

Green economy indicators in Poland 2024

03.12.2024



25.5%

Increase of water productivity index in 2023 in comparison with 2022

In 2023, Poland recorded a 12.7% increase in resource productivity index compared to the previous year.

In 2023, the total value of green public procurement decreased by 30.6% in relation to 2022.

The average size of an organic farm was 28.5 ha and was the highest since 2000.

Natural asset base

Forest resources

Forests constitute an indispensable part of environment sustainability and green economy. Forest cover in 2023 was 29.6% and decreased in comparison to the previous year (by 0.1 pp), but grew in relation to 2000 (by 1.2 pp).

Apart from the state forest cover, growing stock plays an important role in characterizing forest condition and implementing forest policy of the country. According to the measurements of the National Forest Inventory in the years 2019–2023, growing stock reached the volume of 2696.3 million m³ of gross timber (a 17.0% increase in comparison to the first measurements in the years 2005–2009), of which 72.4% referred to coniferous trees and 27.6% – to broadleaved trees.

Mineral resources

In 1990–2023 geological resources of hard coal (balance-sheet and off-balance-sheet) diminished from 86.0 billion tonnes to 77.8 billion tonnes (by 9.5%). Its annual exploitation fell from 151.3 million tonnes in 1990 to 42.5 million tonnes in 2023 (by 71.9%).

In the years 1990–2023 geological resources of lignite (balance-sheet and off-balance-sheet) increased from 17.1 billion tonnes to 26.6 billion tonnes (by 55.4%). The volume of annual lignite extraction fell from 67.7 million tonnes to 42.5 million tonnes (by 37.2%).

Geological resources of natural gas (balance-sheet and off-balance sheet) diminished since 1990 from 164.1 billion m³ to 153.5 billion m³ in 2023 (by 6.4%). Ecological properties of gas, as well as the wide scope of its use resulted in the increase in the annual gas extraction from 3.5 billion m³ recorded in 1990 to 4.6 billion m³ noted in 2023 (by 33.1%).

Environmental and resource productivity of the economy

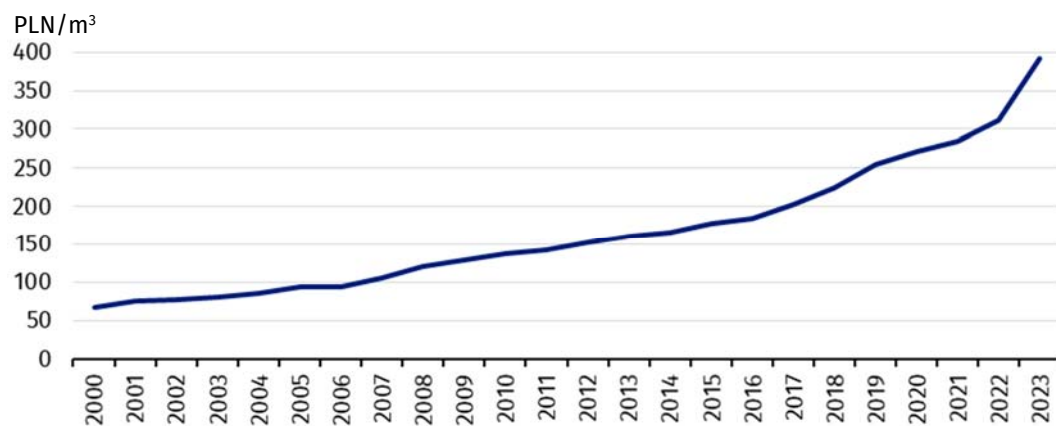
Water productivity

Efficient water consumption constitutes a base for proper water management. To assess the effectiveness of water management, it is possible to use water productivity index illustrating the ratio of gross domestic product (in constant prices) to consumption of water for needs of the national economy and population. In the years 2000–2023 water productivity index was becoming more and more favorable. In 2023, it reached the value of PLN 392.00/m³ and increased compared to 2022 and 2000 by 25.5% and 475.7% respectively.

According to the FAO database, in 2020, Poland was placed in the group of EU countries with the highest share of wood resources, following Germany, Sweden and France (data collected every 5 years)

According to Eurostat database, in 2022, among the 17 EU countries where natural gas is extracted, Poland ranked 3rd in this respect after the Netherlands and Romania

Chart 1. Water productivity index^a



^a Consumption of water for needs of the national economy and population – since 2019 excluding irrigation in agriculture and forestry; GDP for 2023 – preliminary estimate.

Domestic material consumption

Domestic material consumption (DMC) includes the total amount of materials directly used in economic processes for the needs of the economy. According to estimates of Eurostat, domestic material consumption in 2023 in Poland was 661.4 million tonnes. It was lower by 1.9% in relation to the previous year, but higher by 26.7% in comparison with 2000.

To measure the efficiency of material consumption in economy, resource productivity index is used, i.e. a relation of gross domestic product (in constant prices) to domestic material consumption. The higher the value of this index, the fewer resources are used to produce a unit of GDP. In 2023, the resource productivity index for Poland was 4.69 PLN/kg and was higher than in the previous year and 2000, when it reached 4.16 PLN/kg and 1.36 PLN/kg respectively.

In 2023, domestic material consumption per capita in the EU (UE=27) amounted to 13.9 tonnes, while in Poland – 18.0 tonnes

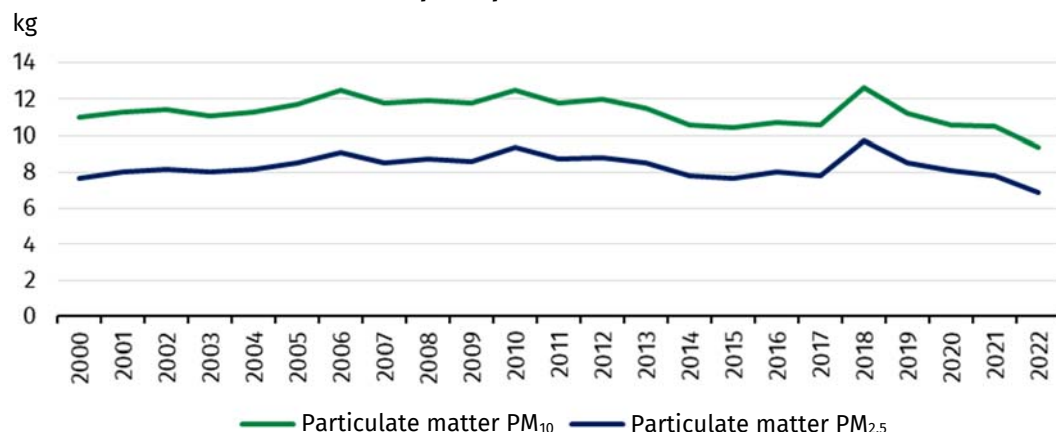
Environmental quality of life

Particulate air pollutants

A serious problem connected with air quality in Poland is exceeded norms for particulate matter, especially in a winter season. In 2022, PM₁₀ emission amounted to 353.7 thousand tonnes and was lower in relation to the previous year and 2000 by 11.0% and 15.7% respectively. In the case of PM_{2.5}, its emission equalled 262.3 thousand tonnes and decreased by 12.0% in relation to 2021 and by 11.0% compared to 2000. Per capita in 2022, the emission of PM₁₀ was 9.4 kg, of which PM_{2.5} – 6.9 kg and the figures for these were the lowest in relation to the ones noted since 2000.

In 2022, Poland recorded the lowest PM₁₀ and PM_{2.5} emissions per capita since 2000, however these were ones of the highest values in EU countries (after Latvia)

Chart 2. Emissions of PM₁₀ and PM_{2.5} per capita



The European Environment Agency estimated that in 2021 PM_{2.5} exposure led to 47.3 thousand premature deaths in Poland and it was the highest value among European Union countries

Source: data concerning particulate matter emission – the National Centre for Emissions Management – the Institute of Environmental Protection – National Research Institute.

Road traffic noise

The assessment of the acoustic state of the environment and the observation of changes is carried out obligatorily every 5 years as part of the State Environmental Monitoring (PMŚ) by the Chief Inspectorate of Environmental Protection. The last assessment took place in 2022.

Road traffic noise is a nuisance for residents, especially in urban areas. In 2022, 31.3% of population of 36 cities over 100 thousand inhabitants was exposed to exceeding noise over 55 dB in day-evening-night time. In night time the situation was a bit better, as 19.2% of population of the cities indicated above was exposed to the noise exceeding 50 dB.

In comparison to 2017 and 2012, the situation improved, as in day-evening-night time, the percentage of people exposed to excessive noise decreased by 12.2 pp and 22.2 pp respectively, and in night time by 7.1 pp and 17.4 pp respectively.

Economic opportunities and policy responses

Organic farms

In 2023, in Poland there were 22.4 thousand organic farms. They operated on 636.0 thousand hectares of agricultural land, i.e. 4.3% of total agricultural land. In relation to the previous year, their number and area increased by 5.5% and 14.7% respectively. The average size of this type of farm was 28.5 hectares and was the highest since 2000.

In 2023, the average size of an organic farm was 28.5 hectares and was the highest since 2000

According to the data of the Agency for Restructuring and Modernisation of Agriculture, in 2023, the amount of payment from the Rural Development Programme (RDP 2014–2020) and from the Common Agricultural Policy Strategic Plan (CAP SP 2023–2027) for farms carrying out organic farming was PLN 822.5 million (as of 4 October 2024) and it was the highest amount of subsidies dedicated to organic farming in the years 2004–2023. It increased in relation to the previous year by 57.0% and more than 23 times in comparison with 2004, when RDP 2004–2006 came into operation.

Green public procurement

Public procurement sets production and consumption trends. Taking into account environmental criteria in public procurement may support the implementation of the state environmental policy.

According to the data of the Public Procurement Office, in 2023, the total value of green public procurement (excluding value added tax) amounted to PLN 11.9 billion, i.e. 4.3% of total value of awarded public procurement. It means that despite the increase in the number of green public procurement in relation to the previous year (by 22.0%), its value decreased by 30.6%. Compared to 2016, this value increased more than 11 times (with a more than 6 times increase in the number of green public procurement).

In 2023, the total value of green public procurement decreased by 30.6% in relation to 2022

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