

AGRICULTURE AND WATER POLICIES: MAIN CHARACTERISTICS AND EVOLUTION FROM 2009 TO 2019¹

COLOMBIA

This country profile reviews recent changes in agriculture and water policies. The content of the profile is based on a survey conducted in 2019 by the OECD Secretariat² and additional official sources.

A. Agriculture and Water Characteristics

- Colombia's agriculture mainly produces cereals, dairy, livestock and fruit. Livestock represented 35% of the total agricultural production in 2018 (OECD, 2020c). Extensive cattle breeding is a major factor in land degradation and deforestation, water use and pollution (OECD, 2014).
- Colombia has abundant agricultural land and fresh water. Agricultural water use accounted for 60% of total water abstractions in 2018, above the OECD average. Irrigated lands represented 3% of the total agricultural area in 2018 (OECD, 2020c).
- The nitrogen balance decreased between 2000 and 2018 from 14 to 11 kg/ha, and the phosphorus balance remained around 6 kg/ha during the same period (OECD, 2020a). Colombia is nevertheless among the main consumers of commercial fertilisers in Latin America (OECD, 2014).

Table 1. Main challenges related to water in agriculture

Water use ++	Water pollution ++	Water-related risks ++
Agriculture is the main water user (60% of total water abstractions in 2018)	Key pollutants from the agricultural sector are agrochemicals, nitrogen, phosphorus and salts	Extreme weather events have increased in frequency and intensity since 2000

Note: +: Minor issue; ++: Problematic issue; +++: Major issue. Source: OECD (2014, 2019, 2020c).

¹ This document, as well as any data included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

² For more details, Gruère, G., M. Shigemitsu and S. Crawford (2020), "Agriculture and water policy changes: Stocktaking and alignment with OECD and G20 recommendations", *OECD Food, Agriculture and Fisheries Papers*, No. 144, OECD Publishing, Paris, <http://dx.doi.org/10.1787/f35e64af-en>.

B. Key Agriculture and Water Policies & Main Evolution from 2009 to 2019³

B.1. Cross-Cutting Agriculture and Water Policies & Governance

Table 2. Key agriculture and water policies and policy changes

Key Policies	Water management is based on planning, command-and-control, and economic and financing instruments. River Basin Management Plans (POMCAs) are key water planning instruments for the coordinated use of soil, water, flora and fauna and the management of river basins. Each user wishing to abstract water from a natural body must obtain a water concession (permit).
Main Evolution from 2009 to 2019	<ul style="list-style-type: none"> ▶ The 2010 Integrated Water Resource Management Policy establishes key principles for water management. These include management at river basin level, efficiency of use, and decision making that should be evidence-based, transparent and participatory. The policy identifies six main goals: i) preserve the ecosystems and hydrological processes upon which water availability depends; ii) characterise, understand and optimise water use demand; iii) improve quality and decrease water pollution; iv) develop a system of integrated risk management for water supply and demand; v) strengthen water sector institutions; and vi) consolidate and improve water governance. ▶ The National Development Plan 2018-2022 states that the Ministry of Agriculture and Rural Development (MADR) strengthens public land adaptation through comprehensive processes that articulate infrastructure with agricultural value chains and promotes the efficient use of water.
Consistency between Agriculture and Water Policies	Since 2018, MADR has been working on promoting a legal reform concerning irrigation districts, in order to include the notion of “efficient and sustainable use of land and water resources” in irrigation infrastructure. The purpose of the legal reform is also to regulate the rate for the users of irrigations districts for agricultural purposes, establishing that this payment includes: i) the amount of water being consumed, ii) the number of hectares for agriculture that use water, and iii) the machinery being used for the operation of the infrastructure.

B.2. Policies to Manage Agricultural Water Use (Quantity)

Table 3. Key instruments for the management of water use

Quantified national future targets for the use of water resources in the agriculture sector <ul style="list-style-type: none"> ▶ No but water use planning is generated by each sector at the regional level ▶ <u>Within the framework of the National Water Study 2018, projections are established on water supply and demand as an element for making decisions in the sector</u> 	Metering, monitoring and reporting <ul style="list-style-type: none"> ▶ Metering: Yes ▶ Monitoring: No ▶ Reporting: Yes ▶ <u>Water concessions are authorised through administrative acts, which impose obligations such as measurement and this in turn must be reported on the national platform SIRH (Water Resource Information System)</u>
Quantity targets accounting for climate change <i>Unspecified</i>	Scarcity pricing Yes: Since 1978, the mechanism for authorising concessions has remained the same
Water entitlements Surface Water and Groundwater: Water is a public good and owned by the State. Making use of this resource requires a concession or permission administered by the competent environmental authority	Enforcement measures <i>Unspecified</i>
Proportion of cost recovery for surface water Remuneration rates differ depending on the specific discharges into water (<u>Decree 1076 of 2015</u>)	Other policy instruments used to encourage water use efficiency <ul style="list-style-type: none"> ▶ Efficient Use and Water Savings Programs ▶ Tax incentives applicable to all users

Note: Underline indicates changes since 2009

³ Agriculture and water policies are defined here as all policies that affect the interaction between agriculture production and water.

B.3. Policies to Control Agricultural Water Quality

Table 4. Key instruments to improve water quality

<p>National water quality data collection tools</p> <ul style="list-style-type: none"> ▶ <u>Water quality data has been collected and recorded by the Water Resource Information System (SIRH) managed by Institute of Hydrology, Meteorology and Environmental Studies (IDEAM) since 2014</u> ▶ <u>Environmental Quality index (ICA) reported by IDEAM since 2010</u> ▶ National Water Study 	<p>Main policy instruments</p> <ul style="list-style-type: none"> ▶ The environmental authorities have established to define quality objectives of the bodies of water, which must be met by the users of the water resource, including the agricultural sector. The Water Resource Management Plan (PORH) is the planning instrument that allows the competent Environmental Authority to set the destination and use of surface continental and marine water bodies, establishes the rules, conditions and program monitoring. "The Technical Guide for the Formulation of Plans for the Management of Inland Surface Water Resources" was issued (Resolution 958 of 2018). It is the basic guideline that allows consolidating the respective programs relating the PORH with other instruments for the integral management of water resources. ▶ <u>2015 Resolution "Establishing the parameters and maximum permissible limit values in point source discharges to surface water bodies"</u>
<p>Spatial tools (e.g. topological, geometric, or geographic data analysis) to target policies in specific areas</p> <p>Spatial, temporal, quantitative and qualitative instruments are incorporated to adjust each cycle of implementation of water management</p>	<p>Enforcement measures</p> <p><i>Unspecified</i></p>

Note: Underline indicates changes since 2009

B.4. Policies to Manage Climate-Induced Water Risks

Table 5. Water risks and responses

	Droughts	Floods
Reported Trends	-	-
Key Policies	<p>Changes to sustainable practices through the rural extension of the National Agricultural Innovation System (SNIA).</p> <p>Definition of the agricultural frontier.</p> <p>Credit lines.</p>	<p>The "National Disaster Risk Management Plan" is the instrument of the National Disaster Risk Management System created by Law 1523, which defines the objectives, programs, actions, responsibilities and budgets through which the processes of risk awareness, risk reduction and disaster management are executed within the framework of national development planning.</p>
Main Changes from 2009 to 2019	-	-
Factoring of Climate Change in Policies	<p>4/5: Colombia has defined a whole structure to include climate change in policy considerations:</p> <ul style="list-style-type: none"> ▶ The Third Climate Change Communication, which was a process of inter-agency collective policy construction with the permanent support of the United Nations Development Program (UNDP) and the Global Environment Facility (GEF). ▶ National Climate Change Adaptation Plan (Conpes 3700 of 2011) and the "National Disaster Risk Management Plan" created by Law 1523 are the instruments which define the objectives, programs, actions and budgets through which processes of risk awareness, risk reduction and disaster management are executed within the framework of national development planning. ▶ The MADR is in the process of formulating the "Comprehensive Climate Change Management Plan for the Agricultural Sector" 	

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