AGRICULTURE AND WATER POLICIES: MAIN CHARACTERISTICS AND EVOLUTION FROM 2009 TO 2019[1]

POLAND

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 Secretariat[2] and additional official sources.

A. Agriculture and Water Characteristics

- Poland's agriculture mainly produces cereals, poultry, pigs and milk. Poland remained the largest producer of **rye** in the EU in 2018 and the second largest for **oats** (Eurostat, 2019).
- Agriculture represented 9% of total water abstractions in 2018 (OECD, 2020b).
- Diffuse agricultural pressures affected 62 % of lakes and 8 % of Polish river water bodies in 2018, and 22% of surface water bodies were affected by nutrient pollution (European Commission, 2019). The nitrogen balance slightly increased from 44 to 48 kg/ha between 2000 and 2017, whereas the phosphorus balance went down from 4 kg/ha to 1 kg/ha during the same period (OECD, 2020a).

Table 1. Main challenges related to water in agriculture

Water use	Water pollution	Water-related risks
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Poland has very limited freshwater resources. Agricultural water abstractions represent 9% of total water abstractions	Key pollutants from the agricultural sector are nitrates from natural and mineral fertilisers used in agriculture	A widespread drought resulted in sharply lower harvests for most crops in 2018; floods and droughts are frequent phenomena

Note: +: Minor issue; ++: Problematic issue; +++: Major issue. Source: Eurostat (2019), OECD (2015, 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 2019[3]

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

Table 2. Key agriculture and water policies and policy changes

Key Policies	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). The Ministry of Environment (MoE) has primary responsibility for drawing up national policies, preparing legislation, including environmental standards, and monitoring policy implementation in the area of water management. The MoE oversees central administrative authorities, including the Water Management Authority, which is responsible for the co-ordination and preparation of River Basin Management Plans (RBMPs). At the regional level, although the basins of two rivers account for 97% of the territory, there are seven Regional Water Management Boards, which are responsible for water management in their respective regions, including identification of significant pressures and assessment of their impact on the status of surface waters and groundwater, along with analysis, including economic and water use.
Main Evolution from 2009 to 2019	The 2017 Water Act: ► Introduced a new approach of reducing **water pollution** caused or induced by nitrates from agricultural sources. It extended the scope of the Nitrates Action Programme (NAP) to address water pollution by nitrates (also the Ordinance of The Council Of Ministers of 5 June 2018 on the adoption of the "Action programme for the reduction of water pollution caused by nitrates from agricultural sources and prevention of further pollution" (Nitrate Programme)). The regulation apply to all farmers throughout the country. The whole country has been designated a 'Nitrate Vulnerable Zone' and the rural development programme has increased its support for building manure storage facilities to reduce the risk of nitrate leaching into water. ► Introduced a new definition of water services including **water abstractions** for agricultural purposes. It also introduced a variable fee for water abstraction for human and livestock supplies and for irrigation of land and crops. ► Introduced a new **institutional structure** for water administration bodies: The new structure includes one State Water Holding "Polish Waters", 11 regional and 50 river basin units and 330 water inspectorates. Since 2018, Polish Waters is in operation and responsible for water management. The government administration body responsible for water management is the Ministry of Maritime Economy and Inland Navigation. Obligations related to water resources in agriculture are carried out in cooperation with the Ministry of Agriculture and Rural Development. The Code of Good Agricultural Practice to be voluntary implemented by farmers were introduced. A strategy for sustainable development of rural areas, agriculture and fisheries 2030 is currently updated, which contains tasks related to water management.
Consistency between Agriculture and Water Policies	Extension of the NAP for the reduction of water pollution caused by nitrates from agricultural sources and prevention of further pollution which imposes obligations on all farmers throughout the country. Introduction of a variable fee for water abstraction for agricultural purposes and for irrigation of land and crops.

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

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 Yes: Prevention of extreme water events	**Metering, monitoring and reporting** *Unspecified*
Quantity targets accounting for climate change Yes: Two new national programmes: ► Retention Development Program* ► "Plans to prevent the effects of drought in river basin districts": It analyses the possibilities of expanding available water resources and the proposal to build or reconstruct water facilities	**Scarcity pricing** The 2017 Water Act introduced a new system of fees for water services including fees for the actual water abstraction for agricultural purposes. As a rule, the amount of the fee depends on the amount of water collected and the purpose for which the collection is intended
Water entitlements ► Permits for abstractions of water for agricultural purposes are required, and can be obtained from the State Water Holding "Polish Waters" ► These rights are allocated on a water basin level for both surface and groundwater	**Enforcement measures** *Unspecified*
Proportion of cost recovery for surface water *Unspecified*	**Other policy instruments used to encourage water use efficiency** ► Subsidies ► Planned support for farmers: investments in irrigation (construction of new irrigation systems, upgrading of existing irrigation facilities to provide water savings) in the Rural Development Programme (RDP) 2014-20

Note: Underline indicates changes since 2009. *The completion is expected between 2020 and 2021

B.3. Policies to Control Agricultural Water Quality

Table 4. Key instruments to improve water quality

National water quality data collection tools Data collection on nitrate concentrations is conducted constantly and the results are passed each year to the Minister responsible for water management in order to evaluate the effectiveness of implementing measures limiting the emission of nitrates from agricultural sources ► The main data collection tool is the State Environmental Monitoring ► The National Chemical and Agricultural Laboratory, in accordance with the Act on fertilizers and fertilization, creates and maintains databases on the abundance of nitrogen and phosphorus in soils as well as water nitrate pollution in the soil profile up to 90 cm from the ground surface.Development and testing of a multidimensional, dynamic model of calculating pollutant loads discharged (including nutrients from agriculture) into rivers to the Baltic Sea (2016)	**Main policy instruments** ► *Regulatory*: The 2017 Water Act: changed the management of fertilizers regarding the reduction of water pollution caused by nitrates from agricultural sources ► *Economic*: The 2017 Water Act: introduced fees for farmers not implementing the NAP ► *Information*: The Water Act and the Act of Agricultural Advisory Units ► *Targets*: In 2016, updated RBMPs were published which include updated analisys of significant pressures and impacts
Spatial tools (e.g. topological, geometric, or geographic data analysis) to target policies in specific areas ► Spatial data and Geographic Information System (GIS) tools are used to perform pressures and impacts analysis including diffuse pollution from agriculture ► In 2019, a new Hydroportal was developed with spatial data services including data on water management	**Enforcement measures** ► The 2017 Water Act: Fees for farmers not implementing the NAP

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	Data since 1951 reveals that the frequency and severity of droughts has increased, and the area of the country affected has also expanded.	Climate change projections indicate the increasing frequency and severity of flood events.
Key Policies	-	Support is provided for afforestation and restoration of wetlands to slow water flows across agricultural land.
Main Changes from 2009 to 2019	The completion of "Plans to prevent the effects of drought in river basin districts" is expected in 2020-2021. Planned support for farmers: investments in irrigation (construction of new irrigation systems, upgrading of existing irrigation facilities to provide water savings) in the RDP 2014-20; support as a form of reimbursement of a part of the eligible project cost (50% or 60%). The amount of relief is defined based on the scale of damage[4].	Flood hazard maps and flood risk maps are prepared to define the level of danger of floods (probability, extent and depth). The amount of relief is defined based on the scale of damage.
Factoring of Climate Change in Policies	2/5: The government provides increasing support to address protection against flooding and droughts.	

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[4] The amount is regulated by ACT of 16 September 2011 on special solutions related to removing the effects of floods (Dz.U. z 2019 r. poz. 1317)