

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

FINLAND

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

- Finland's agriculture mainly produces milk, vegetables, horticultural plants, cereals and cattle (Eurostat, 2019).
- Agriculture accounts for around 5% of the total use of water in Finland (LUKE, 2020).
- Diffuse agricultural pollution is the most significant pressure that affect surface water bodies in Finland. Finland is one of the countries bordering the Baltic Sea, which is heavily affected by nutrients pollution (European Commission, 2019). The nitrogen balance remained stable between 2000 and 2017 (around 51 kg/ha), and the phosphorus balance fluctuated between 8 kg/ha and 6 kg/ha during the same period (OECD, 2020).

Table 1. Main challenges related to water in agriculture

Water use +	Water pollution ++	Water-related risks +
Agricultural water abstractions represent 5% of total water abstractions	Key pollutants from the agricultural sector are nitrogen and phosphorus	In 2018, an extreme drought had a big impact on the harvested production of cereals. In winter 2019, heavy rains accompanied warm winter without snow impacted the level of nutrient load.

Note: +: Minor issue; ++: Problematic issue; +++: Major issue. Source: Eurostat (2019), LUKE (2020), OECD (2009, 2019).

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 See more, 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 National Water Resources Strategy sets the water-related goals and national authorities are responsible for water legislation, marine strategy planning, monitoring, research, management and performance guidance. Regional Centres for economic development, transport and environment are responsible for promoting river basin management, water services, flood prevention, water management and regulation. Municipal authorities are responsible for providing water services and promote environmental protection locally. Regional authorities grant/enforce environmental permits and financial support.</p> <p>The 1961 Finnish Water Act established a priority order for the use of water: domestic use, community water services in the region, industrial use in the region, other use outside the region.</p> <p>Water abstraction charges and pollution charges are neither used nor in preparation in Finland.</p>
Main Evolution from 2009 to 2019	<ul style="list-style-type: none"> ▶ The Regional River Basin Management Plans (RBMPs) and Programmes of Measures (PoM) were updated for the periods 2009-2015 and 2016-2021. ▶ The Rural Development Programme (RDP) was established for the period 2014-2020.
Consistency between Agriculture and Water Policies	<p>The RBMPs 2009-2015 and 2016-2021 as well as Programmes of Measures were established with new targets for agri-environmental water protection measures.</p>

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</p> <p>No targets as water withdrawals by agriculture is less than 5% of total withdrawals and agricultural groundwater use is minimal</p>	<p>Metering, monitoring and reporting</p> <p>Metering: Partial Monitoring: Partial Reporting: Yes, but not on an annual basis</p>
<p>Quantity targets accounting for climate change</p> <p>No</p>	<p>Scarcity pricing</p> <p><i>Unspecified</i></p>
<p>Water entitlements</p> <ul style="list-style-type: none"> ▶ Under the Water Act, water permits are required for all water-using activities since water is a common property ▶ Users apply environmental and water use permits. In rural areas, households or co-operatives provide water services. Territorial waters are generally jointly owned by landowners although water is a common property. 	<p>Enforcement measures</p> <p>Water Act</p>
<p>Proportion of cost recovery for surface water</p> <p>100% for Operation and Maintenance and Capital costs since the irrigation system is operated by farmers</p>	<p>Other policy instruments used to encourage water use efficiency</p> <p>Subsidies, Farm research and advice (<u>numerical models of water quantity and research on water technology application in agriculture</u>)</p>

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"> ▶ Nutrient balances are calculated yearly at regional and national level ▶ Water quality monitoring programmes ▶ <u>Real-time water quality and nutrient load modelling tools</u> 	<p>Main policy instruments</p> <ul style="list-style-type: none"> ▶ <i>Regulatory</i>: River basin management plans and programmes of measures include both water quality targets and agri-environmental measures. Targets and measures are defined at the river basin level ▶ <i>Economic</i>: Subsidies from RDP Agri-environmental measures ▶ <i>Information</i>: Advisory services for farmers
<p>Spatial tools (e.g. topological, geometric, or geographic data analysis) to target policies in specific areas</p> <ul style="list-style-type: none"> ▶ Yes: Some Regional Development Plan (RDP) Agri-environmental measures are tailored for coastal regions ▶ <u>In 2019, new spatial assessments were prepared for the whole country in order to improve effectiveness of the measures in the future</u> 	<p>Enforcement measures</p> <ul style="list-style-type: none"> ▶ Government Decree on the restriction of discharge of nitrates from agriculture into waters, <u>updated in 2014</u>

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	There is no evidence of an increase in the incidence and severity of droughts.	There is no statistical overall change, but there is some evidence that the seasonal distribution of run-off has slightly changed.
Key Policies	Support for wetland indirectly helps address drought risks, while controlled drainage, changes to irrigation systems, and altering crop husbandry practices are helping farmers prepare for drought. Drought management planning, drought observation and warning are also used.	Flood risk management plans focus mainly to security and health of inhabitants but take also into account agriculture. Win-win solution like multipurpose wetlands is helping to reduce flood risks, as well as meet other environmental objectives, are given priority. Most flood protection activities are off-farm, and since 1990 agriculture's role in watercourse development has been reduced. Real time flood forecasts
Main Changes from 2009 to 2019	-	-
Factoring of climate change in policies	3/5: Lack of water during the spring and early summer will constitute a bigger problem in the future.	

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