

**DRAFT Revision**

***Common Understanding of the (Initial) Assessment,  
Determination of Good Environmental Status (GES) and  
Establishment of Environmental Targets***

***(Articles 8, 9 & 10 MSFD)***

Comments by MSFD NAVI

**EXTRACT**

**DRAFT revision of sections 1-3**

**Status: 25 September 2014**

*This is an extract of sections 1-3 of, and Annex 1 to, the current version of the draft revised CU document. The remaining sections have not been reproduced in this extract to allow focussing discussion on the basic understanding.*

## Foreword

1. The Marine Directors of the European Union (EU), Acceding Countries, Candidate Countries and EFTA Countries have jointly developed a common strategy for supporting the implementation of the Directive 2008/56/EC, “the Marine Strategy Framework Directive” (MSFD). The main aim of this strategy is to allow a coherent and harmonious implementation of the Directive. Focus is on methodological questions related to a common understanding of the technical and scientific implications of the Marine Strategy Framework Directive. In particular, one of the objectives of the strategy is the development of non-legally binding and practical documents, such as this recommendation, on various technical issues of the Directive. These documents are targeted to those experts who are directly or indirectly implementing the MSFD in the marine regions.

2. In December 2011, Marine Directors endorsed the „Common Understanding of (Initial) Assessment, Determination of Good Environmental Status (GES) & Establishment of Environmental Targets (Art. 8, 9 & 10 MSFD)“ (the „Common Understanding document“<sup>1</sup>). The document was intended to support EU Member States in the first implementation steps under Art. 5 MSFD due in 2012.

3. In late 2013, the EU Commission presented draft findings of its assessment under Art. 12 MSFD of Contracting Parties' 2012 reports on the implementation of Art. 8 MSFD (initial assessment), Art. 9 MSFD (GES) and Art. 10 MSFD (environmental targets). The EU Commission concluded that there are important differences in the interpretation and implementation of the requirements of the MSFD in EU Member States within and across marine regions. Following the findings of the Art. 12 MSFD assessment, the Marine Strategy Coordination Group agreed a package of actions under the MSFD CIS Work Programme 2014–2020 to improve the coherence, consistency and adequacy of the Directive's implementation, including through

- the revision of the 2011 Common Understanding document;
- the review of Commission Decision 2010/477/EU and possibly its revision based on Art. 9(3) and Art. 11(4) MSFD;
- the alignment of Annex III with Annex I MSFD based on Art. 24(1) MSFD.

4. As part of the package, the Common Understanding document [has been revised]

- to address additional issues, such as a common assessment framework and questions of scale and aggregation, that had been outstanding in December 2011, and

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<sup>1</sup> [CommonUnderstandingArt.8-9-10\\_Nov2011.doc](#).

- to firm up on a common understanding of various aspects for which the Commission's assessment under Art. 12 MSFD identified need for action. This concerns in particular the clarification of the role of Art. 9 and 10 MSFD and the MSFD terminology.

5. [The document has been prepared by a drafting group and following consultation of the Working Group on Good Environmental Status. It has been agreed by the Marine Strategy Coordination Group (in accordance with Article 6 of its Rules of Procedures). The document replaces the version of November 2011.]

6. The Marine Strategy Coordination Group will assess and decide upon the necessity for reviewing this document in the light of scientific and technical progress and experiences gained in implementing the Marine Strategy Framework Directive, in particular following the findings/results of future Art. 12 and 16 MSFD assessments.

#### **Disclaimer**

*This document has been developed through a collaborative programme involving the European Commission, all EU Member States, the Accession Countries, and Norway, international organisations, including the Regional Sea Conventions and other stakeholders and Non-Governmental Organisations. The document should be regarded as presenting an informal consensus position on best practice agreed by all partners. However, the document does not necessarily represent the official, formal position of any of the partners. Hence, the views expressed in the document do not necessarily represent the views of the European Commission.*

## **1. Introduction**

### **1.1 Development of Marine Strategies**

7. In July 2008, the Marine Strategy Framework Directive (MSFD; 2008/56/EC) came into force. Implementation of the MSFD should deliver an improved understanding and management of pressures and impacts arising from human activities and ultimately result in a reduction in undesirable impacts on the marine environment. This should lead to improved environmental status and resilience of marine ecosystems to counteract natural and human-induced changes, whilst ensuring the sustainable use of ecosystem goods and services.

8. The MSFD requires Member States to put in place the necessary measures to achieve or maintain 'Good Environmental Status' (GES) in the marine environment by 2020 at the latest. To reach this overall goal of the MSFD, national Marine Strategies are to be developed and implemented (Art. 5 MSFD) in order to protect and preserve the marine environment, prevent its deterioration or, where practicable, restore marine ecosystems in areas where they have been adversely affected. Furthermore, inputs of pollutants into the marine environment are to be prevented and reduced, with a view to phasing out pollution, 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 (Art. 1(2) MSFD). These Marine Strategies shall apply an ecosystem-based approach to the management of human activities (Art. 1(3) MSFD) and should contribute to the overall coherence and integration of existing EU policies and legislation and the ongoing work of the Regional Sea Conventions (Art. 1(4) MSFD). The Marine Strategies should build on the principles referred to in Art. 191 (ex- Art. 174) of the EU Treaty, in particular the precautionary principle and the polluter pays principle.

9. In developing Marine Strategies, the Directive requires Member States to follow the plan of action of Art. 5(2) MSFD for which Member States within a marine region or subregion endeavour to follow a common approach. The plan of action includes the following steps:

- (i) by 2012, an initial assessment of the current status of the marine environment (i.e. an analysis of the essential features and characteristics, and current environmental status; an analysis of the predominant pressures and impacts; and an economic and social analysis of the use of those waters) (cf. Art. 8 MSFD);
- (ii) by 2012, a determination of good environmental status (GES) (cf. Art. 9 MSFD);
- (iii) by 2012, the establishment of a series of environmental targets and associated indicators (cf. Art. 10 MSFD);

- (iv) by 2014, establishment and implementation of monitoring programmes (cf. Art. 11 MSFD);
- (v) by 2015, development of a programme of measures in respect of each marine region or sub-region concerned which are designed to achieve or maintain GES in the marine environment by 2020 (Art. 13 MSFD). The programme of measures shall enter into operation by 2016.

10. Art. 5(2) MSFD requires that Member States sharing a marine region or subregion shall cooperate to ensure that, within each marine region or subregion, the measures required to achieve the objectives of the MSFD, in particular the different elements of the marine strategies referred to in the steps above, are coherent and coordinated across the marine region or subregion concerned.

11. Member States are required to ensure that their Marine Strategies for each marine region or subregion are kept up to date (Art. 17 MSFD) on a six-yearly basis. *Figure 1* highlights this adaptive management cycle, starting with the initial assessment (Art. 8 MSFD), the determination of GES (Art. 9 MSFD), and the establishment of environmental targets (Art. 10 MSFD). This six-yearly management cycle means there will be regular opportunities for Member States to review the environmental status of their marine waters and on this basis to review their determination of GES, the environmental targets needed to achieve GES, and the suitability and effectiveness of their, monitoring programmes and programme of measures. The next assessments of environmental status are required in 2018 and 2024.

12. EU Member States are due, in respect of each marine region or subregion, to notify their initial assessment and determination of GES (Art. 9(2) MSFD) and their environmental targets and associated indicators (Art. 10(2) MSFD) to the European Commission within three months of their establishment. Art. 12 MSFD mandates the EU Commission to “*assess whether, in the case of each Member State, the elements notified constitute an appropriate framework to meet the requirements of this Directive*”. In the assessment, the Commission “*shall consider the coherence of frameworks within the different marine regions or subregions and across the Community*”. As a result of the assessment, the Commission is required to inform the Member States whether “*in its opinion, the elements notified are consistent with this Directive*” and to provide “*guidance on any modifications it considers necessary*”. Hence, the EU Commission's findings and associated guidance under Art. 12 MSFD feed back into, and are part of, the Directive's iterative implementation process as illustrated in *Figure 1*. Similarly, the EU Commission's assessment under Art. 16 MSFD of the programmes of measures will feed back into the implementation process.

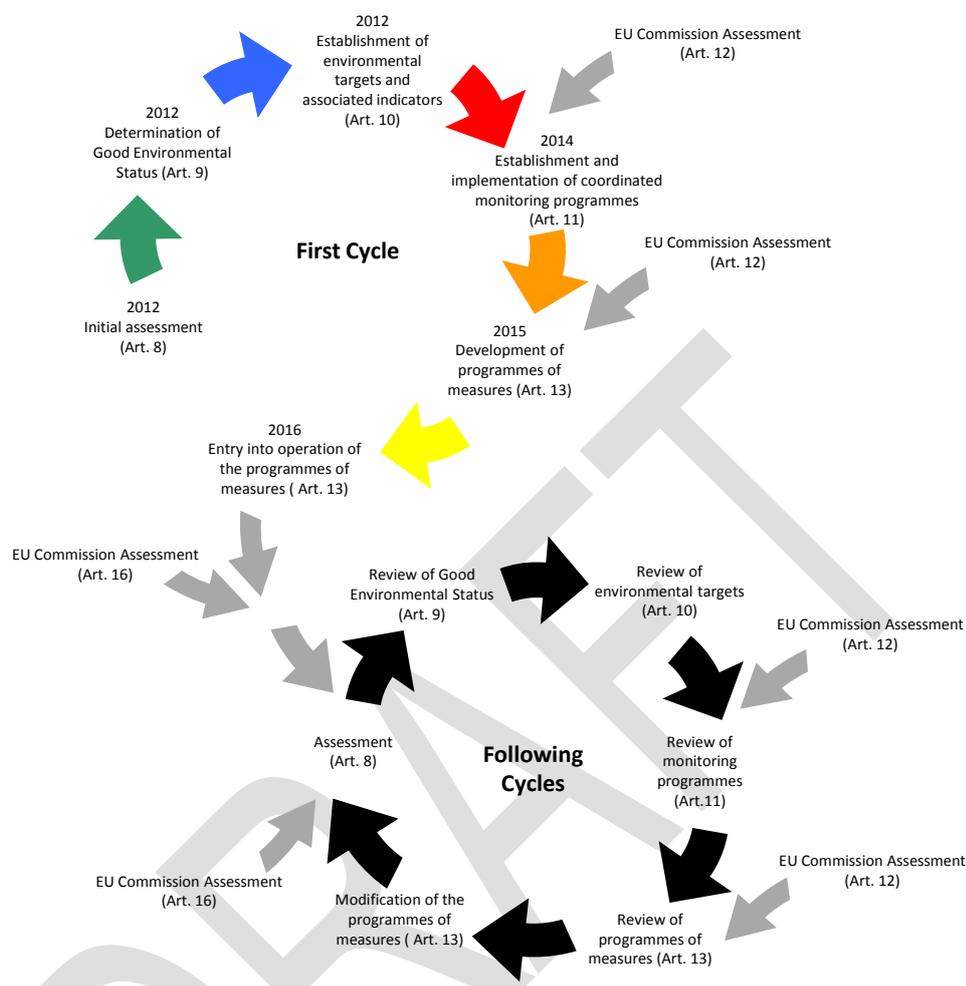


Figure 1 - The MSFD management cycle.

## 1.2 EU Commission findings and guidance in the first implementation phase

13. Based on the EU Member States' first implementation reports due in 2012 on Art. 8, 9 and 10 MSFD, the EU Commission reviewed the elements notified by Member States under Art. 12 MSFD and concluded that adequacy, consistency and coherence within and between regions were too low to deliver the overall aims of the Directive<sup>2</sup>.

14. With over 20 different determinations of GES, which is the centrepiece of the Directive and sets the level of ambition of Member States to achieve by 2020, there were no common or comparable goals. Member States were not building adequately upon other EU

<sup>2</sup> For the documentation of the 2014 EU Commission assessment under Art. 12 MSFD see [http://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/implementation/reports\\_en.htm](http://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/implementation/reports_en.htm).

legislation and had adopted a “pick-and-choose” approach from the work undertaken (and agreed) in the Regional Sea Conventions to which they are Party. Many GES characteristics were not set in a measurable and enforceable way, sometimes not going beyond what Annex I and the GES Decision 2010/477/EU already described. There was a large diversity in understanding and approaches between Member States, and the interpretation and application of Art. 9 MSFD was very different. In some cases there seemed to be a confusion on the roles and relationships of the definition of GES and the setting of environmental targets. The Commission stressed that it would be challenging not only to achieve GES by 2020, but even to know how far we were from meeting the objective. The EU Commission is provided with a number of mandates under the MSFD, which aim at ensuring a minimum level of coherence, comparability and in some cases harmonisation of the interpretation and implementation of the Directive (e.g. Art. 9(3), 11(4) and 24 MSFD).

15. Before using these mandates as set out in the recommendations of the EU Commission’s Art. 12 MSFD report, a better common understanding is needed on the roles of Art. 9 and 10 MSFD and the approach to assessing environmental status, including assessment methods, scales and aggregation rules, as well as an agreed convention on the use of terms of the MSFD. A starting point is provided for discussion with Member States by the EU Commission in Appendix 4 of the Commission Staff Working Document<sup>3</sup> on “Understanding of MSFD Articles 9 and 10 and their relationship in the methodology to assess Member States’ reports”.

### **3. Basic understandings**

16. The wording of the MSFD leaves scope for interpretation of the terms used in the Directive. The inconsistencies in the wording of the various official EU language versions of the MSFD add to the difficulties of a consistent application. The following common understanding of key concepts and terms is based on the English version as a common ground. The glossary at Annex 1 is based on, and should be read in conjunction with, the following common understanding.

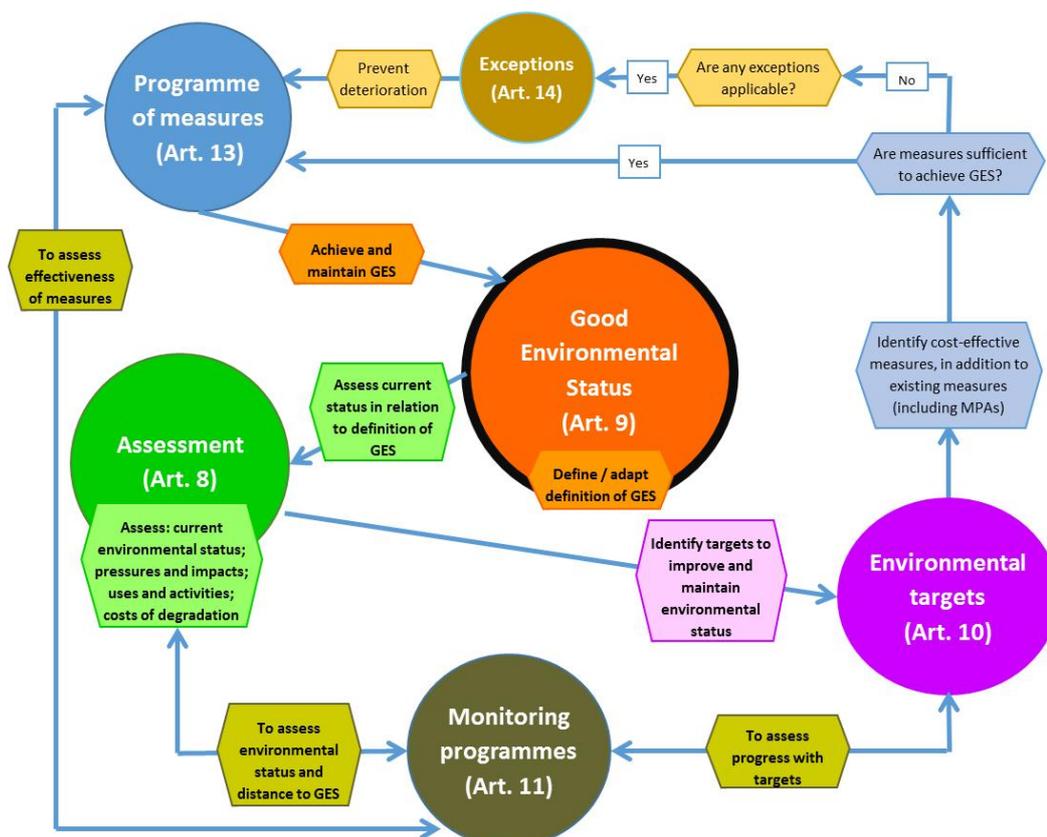
#### **3.1 Architecture of the MSFD**

**Recommendation 1:** GES is the centrepiece of the MSFD and as such the starting point and end point of the MSFD. All operational MSFD provisions link to GES.

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<sup>3</sup> [SWD-2014-49 Art 12 assessment.pdf](#)

17. Art. 5(2) MSFD provides the action plan and sequence of steps for Member States to establish national marine strategies to achieve or maintain GES. In this architecture, GES is the centrepiece and as such the starting point and end point of the MSFD (Figure 2). It is the reference for assessments (Art. 8 MSFD), environmental targets (Art. 10 MSFD), monitoring



(Art. 11 MSFD), measures (Art. 13 MSFD) and exceptions (Art. 14 MSFD).

Figure 2: Architecture of the MSFD. GES is the starting point and end point. Art. 5(2) MSFD guides the sequence of steps in establishing marine strategies to achieve or maintain GES.

18. The 2012 initial assessment required by Art. 8 MSFD was intended to provide:

- a baseline of the state of the environment as a reference for determining what is considered to be a “good” environmental status (Art. 9 MSFD), and
- an evaluation of the distance between the current state and GES as a basis for identifying a set of “environmental targets” (Art. 10 MSFD) to bridge the gap and to guide progress from the present state to achieve or maintain GES.

19. Through the identification of essential features and characteristics of marine waters and predominant pressures and impacts, the initial assessment should have helped to focus

attention, at the relevant spatial scale, on those areas in need of action to achieve or maintain GES. This action was defined in 2012 as a set of environmental targets (Art. 10 MSFD).

20. Environmental targets form the basis for devising additional national, regional and EU measures under Art. 13 and 15 MSFD that are necessary to achieve or maintain GES. Art. 14 MSFD establishes an exhaustive list of exceptions which Member States may invoke for not, or not timely, achieving GES or environmental targets<sup>4</sup>.

21. Monitoring programmes under Art. 11 MSFD need to support the six-yearly Art. 8 MSFD assessments of status in relation to the definition of GES, the regular assessments of progress on targets and assessments of the effectiveness of measures. Monitoring relates to relevant GES criteria, environmental targets and associated indicators, and measures, as well as emerging issues, with a view to allowing EU Member States to review and, as necessary, adapt their marine strategies<sup>5</sup>.

22. Knowledge gain is part of capacity building at all steps of MSFD implementation and leads to cyclic adaptations of GES, environmental targets and measures and associated monitoring.

### **3.2 Good environmental status**

**Recommendation 2:** The high-level definition of GES in Art. 3(5) MSFD is progressively refined through the descriptors of Annex I MSFD, the elements of Annex III MSFD, the criteria and methodological standards (Art. 9(3) MSFD) and the (sub)region-specific characteristics (Art. 9(1) MSFD).

23. Achieving and maintaining GES is the objective of the Directive and subject to the deadline of 2020 (Art. 1 MSFD). GES is defined in Art. 3(5) MSFD and further specified through the set of the eleven descriptors in Annex I MSFD and Art. 9 MSFD.

24. Art. 9(1) MSFD requires that GES is determined through a set of characteristics, which are devised on the basis of the qualitative descriptors in Annex I, taking into account the elements of Annex III. Whilst it is for Member States to determine the set of characteristics for GES for their national waters, they are required to do so in respect of each marine (sub-)region. This means that the characteristics need to be consistent between Member States of each (sub)region.

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<sup>4</sup> A common understanding for Art. 13 MSFD has been developed in the EU MSFD CIS Guidance Document [Recommendation on Programmes of measures](#) (version 13 of 27 May 2014). A common understanding for Art. 14 MSFD on exceptions is still under development by WG ESA.

<sup>5</sup> A common understanding of Art. 11 MSFD has been developed in the EU MSFD CIS [Guidance Document no.°05 - MSFD recommendation on monitoring and reporting](#), agreed by MSCG on 7 May 2013.

25. To ensure this consistency and to allow for a comparison between the (sub)regions of the extent to which good environmental status is being achieved, the EU Commission has delegated regulatory powers under Art. 9(3) MSFD to lay out EU-wide minimum criteria and methodological standards. Based on this, the determination of the GES characteristics for each (sub)region under Art. 9(1) MSFD through collaboration of the Member States within a region allows taking into account the ecosystem differences, which may lead to differences in determining GES between (sub)regions, reflecting for example, the differing ranges of species present and different environmental conditions such as water clarity and sea temperature. It follows from this that characteristics are the (sub)regional specifications of the criteria and methodological standards.

26. Figure 3 shows the relationship of MSFD provisions explained above and their increasing specificity for determining GES and illustrates this with a worked example.

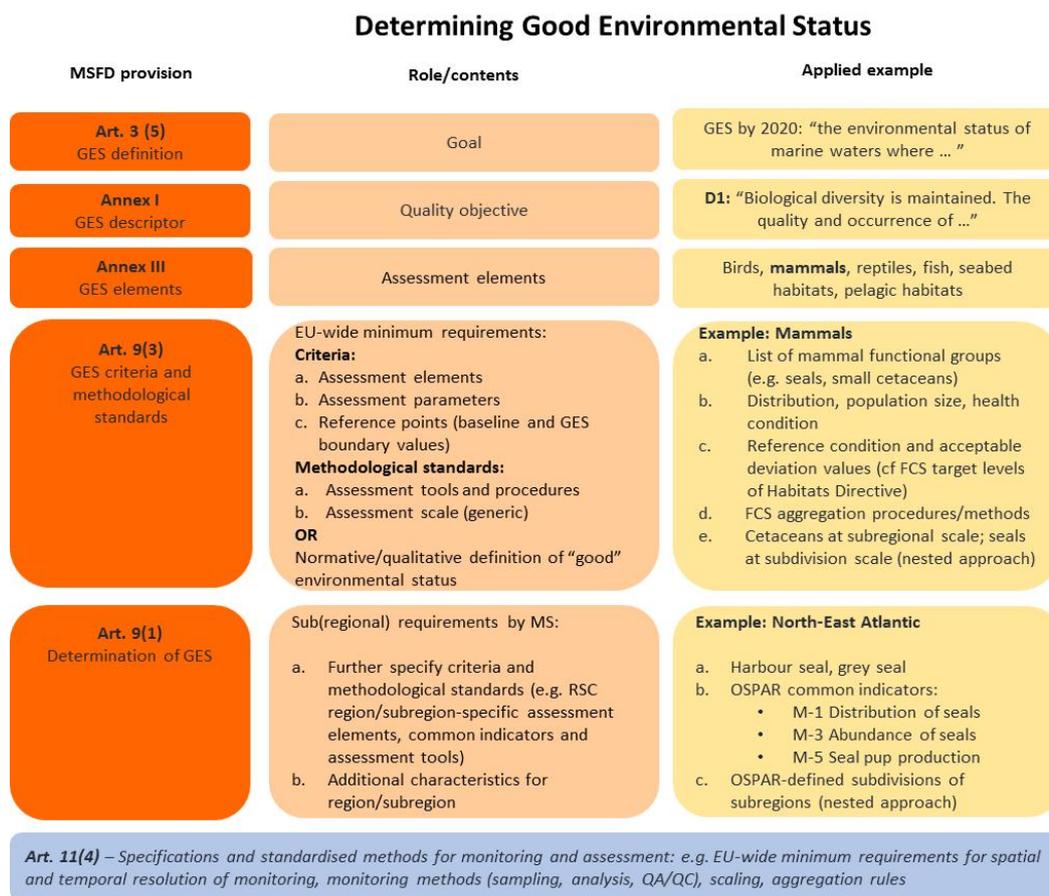


Figure 3: Relationship of MSFD provisions for determining GES. The specificity of the requirements increase from Art. 3(5) to Art. 9(1) MSFD. The

*theoretical approach is applied and worked through as an example for Descriptor 1 and the GES element “Mammals”.*

**Recommendation 3:** The criteria and methodological standards under Art. 9(3) MSFD and specifications and standardised methodologies under Art. 11(4) MSFD provide the EU-wide minimum requirements for assessing environmental status.

27. Art. 3(6) MSFD defines ‘criteria’ as ‘*distinctive technical features that are closely linked to qualitative descriptors*’. Criteria specify the quality elements, parameters and associated reference conditions (for baselines and GES boundaries) that are to be used to assess whether the environmental status is ‘good’ or not. Therefore, criteria cannot be less distinctive than the descriptors defined in Annex I and should allow assessing the status of the elements in Annex III. The criteria to be set up under Art. 9(3) MSFD provide the EU-wide minimum requirements for assessing GES. Monitoring and assessment in relation to criteria should follow the specifications and standardized methods set in accordance with Art. 11(4) MSFD.

28. Methodological standards are understood as the established and agreed scientific or technical assessment tools and methods for assessing and classifying environmental status. Methodological standards can include, for example, assessment tools or methods for aggregation / integration across assessment parameters, assessment elements (e.g. across contaminants, species, habitats), criteria or even descriptors, and methods or approaches to defining assessment scales. Examples of such assessment methods could be the HEAT (HELCOM) and COMP (OSPAR) tools/assessment methods for eutrophication, and the methodology for integrating Favourable Conservation Status criteria under the Habitats Directive.

29. Assessing environmental status requires choices in relation to temporal and spatial scales of monitoring, aggregation of data and technical approaches to monitoring. To ensure consistency and comparability of monitoring results across EU Member States, the EU Commission is vested with powers under Art. 11(4) MSFD to adopt specifications and standardised methods for monitoring and assessment.

30. ‘Specifications’ are understood to relate to minimum requirements for the design of monitoring (e.g. minimum frequency, spatial resolution) and assessment to make monitoring and assessment results comparable. ‘Standardised methods’ are understood to relate to:

- methods for monitoring (e.g. for sampling, analysis, quality assurance). This includes agreed international standards (e.g. CEN/ISO standards) for monitoring, including quality assurance and control, statistical uncertainties and agreed use of quality control mechanisms (e.g. QUASIMEME, BEQUALM).

- methods for assessment, including agreed rules for the spatial and temporal aggregation of monitoring data.

**Recommendation 4:** GES is determined by reference to the state of biotic and abiotic elements of the marine ecosystem and not to pressures at source.

31. GES is to be determined by reference to the present state of the environment (Art. 3(4) MSFD) and in such a way as to safeguard ecosystem functioning and health while enabling sustainable uses of the sea (cf. Art. 3(5) MSFD). The determination of GES provides the framework for management of human / economic activities in or affecting the marine environment according to the ecosystem-based approach. The definition of GES provides *environmental quality objectives* and, in terms of the DPSIR<sup>6</sup> approach, relates in principle to the state of the environment.

32. The determination of GES takes into account the indicative lists of elements set out in Annex III MSFD and in particular physical and chemical features, habitat types, biological features and hydro-morphology. Determination of GES thus includes both the abiotic elements of the marine ecosystem (e.g. nutrient, substance or energy levels) and the biotic elements (species, habitat types) in relation to a reference state. GES should be determined primarily in relation to the desired or acceptable state which meets the overall definition of Art. 3(5) and the objectives set out in the eleven descriptors of Annex I MSFD. Defining levels of anthropogenic pressures measured directly at source (i.e. in relation to human activities, e.g. inputs to the sea, extractions from the sea, other physical interference with ecosystem elements) are primarily subject to environmental targets under Art. 10 MSFD.

33. This interpretation is consistent with Annex I MSFD. While some notion (of absence) of impact is used or even an explicit link to pressures is made in some GES descriptions in Annex I MSFD, this is done to qualify 'good' status for the ecosystem components.

**Recommendation 5:** GES is to be determined in a manner which will allow a conclusion on whether GES is being achieved/maintained or not. Ideally, GES is defined in a quantified/quantifiable way. The use of proxies can bridge the time to close the knowledge

<sup>6</sup> DPSIR stands for Driving forces, Pressures, State, Impact and Response: it used and defined by the EEA as follows (see [http://root-devel.ew.eea.europa.eu/ia2dec/knowledge\\_base/Frameworks/doc101182](http://root-devel.ew.eea.europa.eu/ia2dec/knowledge_base/Frameworks/doc101182)): "The DPSIR represents a systems analysis view: social and economic developments exert pressure on the environment and, as a consequence, the state of the environment changes. This leads to impacts on e.g. human health, ecosystems and materials that may elicit a societal response that feeds back on the driving forces, on the pressures or on the state or impacts directly, through adaptation or curative action."

gaps for defining in a quantified/quantifiable way the desired state and the point at which the state is considered as being in good status.

34. Assessing the environmental status requires a notion of where ‚good‘ status starts and/or ends (‚GES boundary‘), i.e. a definition of the deviation from the baseline (e.g. the reference condition) which marks the difference between a state that is acceptable (‘good‘ environmental status) and a state that is not acceptable. Ideally, GES is determined in a quantified / quantifiable way. Technically a GES boundary can be expressed in different ways, e.g. as a state that must reach or exceed a value (minimum), remain below a value (maximum) or keep within an upper and lower value (interval).

35. Quantified GES needs to be built incrementally in relation to a relevant set of characteristics for a marine region (Art. 9(1) MSFD). Shifting from a qualitative to a quantitative approach for determining GES faces a number of challenges such as lack of methodologies, data and knowledge and other uncertainties. Yet, the MSFD only knows two classes of state – in GES or not in GES. Cases of uncertainty must be resolved within this two-class-system.

36. In a number of cases it will not be possible to identify a state clearly within or clearly outside GES. In those circumstances, different options can be used as proxies, such as trends providing for the desired direction in improvements on the current state; quantification of the impacts from the pressures, i.e. by describing what is not good status; or a definition of a desired level of pressure which is considered will lead to an improved and ultimately the desired state. The use of such proxies can bridge the time to close the knowledge gaps for defining the desired state and the point at which the state is considered as being in good status.

37. Where, based on the current best available knowledge, interim boundaries or proxies can be defined, ~~the precautionary principle applies and for reasons of being prudent~~ the environmental state within the range is to be classed as not GES. Where proxies and interim boundaries cannot be defined, classification needs to rely on qualitative description and expert judgement. ~~According to the precautionary principle~~ For reasons of being prudent, uncertainty of classification must not be used for postponing action. Resulting actions will depend on the shortcomings in the individual case. Actions include at least those to address the shortcomings with a view to shifting to a quantitative approach, e.g. through improved methods, more monitoring, complementary research, as well as proportionate measures (e.g. “no regret” measures). Figure 5a illustrates the process for classifying status where a firm quantitative boundary cannot be set.

**Comment [A1]:** We feel that referring to the „precautionary principle“ in this section only brings confusion as the interpretation of PP may be different. In our redacting the PP is introduced here as a notion of being prudent, therefore we suggest to use the following wording: “for reasons of being prudent (or conservative)...“

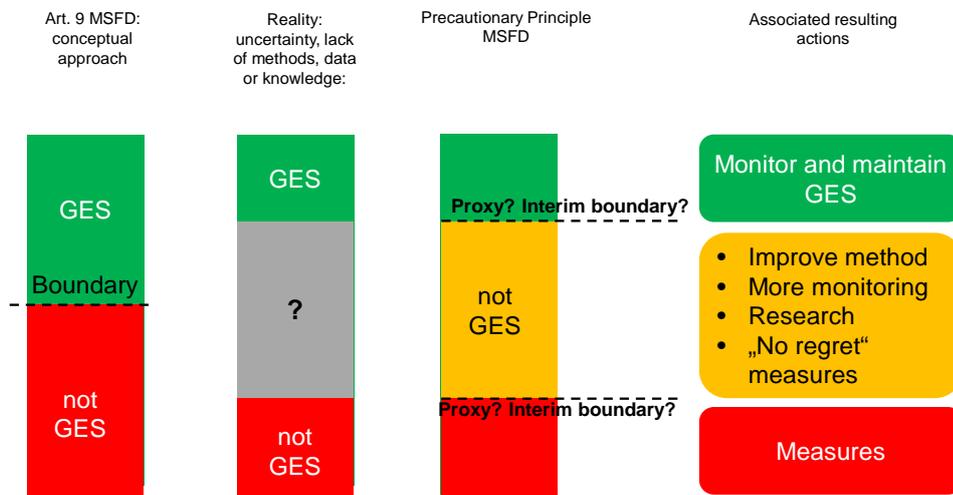


Figure 5a – Classifying status as in GES or not in GES in situations of uncertainty, based on the precautionary principle.

### 3.3 Environmental targets

**Recommendation 6:** Art. 9 MSFD on GES and Art. 10 MSFD on environmental targets have distinct roles under the MSFD with different legal implications. Whilst GES is the legal objective of the Directive in terms of environmental quality, the main purpose of environmental targets is to guide progress towards achieving/maintaining GES.

38. Art. 3(7) MSFD defines ‘environmental target’ as 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 Article 10*’. Environmental targets are characterised in Annex IV MSFD. They are determined at national level (Art. 10 MSFD) and, where appropriate, subject to regional coordination (Art. 5(2) MSFD). Environmental targets form the main basis for devising the measures that are required under Art. 13 MSFD to achieve or maintain GES (Art. 13(1) MSFD).

39. The main purpose of environmental targets is to guide progress towards achieving and maintaining good environmental status. Determination under Art. 9 MSFD of what constitutes ‘good’ status is therefore a prerequisite for establishing environmental targets which bridge the gap between the current state and GES. Environmental targets are not expressions of GES but *management objectives*. Ideally, targets are quantified / quantifiable in order to allow guiding management decisions and assessing the effectiveness of measures in achieving the targets through associated indicators.

40. For setting environmental targets, Annex IV(8) MSFD refers, where appropriate, to the specification of reference points (target and limit reference points). This relates to values, which must be achieved or not exceeded respectively, in order to bring a pressure or impact to a level that achieves the environmental target and consequently allows the marine waters concerned to move towards GES.42. Figure 4 summarises the relationship of environmental targets and GES.

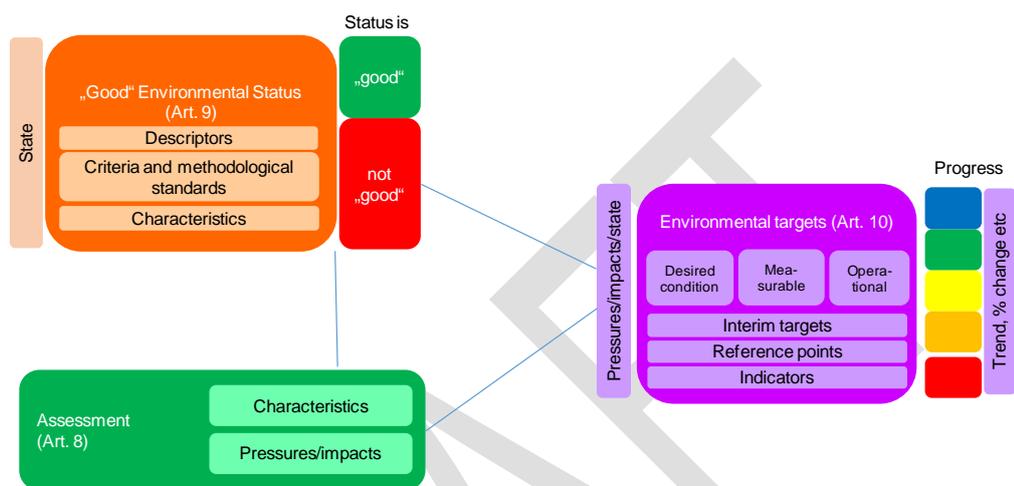


Figure 4 – Conceptual relationship of environmental targets and GES. Environmental targets serve as management tools where GES is not achieved and describe the delta between the current state and “good” status. To guide progress towards GES they should establish desired conditions in relation to the definition of GES and be measurable and operational (Annex IV (2) MSFD). Targets should be formulated with a timescale for their achievement, including as an interim target (Annex IV (6) MSFD), and, where appropriate with (target and limit) reference points (Annex IV (8) MSFD). Indicators provide a means to monitor and assess progress in relation to the targets.

**Recommendation 7:** Targets can be of different nature. The aim should be to set targets in relation to all relevant pressures from activities and uses which are preventing GES being achieved or maintained in national waters within a (sub)region.

41. Annex IV MSFD recognises different types of targets for different purposes. Targets can be of different nature, relating to desired conditions for state, impact and pressure and being operational for the implementation of concrete measures (Annex IV MSFD). They thereby complement the determinations of GES and support its achievement, but cannot replace the determination of GES in legal terms under the MSFD.

42. For setting targets, Art. 3(7) MSFD makes reference to pressures and impacts and Art. 10(1) MSFD makes explicit reference to the pressures and impacts in Table 2 of Annex

III MSFD. As a management tool, the aim should be to set targets in relation to all relevant pressures so that it could be assumed that by reaching all targets GES would be achieved or maintained.

43. Targets relating directly to state can be relevant as management objectives e.g. for improving the state (e.g. targets on the restoration of habitats or reintroduction of species). State-related targets can also be useful as 'interim targets', i.e. as an intermediate step, where GES is not achievable by 2020 (e.g. by setting time-bound ecological quality objectives which are less ambitious than GES) or where GES cannot be defined in a quantitative way at the moment. Figure 5 illustrates in a worked example how environmental targets and GES can be related to each other.

### Linking GES and targets

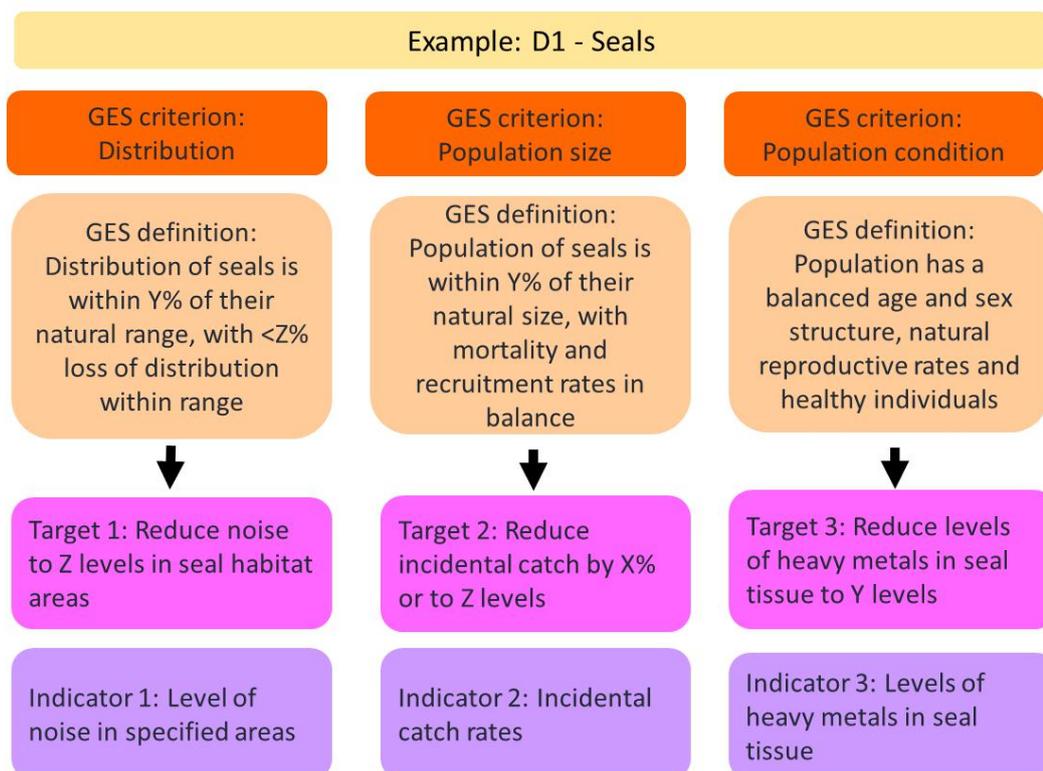


Figure 5: Example referring to Descriptor 1 and the assessment element "seals" to illustrate how GES and environmental targets link. [Example needs adjustment to pressure definitions]

**Recommendation 8:** The MSFD leaves considerable flexibility to Member States for setting environmental targets. Targets must, however, be specific, measurable, achievable, realistic and time-bound (SMART).

44. There is no further mandate for the EU Commission to harmonise targets and associated indicators, hence leaving considerable flexibility to Member States in setting targets in relation to the management needs. This allows tailored responses to the specific (national) conditions and pressures in order to progress towards GES.

45. Where problems are better addressed at international, regional or EU levels, as is the case for example for large-scale and transboundary issues, there is a need for regionally coordinated approaches to the definition and implementation of targets and indicators (Art. 5(2) MSFD).

46. Annex IV MSFD set out an indicative list of characteristics to be taken into account for setting targets. The EU Commission's Art. 12 assessment of the adequacy of implementation of Art. 10 MSFD was based on SMART considerations: i.e. targets need to be specific, measurable, achievable, realistic and time-bound. Targets need to be associated with suitably specific indicators for monitoring and assessing progress.

### **3.4 Questions of scale**

47. Assessment results may be markedly different depending on the geographic scale at which assessments are undertaken. While biogeographic and hydrodynamic characteristics may drive the definition of ecologically-meaningful assessment areas and their size, other considerations such as effective management, spatial design of monitoring programmes and risks for the marine environment may also be relevant for designing marine strategies and ultimately for taking measures. Appropriate geographic scales may differ for the various ecosystem elements to be assessed, hence challenging their integrated assessment, and for the different MSFD purposes (GES, environmental targets, monitoring, measures). Furthermore, geographic scaling for MSFD is also influenced by other existing regimes in the same area, such as WFD, HD and BD, especially if their assessment tools are also used under the MSFD. Assessment results under these different regimes should be consistent and scaling could be an important driver of inconsistencies.

48. Experience with the first deliverables in 2012 relating to Art. 8, 9 and 10 MSFD has shown the need for minimum requirements on geographic scales in order to foster comparability of assessments at EU level and any resulting needs for measures. For this purpose, specification of rules for spatial dis-/aggregation are needed to allow comparability

of assessment results across EU-Member States. The EU Commission has a mandate under Art. 11(4) MSFD to provide for such specifications and standardised methods.

49. The EU Commission commissioned an analysis of the national applications by EU Member States of Art. 8, 9 and 10 MSFD which has resulted in conceptual approaches and criteria for developing a guidance document on “Coherent geographic scales and aggregation rules in assessment and monitoring of good environmental status”<sup>7</sup>. The use of a “nested approach” (e.g. as used by HELCOM) which brings different geographic scales in a hierarchical order (local, national, subregional, regional) and fits smaller-sized assessment areas within larger-sized areas is a means to allow aggregation of assessment results from smaller to larger scales.

### **3.5 Regional coordination and coherence.**

50. Art. 5(2) MSFD requires Member States sharing a marine (sub)region to cooperate to ensure that, within each marine region or sub-region, the measures required to achieve the objectives of the MSFD, in particular the different elements of the marine strategies, are coherent and coordinated across the marine region and sub-region concerned. In order to achieve this cooperation, Member States shall use, where practical and appropriate, existing regional institutional cooperation structures, including those under Regional Sea Conventions, and shall make every effort to coordinate their actions with non-EU countries (Art. 6(1) and (2) MSFD).

51. The level of coordination and coherence differs in relation to Art. 9 MSFD and Art. 10 MSFD.

52. *Good Environmental Status* should be determined at the level of marine (sub)regions (Art. 3(5) MSFD). For compliance purposes, an EU-wide minimum set of common criteria and methods is required and is specified via the Decision according to Art. 9(3). This should be supplemented, where necessary, by a regionally specified set of GES criteria/methods which target region-specific characteristics and ensure that the same underlying approach is taken and the definition of GES is coherent within the region. This is set out by Member States, cooperating together in the marine (sub)region via the requirements of Art. 9(1). Thus methodologies for choosing relevant ecosystem

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<sup>7</sup> Deltares/AZTI/HCMR/IVM, Service request “Coherent geographic scales and aggregation rules in assessment and monitoring of Good Environmental Status – analysis and conceptual phase”, Towards a guidance document, Draft report under Framework contract No Env.D2/FRA/2012/0019, 28 February 2014, [https://circabc.europa.eu/sd/a/51b3f0b4-cb00-4202-8702-13d7fa8229b6/GES\\_11-2014-03\\_Draft%20SCALES%2028%20Feb%202014.pdf](https://circabc.europa.eu/sd/a/51b3f0b4-cb00-4202-8702-13d7fa8229b6/GES_11-2014-03_Draft%20SCALES%2028%20Feb%202014.pdf)

components and boundaries for GES, the identification of risk areas<sup>8</sup>, and the selection of relevant baseline-setting techniques should be discussed and agreed between Member States sharing a marine region or subregion or where possible at a pan-European level. In determining GES, Member States may go beyond the common EU and regional criteria and methods where additional characteristics in their marine waters are relevant for determining GES. The distinction of EU-wide minimum requirements, regional specification and national specification in relation to determining GES is illustrated by Figure 6.



Figure 6: Hierarchy of minimum requirements to ensure EU-wide and regional coherence of GES and compliance with Art. 9 MSFD.

53. *Environmental targets* are determined at national level, but may require that they are coherent and coordinated across the (sub)region or wider. This is achieved by using a common approach in devising targets in relation to transboundary impacts or features, and by taking into account relevant existing targets laid down at national, Community or international level in respect of the same waters, ensuring that these targets are mutually compatible.

54. Work to be undertaken at regional level should, as much as possible, take place through the Regional Sea Conventions, in accordance with Art. 6 MSFD, or other appropriate regional fora, such as ICES and GFCM for commercial fish.

55. Member States should proactively seek coherence of GES and environmental targets beyond the Regional Seas fora with neighbouring countries employing bilateral/multilateral exchanges of approaches.

<sup>8</sup> As described in part A of EU COM Decision 2010/477/EU

56. Coordination and communication with Non-EU states in the same marine region is essential, because the marine waters and their ecological characteristics are not restricted by administrative state boundaries and because pressures on the marine environment can transcend national boundaries. Coordination will help ensure that conflicting activities are not taking place and will allow for meaningful, practical and effective measures to be established. Without such coordination Member States run the risk that their attempts to achieve or maintain GES will be inadvertently countered by non-EU states activities.

**Comment [A2]:** We understand the desirability to cooperate with non-EU countries for a number of regional seas. That could, indeed be best handled by the RSC's, because they have formal competence on regional governance and at the initiatives of Members States or RSC's.

57. As stated in the Directive, already existing international structures, such as the Regional Sea Conventions, should be used, where possible, to coordinate the regional implementation of the Directive and be used as forums for communication between EU Member States and Non-EU states.

58. See annex 5 for further detail on specific Regional Sea Convention activities.

### **3.6 Consideration of socio-economic aspects**

59. Art. 9 and 10 MSFD note that the determination of GES and establishment of environmental targets should be made by reference to, or based on, the initial assessment under, Art. 8 MSFD which includes an economic and social analysis.

60. Regarding the determination of GES, the definition in Art. 3 MSFD states that GES is a status which allows the sustainable use of marine goods and services. But this does not mean that social and economic uses should be taken into account in determining GES. Such considerations are valid only for target setting (see EU-Commission Art. 12 MSFD report – Commission Staff Working Document, Annex IV). GES criteria, methodological standards and characteristics are based on scientific evidence or, where not possible, the precautionary principle, which fulfil the conditions set out in Article 3(5) MSFD. This means that "good" refers to a situation which is not "pristine" (i.e. without environmental pressures) but sufficient to ensure the functioning of the ecosystem and the sustainable use. Where socio-economic conditions prevent the achievement of such a scientifically based GES, the targets can factor this in and the exceptions can justify the reason why GES cannot be reached by 2020.

61. With respect to the establishment of environmental targets, MSFD Annex IV (9) notes explicitly that social and economic aspects should be taken into account when setting environmental targets. But obligations which already exist under current EU legislation (e.g. under WFD, REACH, Nitrates Directive, Urban Waste Water Treatment Directive) must not be compromised with reference to Annex IV (9) MSFD, i.e. MSFD targets must be consistent with and must not fall behind existing obligations

62. It should also be noted that Art. 14 (4) MSFD on exceptions states that Member States are not required to take specific steps where disproportionate costs would be incurred, taking into account the risks to the marine environment and provided that there is no further deterioration.

63. The various provisions of the MSFD mean that socio-economic aspects are mentioned in relation to different stages of the decision-making process such as setting targets and justifying exceptions. This is in contrast to other EU legislation such as the WFD where socio-economic considerations are only relevant for applying exemptions. Care should be taken to avoid double-counting, i.e. multiple applications, when considering socio-economic aspects in the decision-making process under the MSFD.

64. Integrating social and economic aspects into the target-setting process is challenging and, given the lack of current methodologies and guidance, Member States are likely to approach this in as pragmatic a way as possible during the first management cycle. WG ESA provides the platform where Member States can share experiences with respect to the integration of social and economic analysis in the next steps of MSFD implementation.

### **3.7 Improving efficiency**

65. Within three months of completion of each step of the marine strategies, Member States must notify the EU Commission. Notification is done by means of a voluntary electronic reporting process agreed by Member States in the MSFD CIS process. The 2012 reporting has shown a number of challenges which result in the need for simplification of reporting and streamlining with reporting under other EU Directives as well as between the different MSFD reports. In reviewing and revising the reporting requirements and formats by WG DIKE, the common understanding developed in this document, including agreed terminology, should be followed.

***(Sections 4-7 and Annexes 2-4 of the CU are not reproduced here)***

## Annex 1 – Draft revised Glossary of terms

**Note: The revisions to the 2011 CU glossary were presented in track-change modus to WG GES.**

This expanded glossary includes MSFD terms (indicated with a star - \*) that are relevant for a common understanding of the implementation of the MSFD, but are not subject of this guidance document on a common understanding of Art. 8, 9 and 10 MSFD.

### **'Assessment'**

For the purpose of the MSFD, an assessment is a process and a product. As a process, an assessment is a procedure by which information is collected and evaluated following agreed methods, rules and guidance. It is carried out from time to time to determine the level of available knowledge and to evaluate the environmental state. As a product, an assessment is a report which synthesises and documents this information, presenting the findings of the assessment process, typically according to a defined methodology, and leading to a classification of environmental status in relation to GES. Art. 8 MSFD sets out what needs to be analysed in an assessment, whilst the Commission Decision provides the criteria and methodological standards for assessment of the elements, provided for in the indicative list of Annex III, for each of the eleven descriptors of GES.

### **'Baseline'**

From an assessment perspective, a baseline is a description of environmental state at a specific point against which subsequent values of state are compared. It can equally refer to a specified level of an impact or a pressure. Baselines act as a yardstick against which GES boundaries can be set or trends for Good Environmental Status (GES) can be assessed. Baselines can be derived from (i) historical environmental state (often termed reference condition), (ii) a known state in the past, such as the beginning of a data time series, (iii) the present state or (iv) potential state (a predicted state in the absence of pressures).

### **'Characteristics'**

For the purpose of the Marine Directive, the term 'characteristics' is used in the meaning of:

- a. Ecosystem elements (physical and chemical features, habitat types, biological features and other features) relevant for analysing the environmental state as described in Annex III, Table 1 MSFD;
- b. Considerations to be taken into account for the setting of environmental targets as described in Annex IV MSFD;
- c. (Sub)regional specification of the criteria and methodological standards for assessing GES as set out in Art. 9(1) MSFD (characteristics of GES).

### **'GES criteria/criterion'**

Art. 9(3) MSFD vests the EU Commission with delegated powers to lay down criteria and methodological standards as EU-wide minimum requirements for assessing GES.

Art. 3(6) MSFD defines 'criteria' as '*distinctive technical features that are closely linked to qualitative descriptors*'. To fulfill their role, the criteria to be set up under Art. 9(3) MSFD need to include the quality elements, parameters and associated reference state (for baselines and GES boundaries) that are to be used to assess whether the environmental status is 'good' or not. Therefore, criteria cannot be less distinctive than the descriptors defined in Annex I and they should allow assessing the status of the elements in Annex III. The criteria to be set up under Art. 9(3) MSFD provide the EU-wide minimum requirements for assessing GES. Monitoring and assessment in relation to criteria should follow the specifications and standardized methods set in accordance with Art. 11(4) MSFD.

To avoid confusion between the use of the term 'criteria' in this specific context and its use in other respects (such as criteria used to guide indicator selection), it is recommended that these specific criteria be referred to as 'GES criteria'.

#### **'Cost of degradation'\***

The cost of degradation refers to the efforts/costs needed to reduce environmental impacts to a level which achieves GES or to the welfare foregone, reflecting the reduction in the value of the ecosystem services provided compared to another state.

#### **'Degradation'\***

Degradation is the reduction in the quality status of the ecosystem, or any part of it, or in the provision of ecosystem services compared to a more healthy state.

#### **'Descriptor'**

Annex I MSFD provides a list of eleven qualitative 'Descriptors' which constitute the basis for the assessment of GES, and provide a further refinement of aspects of the definition of GES in Art. 3(5) MSFD. These descriptors are substantiated and further specified through the criteria and methodological standards laid down under Art. 9(3) MSFD and the (sub)region specific characteristics determined by Member States in accordance with Art. 9(1) MSFD.

#### **'Drivers'\***

Drivers are those factors (human activities and uses of the marine environment or legislation, management and policies) which induce pressures on the environment, such as agriculture, fishing, subsidies or regulation, and which may subsequently change an aspect of the ecosystem. It is important to identify relevant drivers when looking into different policy options and measures to reduce pressures (in order to achieve or maintain GES).

#### **'Ecosystem approach'**

The main elements of the ecosystem approach can be described, as defined for example in the 2003 Joint HELCOM and OSPAR Statement on the ecosystem approach to the management of human activities<sup>9</sup>, as the comprehensive integrated management of human activities based on best available scientific knowledge about the ecosystem and its dynamics, in order to identify and take action on influences which are critical to the health of the marine ecosystems, thereby achieving sustainable use of ecosystem goods and services and maintenance of ecosystem integrity.

#### **'Ecosystem component'**

Ecosystem components in Art. 3(5), 3(7), Annex VI(2) and Annex VI(7) refer to the constituent elements of the marine ecosystem. They comprise the abiotic and biotic elements of the marine ecosystem, including those described in Annex III, Table 1 MSFD. Abiotic elements include non-living physical, hydrological and chemical factors. Biotic elements include species, functional groups and habitat types.

#### **'Ecosystem services'\***

Ecosystem services are defined as goods and services – benefits – that the ecosystem provides to human beings (MEA, 2005). Ecosystem services contribute to economic welfare in two ways – firstly, through contributions to the generation of income and well-being, and secondly through the prevention of damages that inflict costs on society. The latter is characteristic of certain ecosystem services that provide insurance, regulation and resilience functions.

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<sup>9</sup> [http://www.ospar.org/documents/02-03/JMMC03/SR-E/JMM%20ANNEX05\\_Ecosystem%20Approach%20Statement.doc](http://www.ospar.org/documents/02-03/JMMC03/SR-E/JMM%20ANNEX05_Ecosystem%20Approach%20Statement.doc)

Ecosystem services can be separated into final and intermediate services:

**‘Intermediate marine ecosystem services’**

Intermediate services are those that, in a supporting or regulating way, enable the final services and thereby influence human well-being indirectly, such as habitats and mitigation of eutrophication.

**‘Final marine ecosystem services’**

Final services are those that directly generate a benefit to humans, such as fish-stocks for fishing, water clarity for bathing.

**‘Environmental Target’**

Art. 3(7) MSFD defines ‘environmental target’ as 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 Article 10’*. Annex IV MSFD contains a list of characteristics to be considered when establishing environmental targets.

The main purpose of environmental targets is to guide progress towards achieving or maintaining GES. Targets can be of different nature, relating to desired conditions for state, impact and pressure and being operational for the implementation of concrete measures. They support the achievement of GES but cannot replace the determination of GES. The aim should be to set targets in relation to all relevant pressures so that it could be assumed that by reaching all targets GES would be achieved.

**‘Functional groups of species’**

As a way of simplifying and categorising biodiversity, species can be assigned to functional groups. Such groups comprise species with similar structural and functional characteristics, such as how they acquire their nutrients, their state of mobility or their mode of feeding.

Each functional group represents a predominant ecological role (e.g. offshore surface-feeding birds, demersal fish) within the marine environment or within a habitat. For MSFD purposes, the term is particularly applied to birds, mammals, reptiles, fish and cephalopods to provide focus for the assessment of status of these often highly mobile or widely-dispersed species groups. The term is also useful in the context of assessing communities condition (in the water column or seabed) through assessment of the range of functional groups present.

**‘Good Environmental Status’**

GES is defined in Art. 3(5) MSFD and Annex I MSFD. GES relates to determining the environmental state not pressures and thus describes the desired status of the environment and its elements. GES is determined based on criteria and methodological standards set out in accordance with Art. 9(3) MSFD and their (sub)regional specification in accordance with Art. 9(1) MSFD (‘characteristics of GES’).

**‘GES boundary’**

‘GES boundary’ is not a term used by the MSFD. It is used in this document to provide an expression for the deviation from the baseline (e.g. the reference condition) which marks the difference between a state that is acceptable (‘good’ environmental status) and a state that is not acceptable.

**‘Hydrographical conditions’**

Hydrographical conditions refer to the depth, tidal, current and wave characteristics of marine waters, including the topography and morphology of the seabed.

**‘Hydrological processes’**

Hydrological processes refer to the movement, distribution and quality of water. Interference with hydrological processes can encompass changes in the thermal or salinity regime, in the tidal regime, in sediment and freshwater transport, in current or wave action and in turbidity. Hydrographical conditions can be influenced by (changing) hydrological processes.

#### **'Impact'**

From an environmental perspective, an impact is the environmental effect of a pressure resulting from human activities. It is an alteration, whether permanent or temporary, in a physical, chemical or biological aspect of the environment that is considered undesirable.

From a socio-economic perspective, impacts are the consequences for human welfare based on the use of the marine environment, caused by the drivers and pressures affecting the state of the marine environment.

#### **'Indicator'**

The term 'indicator' is used in many different contexts.

- For the legal purposes of the MSFD, the term 'indicator' refers only to environmental targets (Art. 10 MSFD), where they are used to monitor progress and guide management decisions with a view to achieving these targets (Annex IV (7) MSFD).
- For the purposes of assessing environmental status, the EU Commission Decision 2010/477/EU on criteria and methodological standards refers to 'indicators' to specify the criteria and support their assessment. This use of the term 'indicator' has proven to cause confusion with its use under Art. 10 MSFD. Such confusion should be avoided in any revision of the EU Commission Decision.
- For other purposes, 'indicators' are understood in general as a scientific/technical assessment tool. An indicator consists of one or several parameters chosen to represent ('indicate') a certain situation or aspect and to simplify a complex reality. Such understanding of 'indicator' is used for example in Regional Sea Conventions, also to support the determination of GES and assessment of the status of the marine environment.

#### **'Index'**\*

An index is a statistic, which represents the aggregated measurement, or calculated derivative of several different 'parameters', usually determined across different biodiversity components. In ecology, indices are frequently used to inform on biological variety in any given area or point in time. The degree of variety can be assessed on various levels, e.g. at the level of genes, species, communities or habitats.

#### **'Listed features'**\*

Listed features are species or habitat types which are listed under Community legislation (e.g. Birds and Habitats Directive) or regional conventions (e.g. OSPAR & HELCOM). Table 1 of Annex III MSFD refers to these habitat types as 'special'.

#### **'Methodological standard'**

Art. 9(3) MSFD vests the EU Commission with delegated powers to lay down criteria and methodological standards as EU-wide minimum requirements for assessing GES. Methodological standards are understood as being the agreed and established scientific or technical methods for assessing and classifying environmental status. Methodological standards can include, for example, assessment tools or methods for aggregation / integration across assessment parameters, assessment elements (e.g. across contaminants, species, habitats), criteria or even descriptors, and methods or approaches to defining assessment scales. Examples of such assessment methods could

be the HEAT (HELCOM) and COMP (OSPAR) tools/assessment methods for eutrophication, and the methodology for integrating Favourable Conservation Status criteria under the Habitats Directive.

#### **'Parameter' / 'metric'**

A parameter is a measurable characteristic value (e.g. population size, biomass, concentration). Metric relates to the unit in which the parameter is measured (e.g. number of individuals, biomass in g/dry weight, mg/l nutrients in water). Parameters and metrics for assessment of GES are part of the criteria and methodological standards to be set up under Art. 9(3) MSFD.

#### **'Pressure'**

A pressure is the direct result from anthropogenic activities at source which acts directly or via pathways on physical, chemical or biological elements of the marine ecosystem, e.g. inputs to the sea (e.g. substances, litter, energy, non-indigenous species), extractions from the sea (catch of target and non-target species, extraction of sand and gravel) and other physical interferences with marine elements (trawling).

A pressure, at particular levels of intensity, has the potential to have a direct or indirect impact on any part of the ecosystem. For example, the introduction of non-indigenous species in the natural environment as a consequence of human activities (such as shipping or aquaculture) provides a pressure on the native biodiversity. When such species become abundant within habitats, they can alter the structure and functioning of the habitat and its native biodiversity and thus be considered to be causing an impact.

#### **'Reference state' / 'Reference conditions'**

For assessment purposes, it is often necessary to define a reference baseline against which current and future state is compared. Reference state/condition is one type of baseline. It plays a central role in the concept of the Water Framework Directive (WFD) and other environmental assessment tools (e.g. HELCOM's HEAT system). Reference conditions describe the state of the environment (or a component) in which there is considered to be no, or very minor, disturbance from the pressures of human activities. It is common in such assessment systems to then define an 'acceptable deviation' from this reference state to allow for a specified level of disturbance from the pressure(s) and hence to define the boundary between an acceptable state (GES) and an unacceptable state (sub-GES).

#### **'Reference points'**

In the indicative list of characteristics at Annex IV MSFD to be taken into account for setting environmental targets, point (8) refers to, where appropriate, specification of reference points (target and limit reference points). This relates to values, which must be achieved or not exceeded respectively, in order to bring a pressure or impact to a level that achieves the environmental target and consequently allows the marine waters concerned to move towards GES.

#### **'Resilience'**

From an ecological perspective, resilience means the ability of an ecosystem to return to its original state after being disturbed.

#### **'Scale'**

The spatial and temporal order of ecosystem components, their assessment and good environmental status.

#### **'Scenarios'\***

Scenarios are projections of future states of society and the environment, based on specific assumptions about key drivers, such as human population, economic growth, technological change or environmental policies.

### **'Socio-economic analysis'**\*

A socio-economic analysis aims to identify the impact on human welfare of a given policy. This includes economic as well as social aspects, and may include consideration of the distribution of these impacts across stakeholders. In light of this definition, an explicit distinction between economic and social analysis is not necessary.

### **'Specifications and standardised methods'**

Art. 11(4) MSFD vests the EU Commission with delegated powers to adopt specifications and standardised methods as EU-wide minimum requirements for monitoring and assessment performed under the MSFD.

'Specifications' are understood to relate to minimum requirements for the design of monitoring (e.g. minimum frequency, spatial resolution) and assessment to make monitoring and assessment results comparable.

'Standardised methods' are understood to relate to:

- methods for monitoring (e.g. for sampling, analysis, quality assurance). This includes agreed international standards (e.g. CEN/ISO standards) for monitoring, including quality assurance and control, statistical uncertainties and agreed use of quality control mechanisms (e.g. QUASIMEME, BEQUALM).
- methods for assessment, including agreed rules for the spatial and temporal aggregation of monitoring data.

### **'State/status'**

The word 'state', as used in the context of the MSFD, refers to the quality/condition of specific elements of the environment. This can be determined through measurements in the environment of relevant parameters for such elements; such measurements, by definition, will reflect any impacts (individual and cumulative) to which the element has been subjected.

The word 'status', as used in the context of Good Environmental Status or Environmental Quality Status, draws together the determination of the 'state' of individual ecosystem elements, through use of particular criteria and methodological standards, to assign a 'status' classification (e.g. at GES, below GES). For WFD five classes are used, for Habitats Directive three classes are used. 'Status' can either be applied to the overall quality/condition of the marine environment, at the level of the individual descriptors of GES or at the level of individual functional groups, habitats, species or populations.

A further distinction is necessary when referring to the term 'state target'. In this context, the meaning is limited specifically to targets which articulate the desired quality/condition of specific ecosystem components or characteristics.

### **'Marine waters'**

For the purpose of the MSFD, marine waters are those defined in Art. 3 (1) MSFD as:

- 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.

**'Use of marine waters'**\*

The use of marine waters is defined as any human activity using or influencing the marine environment and/or influencing ecosystem goods and services provided by marine waters.

**'Use value' and 'Non-use value'**\*

The use value, both direct and indirect, captures the direct link between ecosystem services and human welfare. Direct use value includes the profits of fishers and the oil and gas industry etc. ("economic" value) and wider benefits that are more difficult to measure (for example recreational activities such as swimming, fishing, scuba diving etc., as well as the importance to local coastal communities of maintaining their marine heritage ("social" value). Indirect use value includes the benefits we derive from the environment's provision of ecosystem services such as waste decomposition or carbon sequestration. The non-use value includes 'bequest' and 'existence' values. It entails, for example, the importance people attach to knowing that a healthy sea surrounds them and that this resource may be passed on to future generations.

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