

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

LITHUANIA

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

- Lithuania's agriculture mainly produces cereals, milk and non-food crops (Eurostat, 2019).
- Agriculture represented 20% of total water abstractions in 2018 (OECD, 2020b).
- Eutrophication of surface freshwater remains problematic, with a slight increase of stations reported in eutrophic and hypertrophic status, from 47% to 49% between 2012 and 2015 (European Commission, 2019). The nitrogen balance decreased between 2000 and 2015 from 31 to 25 kg/ha, and the phosphorus balance went down from 6 kg/ha to 1 kg/ha during the same period (OECD, 2020a).
- The lowest nitrate concentrations in surface waters were observed in the period immediately after the restoration of independence (1992-1994), but the highest nitrate concentrations were observed in the 2015-2017 period. Nitrate concentrations in surface water has been constantly increasing. During 2016-2017 very high concentrations of nitrogen were found, exceeding the criteria of good water bodies status even 4-9 times.

Table 1. Main challenges related to water in agriculture

Water use	Water pollution	Water-related risks
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Agricultural water abstractions represent 20% of total water abstractions. Illegal water abstractions for agriculture use are common, but gradually decreasing	Surface water bodies is mainly affected by diffuse pollution, mainly from agricultural activities. Key pollutants from the agricultural sector are nitrogen and phosphorus compounds due to livestock manure and mineral fertilisers	The 2018 drought resulted in a sharp drop in the harvested production of cereals

Note: +: Minor issue; **: Problematic issue; +++: Major issue. Source: Eurostat (2019), OECD (2017, 2019, 2020b).

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	<p>The existing EU legislation imposes a protective framework with standards for all water bodies in EU countries and addresses specific pollution sources, including agricultural pollution. The three main directives involved are the Water Framework Directive (WFD) (2000/60/EC) (on water resources management), the Nitrates Directive (91/676/EEC) and the Floods Directive (2007/60/EC).</p> <p>Since 2001, the main document establishing requirements for water quality in agriculture is the Requirements for the Protection of Waters against Pollution caused by Nitrogen Compounds from Agricultural Sources⁴. Requirements were updated every 4 years.</p> <p>The management of surface and groundwater bodies is based on river basin districts. The measures are set out in the Implementation Plan of the Water Development Program 2017-2023.</p>
Main Evolution from 2009 to 2019	<ul style="list-style-type: none">▶ The Water Development Program 2017-2023 defines objectives, targets and expected results in the areas of the management of the four River Basin Districts (RBDs), environmental protection of the Baltic Sea, flood risk management in the RBDs, water pollution from agricultural activities, drinking water supply and wastewater management development. The Action Plan for the Implementation of the Water Development Program for 2017–2023 of 2017 was approved by the Ministers of Environment and Agriculture.▶ The Rural Development Program (RDP) “Agri-environment Payments” for 2007-2013 implemented agri-environmental measures and measures to improve surface water bodies that do not meet the objective of good status. However, few farmers implement agri-environmental measures. According to the evaluation in river basin management plans, there is no visible effect on water bodies status as the RDP measures were applied in low scale and just small part of them was implemented in the territories of risk water bodies basins.
Consistency between Agriculture and Water Policies	<p>The RDP 2007-2013, the RDP 2014-2020, and the Water Development Program 2017-2023 and its Action Plan have some consistency; however agriculture and water policies are in conflict in Lithuania because one of the main causes of poor surface water status is diffuse pollution.</p>

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

⁴ Order No 452/607 of the Minister of Agriculture of the Republic of Lithuania and the Minister of Environment of the Republic of Lithuania of 19 December 2001

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

Table 3. Key instruments for the management of water use

<p>Quantified national future targets for the use of water resources in the agriculture sector Yes: <u>The Water Development Program 2017-2023; National pollution reduction targets agreed between all the HELCOM (The Baltic Marine Environment Protection Commission) countries in order to restore good Baltic Sea ecological status.</u></p>	<p>Metering, monitoring and reporting ► Metering: Yes, Monitoring: Yes, Reporting: Yes <u>Since 2003 if natural/legal persons use more than 10 m³/day of groundwater or supply to more than 50 persons or use for economic commercial activities, they need to submit the annual water use reports to the Lithuanian Geological survey. Economic entity who are engaged in polluting activities or extracts 100 m³ per day of groundwater must monitor the impact on groundwater and and have provide data to the Lithuanian Geological survey.</u></p>
<p>Quantity targets accounting for climate change No</p>	<p>Scarcity pricing No</p>
<p>Water entitlements ► Provisions for water use are implemented <i>via</i> a subsurface resource extraction permission system and pollution permission system by the Environmental Protection Agency ► Groundwater extraction permits are delivered by the Lithuanian Geological survey</p>	<p>Enforcement measures <i>Unspecified</i></p>
<p>Proportion of cost recovery for surface water ► Not yet assessed. The implementation of planned agricultural measures is not progressing as planned in the RBMPs</p>	<p>Other policy instruments used to encourage water use efficiency Taxes: Until 2015, the tax on groundwater used for agricultural production was directed to agricultural entities consuming 100 m³ per day and had integrated pollution prevention and control permit. <u>From 2015 until 1 July 2020, the minimum tax on groundwater used for agricultural production was applied to agricultural entities that consume 0 m³ per day. The tax for 1 cubic meter of groundwater was € 0.10 ⁵</u></p>

Note: Underline indicates changes since 2009

B.3. Policies to Control Agricultural Water Quality

Table 4. Key instruments to improve water quality

<p>National water quality data collection tools ► Measurements, assessments: the state monitoring programme ► The Soil Water Assessment Tool: SWAT assess the share and magnitude of agricultural pollution impacts ► Statistical information on crops and fertiliser use ► <u>Measures are being taken to create a national fertiliser use and application (fertilization plan) database⁶. The government aims to strengthen the legal framework for the regulation of fertilizers (on use, registration, planning) in order to make the databases operational.</u></p>	<p>Main policy instruments ► <u>Regulatory: Water Law, WFD, Water Development Program 2017-2023 and its Action Plan; it sets the goal of reducing eutrophication-promoting nutrients entering the Curonian Lagoon and the Baltic Sea.</u> ► <u>Economic: Taxes, RDP 2014-20</u> ► <u>Information: Training, Code of good agricultural practice</u></p>
<p>Spatial tools (e.g. topological, geometric, or geographic data analysis) to target policies in specific areas Lithuania has no spatial tool</p>	<p>Enforcement measures ► Water users must carry out environmental monitoring according to the procedure established by the Law of the Republic of Lithuania on Monitoring ► Compliance with the requirements of legal acts is controlled by the institutions of the Republic of Lithuania ► Penalties for non-compliance are imposed under the Code of Administrative Offenses</p>

Note: Underline indicates changes since 2009

⁵According to the law of the Republic of Lithuania on Subsurface, the minimum tax on water used for agricultural production now should be employed for agricultural entities that are consuming 100 m³ per day. From 1 July 2020, the tax for one cubic meter of groundwater was also changed, now is set € 0,03. This exemption (tax from 100 cubic meters) applies only to farmers who will use extracted groundwater for agricultural activity except for agricultural product conversion or the realization of food or non-food items from them.

⁶ The development is planned to complete in 2021.

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

Table 5. Water risks and responses

	Droughts	Floods
Reported Trends	In 2010, 2018 and 2019, Lithuanian agriculture was affected by droughts. The precipitation and temperature change significantly year by year. The tendency of drought is increasing and precipitation shortage is becoming more frequent.	Floods are expected to become more frequent. However spring floods are expected to decrease in the future, but more floods caused by rain will occur. (based on update 2011-2018 preliminary flood risk assessment) ⁷
Key Policies	Crop insurance	Maintenance of the polder system. 2018-2019 allocated EUR 2.88 million for the maintenance.
Main Changes from 2009 to 2019	In 2018, Lithuania modified the crop insurance scheme. The rate for insurance premiums support provided to farmers should not exceed 70%. Insurance contracts are covering the losses of the farm only in the case of a decrease in yields higher than 20%. Support for farms is now provided under the RDP	The Action Plan for the Implementation of the Water Program for 2017-2023 contains flood protection measures for agricultural areas. However, no priority was given to these measures at this stage.
Factoring of Climate Change in Policies	1/5: There are minimum policy considerations concerning water use as Lithuanian agriculture does not yet suffer from water shortage due to climate change.	

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⁷ https://vanduo.gamta.lt/files/Preliminary_flood_risk_assessment_2011_2018.pdf