



May 2013

Mediterranean and Black Seas: 'Good Environmental Status'?

Identifying science gaps in determining their current status

Understanding 'Good Environmental Status'

'Good Environmental Status' - referred to as GES - was first defined as a comprehensive concept in the European Commission's Marine Strategy Framework Directive (MSFD) which came into force in 2008. The goal is to reach the 'Good Environmental Status' of European Marine Waters by 2020. But how do we know when we have reached GES? Eleven (11) descriptors, which are further divided into 26 criteria and 56 associated indicators, guide the assessment of progress towards GES.

What's been done to date?

By the end of 2012, European Union Member States had to undertake an initial assessment of the state of their marine waters, to define the GES at descriptors, criteria and indicators levels, as well as to set their environmental targets.

MSFD Descriptors:

- D1: Biological diversity
- D2: Non-indigenous species
- D3: Population of commercial fish / shell fish
- D4: Elements of marine food webs
- D5: Eutrophication
- D6: Sea floor integrity
- D7: Alteration of hydrographical conditions
- D8: Contaminants
- D9: Contaminants in fish and seafood for human consumption
- D10: Marine litter
- D11: Introduction of energy, including underwater noise

Gap Partial Gap Minor Gap

PERSEUS's contribution: a review of the initial assessments

PERSEUS has studied the experience of EU countries in the framework of the MSFD Initial Assessment and GES definition, with a view to sharing this knowledge with non-EU countries. Of the nine coastal EU Member States in the Mediterranean and Black Seas, information has been collected for five countries, which had published their draft initial assessments and GES reports by the end of 2012: Cyprus, France, Greece, Romania and Spain¹.

On the basis of available information, an analysis has been produced, which considers the descriptor scope, the methodologies, the data availability as well as the information available for each country at criteria and indicator level. In order to provide a synthetic representation of the different kinds of gaps highlighted for each descriptor, a ranking system was introduced and a qualitative classification was carried out. This process enables the visualization of the gap issues and aims to provide a broad comparison between descriptors. It is, however, based on expert judgment and should not be considered as exhaustive but rather as indicative.

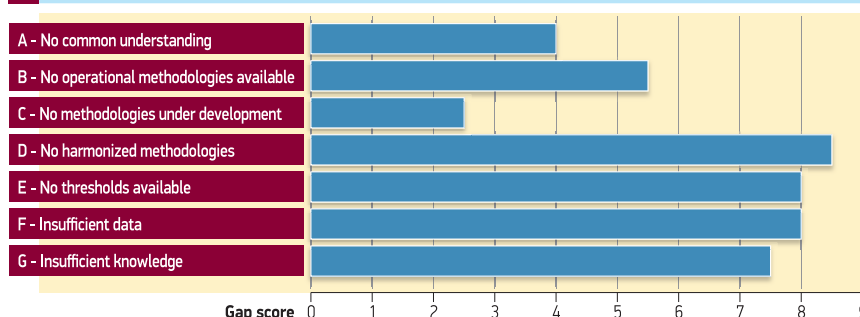
This fact sheet presents the results of this gap analysis and sets out the gaps identified in terms of methodologies, data and knowledge.

REPORTED GAP PER DESCRIPTOR

	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11
A - Common understanding											
B - Operational methodologies available											
C - Methodologies under development											
D - Harmonized methodologies											
E - Thresholds available											
F - Sufficient data											
G - Sufficient knowledge											

The representation of the most reported gaps, when outcomes from all descriptors were pooled together, is presented in the figure alongside. To allow a quantified comparison, one point has been used when major gaps were reported, 0.5 when partial/medium gaps were reported, and 0 when only minor gaps were mentioned.

ANALYSIS OF THE MOST REPORTED GAPS



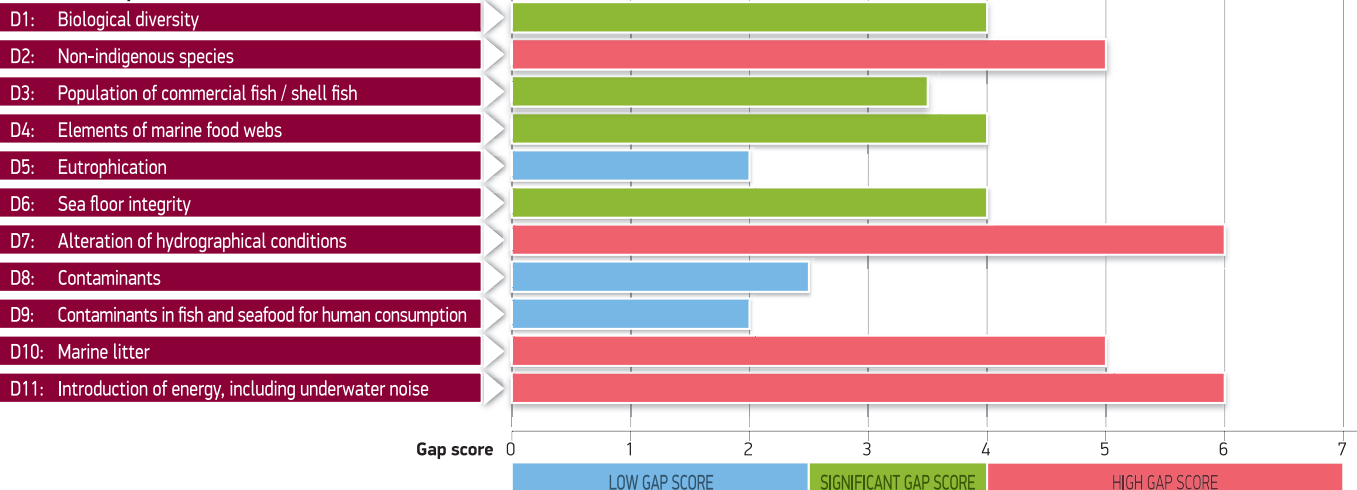
Some highlights:

- the most reported gap was the **general lack of harmonized methodologies**
- lack of **thresholds, data and knowledge** were also important issues
- operational methodologies** were generally available, except for D2, D7 and D11, for which extensive methodological gaps were reported. However, for all descriptors, methodologies are under further development.
- there was no **common understanding** of the scope of several descriptors (especially D7, but also D1, D3, D4, D6, D10 and D11).

¹ It has not been possible to include information from Italy, Malta and Bulgaria because their Initial Assessments were not available. Slovenian information has not been included due to time constraints, but eventually it may be used in further steps.

COMPARISON OF THE DESCRIPTORS' GAP SCORES

MSFD Descriptors



EXAMPLE – EXTRACTS OF THE ANALYSIS OF DESCRIPTOR 8

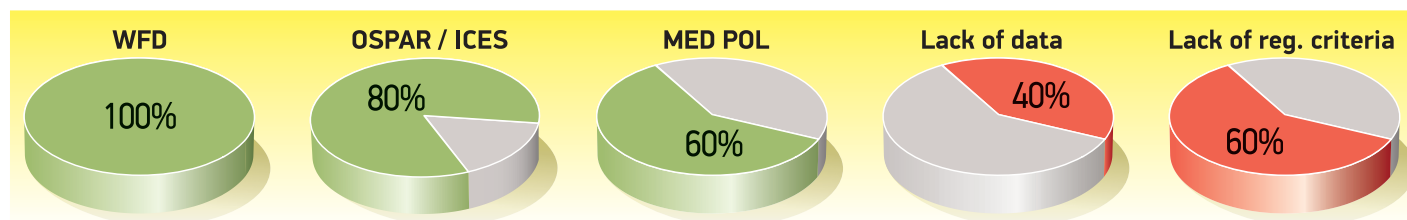
“Concentrations of contaminants are at levels not giving rise to pollution effects”

Overall gap analysis for this descriptor

For this descriptor, substantial data on contaminants concentrations exist and several well established international methodologies are used by EU Member States. However, there are partial data gaps (e.g. spatial data limited to coastal areas) and a restricted number of contaminants are considered. Emerging pollutants need to be included in monitoring programmes. Interestingly, countries are using in their assessments regulatory thresholds from regions outside the Mediterranean, including OSPAR Convention and US Environmental Protection Agency, indicating the lack of regional thresholds or reference levels, particularly in sediment and biota matrices. Regarding effects indicators, some countries were not able to consider Criteria 8.2 “Effects of contaminants” in the assessment because of lack of data. Suitable indicators, however, are available to be used in the assessment, as mentioned by other EU Member States.

SP	FR	GR	CY	RO	Main Methodologies:
					WFD: Water Framework Directive
					MED POL: Programme for the Assessment and Control of Pollution in the Mediterranean Region
					OSPAR: Convention for the Protection of the Marine Environment of the North-East Atlantic
					ICES: International Council for the Exploration of the Sea
					US EPA: United States Environmental Protection Agency
					EC 1881/2006 - Commission Regulation (EC) No 1881/2006 on contaminants in foodstuffs

SP	FR	GR	CY	RO	Main Gaps:
					Lack of data (partial / total, spatial / temporal)
					Lack of regional thresholds / reference or criteria
					Need to consider more contaminants and effects indicators
SP	FR	GR	CY	RO	Criteria/Indicator Gaps:
					Criteria 8.1: Concentration of contaminants
					Criteria 8.2: Effects of contaminants



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