

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>.

## COSTA RICA

### Overview and highlights

In Costa Rica, there are 34 hydrological basins and 59 known aquifers. Costa Rica has a national scale abstraction regime. Since the year 2000, reforms have been carried out in order to adjust water usage fees, to promote new economic tools in the management of water rights, and to improve the administrative process for water concessions. Currently, the complete reform of the Water Law No. 276 is under consideration.

Key characteristics of the prevailing allocation regime in Costa Rica include:

- The ground and surface waters are publicly owned;
- Irrigation is the major water user (70.8 % of mean annual inflow/recharge);
- Water resources are considered neither over-allocated nor over-used;
- Water entitlements are granted through prior appropriation, where reliability is a function of the year when the entitlement was first issued;
- If an entitlement is not used in a given period, it will be lost (e.g. "use it or lose it");
- Before a new entitlement can be granted, an assessment of third party impacts and an environmental impact assessment (EIA) need to be undertaken and some existing user(s) must forgo use;
- Trading, leasing or transferring of entitlements is not possible;
- Abstraction charges apply to agriculture, artificial fish production domestic, industrial, hydro power, tourism and agro-business. Charges are based on the volume of water used and do not reflect water scarcity;
- The rights granted by water concessions can be modified according to the Water Law No. 276 under certain technical and legal conditions that prove the need for temporary or permanent redistribution of water and their associated rights.

### Legal and institutional setting for water allocation

Institution	Scale	Main Responsibilities
Ministry of Environment and Energy - Water Management Office	National	Setting national policies, planning administration of water resources across the country, issuing concessions for the use of hydrological resources in accordance with national laws, and consultation with other responsible bodies such as the Costa Rican Institute of Water and Sewers (AyA) or the National Service for Subterranean Water, Irrigation, and Drainage (SENARA).
Legislative Assembly	National	Granting rights and concessions for water use, in accordance with its constitutive laws, to the Costa Rican Institute of Electricity (ICE) and the Institute of Water and Sewers (AyA).

**Legal context for water allocation:** Roman/ Statutory Law.  
**Legal definition of ownership of water resources:** Ground and surface waters are publicly owned.

### Tracking water scarcity

A mapping exercise has been undertaken to identify areas where the scarcity of ground water and surface water is becoming a problem: [National Hydrological Balance 2008](#)<sup>1</sup> and National Plan for the Integrated Management of Hydrological Resources 2009.

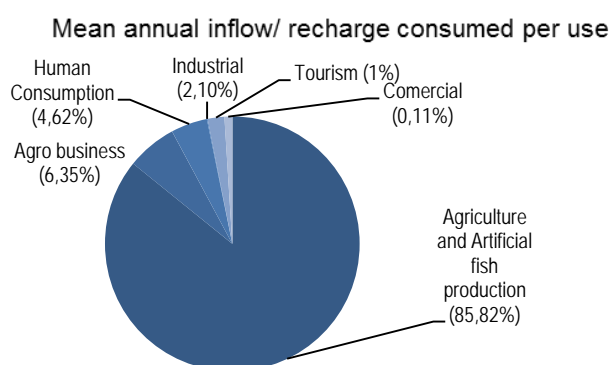
### Allocation Regime Example: Costa Rica (national scale)

#### Physical features of the water resource

Costa Rica is estimated to have 113 km<sup>3</sup> of water available annually, of which 38 km<sup>3</sup> is stored as groundwater. This is equivalent to 24,784 m<sup>3</sup> per person per year, according to data from 2010. Of this, on average, approximately 20.73% is assigned to users via concessions. There are 34 hydrological basins and 59 known aquifers. There is a serious concern that poor water quality is limiting water availability or accessibility.

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

There is **significant non-consumptive use** for hydropower generation (85.19%).



#### Defining the available resource pool

**Are limits defined on consumptive use?** Yes.

- There are no restrictions on who can abstract the water but no limit on how much water can be abstracted. There is a water resources planning document prepared by the Ministry of Environment and Energy (MINA E) that serves as a guiding document. However, the limits on consumptive use are not linked to this plan.

**Are environmental-flows clearly defined?** Yes.

- For the hydro-power projects, there is a policy of minimum flow of 10% of the overall annual flow, with a mandatory minimum flow of 5% of the water diverted to downstream of the dam. As for all other uses, when possible, the minimum flow is 10% out of the registered flow subject to the demand. (Agreement of the Board of the National Electricity Service 1991).
- Freshwater and terrestrial biodiversity needs are taken into account. There are certain development projects that require an Environmental Impact Assessment in accordance with the Organic Environmental Law No. 7554 (4 October 1995). In such cases, the developer must carry out studies on the impact of the project on biodiversity.

**Are there arrangements to deal with impacts of climate change?** No.

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

<sup>1</sup> In Spanish.

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)	✓	It has been quantified in the National Hydrological Balance (2008) and in the National Register of Concessions according to the article 18 of the Water Law No. 276 administered by the Office of Water Management.
Base flow requirements	✓	Methodologies used for its estimation and the conditions for its calculations are defined in the Technical Manual of Provisions of the Directorate of Hydrological Resources, MINAE.
Return flows (how much water should be returned to the resource pool, after use)		
Inter-annual and inter-seasonal variability		
Connectivity with other water bodies	✓	The last National Hydrological Balance (2008) considered this factor in the basins where its information was obtained. However, it does not include a register that is constantly updated.
Climate change		

Entitlements to use water	
Definition of entitlements	Characteristics of entitlements
<p><b>Are entitlements legally defined?</b> Yes.</p> <p><b>Are private entitlements defined?</b> Yes, as an individual entitlement (to an individual person) or as a collective entitlement (to an institution representing water users (e.g. WUAs) or to another (perhaps informal) community-based arrangement). In the case of collective entitlements, the Ministry of Energy and Environment grants a concession to each Society of Water Users according to the Water Law No. 276. These societies have the authority to decide internally the form of water distribution amongst their members through agreements of its general assembly of members, or through its own regulation if any.</p> <p><b>Nature of entitlement:</b> Prior appropriation, where reliability is a function of the year when the entitlement was first issued. Water concessions are linked with property titles. The entitlements are defined as both the purpose that water may be used for and the maximum volume that may be taken in a given period are specified in the entitlements.</p> <p><b>Period granted for:</b> A term of up to 30 years (assigned administratively depending on use) with the expectation of periodic renewal. Nonetheless, a renewal request might be denied under exceptional circumstances, such as water scarcity or a breach in the terms of the concession.</p> <p><b>Return flow obligations:</b> Not specified.</p>	<p>If the entitlement is not used in a given period, it will be lost (e.g. "use it or lose it").</p> <p><b>Are entitlements differentiated based on the level of security of supply (or risk of shortage)?</b> No.</p> <p><b>Is there a possibility to trade, lease or transfer entitlements?</b> No.</p>

**Type of users not required to hold a water entitlement to abstract water:** The right of common use for domestic uses including firefighting, when direct access to water from rivers is possible without using infrastructure or river diversion, according to The Water Law No. 276. In addition, ICE (for water exploitation for hydropower) and AYA (for water supply for human use and drainage) have a concession granted by the Legislative Assembly, in accordance with Law No. 449 and Law No.2726 respectively. These concessions are annotated in the Register of Concessions.

**Requirements to obtain a new entitlement or to increase the size of an existing entitlement:** Assessment of third party impacts, environmental impact assessment (EIA) and existing user(s) forgoing use.

### Abstraction charges

User category	Abstraction charge?	Basis for charge	Reflects water scarcity?
Agriculture	✓	Volumetric	No
Domestic	✓	Volumetric	No
Industrial	✓	Volumetric	No
Energy production (not including hydro power)			
Hydro power	✓	Volumetric	No
Tourism and agro-business	✓	Volumetric	No

### 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:** The assignment of the quantity is made according to the matching schedule, daily, weekly, monthly, by season, or annually.

**Definition of “exceptional” circumstances:** Under certain technical and legal conditions that prove the need for temporary or permanent redistribution of waters and their associated rights. Under those conditions, the rights granted by water concessions can be modified according to the Article 37 of Chapter VII of the Water Law No. 276. Any change in the water concession must be backed by technical studies that must be notified to the affected concessionaires. In such cases, the General Law of the Public Administration No. 6227 provides appropriate legal remedies for the affected individuals by granting due process.

**Legal bodies declaring the onset of “exceptional” circumstances:** The Ministry of Environment and Energy. How will allocation regime be affected by ‘exceptional’ circumstances depends on the given exceptional conditions and any study that supports the redistribution. Stakeholders are not involved in this process.

#### Pre-defined priority classes



### Monitoring and enforcement

**Responsible authority:** Ministry of Environment and Energy.

**Withdrawals Monitored?** No. Even though the Ministry of Environment and Energy is the legal authority, it does not exercise control in this field due to a lack of human resources these days.

**Conflict resolution mechanisms?** Yes. The proceedings for appeal, annulment and revision are set out in the General Law of Public Administration No. 6227 of 2nd May 1978.