8th Environment Action Programme

Designated marine protected areas in Europe's seas





Marine protected areas in Europe's seas

Published 19 Dec 2024

Analysis and data > Indicators > Marine protected areas in Europe's seas

The European Union has made progress in designating new marine protected areas, both as part of the Natura 2000 network and through complementary national designations. As a result, marine protected area coverage more than doubled, to 12.3%, between 2012 and 2022. However, efforts will need to increase significantly to achieve the EU Biodiversity strategy target of protecting at least 30% of EU seas by 2030, while also ensuring that all protected areas are effectively managed. At present it appears unlikely that the terget will be met.



Figure 1. Marine protected area coverage in the EU, 2012-2022

The conservation of coastal and marine areas is important for maintaining **biodiversity** and ensuring that ecosystems and their services are fully functional. Marine protected areas (MPAs) play a key role in conserving

coastal and marine ecosystems, and provide significant economic and societal benefits supporting local livelihoods.

Designation of protected areas is an essential policy tool to halt biodiversity decline. One target of the EU Biodiversity strategy for 2030 is to legally **protect** and effectively **manage** a minimum of 30% of EU seas by 2030. Target 3 of the CBD's Kunming-Montreal Global Biodiversity Framework also includes a similar coverage target.

Over the last decade, the total area covered by marine protected areas in the EU has **increased** gradually, from 5.9% in 2012 to 12.3% in 2022. This is the result of both the expansion of the Natura 2000 network (a network of protected areas designated under the EU nature directives) and protected areas established through complementary national designations, as well as protected areas designated under the Regional Seas Conventions (RSC), namely Barcelona Convention, HELCOM & OSPAR.

Although this trend is positive, **further expansion** will be needed to reach the target of legally protecting at least 30% of EU's seas by 2030. The current rate of designation must increase more than threefold compared to the progress made over the last decade.

The EU Biodiversity Strategy for 2030 highlights the importance of building a truly coherent Trans-European network of protected areas through improving their connectivity. It will therefore be particularly important for the designation of new protected areas in EU's seas to ensure that these areas are defined based on sound **scientific analysis** ensuring ecological representativity, coherence and connectivity.

Additionally, improving management effectiveness of individual marine protected areas and of their networks should become a major focus in the coming years. While no comprehensive information is available yet to provide an overview of how effectively managed European MPAs are, it will be essential to develop such indicators in the coming years to track progress in implementing the targets of the EU Biodiversity Strategy for 2030.

Figure 2. Marine protected area coverage in EU Member States, 2012-2022



By 2022, several EU Member States had made **significant progress** in protecting their marine ecosystems through the designation of MPAs. Germany, Belgium and France have surpassed 30% coverage. Other countries such as the Netherlands, Lithuania, Poland and Romania have expanded their networks of MPAs beyond 20%. Natura 2000 plays a very significant role in the MPAs networks in most countries, with complementary national designations adding to the networks in Sweden, Spain, Finland, Italy and Portugal.

While some progress in designating new MPAs could be observed in most Member States over the last 10 years, it has been slow in many countries. However, such differences also reflect the **variances** between the European marine regions with their diverse ecological conditions. While it is important for Member States to continue working at national level to define new MPAs, it is also crucial to ensure cooperation across European regional seas. This will support the development of a coherent network of MPAs across the EU and to achieve the joint target of protecting at least 30% of seas.

✓ Supporting information

Definition

This indicator illustrates the changes in the share of marine protected areas in the EU-27 over time. It also distinguishes between protected areas designated as Natura 2000 sites or Emerald sites, other national designations, and those designated under Regional Sea Conventions.

A protected area is a clearly defined geographical space, recognised, dedicated and managed through legal or other effective means to achieve the long-term conservation of nature with associated ecosystem services and cultural values.

Methodology

Methodology for data collection

The data for the nationally designated protected areas inventory are delivered by the Eionet partnership countries as spatial and tabular information. The inventory began in 1995 under the CORINE programme of the European Commission.

The Natura 2000 network is based on the 1979 Birds Directive and the 1992 Habitats Directive. The European database of Natura 2000 sites consists of a compilation of the data submitted by the Member States of the European Union. This European database is generally updated once a year to take into account any updating of national databases by Member States.

However, the release of a new EU-wide database does not necessarily mean that a particular national dataset has recently been updated.

The same geographical area may be designated several times under different legislation. When producing area statistics on protected areas, nationally designated protected areas and Natura 2000 datasets are overlayed to avoid double counting of overlapping site designations in the datasets. To streamline the management of the complex spatial vector data from Natura 2000 and National Designated Areas the data were combined into a single dataset. This unified dataset was transferred to the EEA-JEDI data cube as a 10m gridded "dimension".

The Reporting guidelines with full details on the methodology are available from: http://cdr.eionet.europa.eu/help/cdda and https://cdr.eionet.europa.eu/help/natura2000/

To ensure a comprehensive coverage of EU waters, protected areas designated under the Regional Seas Conventions (RSC), including the Barcelona Convention, HELCOM and OSPAR, were included, using the latest available data from the databases published by these conventions.

Methodology for indicator calculation

As the terrestrial protected area indicator is already calculated within the JEDI systems, the same methodology was adopted for calculating the marine protected areas indicator. To achieve this, the relevant data was first transferred to a data cube, consolidating all necessary information:

- EEA marine assessment areas (JEDI-link);
- EEA marine water (JEDI-link);
- Protected areas (JEDI-link);
- Regional sea convention protected areas (JEDI-link).

In the next step, the protected area coverage were calculated individually for each country. If multiple countries reported protected areas within the same marine region, these areas were assigned to both countries.

Next, a second statistic was calculated to assess the distribution of protected marine areas within the EEA region. Since individual countries do not need to be considered in this case, no overlaps were accounted for, and the results accurately reflect the percentage of protected areas.

All calculations were performed using Azure Databricks. The corresponding script is available on GitHub:

https://github.com/eea/ETC-DI-databricks/blob/main/D56_PA_protected_area.sql .

Policy/environmental relevance

The indicator is a headline indicator for monitoring progress towards the goals of the Eighth Environment Action Programme (8th EAP). It will contribute mainly to monitoring progress towards the 8th EAP biodiversity-related priority objective set out in Article 2(e), to be met by 2030: 'protecting, preserving and restoring marine and terrestrial biodiversity and the biodiversity of inland waters inside and outside protected areas by, inter alia, halting and reversing biodiversity loss and improving the state of ecosystems and their functions and the services they provide, and by improving the state of the environment, in particular air, water and soil, as well as by combating desertification and soil degradation'^[1]. The European Commission's communication on 8th EAP monitoring specifies that this indicator should monitor progress towards meeting the target to legally protect at least 30% of the EU's sea area by 2030^[2].

The indicator is included in the EU Biodiversity Strategy dashboard. The EU Biodiversity Strategy for 2030 contains specific targets for protected areas to be delivered by 2030, including expanding the current network, in line with the following targets:

 \cdot to legally protect a minimum of 30% of the EU's land area and 30% of the EU's sea area and integrate ecological corridors, as part of a true trans-European nature network;

 \cdot to strictly protect at least a third of the EU's protected areas, including all remaining EU primary- and old-growth forests;

 \cdot to effectively manage all protected areas, defining clear conservation objectives and measures, and monitor them appropriately.

This indicator directly tracks progress towards achieving the 30% target for protecting the EU's seas. The indicator is used by several EU monitoring mechanisms, such as the EU biodiversity dashboard and for the EU's Sustainable Development Goal (SDG) monitoring.

Other relevant EU policy instruments include the EU Marine Strategy Framework Directive (MSFD).

At the global level, targets for protected areas have been adopted as part of the Kunming-Montreal Global Biodiversity Framework, including Target 3 to effectively conserve and manage at least 30% of the world's marine area.

The indicator is also used for monitoring progress towards SDG14 in the European context.

Accuracy and uncertainties

Methodology uncertainty

Due to differences in data resolution, variations in coastline delineations may occur, potentially leading to minor inaccuracies near coastal regions. For instance, small sections of terrestrial protected areas might be mistakenly included in the marine area data.

Data sources and providers

- Nationally designated areas for public access (vector data) May 2024, European Environment Agency (EEA)
- Natura 2000 (vector) version 2022, European Environment Agency (EEA)
- EEA marine assessment areas version 3.0, Oct. 2022, European Environment Agency (EEA)

- EEA coastline for analysis (polygon) version 3.0, March 2017, European Environment Agency (EEA)
- OSPAR Marine Protected Areas Network, OSPAR Commision
- HELCOM MPAs, Helsinki Commission (HELCOM)
- EEA Marine waters for analysis INTERNAL VERSION, Oct. 2022 (Copyright proyected), European Environment Agency (EEA)
- EEA Marine waters for analysis INTERNAL VERSION, Oct. 2022 (Copyrights protected), European Environment Agency (EEA)
- Specially Protected Areas of Mediterranean Importance (SPAMIs), Regional Activity Centre for Specially Protected Areas (SPA/RAC)

✓ Metadata

Malta

Poland

Romania Slovenia

Sweden

Typology

DPSIR					
Response					
Topics					
# Biodiversity					
Tags					
# Designated areas	# protected areas	#8th EAP	# CDDA	# Habitats Directive	# MAR004
# Natura 2000					
Temporal coverage					
2012-2022					
Geographic coverage	e				
Austria			Belgium		
Bulgaria			Croatia		
Cyprus			Czechia		
Denmark			Estonia		
Finland			France		
Germany			Greece		
Hungary			Ireland		
Italy			Latvia		
Lithuania			Luxembourg		

Netherlands

Portugal Slovakia

Spain

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

UN SDGs

SDG14: Life below water

Unit of measure

Percentage

Frequency of dissemination

Once a year

✓ References and footnotes

- 1. 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.
- EC, 2022, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the monitoring framework for the 8th Environment Action Programme: measuring progress towards the attainment of the programme's 2030 and 2050 priority objectives, COM(2022) 357 final.