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Marine Strategy Framework Directive

Policy Review

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Marine Strategy Framework Directive

Policy Review
Name/Type of the Legal Act or Policy
MSFD – DIRECTIVE 2008/56/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive) Commission Communication, Thematic Strategy on the Protection and Conservation of the Marine Environment, COM(2005)504 final Proposal for a Directive establishing a Framework for Community Action in the field of Marine Environmental Policy (Marine Strategy Directive), COM(2005) 505 final Commission Staff Working Paper, Impact Assessment – Annex to the Communication on the Thematic Strategy and Proposal for a Directive establishing a Framework for Community Action in the field of Marine Environmental Policy, SEC(2005) 1290 Commission Decision of 1 September 2010 on criteria and methodological standards on good environmental status of marine waters Commission Staff Working Paper on the Relationship between the initial assessment of marine waters and the criteria for good environmental status Marine Protected Areas Report (and annex) shows significant progress in establishing protected areas in Europe's seas, with benefits for the economy and the environment. COMMISSION DECISION of 1 September 2010 on criteria and methodological standards on good environmental status of marine waters (notified under document C(2010) 5956) REPORT FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT The first phase of implementation of the Marine Strategy Framework Directive (2008/56/EC) The European Commission's assessment and guidance, COM/2014/097 final Other policies etc. are mentioned below
Entry into force
17 June 2008
Departments/Units in charge
DG Environment C 2
Common Implementation strategy (CIS processes)

Marine Directors – highest level political group focused on ensuring the overall implementation of the directive; MSCG – Marine Strategy Coordination Group – Link between Marine Directors and Working Groups, preparing material for the Marine Directors and overseeing the work of the Working Groups; WG GES – Working Group Good Environmental Status – support Member States in the determination of GES; WG DIKE – Working Group Data, Information, and Knowledge Exchange – supports Member States with their data reporting obligations; WG ESA – Economic and Social Analysis – develops common methodologies and approaches to carry out the economic and social analysis of the use of the marine waters; Technical subgroups (currently on Noise and Marine litter) – two technical subgroups, focusing on emerging areas of particular concern, *underwater noise* and *litter*, have been set up under WG GES to advise on the standardization of monitoring methods and provide a forum for exchange of principles and best practice on target setting and assessment methodologies.
Administrative body handling implementation in MS
In Ireland it is led by the Department of Environment, Community and Local Government (DECLG). Expert advisors from a broad range of relevant Government Departments and State Agencies are engaged in the process and contributing scientific knowledge (Marine Institute, Environmental Protection Agency, National Parks and Wildlife Service). In Sweden it is implemented by the Swedish Agency for Marine and Water Management. In Germany it is led by the Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit (BMUB, Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety) with support from Bundesministerium für Verkehr und digitale Infrastruktur '(BMVI, Federal Ministry of Transport and Digital Infrastructure); 'Bundesministerium für Ernährung und Landwirtschaft '(BMEL, Federal Ministry of Food and Agriculture (This department is necessary to be part of the marine environmental process, as agriculture has an indirect effect on the marine ecosystem through its fertilizers), Bundesamt für Naturschutz' (BfN), the 'Umweltbundesamt'(UBA) and the 'Bundesamt für Seeschifffahrt und Hydrographie'(BSH), including the respective Ministries of the Länder Schleswig-Holstein, Hamburg, Niedersachsen, Mecklenburg-Vorpommern, and working groups (WG) in which the federal government and its 'Länder' come together. Those working groups are the LAWA, the WG on water and the LANA WG on environmental protection, rural conservation and recovering and finally the ARGE BLMP, WG on measurement programs for the marine environment in North and Baltic Sea as well as the marine expert group). In the Netherlands the implementation is led bij the Ministry of Infrastructure and the Environment, the responsible agency is Rijkswaterstaat.
Main Objective
Protection and preservation of the marine environment, the prevention of its deterioration and where practicable the restoration of that environment in areas where it has been adversely affected (provision 43)
Principles included in the legal text

Art. 27: Member States should then establish and implement programmes of measures which are designed to achieve or maintain good environmental status in the waters concerned, while accommodating existing Community and international requirements and the needs of the marine region or subregion concerned. Those measures should be devised on the basis of the precautionary principle and the principles that preventive action should be taken, that environmental damage should, as a priority, be rectified at source and that the polluter should pay.

Art. 43 : Since the objectives of this Directive, namely protection and preservation of the marine environment, the prevention of its deterioration and where practicable the restoration of that environment in areas where it has been adversely affected, cannot be sufficiently achieved by Member States and can therefore, by reason of the scale and effects of the Directive, be better achieved at Community level, the Community may adopt measures, in accordance with the principle of subsidiarity as set out in Art. 5 of the Treaty. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve those objectives.

Art. 44: Programmes of measures and subsequent action by Member States should be based on an ecosystem-based approach to the management of human activities and on the principles referred to in Art. 174 of the Treaty, in particular the precautionary principle.

Art. 45: This Directive respects the fundamental rights, and observes the principles, recognised by the Charter of Fundamental Rights of the European Union (19), in particular Art. 37 thereof which seeks to promote the integration into the policies of the Union of a high level of environmental protection and the improvement of environmental quality in accordance with the principle of sustainable development.

Art. 19: With regard to access to environmental information, Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information shall apply.

Other objectives/Key concepts/key elements of the legislation

Chapter 1 Art 1: 1. This Directive establishes a framework within which Member States shall take the necessary measures to achieve or maintain good environmental status in the marine environment by the year 2020 at the latest.

2. For that purpose, marine strategies shall be developed and implemented in order to a: protect and preserve the marine environment, prevent its deterioration or, where practicable, restore marine ecosystems in areas where they have been adversely affected; b: prevent and reduce inputs in the marine environment, with a view to phasing out pollution as defined in Art. 3(8), so as to ensure that there are no significant impacts on or risks to marine biodiversity, marine ecosystems, human health or legitimate uses of the sea.

3. Marine strategies shall apply an ecosystem-based approach to the management of human activities, ensuring that the collective pressure of such activities is kept within levels compatible with the achievement of good environmental status and that the capacity of marine ecosystems to respond to human-induced changes is not compromised, while

enabling the sustainable use of marine goods and services by present and future generations.

Chapter 1 Art. 4: This Directive shall contribute to coherence between, and aim to ensure the integration of environmental concerns into, the different policies, agreements and legislative measures which have an impact on the marine environment.

Terminology

In Art. 3.1. 'marine waters' means: (a) waters, the seabed and subsoil on the seaward side of the baseline from which the extent of territorial waters is measured extending to the outmost reach of the area where a Member State has and/or exercises jurisdictional rights, in accordance with the Unclos, with the exception of waters adjacent to the countries and territories mentioned in Annex II to the Treaty and the French Overseas Departments and Collectivities; and (b) coastal waters as defined by Directive 2000/60/EC, their seabed and their subsoil, in so far as particular aspects of the environmental status of the marine environment are not already addressed through that Directive or other Community legislation;

2. 'marine region' means a sea region which is identified under Art. 4. Marine regions and their subregions are designated for the purpose of facilitating implementation of this Directive and are determined taking into account hydrological, oceanographic and biogeographic features;

3. 'marine strategy' means the strategy to be developed and implemented in respect of each marine region or subregion concerned as laid down in Art. 5;

4. 'environmental status' means the overall state of the environment in marine waters, taking into account the structure, function and processes of the constituent marine ecosystems together with natural physiographic, geographic, biological, geological and climatic factors, as well as physical, acoustic and chemical conditions, including those resulting from human activities inside or outside the area concerned;

5. 'good environmental status' means the environmental status of marine waters where these provide ecologically diverse and dynamic oceans and seas which are clean, healthy and productive within their intrinsic conditions, and the use of the marine environment is at a level that is sustainable, thus safeguarding the potential for uses and activities by current and future generations, i.e.: (a) the structure, functions and processes of the constituent marine ecosystems, together with the associated physiographic, geographic, geological and climatic factors, allow those ecosystems to function fully and to maintain their resilience to human-induced environmental change. Marine species and habitats are protected, human-induced decline of biodiversity is prevented and diverse biological components function in balance;(b) hydro-morphological, physical and chemical properties of the ecosystems, including those properties which result from human activities in the area concerned, support the ecosystems as described above. Anthropogenic inputs of substances and energy, including noise, into the marine environment do not cause pollution effects;

Good environmental status shall be determined at the level of the marine region or subregion as referred to in Art. 4, on the basis of the qualitative descriptors in Annex I. Adaptive

management on the basis of the ecosystem approach shall be applied with the aim of attaining good environmental status;

6. 'criteria' means distinctive technical features that are closelylinked to qualitative descriptors;

7. 'environmental target' means a qualitative or quantitative statement on the desired condition of the different components of, and pressures and impacts on, marine waters in respect of each marine region or subregion. Environmental targets are established in accordance with Art. 10;

8. 'pollution' means the direct or indirect introduction into the marine environment, as a result of human activity, of

substances or energy, including human-induced marine underwater noise, which results or is likely to result in

deleterious effects such as harm to living resources and marine ecosystems, including loss of biodiversity, hazards

to human health, the hindering of marine activities, including fishing, tourism and recreation and other legitimate uses of the sea, impairment of the quality for use of sea water and reduction of amenities or, in general,impairment of the sustainable use of marine goods and services;

9. 'regional cooperation' means cooperation and coordination of activities between Member States and, whenever possible, third countries sharing the same marine region or subregion, for the purpose of developing and implementing

marine strategies;

10. 'regional sea convention' means any of the international conventions or international agreements together with their governing bodies established for the purpose of protecting the marine environment of the marine regions referred to in Art. 4, such as the Convention on the Protection of the Marine Environment of the Baltic Sea, the Convention for the Protection of the Marine Environment of the North-east Atlantic and the Convention for the Marine Environment and the Coastal Region of the Mediterranean Sea.

Derogations

Art. 14 Exceptions:

1. A Member State may identify instances within its marine waters where, for any of the reasons listed under points (a) to (d), the environmental targets or good environmental status cannot be achieved in every aspect through measures taken by that Member State, or, for reasons referred to under point (e), they cannot be achieved within the time schedule concerned:
   a) action or inaction for which the Member State concerned is not responsible
   b) natural causes;
   c) force majeure;

d) modifications or alterations to the physical characteristics of marine waters brought about by actions taken for reasons of overriding public interest which outweigh the negative impact on the environment, including any transboundary impact;
e) natural conditions which do not allow timely improvement in the status of the marine waters concerned.

The Member State concerned shall identify such instances clearly in its programme of measures and shall substantiate its view to the Commission. In identifying instances a Member State shall consider the consequences for Member States in the marine region or subregion concerned.

However, the Member State concerned shall take appropriate ad-hoc measures aiming to continue pursuing the environmental targets, to prevent further deterioration in the status of the marine waters affected for reasons identified under points (b), (c) or (d) and to mitigate the adverse impact at the level of the marine region or subregion concerned or in the marine waters of other Member States.

2. In the situation covered by paragraph 1(d), Member States shall ensure that the modifications or alterations do not permanently preclude or compromise the achievement of good environmental status at the level of the marine region or subregion concerned or in the marine waters of other Member States.
3. The ad-hoc measures referred to in the third subparagraph of paragraph 1 shall be integrated as far as practicable into the programmes of measures.
4. Member States shall develop and implement all the elements of marine strategies referred to in Art. 5(2), but shall not be required, except in respect of the initial assessment described in Art. 8, to take specific steps where there is no significant risk to the marine environment, or where the costs would be disproportionate taking account of the risks to the marine environment, and provided that there is no further deterioration.

Where, for either of these reasons, a Member State does not take any steps, it shall provide the Commission with the necessary justification to substantiate its decision, while avoiding that the achievement of good environmental status be permanently compromised.

Types of management measures

Each Member State is obliged to develop a Programme of Measures (POM) in order to meet the objectives (GES) of the MSFD. These measures will likely range across the typology of policy measures (i.e. regulation, economic instruments, voluntary agreements, etc.). As part of this, the Member States are also required to do an impact assessment.

Annex VI of the Directive outlines the POM as (1) Input controls: management measures that influence the amount of a human activity that is permitted. (2) Output controls: management measures that influence the degree of perturbation of an ecosystem component that is permitted. (3) Spatial and temporal distribution controls: management measures that influence where and when an activity is allowed to occur. (4) Management coordination measures: tools to ensure that management is coordinated. (5) Measures to improve the traceability, where feasible, of marine pollution. (6) Economic incentives: management measures which make it in the economic interest of those using the marine ecosystems to

act in ways which help to achieve the good environmental status objective. (7) Mitigation and remediation tools: management tools which guide human activities to restore damaged components of marine ecosystems. (8) Communication, stakeholder involvement and raising public awareness. The Directive states in Art. 12, 3: When drawing up the programme of measures pursuant to paragraph 2, Member States shall give due consideration to economic impacts of the measures envisaged. To assist the competent authority or authorities referred to in Art. 7 to pursue their objectives in an integrated manner, Member States may identify or establish administrative frameworks in order to benefit from such interaction.
Spatial coverage
(a) waters, the seabed and subsoil on the seaward side of the baseline from which the extent of territorial waters is measured extending to the outmost reach of the area where a Member State has and/or exercises jurisdictional rights, in accordance with the Unclos, with the exception of waters adjacent to the countries and territories mentioned in Annex II to the Treaty and the French Overseas Departments and Collectivities; and (b) coastal waters as defined by Directive 2000/60/EC, their seabed and their subsoil, in so far as particular aspects of the environmental status of the marine environment are not already addressed through that Directive or other Community legislation; 1. Member States shall, when implementing their obligations under this Directive, take due account of the fact that marine waters covered by their sovereignty or jurisdiction form an integral part of the following marine regions: (a) the Baltic Sea; (b) the North-east Atlantic Ocean; (c) the Mediterranean Sea; (d) the Black Sea. 2. Member States may, in order to take into account the specificities of a particular area, implement this Directive by reference to subdivisions at the appropriate level of the marine waters referred to in paragraph 1, provided that such subdivisions are delimited in a manner compatible with the following marine subregions: (a) in the North-east Atlantic Ocean: (i) the Greater North Sea, including the Kattegat, and the English Channel;(ii) the Celtic Seas; (iii) the Bay of Biscay and the Iberian Coast; (iv) in the Atlantic Ocean, the Macaronesian biogeographic region, being the waters surrounding the Azores, Madeira and the Canary Islands; (b) in the Mediterranean Sea: (i) the Western Mediterranean Sea; (ii) the Adriatic Sea;(iii) the Ionian Sea and the Central Mediterranean Sea; (iv) the Aegean-Levantine Sea.
Reporting units - what are the specific transposition requirements
In most cases on the Member State's marine waters, Exclusive Economic Zone. But MS are also able and in some cases do (Spain) split into additional sub-units.
Management unit
Marine waters of MS. See spatial coverage above.
Key planning steps
Member States concerned endeavour to follow a common approach: (a) preparation:

(i) an initial assessment, to be completed by 15 July 2012 of the current environmental status of the waters concerned and the environmental impact of human activities thereon, in accordance with Art. 8;

(ii) a determination, to be established by 15 July 2012 of good environmental status for the waters concerned, in

accordance with Art. 9(1);

(iii) establishment, by 15 July 2012, of a series of environmental targets and associated indicators, in accordance

with Art. 10(1);

(iv) establishment and implementation, by 15 July 2014 except where otherwise specified in the relevant Community legislation, of a monitoring programme for ongoing assessment and regular updating of targets, in accordance with Art. 11(1);

(b) programme of measures:

(i) development, by 2015 at the latest, of a programme of measures designed to achieve or maintain good environmental status, in accordance with Art. 13(1), (2) and (3); (ii) entry into operation of the programme provided for in point (i), by 2016 at the latest, in accordance with Art. 13(10).

Timelines

According to DG Environment's website:

- The initial assessment of the current environmental status of national marine waters and the environmental impact and socio-economic analysis of human activities in these waters (by 15 July 2012)
- The determination of what GES means for national marine waters (by 15 July 2012)
- The establishment of environmental targets and associated indicators to achieve GES by 2020 (by 15 July 2012)
- The establishment of a monitoring programme for the ongoing assessment and the regular update of targets (by 15 July 2014)
- The development of a programme of measures designed to achieve or maintain GES by 2020 (by 2015)
- The review and preparation of the second cycle (2018 – 2021)

Chapter IV Art. 17

1. Member States shall ensure that, in respect of each marine region or subregion concerned, marine strategies are kept up to date.

2. For the purposes of paragraph 1, Member States shall review, in a coordinated manner as referred to in Art. 5, the following elements of their marine strategies *every six years* after their initial establishment: (a) the initial assessment and the determination of good environmental status, as provided for in Art. 8(1) and 9(1) respectively; (b) the environmental

targets established pursuant to Art. 10(1); (c) the monitoring programmes established pursuant to Art. 11(1); (d) the programmes of measures established pursuant to Art. 13(2).

3. Details of any updates made following the reviews provided for in paragraph 2 shall be sent to the Commission, to the Regional Sea Conventions and to any other Member States concerned *within three months* of their publication in accordance with Art. 19(2).

4. Art. 12 and 16 shall apply mutatis mutandis to this Article.

Art. 18 Interim Reports : Member States shall, *within three years of* the publication of each programme of measures or update thereof in accordance with Art. 19(2), submit to the Commission a brief interim report describing progress in the implementation of that programme.

Integration/coordination issues with other related pieces of legislation

The Water Framework Directive (2000, including the water industry directive and the nitrates directive) is closely linked to the MSFD. It sets a goal of achieving Good Status for all EU surface and groundwaters by 2015, tying in with the goal of Good Environmental Status under the Marine Directive. Following an adaptive management approach, it establishes a six-year planning cycle, during which Member States prepare River Basin Management Plans and develop actions and measures to achieve Good Status by 2015. Initial plans were published in 2009 and will be reviewed in 2015. Actions taken will reduce marine pollution from land-based sources and will protect ecosystems in coastal and transitional waters, which are vital spawning grounds for many marine fish species.

The Habitats and Birds Directives (1992 and 1979, codified 2009) are Europe's central laws on nature conservation, providing special protection for key sites (the Natura 2000 network), animal species, plant species and habitat types of European importance. This protection will be reinforced with the Marine Directive's Marine Protected Areas.

The Common Fisheries Policy (2002) sets out a collaborative approach to managing the EU's shared seas and fisheries. Among other things, it lays down rules to ensure Europe's fisheries are sustainable and do not damage the marine environment. The planned reform in 2011 should take into account the environmental impacts of fishing and the objectives of the Marine Directive to help ensure they are met.

The EU REACH Regulation (Registration, Evaluation, Authorisation and Restriction of Chemical substances), which entered into force on 1 June 2007, aims to improve the protection of human health and the environment through the better and earlier identification of the intrinsic properties of chemical substances, like the environmental risk they pose. It is directly related to Descriptor 8 (contaminants) and indirectly to Descriptor 9 (contaminants in seafood) and 10 (marine litter) of the Marine Directive.

The MSP Directive (spatial planning may impact ecological status)

(The IMP, of which the MSFD forms the environmental pillar)

EU biodiversity strategy to 2020

The renewable Energy Directive (Directive 2009/28/EC) (might conflict with descriptor 11)

Also mentioned in Art. 13: Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment (21) and Directive 2006/7/EC of the European Parliament and of the Council of 15 February 2006 concerning the management of bathing water quality (22)

Source: EC, 2016

Coordination issues with the EU Biodiversity Strategy

The MSFD is significant for the EU Biodiversity Strategy as it is the overarching framework Directive targeted at the marine environmental status, which is directly linked to biodiversity.

Provision 18 : This MSFD should support the strong position taken by the Community, in the context of the Convention on Biological Diversity, on halting biodiversity loss, ensuring the conservation and sustainable use of marine biodiversity, and on the creation of a global network of marine protected areas by 2012. Additionally, it should contribute to the achievement of the objectives of the Seventh Conference of the Parties to the Convention on Biological Diversity, which adopted an elaborate programme of work on marine and coastal biodiversity with a number of goals, targets and activities aimed at halting the loss of biological diversity nationally, regionally and globally and at securing the capacity of the marine ecosystems to support the provision of goods and services, and a programme of work on protected areas with the objective of establishing and maintaining ecologically representative systems of marine protected areas by 2012.

Relevance to ecosystems/habitats?

Habitats addressed explicitly by the legal act/policy: Marine and coastal

Ecosystems affected/impacted implicitly by the relevant policy: Freshwater (e.g. new measures which affect marine areas may affects on freshwater e.g. regarding litter)

Links to Aquatic Biodiversity and Ecosystem Services: Both aquatic biodiversity and ecosystem services are central points to the MSFD.

In the MSFD Ecosystem services are directly linked to the marine environmental status: Marine strategies shall apply an ecosystem-based approach to the management of human activities, ensuring that the collective pressure of such activities is kept within levels compatible with the achievement of good environmental status and that the capacity of marine ecosystems to respond to human-induced changes is not compromised, while enabling the sustainable use of marine goods and services by present and future generations.

Aquatic biodiversity is part of this marine environmental status: good environmental status' means the environmental status of marine waters where these provide ecologically diverse and dynamic oceans and seas which are clean, healthy and productive within their intrinsic conditions, and the use of the marine environment is at a level that is sustainable, thus safeguarding the potential for uses and activities by current and future generations, i.e.: a) the structure, functions and processes of the constituent marine ecosystems, together with the associated physiographic, geographic, geological and climatic factors, allow those ecosystems to function fully and to maintain their resilience to human-induced environmental change. Marine species and habitats are protected, human-induced decline

of biodiversity is prevented and diverse biological components function in balance; b) hydro-morphological, physical and chemical properties of the ecosystems, including those properties which result from human activities in the area concerned, support the ecosystems as described above. Anthropogenic inputs of substances and energy, including noise, into the marine environment do not cause pollution effects.
Drivers
The official Directive (Provision 24) states : Member States across a marine region or subregion should undertake an analysis of the features or characteristics of, and pressures and impacts on, their marine waters, identifying the predominant pressures and impacts on those waters, and an economic and social analysis of their use and of the cost of degradation of the marine environment. They may use assessments already carried out in the context of regional sea conventions as a basis for their analyses. Two guidance documents exist: Commission Staff Working Paper and Working Group on Economic and Social Analysis.
Pressures
An Annex of the MSFD defines pressures and impacts. Table 2 Pressures and impacts: Physical loss: Smothering (e.g. by man-made structures, disposal of dredge spoil), sealing (e.g. by permanent constructions). Physical damage: Changes in siltation (e.g. by outfalls, increased run-off, dredging/disposal of dredge spoil), abrasion (e.g. impact on the seabed of commercial fishing, boating, anchoring), selective extraction (e.g. exploration and exploitation of living and non-living resources on seabed and subsoil). Other physical disturbance: Underwater noise (e.g. from shipping, underwater acoustic equipment), marine litter. Interference with hydrological processes: Significant changes in thermal regime (e.g. by outfalls from power stations), significant changes in salinity regime (e.g. by constructions impeding water movements, water abstraction). Contamination by hazardous substances: Introduction of synthetic compounds (e.g. priority substances under Directive 2000/60/EC which are relevant for the marine environment such as pesticides, antifoulants, pharmaceuticals, resulting, for example, from losses from diffuse sources, pollution by ships, atmospheric deposition and biologically active substances), introduction of non-synthetic substances and compounds (e.g. heavy metals, hydrocarbons,resulting, for example, from pollution by ships and oil, gas and mineral exploration and exploitation, atmospheric deposition, riverine inputs), introduction of radio-nuclides. Systematic and/or intentional release of substances: Introduction of other substances, whether solid, liquid or gas, in marine waters, resulting from their systematic and/or intentional release into the marine environment, as permitted in accordance with other Community legislation and/or international conventions.

Nutrient and organic matter enrichment: Inputs of fertilisers and other nitrogen, and phosphorus-rich substances (e.g. from

point and diffuse sources, including agriculture, aquaculture, atmospheric deposition), inputs of organic matter (e.g. sewers, mariculture, riverine inputs).

Biological disturbance: Introduction of microbial pathogens, introduction of non-indigenous species and translocations, selective extraction of species, including incidental non-target catches (e.g. by commercial and recreational fishing).

Assessment of Environmental State

Member States are obliged to do an Initial Assessment (Art. 8) of their marine waters, it states: In respect of each marine region or subregion, Member States shall make an initial assessment of their marine waters, taking account of existing data where available and comprising the following: an analysis of the essential features and characteristics, and current environmental status of those waters, based on the indicative lists of elements set out in Table 1 of Annex III, and covering the physical and chemical features, the habitat types, the biological features and the hydro-morphology.

ANNEX III Indicative lists of characteristics, pressures and impacts (referred to in Art. 8(1), 9(1), 9(3), 10(1), 11(1) and 24):

Physical and chemical features	Topography and bathymetry of the seabed, annual and seasonal temperature regime and ice cover, current velocity, upwelling, wave exposure, mixing characteristics, turbidity, residence time, spatial and temporal distribution of salinity, spatial and temporal distribution of nutrients (DIN, TN, DIP, TP, TOC) and oxygen, pH, pCO2 profiles or equivalent information used to measure marine acidification.
Habitat types	The predominant seabed and water column habitat type(s) with a description of the characteristic physical and chemical features, such as depth, water temperature regime, currents and other water movements, salinity, structure and substrata composition of the seabed, identification and mapping of special habitat types, especially those recognised or identified under Community legislation (the Habitats Directive and the Birds Directive) or international conventions as being of special scientific or biodiversity interest, habitats in areas which by virtue of their characteristics, location or strategic importance merit a particular reference. This may include areas subject to intense or specific pressures or areas which merit a specific protection regime.
Biological features	A description of the biological communities associated with the predominant seabed and water column habitats. This would include information on the phytoplankton and zooplankton communities, including the species and seasonal and geographical variability, information on angiosperms, macro-algae and invertebrate bottom fauna, including species composition, biomass and annual/seasonal

	variability, information on the structure of fish populations, including the abundance, distribution and age/size structure of the populations, a description of the population dynamics, natural and actual range and status of species of marine mammals and reptiles occurring in the marine region or subregion, a description of the population dynamics, natural and actual range and status of species of seabirds occurring in the marine region or subregion, a description of the population dynamics, natural and actual range and status of other species occurring in the marine region or subregion which are the subject of Community legislation or international agreements,an inventory of the temporal occurrence, abundance and spatial distribution of non-indigenous, exotic species or, where relevant, genetically distinct forms of native species,which are present in the marine region or subregion.	
Other features	A description of the situation with regard to chemicals, including chemicals giving rise to concern, sediment contamination, hotspots, health issues and contamination of biota (especially biota meant for human consumption), a description of any other features or characteristics typical of or specific to the marine region or subregion.	

Assessment of Status

The Directive gives qualitative indicators for Good Environmental Status, which links to environmental state. ANNEX I: Qualitative descriptors for determining good environmental status (referred to in Art. 3(5), 9(1), 9(3) and 24):

(1) Biological diversity is maintained. The quality and occurrence of habitats and the distribution and abundance of species are in line with prevailing physiographic, geographic and climatic conditions; (2) Non-indigenous species introduced by human activities are at levels that do not adversely alter the ecosystems; (3) Populations of all commercially exploited fish and shellfish are within safe biological limits, exhibiting a population age and size distribution that is indicative of a healthy stock; (4) All elements of the marine food webs, to the extent that they are known, occur at normal abundance and diversity and levels capable of ensuring the long-term abundance of the species and the retention of their full reproductive capacity; (5) Human-induced eutrophication is minimised, especially adverse effects thereof, such as losses in biodiversity, ecosystem degradation, harmful algae blooms and oxygen deficiency in bottom waters; (6) Sea-floor integrity is at a level that ensures that the structure and functions of the ecosystems are safeguarded and benthic ecosystems, in particular, are not adversely affected; (7) Permanent alteration of hydrographical conditions does not adversely affect marine ecosystems; (8) Concentrations of contaminants are at levels not giving rise to pollution effects; (9) Contaminants in fish and other seafood for human consumption do not exceed levels established by Community legislation or other relevant standards; (10) Properties and quantities of marine litter do not cause harm to the coastal and marine environment; (11) Introduction of energy, including underwater noise, is at levels that do not adversely affect the marine environment. The Commission also produced

an ANNEX CRITERIA AND METHODOLOGICAL STANDARDS FOR GOOD ENVIRONMENTAL STATUS.

Data

Physical and socioeconomic data is being reported by the Member States for the Initial Assessment (Art 8). Data is collected on: seabed habitats, water column habitats, marine invertebrates, marine fish, marine reptiles, seabirds, marine mammals, physical features, physical features, physical loss, physical damage, marine litter, underwater noise, extraction of fish and shellfish, microbial pollution, hazardous substances, non-synthetic hazardous substances, synthetic hazardous substances, radionuclide hazardous substances, hazardous substances in seafood, acute pollution events, hydrological processes, nutrients and organic enrichment, non-indigenous species and economic data such as Gross Value Added and employment. Data is being reported to the European Commission, and not available to the public other than through the Member State's initial assessment reports. An overview and assessment of the data collected was done by the European Topic Centre on Inland, Coastal and Marine Waters. There are also several initiatives in regard to marine data.

Funding

Art. 22 of the MSFD stipulates that the implementation of the Directive shall be supported by existing Community financial instruments in accordance with applicable rules and conditions. WG ESA developed a guidance document for co-financing.

The most relevant funding sources are identified as: EU Structural and Investment Funds (ESI Funds): European Maritime and Fisheries Fund (EMFF), EU Regional Funds: European Regional Development Fund (ERDF), Cohesion Fund (CF), EU Programme for the Environment and Climate Action (LIFE), EU Framework Programme for Research and Innovation (Horizon 2020). Funding for the MSFD is linked to the type of measure.

Other issues to be aware of relevant for AQUACROSS?

The scope of this policy is very broad: applying to all marine ecosystem services and all marine ecosystems and habitats within EU waters. The MSFD will therefore interfere with all EU marine policies. There is high risk for conflicts with other policies: targets and measures of the MSFD may not be compatible with targets and measures of other marine policies and therefore a high need for synchronization with other policies.

About AQUACROSS

Knowledge, Assessment, and Management for AQUAtic Biodiversity and Ecosystem Services aCROSS EU policies (AQUACROSS) aims to support EU efforts to protect aquatic biodiversity and ensure the provision of aquatic ecosystem services. Funded by Europe's Horizon 2020 research programme, AQUACROSS seeks to advance knowledge and application of ecosystem-based management (EBM) for aquatic ecosystems to support the timely achievement of the EU 2020 Biodiversity Strategy targets.

Aquatic ecosystems are rich in biodiversity and home to a diverse array of species and habitats, providing numerous economic and societal benefits to Europe. Many of these valuable ecosystems are at risk of being irreversibly damaged by human activities and pressures, including pollution, contamination, invasive species, overfishing and climate change. These pressures threaten the sustainability of these ecosystems, their provision of ecosystem services and ultimately human well-being.

AQUACROSS responds to pressing societal and economic needs, tackling policy challenges from an integrated perspective and adding value to the use of available knowledge. Through advancing science and knowledge; connecting science, policy and business; and supporting the achievement of EU and international biodiversity targets, AQUACROSS aims to improve ecosystem-based management of aquatic ecosystems across Europe.

The project consortium is made up of sixteen partners from across Europe and led by Ecologic Institute in Berlin, Germany.

AQUACROSS PARTNERS

Ecologic Institute (ECOLOGIC) | Germany

Leibniz Institute of Freshwater Ecology and Inland Fisheries (FVB-IGB) | Germany

Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (IOC-UNESCO) | France

Wageningen Marine Research (WMR) | Netherlands

University of Natural Resources & Life Sciences, Institute of Hydrobiology and Aquatic Ecosystem Management Austria

Fundación IMDEA Agua (IMDEA) | Spain

Universidade de Aveiro (UAVR) | Portugal

ACTeon – Innovation, Policy, Environment (ACTeon) | France

University of Liverpool (ULIV) | United Kingdom

University College Cork, National University of Ireland (UCC) | Ireland

Royal Belgian Institute of Natural Sciences (RBINS) | Belgium

Stockholm University, Stockholm Resilience Centre (SU-SRC) | Sweden

Danube Delta National Institute for Research & Development (INCDDD) | Romania

Eawag – Swiss Federal Institute of Aquatic Science and Technology (EAWAG) | Switzerland

International Union for Conservation of Nature (IUCN) | Belgium

BC3 Basque Centre for Climate Change (BC3) | Spain

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