Rialtas na hÉireann
Government of Ireland

# Ireland's Marine Strategy Part 1

## Article 8, 9 and 10 report
## Annex IV

**2024**

Prepared by the Department of
Housing, Local Government and Heritage
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## Ireland's Marine Strategy Part 1

This document is Annex IV to Part 1 of Ireland's Marine Strategy: Assessment (Article 8), Determination of Good Environmental Status (GES) (Article 9) and Environmental Targets (Article 10) under the Marine Strategy Framework Directive (MSFD). This document specifically contains Ireland's updated Environmental Targets (Article 10).

## Acknowledgements

The Department of Housing, Local Government and Heritage is responsible for the preparation of Ireland's Marine Strategy for the MSFD on behalf of the Government, with input from other Departments, Agencies and Environmental Non-Governmental Organisations.

This assessment is the result of ongoing engagement and co-operation between a number of bodies including:

- Department of Housing, Local Government and Heritage (DHLGH)
    - Marine Environment Section (MES)
    - Water Advisory Unit (WAU)
    - National Parks and Wildlife Service (NPWS)
- Marine Institute (MI)
- Department of Agriculture, Food and the Marine (DAFM)
- Sea Fisheries Protection Authority (SFPA)
- Environmental Protection Agency (EPA)
- Department of Transport (DoT)
- Department of the Environment, Climate and Communications (DECC)
- Inland Fisheries Ireland (IFI)
- Food Safety Authority of Ireland (FSAI)
- Environmental Non-Government Organisation (eNGO) representatives (Coastwatch and Irish Wildlife Trust)
- An Bord Iascaigh Mhara (BIM)
- National Biodiversity Data Centre (NBDC)

# Environmental Targets

## Introduction

Article 10 of the Marine Strategy Framework Directive requires Member States to establish a comprehensive set of environmental targets and associated indicators for their marine waters. The aim of the targets and indicators is to guide progress towards achieving Good Environmental Status (GES) in the marine environment and bridge the gap between the current environmental status (Article 8) and the desired GES (Article 9).

Environmental targets can identify, in a quantitative or qualitative manner, either the desired levels of, or necessary changes to, environmental pressures and impacts on the marine environment. They may also reflect GES itself or the actual changes necessary to the current state in order to achieve or maintain GES (Claussen et al. 2011). Targets should be closely linked to the specific actions under the Programme of Measures (PoMs) and should be measureable through related indicators. The assessment of a target should assess by how much the pressure or impact has been reduced, or by how much the status has been improved.

Environmental targets should be strongly linked to the components of the Article 8 assessment and hence focus on improving the condition of assessed features and elements. Overarching pressure focused targets (e.g. reduce nutrient inputs to the marine environment) can then be linked to, or inspire, measures which target specific sectors (e.g. improving waste water treatment). Pressure and state-based targets can be used as interim targets (e.g. reducing single-use plastics on beaches by 75% by 2030) which provide a stepping stone to the achievement of GES as defined under Article 9(1). Restoration targets include goals to maintain or improve the status of marine habitats to ensure they provide vital ecosystem services such as the regulation of climate, the sustainable use of the marine environment and protection of endangered habitats and species.

## Evaluation of the previous environmental targets

In 2020 Ireland published a set of 25 environmental targets, 23 of these have been included as overarching targets in this update. When developed these were closely linked to the criteria as set out in the EC Commission Decision 2017. A review of these targets has indicated that out of 23 targets; 10 were fully achieved; progress was noted towards the achievement of six others; no improvement was made for five targets, while two targets could not be evaluated (Figure 1 and Table 1 below).

The five targets which showed no improvement since the last assessment completed in 2020 included those focused on by-catch pressure, benthic habitats and commercially exploited species (Table 1). This was evidenced through the related indicators in Annex III related to D1C1, D6 and D3.

The 10 targets which were fully achieved relate to eutrophication, hydrographical conditions, contaminants, contaminants in seafood and noise (Table 1). The assessments showed the achievement of GES for the related indicators and features considered for these descriptors. In all cases this is consistent with the last assessment, where GES was also achieved.

In the case of six environmental targets progress was made towards reaching their goals. Two of those, focused on marine litter, showed some improvement. In the case of the number of single

use plastics and overall litter found on Irish beaches, improvements have been seen (see main report and Annex III). A decrease in the number of new non-indigenous species was also recorded in this assessment showing progress to achieving the target, while not completely reducing the introductions to zero. Three environmental targets relating to biodiversity (population abundance, species distribution range and habitats for species) have shown some improvements (see main report and Annex III), however more improvements are still necessary (e.g. population abundance of overwintering birds, fish species).

The two targets which are not bring brought forward relate to Descriptor 6 seafloor integrity. These have now been instead replaced by more specific targets due to improved knowledge, assessment methodologies and the development of thresholds in these specific areas (habitat loss and adverse effects). These two targets can be found at the bottom of Table 1 for reference.

The level of achievement of the 2020 high level targets and their related indicators helped to identify descriptors where additional targets needed to be developed in cycle 3.

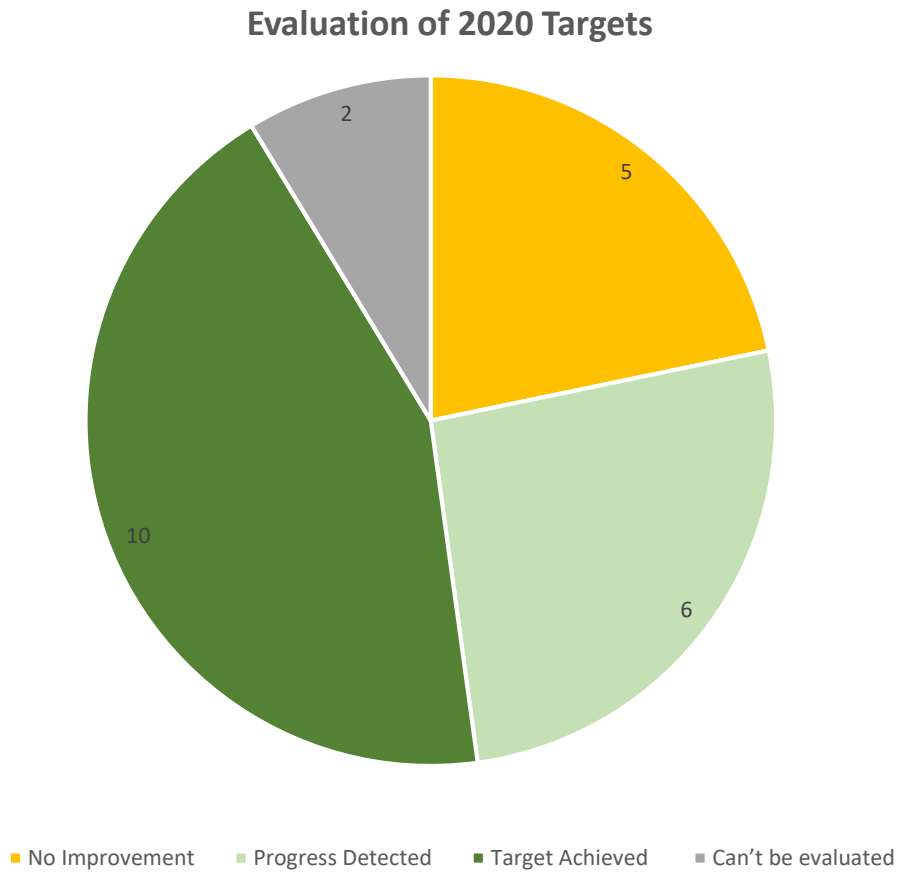


**Figure 1.** Evaluation of the 2020 Environmental Targets.

## Development of Targets 2024-2030

During this revision of Irelands environmental targets due regard has been given to:

- Ireland's environmental targets as developed under Ireland's Marine Strategy Part 1 in 2020. These targets have been retained as overarching targets for each descriptor while more specific targets have then been developed where needed.
- The 2024 Article 8, 9 and 10 assessments, including related indicators, achievement of Environmental Targets set in 2020, and distance to Good Environmental Status (See Main report and Annex III).
- The technical review of the 2020 targets by the Joint Research Centre (Banfi et al., 2021).
- Existing EU and regional targets and specifically objectives developed under the OSPAR North East Atlantic Strategy 2030 (NEAES 2030).
- Environmental targets developed through collaborative work with other North-East Atlantic parties to the OSPAR Convention.

Core principles for identifying targets have been developed; these draw on EC guidance and Commission and Staff Working Documents developed under the Common Implementation Strategy (CIS) process (SWD(2020) 62 final; EC 2024). These principles are outlined in Box 1.

### Box 1. Principles for the development of Environmental Targets

- Targets are focused on:
  - Pressure reduction: Targets should primarily be developed to focus on reducing pressures from human activities which cause the failure to achieve GES, with a particular focus on the reduction in spatial extent, intensity or frequency of anthropogenic pressures at their source or entering the marine environment.
  - State: Targets can alternatively focus on the state of the environment and should be linked directly to the national assessment of GES. State related targets can also be focused on remediation activity (e.g. Nature based solutions, spatial protection).
  - Monitoring and assessment of state: Specific targets can be developed which help to improve the knowledge base for decision making. Monitoring and assessment targets should be linked to identified knowledge gaps.
- Targets should be SMART: **S**pecific, **M**easurable, **A**chievable, **R**ealistic and **T**ime-bound.
- Targets should be linked to Measures: Targets should be closely linked to operational measures developed under Ireland's Marine Strategy Part 3 in 2022, which will be used to deliver on the target. As such the non-achievement of a target should be clearly linked to the implementation of related measures.
- Targets should be linked to GES Components: Targets should be linked to related descriptors, criteria, indicators and elements as defined under the Article 8 assessment. The success of a target is measured through improvements over time or continued GES of these components.

## Irelands revised Environmental Targets

Ireland's Marine Strategy Part 1 now includes 49 environmental targets. Of these 23 are overarching targets carried forward from the last assessment in 2020 while 26 are new targets. The targets are split into those relating to reducing pressures (25), monitoring and assessment (7), and state (17) which includes 3 targets specifically related to remediation.

**Table 1.** Ireland's Environmental Targets as required under Article 10 of the Marine Strategy Framework Directive. Overarching targets are considered high level targets which were developed in 2020. Orange = no improvement since 2020, light green = progress detected since 2020, dark green = target achieved, grey = could not be evaluated in this cycle, white = new target in 2024. D1T1 relates to Descriptor 1 Target 1 and so forth.

| | **Descriptor 1 – Biodiversity** | | |
|---|---|---|---|
| **Name** | **Description** | **Linked Descriptors** | **Purpose** |
| **D1T1** Overarching Target | The mortality rate per species from incidental by-catch is below levels which threaten the species, such that its long-term viability is ensured. | D3, D4 | Reducing Pressure |
| | | | |
| **D1T1-1** (Mammals) | By 2028, aim to ensure that the mortality rate per seal and small toothed cetacean species from incidental by-catch is below levels which threaten the species, in accordance with current conservation objectives and numerical mortality/removal limits established through coordinated regional indicator assessments (i.e. OSPAR common indicator M6 – marine mammal by-catch). | D3, D4 | Reducing Pressure |
| **D1T1-2** (Birds and reptiles) | By 2026, ensure that appropriate monitoring programmes, focused on relevant fishing métiers regarding bird and reptile by-catch, are established at the right scales in order to inform coordinated regional indicator assessments, guide programmes of measures, and support the achievement of GES including by safeguarding populations against incidental mortality. | | Monitoring and assessment |
| **D1T1-3** (All non-commercial species groups) | By 2026, ensure that Ireland participates in the establishment of an internationally coordinated risk-based monitoring and assessment regime that is focused on incidental mortality of non-target species in commercial fisheries and informing the development of appropriate management measures. | | Monitoring and assessment |
| | | | |
| **D1T2** Overarching Target | The population abundance of the species is not adversely affected due to anthropogenic pressures. | D3, D4 | State |
| | | | |
| **D1T2-1** (Mammals) | By 2026, ensure that the population abundance per mammal species is at or above the favourable reference value (FRV) reported under the EU Habitats Directive, in accordance with current conservation objectives and abundance estimates established through coordinated regional indicator assessment (i.e. OSPAR common indicators M3 – seal abundance and distribution, M5 – | D4 | State |

| | | | |
|---|---|---|---|
| | grey seal pup production, M4 – abundance and distribution of cetaceans). | | |
| **D1T2-2** (Birds – all species groups) | By 2026, ensure that population monitoring programmes, focused on the delivery of abundance estimates and trend data for breeding and non-breeding bird species, are established. | | Monitoring and assessment |
| **D1T2-3** (Reptiles - turtles) | By 2026, explore opportunities to improve the knowledge base and gather qualitative and quantitative data on turtle population abundance. | | Monitoring and assessment |
| | | | |
| **D1T4** Overarching Target | The species distributional range and, where relevant, pattern is in line with prevailing physiographic, geographic and climatic conditions. | D4 | State |
| | | | |
| **D1T5** Overarching Target | The habitat for the species has the necessary extent and condition to support the different stages in the life history of the species. | D4 | State |
| | | | |
| **D1T5-1** (All species groups) | By 2030, ensure that Ireland's network of marine protected areas achieves 30% coverage of the maritime area, is ecological coherent and representative and contributes to sustaining ecosystem services, including climate change resilience and mitigation. | D3, D4 | Reducing Pressure |
| **D1T5-3** (All species groups) | By 2030, ensure that Ireland's marine Natura 2000 sites designated for listed species under the EU Birds and Habitats Directives have a system of management measures developed and in place, in order to ensure that the species' habitat extent and condition at all sites achieve and maintain a favourable status. | D3, D4 | Reducing Pressure |
| **D1T5-4** (Birds - all species groups) | By 2028, ensure that collisions of birds with offshore energy installations are minimised during the planning, construction and operational phase of wind energy infrastructure. Cumulative impacts of multiple developments must also be considered in order to achieve the overarching target. | | Reducing Pressure |

| | Descriptor 2: Non-Indigenous Species | | |
|---|---|---|---|
| **Name** | **Description** | **Linked Descriptors** | **Purpose** |
| **D2T1** Overarching Target | The number of non-indigenous species which are newly introduced via human activity into the wild, per assessment period is minimised and where possible reduced to zero. | D1, D4 | Reducing Pressure |
| | | | |
| **D2T1-1** | By 2026, endeavour to minimise the number of newly introduced non-indigenous species to Ireland through the development of a management plan for NIS and implementation of actions in that plan for coastal and marine areas. | D1, D4 | Reducing Pressure |
| **D2T1-2** | Continue to reduce the risk of introduction and spread of non-indigenous species linked to ballast water and hull fouling through the implementation of the Ballast Water Convention. | D1, D4 | Reducing Pressure |

| .. | Descriptor 3: Commercial Fish and Shellfish | | |
|---|---|---|---|
| **Name** | **Description** | **Linked Descriptors** | **Purpose** |
| **D3T1** Overarching Target | The Fishing mortality rate of populations of commercially exploited species is at or below levels which can produce the maximum sustainable yield (MSY). | D1, D4 | State |
| | | | |
| **D3T2** Overarching Target | The Spawning Stock Biomass of populations of commercially-exploited species are above biomass levels capable of producing maximum sustainable yield (MSY). | D1, D4 | State |
| | | | |
| **D3T1-1** | All commercially exploited stocks are managed according to the maximum sustainable yield (MSY) approach. | D1, D4 | Reducing Pressure |

| | Descriptor 4: Marine Food webs | | |
|---|---|---|---|
| **Name** | **Description** | **Linked Descriptors** | **Purpose** |
| **D4T1** Overarching Target | The diversity (species composition and their relative abundance) of the trophic guild is not adversely affected due to anthropogenic pressures. | D1, D3 | State |
| | | | |
| **D4T2** Overarching Target | The balance of total abundance between the trophic guilds is not adversely affected due to anthropogenic pressures. | D1, D3 | State |
| | | | |

| | Descriptor 5: Eutrophication | | |
|---|---|---|---|
| **Name** | **Description** | **Linked Descriptors** | **Purpose** |
| **D5T1** Overarching Target | Nutrient concentrations are not at levels that indicate adverse eutrophication effects. | D1, D4 | Reducing Pressure |
| | | | |
| **D5T1-1** | By 2028, in order to address eutrophication Ireland will ensure that effective measures are taken including the implementation of actions under Ireland's Water Action Plan 2024. | D1, D4 | Reducing Pressure |
| | | | |
| **D5T2** Overarching Target | Continue to ensure that chlorophyll *a* concentrations are not at levels that indicate adverse effects of nutrient enrichment. | D1, D4 | State |
| | | | |
| **D5T3** Overarching Target | Continue to ensure that the concentration of dissolved oxygen is not reduced, due to nutrient enrichment. | D1, D4 | State |

| | Descriptor 6: Seafloor Integrity | | |
|---|---|---|---|
| **Name** | **Description** | **Linked Descriptors** | **Purpose** |
| **D6T1** Overarching Target | The structure and functions of the ecosystems, and benthic ecosystems, in particular, are not adversely affected due to the spatial extent and distribution of physical disturbance or physical loss on the seabed. | D1, D3, D4 | Reducing Pressure |
| | | | |
| **D6T1-1** | Continue to maintain existing low levels of sealed physical loss at less than 2% of the seabed in each benthic broad habitat type. | D1, D3, D4 | Reducing Pressure |
| | | | |
| **D6T2** Overarching Target | The extent of adverse effects from anthropogenic pressures on the condition of the habitat type, including alteration to its biotic and abiotic structure and its functions, does not exceed a specified proportion of the natural extent of the habitat type in the assessment area. | D1, D3, D4 | Reducing Pressure |
| | | | |
| **D6T2-1** | By 2030, maintain or reduce the extent of adverse effects on the seabed in each benthic broad habitat type to less than 25% of the habitat extent. | D1, D3, D4 | Pressure |
| **D6T2-2** | By 2040, actively or passively restore two thirds of the benthic broad habitat types that are not in good environmental status. | D1, D3, D4 | State-Remediation |
| **D6T2-3** | By 2040, determine the condition of 50% of benthic broad habitat types based on the best available knowledge and techniques. | D1, D3, D4 | Monitoring |
| **D6T2-4** | By 2030, determine the condition of 50% of other benthic broad habitat types based on the best available knowledge and techniques. | D1, D3, D4 | Monitoring |

| | | | |
|---|---|---|---|
| **D6T2-5** | By 2030, actively or passively restore 30% of the other benthic habitat types that are not in good environmental status. | D1, D3, D4 | State-Remediation |
| **D6T2-6** | By 2028, commence implementation of nature-based solutions for marine habitats in order to restore biodiversity, reduce eutrophication impacts and support the delivery of ecosystem services, including resilience to climate change and restoration of carbon sinks. | D1, D5 | State-Remediation |

| | **Descriptor 7: Hydrographical Conditions** | | |
|---|---|---|---|
| **Name** | **Description** | **Linked Descriptors** | **Purpose** |
| **D7T1** Overarching Target | The spatial extent and distribution of permanent alteration of hydrographical conditions to the seabed and water column, is at a level that ensures that the structure and functions of the ecosystems are safeguarded and that benthic ecosystems, in particular, are not adversely affected. | D1, D4, D3, D6 | Reducing Pressure |
| | | | |
| **D7T1-1** | By 2026, human activities that may give rise to significant or permanent changes in hydrographical conditions, will comply with regulatory regimes and guidance to ensure that full consideration is given to any potential impacts, including cumulative effects, at the relevant spatial scales (also see above for D6T1). | D1, D4, D3, D6 | Reducing Pressure |

| | Descriptor 8 and 9: Contaminants | | |
|---|---|---|---|
| **Name** | **Description** | **Linked Descriptors** | **Purpose** |
| **D8T1a** Overarching Target | Within coastal and territorial waters, continue to ensure the concentrations of contaminants do not exceed the threshold values set in accordance with Directive 2000/60/EC. | D9 | State |
| | | | |
| **D8T1a-1** | Maintain or reduce the inputs of contaminants within coastal and territorial waters to a level that concentrations do not exceed the threshold values set in accordance with Directive 2000/60/EC or the OSPAR Environmental Assessment Criteria (EAC) and ensure that concentrations are not increasing. | D9 | Reducing Pressure |
| | | | |
| **D8T1b** Overarching Target | Concentration of contaminants in marine matrices assessed in accordance with OSPAR Coordinated Environmental Monitoring Programme (CEMP) do not exceed OSPAR Environmental Assessment Criteria (EAC) and concentrations are not increasing. | D9 | State |
| | | | |
| **D8T1b-1** | By 2030, Ireland will ensure that the appropriate regulatory processes and guidance are in place for pollutants (e.g. contaminants, noise and litter) from offshore infrastructure and associated activities to achieve or maintain GES. | D9, D8, D10, D11 | Reducing Pressure |
| | | | |
| **D8T2** Overarching Target | The degree of biological or ecological effects that can be specifically attributed to contaminants continues to be below the agreed OSPAR criteria. At present, this is limited to evaluation of reproductive impairment in marine gastropods associated with tributyltin (TBT). | D1 | State |
| | | | |
| | | | |
| **D8T3** Overarching Target | Spatial extent and duration of significant acute pollution events are minimised. | D1, D3, D4 | Pressure |
| | | | |
| | | | |
| **D9T1** Overarching Target | Levels of contaminants in fish and shellfish caught or harvested for human consumption comply with maximum limits listed in EU Regulation 1881/2006 (as amended). | D8 | State |

| Descriptor 10: Marine Litter | | | |
|---|---|---|---|
| **Name** | **Description** | **Linked Descriptors** | **Purpose** |
| **D10T1a** Overarching Target | The composition, amount and spatial distribution of litter in the coastline, and on the seabed, are at levels that do not cause harm to the coastal or marine environment. | D1 | State |
| | | | |
| **D10T1a-1** | By 2030, the marine litter abundance on Irelands coastline will be reduced to 20 litter items per 100 m. | D1 | Reducing Pressure |
| | | | |
| **D10T1a-2** | By 2026, apply standardised methods for monitoring and assessment of microplastics in sediments and biota to determine marine microplastics hotspots and associated sources. | D1 | Monitoring |
| | | | |
| **D10T1b** Overarching target | By 2030, Ireland will reduce from a baseline of 2016 by at least 75% the prevalence of the most commonly found single-use plastic items and of maritime related plastic items on beaches in order to contribute to the achievement of relevant regional and EU threshold values building upon requirements for EU Member States in the EU Single Use Plastics Directive (Directive 2019/904). | D1 | Reducing Pressure |

| Descriptor 11: Underwater Noise | | | |
|---|---|---|---|
| **Name** | **Description** | **Linked Descriptors** | **Purpose** |
| **D11T1** Overarching Target | The spatial distribution, temporal extent, and levels of anthropogenic impulsive sound sources do not exceed levels that adversely affect populations of marine animals. | D1 | Reducing Pressure |
| | | | |
| **D11T1-a** | By 2026, ensure guidance to regulate both continuous and impulsive noise from anthropogenic activities is developed and implemented in order to maintain low levels of noise in Irelands marine environment. | D1 | Pressure |

| Environmental Targets not being brought forward in 2024 | | | |
|---|---|---|---|
| **Name** | **Description** | **Linked Descriptors** | **Purpose** |
| **D6T4** Overarching Target | The extent of loss of the habitat type, resulting from anthropogenic pressures, does not exceed a specified proportion of the natural extent of the habitat type in the assessment area. | D1 | Reducing Pressure |
| | | | |
| **D6T5** Overarching Target | The extent of adverse effects from anthropogenic pressures on the condition of the habitat type, including alteration to its biotic and abiotic structure and its functions, does not exceed a specified proportion of the natural extent of the habitat type in the assessment area. | D1 | Reducing Pressure |

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