

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>.

MEXICO

Overview and highlights

In Mexico, water allocation is the responsibility of the National Water Commission (CONAGUA). Recent reforms include the amendment of the National Water Act; establish the division of competencies between the National Water Commission and the Basin Agencies and giving greater participation to the Basin Councils in the country. Other ongoing reforms related to water allocation are focussed on renewing concessions that have expired or are on the verge of expiring.

Key characteristics of the prevailing allocation regime in Mexico include:

- Ground water and surface water are considered "Property of the Nation";
- Energy production is the major water abstractor (67% of mean annual inflow/recharge);
- Water resources are considered both over-allocated and over-used, and several measures are taken to address these issues;
- Water entitlements are unbundled from property titles;
- Water entitlements can be traded, leased or transferred;
- There is no recognised legal procedure to declare the onset of "exceptional" circumstances.

Legal and institutional setting for water allocation

Institution	Scale	Main Responsibilities
The National Water Commission	National	Management and safekeeping of national waters

Legal context for water allocation: National Water Act.

Legal definition of ownership of water resources: Ground water and surface water are publicly owned. They are considered the "Property of the Nation".

Tracking water scarcity

A mapping exercise is being undertaken to identify areas where the scarcity of ground water and surface water is becoming a problem in the context of the National Drought Prevention Programme (PRONACOSE). Established in January of 2014, the programme aims to monitor, mitigate and prevent recurrent drought phenomenon in Mexico. Further information available at: www.pronacose.gob.mx/.

Allocation Regime Example: Mexico (national scale)

Physical features of the water resource

In Mexico, the rivers and streams of the country constitute a hydrographic network of 633 thousand kilometres in length, in which 50 major rivers stand up accounting for 87% of the runoff flows of the country and whose basins cover 65% of the continental land area of the nation.

Two-thirds of the territory is considered arid or semi-arid, with less than 500 mm annual rainfall, while the Southeast is humid with average rainfall exceeding the 2,000 mm per year. In most of the territory the rain is more intense in summer, mainly of pouring type.

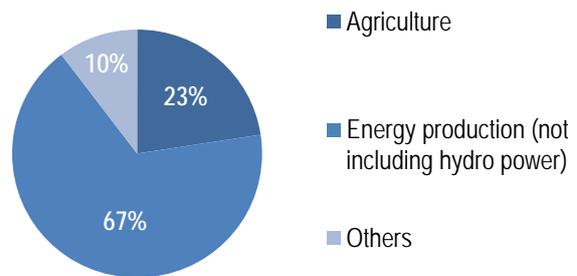
The state territory is divided in 37 hydrological regions (accounting for 731 basins) which are grouped in 13 hydrological-administrative regions and the national level that oversees these regions.

The importance of groundwater is manifested in the magnitude of the volume used by the main users. Around 38% of the total concession for consumptive uses (31.8 billion m³ per year to 2012), it comes from groundwater. For purposes of administration of the groundwater, the country has been divided in 653 aquifers.

The **flow rate is managed or controlled**.

There is **significant non-consumptive use** in hydropower.

Mean annual inflow/ recharge consumed per use:



Defining the available resource pool

Are limits defined on consumptive use? Yes.

- There is a limit in the total volume of water that can be abstracted, which is linked to a river basin management plan and National Water Plan, prepared by the National Water Commission. It is a statutory instrument that must be followed. The rules set out in the plan cannot be used to vary the amount of water that each and every entitlement holder is allocated.

Are environmental flows clearly defined? Yes.

- Environmental flows (e-flows) are defined as the flow rate or minimum volume needed in receiving bodies or the minimum flow of natural discharge of an aquifer, in order to protect the environment and the ecological balance of system.
- Freshwater and terrestrial biodiversity are not taken into account in the definition of e-flows.

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

- Mexico is improving water policy to consider the consequences of the extraction of water, the negative effects of the climate change and identify the actions to address negative consequences.

What is the status of resource pool? Over-allocated or over-used.

- **Measures to address over-allocation:** Establishment of surveillance actions, procedure of systematically acquiring and recording information and improved measurement of the concession volume in regions with water stress.

Measures to address over use: Greater control of the allocation of water, establishing measures to reduce previously granted allocations (especially for those that seek to be extended) and efficient water use policies.

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)	✓	Provided in regulations related to these activities
Base flow requirements	✓	Set out in the Official Mexican Standards
Return flows (how much water should be returned to the resource pool, after use)	✓	Set out in the Official Mexican Standards
Inter-annual and inter-seasonal variability		
Connectivity with other water bodies		Considered only when implementing studies of the availability of water resources in basins and aquifers
Climate change		Under current legislation, not taken into consideration for determining available resources. However, measures are being undertaken to include the necessary regulations and actions of Government to address the negative effects of climate change.

Entitlements to use water

Definition of entitlements	Characteristics of entitlements
<p>Are entitlements legally defined? Yes.</p> <p>Are private entitlements defined? Yes, as an individual entitlement (to an individual person) and as collective entitlement to an institution representing water users (e.g. WUAs).</p> <p>Nature of entitlement: Defined as the use, exploitation or utilisation of the volume that is given in the concession, which must be respected by concessioners. Water entitlements are unbundled from property titles.</p> <p>Period granted for: A term of 5 to 30 years, with the expectation of periodic renewal.</p> <p>Return flow obligations: Not specified although addressed in other regulations in Mexico.</p>	<p>Are entitlements differentiated based on the level of security of supply (or risk of shortage)? Yes. Differentiated by the rate applied to cover the use of national waters depending on the area where the abstraction takes place. Quotas or fees are set by taking into consideration the degree of water stress in the region.</p> <p>Is there a possibility to trade, lease or transfer entitlements? Yes, rights can be legally transferred.¹</p>
<p>Type of users not required to hold a water entitlement to abstract water: Users who take advantage of water removing it by manual means.</p>	

¹ See: Chapter V "Transmission of Titles", articles 33 to 37 Bis of the National Water Act.

Abstraction charges

User category	Abstraction charge?	Basis for charge	Reflects water scarcity?
Agriculture	✓	Volumetric	Yes
Domestic	✓		Yes
Industrial	✓		Yes
Energy production (not including hydro power)			
Hydro power	✓		Yes

How pricing arrangements reflect scarcity: Water charging in Mexico is divided into nine areas of availability. The list of areas that belong to each availability zone is located in article 231 of the Federal Rights Law, updated annually. In general, the cost per cubic meter is greater in areas of reduced availability².

Dealing with exceptional circumstances

Distinction between the allocation regimes used in “normal” and extreme/severe water shortage times? No.

How is the amount of water made available for allocation adjusted: The availability of water for assignment in Mexico is variable, depending on the basin or aquifer. Also, the current availability of water resources is published in the Official Journal of the Federation by basin and aquifer and is availability on the webpage of the National Water Commission.

Definition of “exceptional” circumstances: n/a.

Legal bodies declaring the onset of “exceptional” circumstances: There is no recognised legal procedure to declare the onset of exceptional” circumstances. However, the National Water Act foresees the legal figure of the rescue that is expected for reasons of public utility or public interest.

Pre-defined priority classes³



² For more information please refer to table T5.3 provided in the Mexican Water Statistics 2013 (Estadísticas del Agua en México 2013): <http://www.conagua.gob.mx/Contenido.aspx?n1=3&n2=60&n3=106> (in Spanish).

³ Provided in the Tenth Fifth Transitional Article of the National Water Act: 1. Domestic; 2. Urban Public; 3 Livestock; 4 Agricultural; 5. Ecological conservation use or environmental use; 6. Generation of electricity for public service; 7. Industrial; 8. Aquaculture; 9. Generation of electricity for private service; 10 Wash and land fill; 11 Application for tourism, recreation and therapeutic purposes; 12 All-purpose; 13. Other.

Monitoring and enforcement

Responsible authority: National Water Commission, through the Sub-Directorate General of Water Management and its related units, basin organizations and local directions.

Types of withdrawals monitored: Domestic, industrial, energy production, environment, transfer to the sea or another system and national security.

Monitoring mechanisms: Mechanisms to control the volume that is extracted and used for each of the uses.

Sanctions: There are sanctions for non-compliance with allocation rules and regimes. Concession may be revoked when abstracting the water which amount is one fifth larger than that of authorised. Economic and other sanctions are implemented consistently.