European Environment Agency

8th Environment Action Programme

Environmental protection expenditure

8TH EAP HEADLINE INDICATOR, 2023

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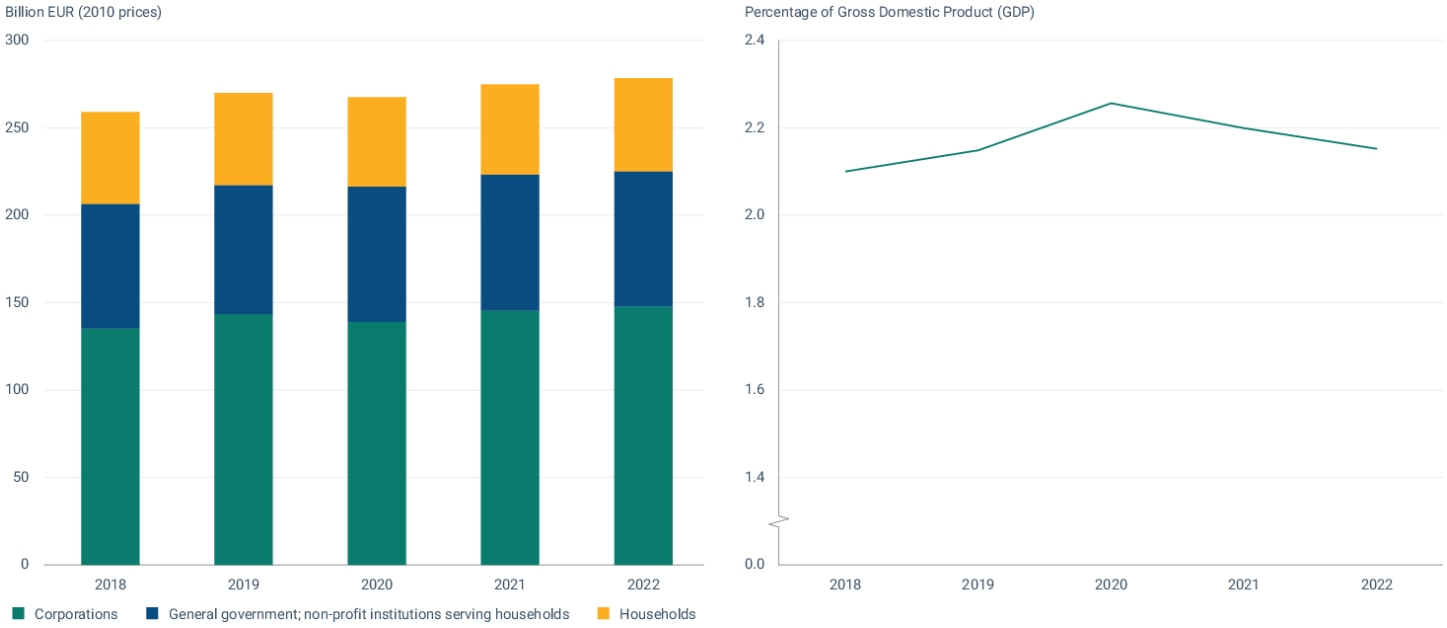
The EU must increase environment- and climate-related expenditure to meet the objectives of the European Green Deal. Environmental protection expenditure (EPE) mainly includes expenditure related to the abatement of air, water, soil and noise pollution, the protection of biodiversity, the management of wastewater and waste, and environmental research and development. In real terms, the expenditure increased by 7% between 2018 and 2022 in the EU, reaching EUR 278 billion in 2022. It is very likely that it will continue to increase in the coming years, as additional funds will be made available.

Figure 1. Environmental protection expenditure by institutional sector in the period 2018-2022, EU–27



Source: Eurostat.

Building on the European Green Deal policy objectives [1], the Eighth Environment Action Programme (8th EAP) aims to accelerate the green transition [2]. To achieve this, environmental protection expenditure (EPE) must be increased in the Member States, and so must green expenditure beyond that directly related to environmental protection, such as expenditure on renewables, energy and resource efficiency, and the circular economy transition. EPE includes expenditure on the protection of ambient air, soil and water; wastewater and waste management; noise abatement; biodiversity protection; protection against radiation; and environmental research and development (R&D). EPE only partly captures expenditure related to the climate-related expenditure [3][4] and the circular economy [5][6].

EPE includes both operating expenditure and investments. In real terms, it grew by 7% in the period 2018-2022, reaching an estimated EUR 278 billion by 2022 (2010 prices). Most EPE is spent by corporations, and this spending increased by 9% between 2018 and 2022, while the EPE of general governments and non-profit institutions serving

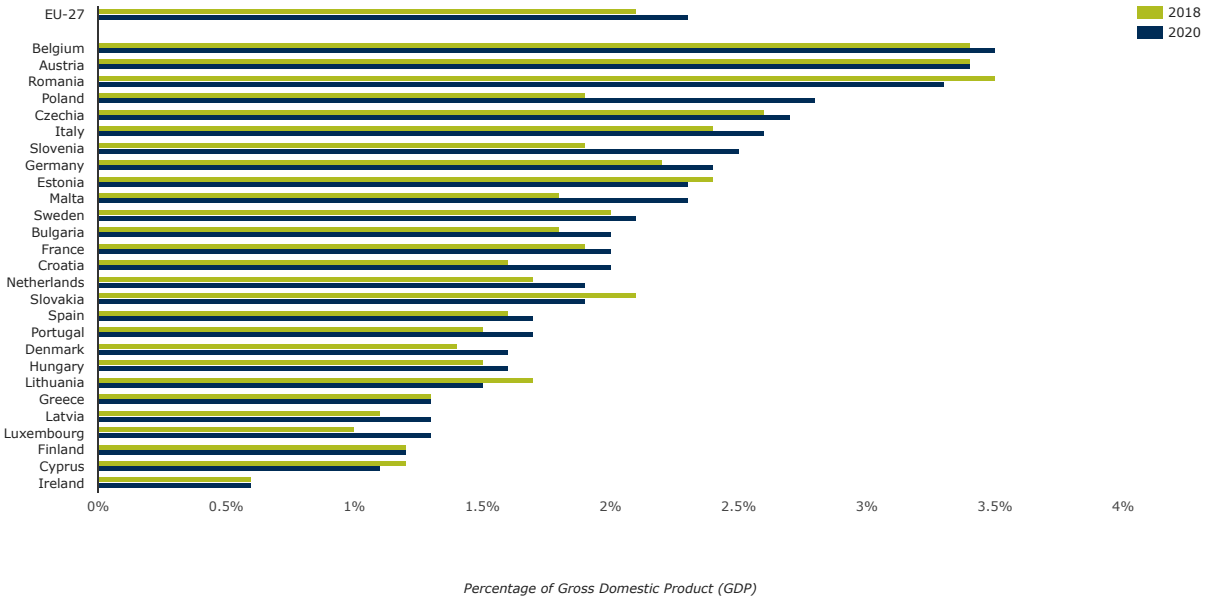
households increased by 8%. Most EPE was spent on waste management and wastewater treatment activities in this period [7].

Since 2018, the share of overall EPE in gross domestic product (GDP) has remained relatively stable, at around 2%. The increase in this share in 2020 was an anomaly caused by the decline in GDP during the COVID-19 pandemic. In absolute terms, EPE was roughly the same in 2020 as in 2019 and increased by about 4% and EUR 11 billion (2010 prices) in 2022.

It is very likely that EPE will increase in the coming years, as additional resources have been made available. The EU's 2021-2027 budget has earmarked additional funding for climate- and biodiversity-related activities [8]. Moreover, grants and loans for climate-related activities are available through the 2021-2026 EU Recovery and Resilience Facility (RRF) [8]. The RRF was created to mitigate the social and economic impacts of the COVID-19 pandemic and supports the EU's aim to achieve a twin digital and green transition.

To achieve EU's objectives on environmental protection, resource management and the circular economy by 2030 [9], the additional investments needed for the period 2021-2030 are estimated at approximately EUR 77 billion per year for environmental protection, as covered by EPE, and EUR 53 billion per year for resource management and the circular economy transition. It is uncertain if investments, for example in national EPE, EU funding and private circular economy financing, will increase at a fast enough rate to bridge the gap between current investment and total investment needed by 2030. For instance, environmental protection investments account for only a small share of total EPE, amounting to 20% in 2022, and increased from EUR 51 billion (2010 prices) in 2018 to EUR 56 billion (2010 prices) in 2022 (EEA's own calculations based on data from Eurostat [7]. InvestEU and sustainable finance actions are expected to trigger additional private capital flows in Member States for sustainable investment, which would help to fill the investment gap.

Figure 2. Expenditure on environmental protection by EU Member State, 2018 and 2020, (% of GDP)



Source: Eurostat.

Data used in the graph

Countries	2018	2020
EU-27	2.1	2.3
Belgium	3.4	3.5
Austria	3.4	3.4
Romania	3.5	3.3
Poland	1.9	2.8
Czechia	2.6	2.7
Italy	2.4	2.6
Slovenia	1.9	2.5
Germany	2.2	2.4
Estonia	2.4	2.3
Malta	1.8	2.3
Sweden	2	2.1
Bulgaria	1.8	2
France	1.9	2
Croatia	1.6	2
Netherlands	1.7	1.9
Slovakia	2.1	1.9
Spain	1.6	1.7
Portugal	1.5	1.7
Denmark	1.4	1.6
Hungary	1.5	1.6
Lithuania	1.7	1.5
Greece	1.3	1.3
Latvia	1.1	1.3
Luxembourg	1	1.3
Finland	1.2	1.2
Cyprus	1.2	1.1

Countries	2018	2020
Ireland	0.6	0.6

EPE increased from 2.1% to 2.3% of GDP between 2018 and 2020 at the EU level. EPE to GDP ratios varied greatly across the Member States. In Austria, Belgium and Romania EPE accounted for more than 3% of GDP, while in Ireland it accounted for less than 1%. In 21 of the 27 EU Member States, this share increased during the period 2018-2020, with the biggest increases in Poland (1 percentage point) and Malta (0.6 percentage points). In contrast, the share fell in the other EU Member States, with the biggest reductions in Lithuania and Cyprus.

Supporting information

Definition

'Environmental Protection Expenditure Accounts (EPEA) measure the economic resources devoted to prevention, reduction, and elimination of pollution and any other degradation of the environment. They cover the spending by resident units of a country (i.e. by its households, corporations and government) on environmental protection (EP) services, e.g. pollution abatement (air, water, soil and noise), waste and wastewater management, protection of biodiversity as well as related research and development, education and training activities' [7].

The scope of EPEA is defined according to the Classification of Environmental Protection Activities and Expenditure (CEPA 2000). CEPA 2000 is a recognised international standard included in the family of international economic and social classifications.

For further information, see Eurostat (2017).

Methodology

This indicator is directly based on data published by Eurostat and the underpinning methodology can be found in Eurostat [10][7]. EU-level data are based on Eurostat estimates.

The EUR values were deflated to 2010 prices using the Eurostat GDP deflator.

Policy/environmental relevance

This indicator is a headline indicator for monitoring progress towards meeting one of the targets of the 8th EAP. It contributes mainly to monitoring progress in relation to aspects of the 8th EAP's aim to accelerate the green transition (Article 1) and Article 3(u), which requires 'mobilising resources and ensuring sufficient sustainable investments from public and private sources… consistent with the Union's sustainable finance policy agenda' [2]. The European Commission communication on the 8th EAP monitoring framework specifies that this indicator should be used to monitor the 'increase [in] spending by households, corporations and governments on preventing, reducing and eliminating pollution and other environmental degradation' [11].

Accuracy and uncertainties

Data sources and providers

- GDP and main components (output, expenditure and income) [NAMA_10_GDP__custom_6753046], Statistical Office of the European Union (Eurostat)
- National expenditure on environmental protection by institutional sector [ENV_AC_EPNEIS__custom_6972421], Statistical Office of the European Union (Eurostat)
- National expenditure on environmental protection by institutional sector [ENV_AC_EPNEIS__custom_6972306], Statistical Office of the European Union (Eurostat)

Metadata

DPSIR

Response

Topics

 # Sustainable finance

Tags

 # GDP **# SUFI003** **# climate** **# 8th EAP** **# Environmental protection expenditure** **# environment** **# expenditure** **# environmental protection investment** **# Sustainable finance**

Temporal coverage

2018-2022

Geographic coverage

Austria
Belgium
Bulgaria
Croatia
Cyprus
Czechia
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Ireland
Italy
Latvia
Lithuania
Luxembourg
Malta
Netherlands
Poland
Portugal
Romania
Slovakia
Slovenia
Spain
Sweden

Typology

Descriptive indicator (Type A - What is happening to the environment and to humans?)

UN SDGs

Sustainable cities and communities

Unit of measure

EPE is measured in billion euros (EUR) and as a share of GDP (%)

Frequency of dissemination

Once a year

Contact

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References and footnotes

1. EC, 2019, Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions 'The European Green Deal', COM (2019) 640 final of 11 December 2019.
2. EU, 2022, Decision (EU) 2022/591 of the European Parliament and of the Council of 6 April 2022 on a general Union environment action programme to 2030, OJ L 114, 12.4.2022, p. 22-36.
   a b
3. It does not capture expenditure on the production of renewable energies, energy efficiency in general or climate adaptation. However, it now includes expenditure on clean transport (vehicles and charging systems) as directly contributing to reducing air pollution. See CEPA and EPEA explanatory notes (Eurostat, 2020).
4. https://ec.europa.eu/eurostat/documents/1798247/12177560/CEPA+and+CReMA+explanatory+notes+-+technical+note.pdf/b3517fb9-1cb3-7cd9-85bd-4e3a3807e28a?t=1609863934103
5. Information on circular economy private investments in Member States is available in a data set published by Eurostat, under the circular economy indicators on competitiveness and innovation (see data set 'Private investment and gross value added related to circular economy sectors'
6. https://ec.europa.eu/eurostat/web/products-datasets/-/cei_cie010
7. Environmental protection expenditure accounts, 2023b, (https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Environmental_protection_expenditure_accounts) accessed August 28, 2023.
   a b c d
8. EC, 2021, *The EU's 2021-2027 long-term budget and NextGenerationEU — facts and figures*, Publications Office of the European Union, Luxembourg.
   a b
9. EC, 2020, Commission staff working document 'Identifying Europe's recovery needs' accompanying the document Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions 'Europe's moment: repair and prepare for the next generation', SWD(2020) 98 final of 27 May 2020.
10. Eurostat, 2023, 'National expenditure on environmental protection by institutional sector', *Eurostat Data Browser* (https://ec.europa.eu/eurostat/databrowser/view/env_ac_epneis/default/table?lang=en) accessed March 24, 2023.

11. EC, 2022, Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions ‘REPowerEU plan’, COM (2022) 230 final of 18 May 2022
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