand are gone and grasses
and bushes were growing.



In 2003, gravel and sand were
thrown in with a heavy machine



In 2015, when the river condition
is good. (Coming closer to the
condition before dam
construction)

An example of improvement work of downstream river environment of Hitokura Dam



Tackling the Challenges with JWA's New Technologies

JWA set "JWA's technological 5 year plan" for the purpose of technological research and development as ways to enhance its technological capabilities. To follow that plan, JWA is working on the technological development and its systematization as "the important projects" for the important items, as follows:

Technical 5 year plan (2013-2017) Important Projects

Issue	Name of the project
Response to climate change	1. Study of technologies on introduction of sustainable energy
	2. Study of advancement and efficiency improvement of dam operation to adapt to climate changed
Response to recycling-based	3. Study of integrated management of ground and surface water for further efficient water operation and management
Response to stock-based society	4. Study of dam soundness evaluation
	5. Conservation evaluation of facilities (1)Soundness evaluation, 2)Machine and equipment, 3)Telecommunication equipment)
	6. Study of sediment management technologies for dam reservoirs
	7. Technological systematization on dam re-development and its feasibility survey
Improvement of earthquake resistance	8. Study of earthquake resistance reinforcement of water resources development facilities
	9. Study of earthquake resistance reinforcement of canal facilities
	10. Establishment of design and construction method of concrete faced rock-fill dams in view of earthquake resistance
Preservation and enhancement of quality water	11. Study of effective and efficient water quality conservation technologies(1)Study of Operation technologies for water conservation facilities, 2)Study of collection and use of unutilized resources)

Concrete examples are shown below.

● Responses to climate change

JWA works to address climate change, which is thought to be the cause of global warming. Typically, it strives to upgrade and streamline the dam management process based on long-term forecasts on rainfall and runoffs.

● Conservation and improvement of water quality

JWA tackles such problems as algae, freshwater red tide, and anaerobic water by taking advantage of water-quality protection equipment.



Before installation



After installation

Controlling algae bloom with shallow shaft aerating circulation equipment (Urayama Dam)



Strengthening Coordination with Local Municipalities Concerned and Local People

JWA strives for the social exchanges between the people of upstream and downstream areas to deepen the coordination with the water source areas where they show deep understanding and cooperation in organizing and managing the dam facilities and also with the water users downstream.



Safety inspection with local municipality staff (Muroo Dam)



Underbrush clearing activity with people of upstream and downstream areas (Oyama Dam)



Facility site tour (Musashi Canal)



A lecture at the local high school (Tokuyama Dam)



Gate inspection discharge-opening to the public (Shimokubo Dam)



“Dam Curry and Rice” served at a diner near the dam (Left: Shimokubo Dam, Right: Yagisawa Dam)



Leveraging Advanced Technical Capabilities

JWA offers technical assistance to other institutions in Japan and other countries by taking advantage of its technical capabilities and experiences it has long accumulated concerning the development and utilization of water resources in the process of building and managing dams, canals and other facilities. The Water Resources Engineering Department of JWA plays the pivotal role in this respect.

The technical assistance to other domestic institutions

JWA offers technical assistance to the central and local governments by taking advantage of its technical capabilities it has gained in building and managing dams, canals and other facilities.

(1) Offering technical assistance by taking advantage of the experience as an owner

By taking advantage of the experience and skills it has gained as a project owner, JWA offers technical assistance in such aspects as cost estimation for the construction of the dam body, procedures for ordering dam construction work (ordering processes, processes of proposing, examining and studying technologies, etc.), and supervision of work to construct the dam body.



Supervision of work to construct the dam body

(2) Technical assistance based on advanced expertise

JWA offers technical assistance in many aspects by taking advantage of the advanced expertise and technical capabilities it has gained in the areas of planning, constructing, managing, and operation dams, canals, and other facilities. These aspects include regular inspections and comprehensive inspections of dams, dispatch of experts, formulating initial filling plans, and earthquake resistance capability evaluation of dams.



Assistance in regular inspection of dams

Promoting international cooperation

Taking advantage of the expertise and experience it has accumulated to date, JWA contributes to enhance water resources management in Asia. JWA also makes effective use of the knowledge it has gained from its international cooperation activities for its activities in Japan.

(1) Network of Asian River Basin Organizations (NARBO)

NARBO was established in February 2004 on the initiative of JWA, the Asian Development Bank (ADB), and the Asian Development Bank Institute (ADBI), all of which worked as the secretariat^{*1}. NARBO membership as of September 2015 is made up of 85 organizations from 18 countries, which engage in various activities designed to promote integrated water resources management (IWRM)^{*2} in Asia. The major activities of NARBO are explained below.

^{*1}As of Nov. 2010, CRBOM (Center for River Basin Organizations and Management) of Indonesia joined the secretariat of NARBO.

^{*2} IWRM (Integrated Water Resources Management) refers to “a process which promotes the coordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems”, according to the Global Water Partnership.

<Better IWRM through information sharing>

JWA promotes information sharing among NARBO members through such media as websites, annual reports, newsletters, and short reports.

<IWRM training, workshops and seminars, as well as information dissemination to the world>

JWA organizes training, workshops and seminars on IWRM to help build the capacity of staff members of public institutions that involves in water affairs. It also disseminates information at such international forum as the World Water Forum, the Asia-Pacific Water Forum, and other conferences on water at the United Nations and other global settings.



IWRM training that focuses on the case study of water management at Laguna Lake, the Philippines

<Twinning program>

JWA has signed a twinning partnership with NARBO member organizations in Indonesia, Vietnam, and Sri Lanka. Through mutual visits by their staff members, JWA and these organizations work with one another to improve their water resources management capacities.



A Vietnam mission visits a JWA facility under the twinning program

(2) International cooperation through aid agencies

Through the Japan International Cooperation Agency (JICA), JWA dispatches experts in the development and management of water resources, disaster management, and irrigation to many parts of the world. It also accepts trainees from many parts of the world. JWA also engages in the survey and other related work commissioned by JICA and other agencies. In addition, JWA is working with the Asian Development Bank to implement a technical cooperation project on water security in Southeast Asia, South Asia, and Central Asia.



Workshop that focuses on a water security project

(3) Technical assistance for disasters overseas

With its technical capabilities, JWA contributes to the global community in the area of international cooperation for water-related disasters such as floods, droughts, and accidents at dams and canals in other countries. Its corporation also includes support during the rehabilitation phase.



Dispatching experts in the wake of a major flood in Vietnam



Commitment to Proper Operational Management

JWA formulated a five-year Medium-term Plan and an annual plan under the five-year Medium-term Goals for FY2013-2018 on operational administration that was given by its competent minister. Its performance in terms of operational administration is subjected to the scrutiny of the competent minister every year.

JWA strives to ensure compliance of governing laws and regulations, manage its operations effectively and efficiently, and translate its management principle into action, based on the mid-term target. To these ends, JWA implements appropriate internal control, close internal communications, and awareness-raising about the importance of the activities of each unit.

JWA carries out the following activities to strengthen compliance, and plays a pivotal role in internal control.

Measures taken to strengthen compliance at JWA

- 1 JWA formulated an ethical code that serves as a guidepost for its directors and employees. It also announced its commitment to compliance both internally and outwardly.
- 2 The auditor performs an audit of JWA's commitment to internal control and, when he deems it necessary, he works with lawyers and certified public accountants and seeks support of assistant auditors to take full advantage of his auditing authority.
- 3 JWA appoints a compliance manager responsible for education and raising awareness about compliance. It also sets up a special contact window that accepts information on any anti-compliance activity from its employees and a third party. Should such an activity be confirmed, JWA will take prompt and appropriate actions under the leadership of the president.

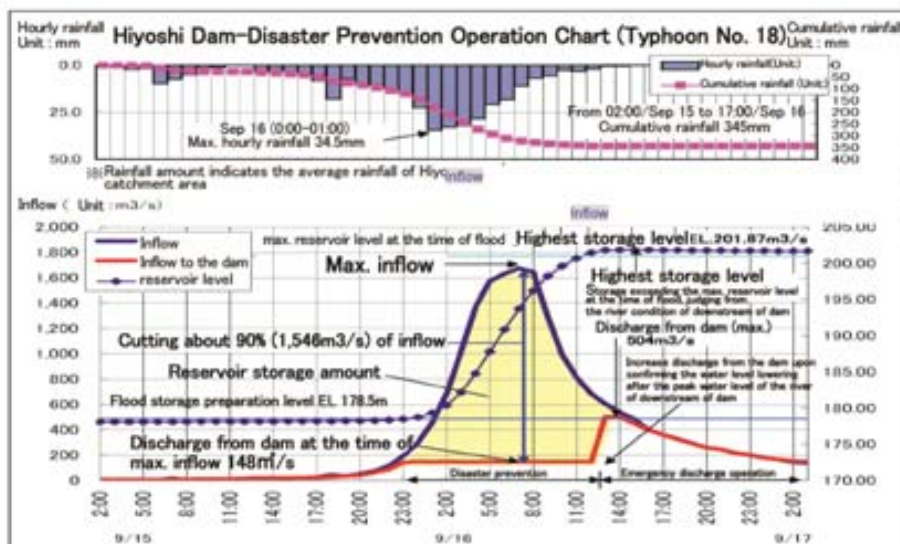
TOPIC 1

Disaster management at Hiyoshi Dam-Dealing with the largest flood since the management start

At the time Typhoon No. 18 attached Kyoto, Shiga, and Fukui prefectures in 2013, special high alert for possible heavy rains was released. In the catchment area of Hiyoshi Dam, it was recorded that the precipitation amount per an hour was max. 34.5mm, and a total amount of rainfall since its start reached 345mm. The inflow amount to the dam reached approx. 1,690m³/s, the largest since its management start in April 1998.

Against this flood, at Hiyoshi Dam they maximized the use of its storage capacity and stored a total of 44,600 K m³ (as large as approx. 37 times of Kyocera Dome Osaka baseball park, cutting about 90% of the amount to be discharged), and it was the largest storage since its management start. With this operation, they managed to lower the water level at the Hotsu Bridge point in the downstream of the dam by about 1.5m, and mitigated the damages in the downstream flooded area to the minimum.

JWA was awarded “Engineering Award” (I group) from Japan Society of Civil Engineers for its coordinated disaster management operation among the Yodo River system dams, including Hiyoshi Dam.



Hiyoshi Dam having stored maximum water
(Picture taken by Kinki Regional Development Bureau, MLIT)

TOPIC 2

Letter of appreciation from the water supply authorities for the measures taken against the musty odor

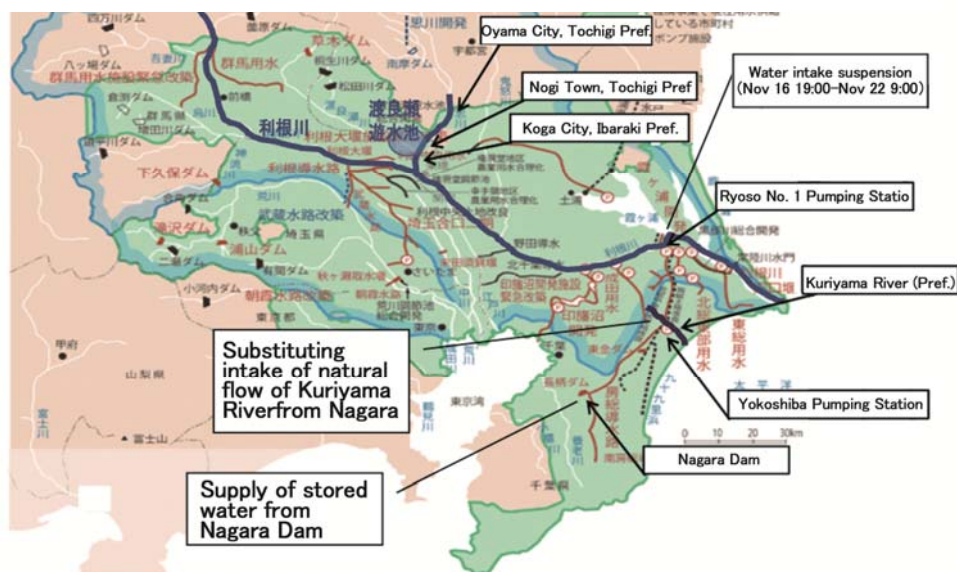
In November 2013 the water with musty odors, which would cause nasty smells on domestic water, ran into Omoi River, part of Tone River system, then flew down into Tone River to probably affect JWA facilities.

As the river water with the musty odor (density: 2-MIB) flew down into Tone River without being diluted, Kujuyukuri Regional Water Authority and Minamiboso Regional Water Authority, both in Chiba Prefecture, were afraid of their water purification plants not being able to fully treat the water because of over-capacity, which would cause the strong impact to the lives of the residents. To meet with this situation, the water intake to Boso Canal, which were supplying water to both of the authorities from Tone River was suspended. For six days of water intake suspension from Tone River, JWA coordinated closely with both authorities and the Chiba Prefectural Government to switch to the Nagara Dam for alternate water source and kept the stable supply of domestic and industrial water in the region.

For the measures taken by JWA, the secretariats of both of the water authorities handed the General Project Manager of Chiba Canal Integrated Operation and Maintenance Office, which managed Boso Canal, the letters of appreciation.



Presentation of the letter of appreciation from the water authority to JWA (December 2013)



Locations of related facilities and municipalities

TOPIC 3

Support Activities for the rehabilitation from inundation in Oyama City, Tochigi Prefecture

In September 2015, Kanto and Tohoku Torrential Rain caused sediment disasters, river floods, leading to extensive inundations, all of which caused severe damages. In Oyama City, Tochigi Prefecture, extensive damages were inflicted, including the inundations and water supply suspension following the inundations at the water purification plants. To comply with the request from the city government, JWA, designated public organization, mobilized 2 pump trucks for 4 days and nights from September 10 through September 14 with a total of 47 people who operated the trucks. They worked for pumping out of water from Hagawanishi Purification Plant and Yoragawa Pumping Station and helped rehabilitation of the facilities from inundation.

At the time the pumping work started, there was the water depth of approx. 1.6m at the Hagawanishi Purification Plant but the pumping out operation was complete within 24 hours and helped minimize the water supply suspension period to the minimum.



Pump truck
(Pumping capacity 60,000 l/min.)



Pumping operation on the premises of Hagawanishi Purification Plant inundated and isolated



Pump truck is the vehicle equipped with pumps, power generators, hoses and many other necessary materials needed for pumping out and delivery of water.

JWA have such vehicles for the purpose of prompt rehabilitation of its facilities from water supply suspension at the time of disasters.

TOPIC 4

Dispatch of staff of the Japan Disaster Relief Team to the Philippines

In November 2013, gigantic Typhoon No. 30 (so called Haiyan) landed on the central part of the Philippines and caused the tremendous human casualties and material damages in history with the death toll of more than 6,000 caused by high tide and collapse of more than 1.1 million houses. To cope with such a catastrophic disaster, the Philippines Government requested for the Japanese support, and the Japanese Government dispatched an international disaster relief team.

JWA staff joined this team from November 26 to 30 of 2013 and worked to coordinate with organizations concerned and provided recommendations toward prompt rehabilitation and recovery based on its expertise and experiences.



Exchange of opinions with the Minister of Public Works and Highways of the Philippines

We Are Committed to Fulfilling Our Social Responsibilities as a Team of Professionals in Water Affairs.



Kenyu Komura
President, Japan Water Agency

The Japan Water Agency (JWA), since the time of its predecessor “Water Resources Development Public Corporation (WARDEC),” has taken charge of the development and management of water resources in seven river systems across Japan for over half a century to support the lives of more than a half of the nation’s population. Typically, we have been providing stable water supply to key metropolitan areas in Kanto, Chubu, Kinki and other regions. We are proud that we have thus been contributing to the betterment of people’s lives and the development of the nation’s industry and economy.

Since the relaunch of WARDEC as JWA in October 2003, we have been committed to fulfilling our social responsibilities under our management principle, “To stably supply safe and quality water at low cost” with each director and employee having a pride as a professional team member in water affairs. Going forward, we will strive to improve cost management, conserve the natural environment and water quality, and reinforce our crisis management framework. We will continue to serve as a bridge between water producing communities upstream and water consuming communities downstream and always listen to the voices of our customers--water users and the public at large.

We will also make every effort to be better prepared for major natural disasters like the Great East Japan Earthquake occurred in 2011, as well as torrential rain and drought due to climate change associated with global warming. Specifically, we will focus on upgrading dam operations, building alternative water supply routes in addition to the existing canals, and making our facilities more resistant to earthquakes.

Your continued support for JWA will be greatly appreciated.



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