A TOOL FOR GAP ANALYSIS OF THE MSFD ASSESSMENT ELEMENTS OF THE SOUTHERN EUROPEAN SEAS COUNTRIES, CARRIED OUT IN THE FRAMEWORK OF THE PERSEUS FP7 PROJECT

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Abstract

In the framework of the MSFD implementation, a gap analysis of the methodological elements for environmental status assessment has been carried out within the PERSEUS FP7 project. It analyses and compares the kind of gaps reported for the eleven descriptors of Good Environmental Status by the Mediterranean Sea and Black Sea European countries.

Keywords: Biodiversity, Black Sea, North-Western Mediterranean, South-Eastern Mediterranean, Pollution

The research project PERSEUS has studied the experience of EU countries in the framework of the Marine Strategy Framework Directive (MSFD) environmental status assessment, with a view to share 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 in 2012 their draft Initial Assessments and Good Environmental Status reports [1]. Cyprus, France, Greece, Romania and Spain. It has not been possible to include information from Italy, Malta and Bulgaria because their draft reports were not available. Slovenian information has not been included due to time constraints, but eventually it may be used in further steps.

Therefore, an analysis has been developed, considering all relevant information regarding the descriptors’ scope, the methodologies and the data availability reported by each of the five countries at criteria and indicator level. In order to provide a synthetic representation of the gaps underlined for each descriptor, a scoring system was introduced. Six PERSEUS partners were involved in a qualitative assessment of 8 semi-quantitative criteria, based on a matrix aiming to assess the methodological gaps per descriptor, taking into account the methodology developed by Van der Sluijs et al. (2001) [2].

The collected scores have been averaged among the six organisms and normalized (Fig. 1). They have then been aggregated to obtain a single score per descriptor (Fig. 2) and a single score per criterion. 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, due to the diverse nature, content and importance of the MSFD descriptors, it should not be considered as exhaustive but rather as indicative, providing a general overview of the methodological gaps.

Gaps evaluated per descriptor

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<th>Criteria</th>
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<th>D4</th>
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<td>H - Sufficient knowledge</td>
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Minor gap: Score between 0 and 0.333 (included)
Partial gap: Score between 0.333 and 0.667 (included)
Major gap: Score between 0.666 and 1 (included)

Fig. 1. Gap score composition for each descriptor

Fig. 2. Aggregated gap scores per descriptor

Comparison of the descriptors gap scores

We notice on Fig. 2. that D11 (noise), D7 (hydrological condition) D10 (litter) and D4 (food webs) exhibit the highest gap values. D6 (seafloor integrity), D2 (NIS) and D1 (biological diversity) present also important gap scores. D3 (fisheries), D5 (eutrophication), D8 (contaminants and environment) and D9 (contaminants and human health) have lower scores. However, it should be noticed that even these “low gap score descriptors” still need harmonization efforts, further development and establishment of consistent regional thresholds/reference values.

Analysis of the most reported gaps

The analysis of the most reported gap, when outcomes from all descriptor were pooled together, has been produced by comparing the aggregated gap scores per criterion. The most important gap identified is the general lack of thresholds.

The lack of data, the lack of harmonized methodologies, the lack of information on trends, as well as the insufficient knowledge present also high gap scores.

Finally, the lack of operational methodologies, the lack of further methodological development and the lack of common understanding present lower scores.

References

1 - MSFD Initial Assessment and Good Environmental Status draft reports of Cyprus, France, Greece, Romania, and Spain: http://ec.europa.eu/environment/marine/public-consultation/index_en.htm

Final MSFD reports: http://cdr.eionet.europa.eu/recent_etc/RRA_ID=608