

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

ESTONIA

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

- Estonia's agriculture mainly produces milk, cereals, forage plants, oilseeds, cattle and pigs (Eurostat, 2019).
- Agriculture accounted for 0.3% of total water abstractions in 2017 (OECD, 2020b).
- Since 2000, water pollution has decreased significantly, although the most significant pressures in all river basin districts come from non-point source pollution from agriculture. Coastal waters are affected by eutrophication due to nutrient loads from diffuse and point sources (OECD/ECLAC, 2016). Between the reporting periods 2008-2011 and 2012-2015, 44% of groundwater stations in Nitrate Vulnerable Zones showed an increase in average nitrate concentrations (European Commission, 2019). At the same time, Estonia's consumption of nutrients decreased between 2004 and 2015: the nitrogen balance went down from 36 kg/ha to 22 kg/ha, whereas the phosphorus balance went down from -5 kg/ha to -7 kg/ha during this period (OECD, 2020a).

Table 1. Main challenges related to water in agriculture

| Water use + | Water pollution + / ++ | Water-related risks + |
|--|--|--|
| Agricultural water abstractions represent 0.3% of total water abstractions | Key pollutants from the agricultural sector are nutrients, pesticides and veterinary medicines | Estonia underwent some dry periods in recent years and could be subject to more frequent floods in the years to come |

Note: +: Minor issue; ++: Problematic issue; +++: Major issue. Source: OECD (2016, 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>The Water Act⁴ is the main Estonian law for the protection of water resources and for the regulation of the use of public water bodies and water bodies designated for public use. It has been amended more than 30 times since its adoption in 1994, mainly to accommodate the requirements of EU directives. Following the requirements of the WFD, Estonia has put in place River Basin Management Plans (RBMPs) for the three river basin districts, two of which are transboundary river basins. The RBMPs of the first cycle were adopted in 2010, with revisions planned every six years. They contain provisions for regulating agricultural production, wastewater collection and treatment, and water use. Implementation is coordinated through RBMP action plans that are revised every other 2 years. Implementation is coordinated by the Environmental Board.</p> |
| Main Evolution from 2009 to 2019 | <ul style="list-style-type: none">▶ The Second RBMPs were adopted in 2015 (2015-2021). Additional supplementary measures in order to protect groundwater and surface water bodies were accepted by the Estonian government and implementation is currently in progress. Action plans are regularly prepared and implemented since 2004.▶ Changes were made to the Water Act for the protection of catchment areas against pollution arising from agricultural production (requirements for storage of manure and liquid manure, groundwater pollutants and their threshold values).▶ At the beginning of 2019 a new consolidated Water Act was adopted and enforced in October 2019. New Water Act provides some alleviation in fertilisation with manure outside of the Nitrate Vulnerable Zone (NVZ). |
| Consistency between Agriculture and Water Policies | <p>The objectives of water protection have been taken into account in several Rural Development Plan (RDP) measures, and a separate water protection measure was added to the RDP 2014-2020.</p> |

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

⁴ <https://www.riigiteataja.ee/en/eli/ee/526022019001/consolide/current>

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 <u>Yes: RBMPs were adopted in 2015 and measures were planned to cover the environmental costs of the agricultural sector and reach the good status of waterbodies</u></p> | <p>Metering, monitoring and reporting</p> <ul style="list-style-type: none"> ▶ Metering: Yes ▶ Monitoring: Yes ▶ Reporting: Yes ▶ Statistics Estonia is collecting data on water consumption in different sectors |
| <p>Quantity targets accounting for climate change <u>Yes: The common implementation strategy of the Water Framework Directive (WFD CIS) was used to take into account climate change</u></p> | <p>Scarcity pricing No</p> |
| <p>Water entitlements</p> <ul style="list-style-type: none"> ▶ Surface water resources belong mainly to the State (groundwater is public good) and water abstraction and discharge are regulated through water permits issued by environmental board at river basin level ▶ All persons have right to apply permit for water abstraction starting from certain water volume. Environmental board has a right to set environmental conditions or refuse water abstraction. ▶ In case of water scarcity (lack of resources) water permit is not issued. In case of competitive water demand the human consumption and food production is preferred in permitting. | <p>Enforcement measures Yes</p> |
| <p>Proportion of cost recovery for surface water Costs are recovered partially and additional supplementary measures are planned with the RBMP Programme of measures (PoM)</p> | <p>Other policy instruments used to encourage water use efficiency Farm advice and research</p> |

Note: Underline indicates changes since 2009

B.3. Policies to Control Agricultural Water Quality

RBMP measures address for agricultural sector to reduce nutrient pollution and reach good status of water bodies at water basin level. The Water Act stipulates requirements for the storage and use of manure, silage and other fertilisers, and fertilizer spreading conditions (prohibited periods, spreading methods, etc). A person engaging in agriculture who uses 50 hectares or more of arable land and uses fertilisers containing nitrogen shall prepare a fertilising plan every year.

Table 4. Key instruments to improve water quality

| | |
|--|--|
| <p>National water quality data collection tools</p> <ul style="list-style-type: none"> ▶ State surveillance monitoring inventories and risk assessments of dangerous substances for water ▶ Self-monitoring of water users (regulated with water permits) ▶ Estonian Agricultural Registers and Information Board (ARIB) national registers (register of farm animals and register of agricultural support and land parcels)⁵ ▶ <u>State monitoring database KESE and other platforms and tools to improve the data processing⁶</u> | <p>Main policy instruments</p> <ul style="list-style-type: none"> ▶ <i>Regulatory:</i> <u>Water Act (see B.1.)</u> and general legislation; <u>RBMPs</u>, water permits ▶ <i>Economic:</i> Pollution and water abstraction taxes, RDP measures (investment support, supports for training and advice, environmentally friendly management, regional water protection, and environmentally friendly horticulture) ▶ <i>Information:</i> <u>Regular information on environmental status revised in 2015</u> (water status assessment, nitrate vulnerable zone action plan annual report), regular evaluation reports of the RDP environmental measures, environmental research reports and information of the Agricultural Research Centre |
| <p>Spatial tools (e.g. topological, geometric, or geographic data analysis) to target policies in specific areas <i>Unspecified</i></p> | <p>Enforcement measures All measures listed in the RBMPs as well as measures to target environmental inspections in problematic areas or production units</p> |

⁵ <http://www.pria.ee/en/Registers>

⁶ <https://kese.envir.ee/kese/welcome.action>; <https://veeveeb.envir.ee/vesi/>

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

Table 5. Water risks and responses

| | Droughts | Floods |
|--|---|--|
| Reported Trends | No specific long-term trend but there have been one or two very dry summers in a recent decade. | No specific trend in the incidence and severity of floods, although floods are expected to occur more frequently in autumn in addition to spring. |
| Key Policies | Derogations from some specific requirement of support measures. | Water Act and derogations from some specific requirements of support measures. |
| Main Changes from 2009 to 2019 | - | The evaluation of the extent and severity of floods is made in the Flood Risk Management Plans (FRMP) every 6 years. The first FRMP was adopted in 2015, where flood risk areas were defined and potential risk from agricultural sites was defined. Mitigation measures were planned. |
| Factoring of Climate Change in Policies | 2/5: Periodical water scarcity is underestimated and not enough mitigation measures are planned. Excessive precipitation is also a temporary problem. | |

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