

This country profile was compiled by the OECD Secretariat and reflects information available as of March 2015. Further information and analysis can be found in the publication: OECD (2015) *Water Resources Allocation: Sharing Risks and Opportunities*, OECD Studies on Water, OECD Publishing. Country profiles for all of the 37 allocation regimes in 27 OECD and key partner countries surveyed for this project are available for download at: <http://www.oecd.org/fr/publications/water-resources-allocation-9789264229631-en.htm>.

JAPAN

Overview and highlights

In Japan, water resources allocation is largely managed by different ministries, although other water agencies, local governments and private companies have considerable involvement. For instance, water management in rivers is overseen by river administrators including the Minister of Land, Infrastructure Transport and Tourism, Governors and Mayors under the River Law¹.

Key characteristics of the prevailing allocation regime in Tone-Gawa River System include:

- Ground water is privately owned, contrary to surface water, which is not subject to private ownership;
- The river system covers 6 prefectures. With 18 dams, there is significant non-consumptive use to produce hydroelectric power;
- Nearly all of the consumptive use is associated with agriculture;
- Water entitlements are unbundled from land ownership and granted at individual or collective level;
- An entitlement not being used in a given period remains in place for the period it was issued for;
- Before a new entitlement can be granted, an assessment of third party impacts and an environmental impact assessment (EIA) are required;
- Water resources are considered neither over-allocated nor over-used and there is no pre-defined set of priority uses;
- Abstraction charges vary according to each prefecture, yet pricing arrangements typically do not reflect water scarcity;
- During episodes of scarcity, water use co-ordination meetings are the legal and authoritative instrument to co-ordinate and trigger water use restrictions if necessary. Stakeholders are involved in the process.

¹ For information on Japan's River Law please refer to: <http://www.idi.or.jp/library/pdf/RIVERE.PDF>.

Legal and institutional setting for water allocation

Institution	Scale	Main Responsibilities
Ministry of Land, Infrastructure, Transport and Tourism (MLIT)	National	Basic policy, issuing of water right permissions (river only); formulation and coordination of the basic plan for water resources development; operation and maintenance of facilities.
Ministry of Agriculture, Forestry and Fisheries (MAFF); Ministry of Health, Labour and Welfare (MHLW); Ministry of Economy, Trade and Industry (METI)	National	Formulation and coordination of water use and supply plan; operation and maintenance of facilities.
Local governments	Provincial/State/ Regional	Formulation and coordination of water use and supply plan; operation and maintenance of facilities.
Japan Water Agency	Basin	Operation and maintenance of facilities
Electric power companies; Land improvement district organizations	Other	Operation and maintenance of facilities

Legal context for water allocation: Roman/ Statutory Law; (Specifically, the River Law).
Legal definition of ownership of water resources: Ground water is private owned, while surface water (e.g. river water) cannot be made the subject of private ownership (the River Law, art. 2).

Tracking water scarcity

A mapping exercise has not been undertaken to identify areas where the scarcity of ground water and surface water is becoming a problem.

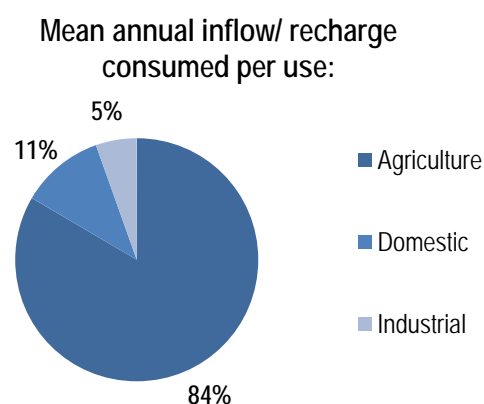
Allocation Regime Example: Tone-Gawa River System (Prefectures of: Ibaraki, Tochigi, Gunma, Saitama, Chiba, Tokyo)

Physical features of the water resource

The river basin area is 16 840km² and the total length of the Tone River is 322km. There are currently 22 dams in this river system (not considering electricity generating and/ or other dams). The yearly averaged discharge observed in the Kurihashi station is 243.79m³/s.

The **flow rate is managed or controlled** to some extent, as water systems are partially regulated.

There is significant **non-consumptive use** in the Tone-Gawa River System. Dams are used for many reasons such as flood control, generation of hydroelectric power, etc.



2

² See: www.japanriver.or.jp/river_law/kasenzu/kasenzu_gaiyou/kanto_r/028tone.htm (in Japanese).

Defining the available resource pool

Are limits defined on consumptive use? Yes.

- There is a limit in the volume of water that can be abstracted from rivers, which is linked to [Basic Plan for Water Resources Development](#), a public planning document formulated by the MLIT in co-ordination with related ministries, municipalities and councils, if needed. It is a statutory instrument that must be followed.

Are environmental flows clearly defined? Yes.

- In the River Law (art. 1), the administration of rivers seeks to comprehensively “maintain the *normal functions of the river water* (or “maintenance flow”) by maintaining and conserving the fluvial environment”. Freshwater biodiversity is taken into account through the preservation and enhancement of aquatic life. Terrestrial biodiversity is not addressed, however “landscape preservation” is a stated aim of art. 1 (Note 1-3).

Are there arrangements to deal with impacts of climate change? Yes.

- Holding the meeting of the experts.

What is the status of resource pool? Neither over-allocated nor over-used.

Factors taken into account in the definition of the available resource pool

Factor	Taken into account?	If taken into account, how?
Non-consumptive uses (e.g. navigation, hydroelectricity)	✓	In the case of dams, these uses can be taken into account in water storage capacity of the reservoir or in subordination to running water for other objectives.
Base flow requirements	✓	Required, for instance, in flowing water occupancy, boat transportation, fisheries, sightseeing, keeping cleanness of water, prevention of salt erosion, prevention of blockage of river mouth, preservation of river management facilities, maintenance of ground water level.
Return flows (how much water should be returned to the resource pool, after use)	✓	Return flows are considered in the determination of the environmental flow.
Inter-annual and inter-seasonal variability	✓	Annual rainfall variability is not taken into account, but water user variability is taken into account.
Connectivity with other water bodies	✓	If any headrace is constructed between the bodies, the flow rate is considered.
Climate change		

Entitlements to use water³

Definition of entitlements	Characteristics of entitlements
<p>Are entitlements legally defined? Yes.</p> <p>Are private entitlements defined? Yes, as individual entitlements (to an individual person) or as a collective entitlement (to a group of persons/ organisation/ city).</p> <p>Nature of entitlement: Defined as the purpose that water may be used for; maximum volume that may be taken in a nominated period; and, user, place, how to abstract, and the volume of accumulation. Water entitlements are unbundled from property titles.</p> <p>Period granted for: A term of 10 years with the exception of 20 years for hydropower generation.</p> <p>Return flow obligations: Not specified.</p>	<p>If the entitlement is not used in a given period it remains in place for the period it is issued for.</p> <p>Are entitlements differentiated based on the level of security of supply (or risk of shortage)? No. However, if there is not enough water in the river to abstract, the entitlement cannot be issued.</p> <p>Is there a possibility to trade, lease or transfer entitlements? Yes, they need to obtain the approval of the river administrator (the River Law, art. 34).</p> <p>Are allocations (the amount that can be taken at any point in time) managed separately from entitlements? Yes.</p> <p>Is allocation trading allowed? No.</p> <p>Can entitlements function as a financial instrument? n/a.</p>
<p>Type of users not required to hold a water entitlement to abstract water: "Free users" or people who abstract the river water non-exclusively and non-continuously (e.g. domestic users who abstract small amounts of river water using buckets). However, if the river administrator assesses their abstraction is exclusive and continuous, they are required to hold a water entitlement.</p> <p>Requirements to obtain a new entitlement or to increase the size of an existing entitlement: conditional on assessment of third party impacts and environmental impact assessment (EIA).</p> <p>Pre-defined priority classes: not established.</p>	

Abstraction charges

User category	Abstraction charge?	Basis for charge	Reflects water scarcity?
Agriculture	All categories depend on the prefectures based on their ordinance. Basically, the abstraction charges of public projects including national projects, publicly-owned projects and irrigation projects are free or reduced.	All categories depend on the prefectures based on their ordinance. Basically, the abstraction charges of public projects including national projects, publicly-owned projects and irrigation projects are free or reduced.	No
Domestic			
Industrial			
Energy production (not including hydro power)			
Hydro power			
Other. Specify:			

³ The information in this box refers to water rights granted by river administrator under the River Law. It does not refer to customary water rights. For further reference, please access: http://www.maff.go.jp/j/nousin/mizu/kurasi_agwater/k_agri/pdf/detail_en.pdf.

Dealing with exceptional circumstances

Distinction between the allocation regimes used in “normal” and extreme/severe water shortage times? Yes.

How is the amount of water made available for allocation adjusted: by the operation of dams and other facilities for water use and supply.

Definition of “exceptional” circumstances: drop of the river water level, drop of the level of water in the reservoirs, etc.

Legal bodies declaring the onset of “exceptional” circumstances: A water use co-ordination meeting is held. This is a temporary meeting consisting of all representatives of water users and suppliers in the river basin. This co-ordination meeting can then trigger water use restrictions and other related measures, involving stakeholders in the process.

Monitoring and enforcement

Responsible authority:

Types of withdrawals monitored:

Monitoring mechanisms:

Conflict resolution mechanisms? Yes, through the water use conciliation (the River Law, art. 38-43).