

C- Development of indicators and science support and management tools for the determination of Good Environmental Status in the Mediterranean Sea.

The Marine Strategy Framework Directive (MSFD), which came into force in July 2008, is designed to deliver “Good Environmental Status” (GES) in European marine waters by 2020. This ambitious Directive requires that Member States with marine territories put in place a series of measures to achieve and maintain GES within a defined timeframe and according to eleven key descriptors of environmental status. For each descriptor, environmental objectives with associated indicators and targets need to be developed, in order to provide a tool to measure the progress made towards achievement of GES. A total of 56 indicators have been initially proposed by the Commission (COM Dec. 2010/477/UE), recognizing that this set of indicators may be revised in the future following the progress in scientific knowledge.

This requires the best available scientific knowledge about the ecosystem and its dynamics, the assessment of the environmental quality as well as an analysis of human activities as drivers that lead to pressures on the environment. This should be carried out in an integrated ecosystem-based way, a process starting to take form in the Mediterranean as the “Ecosystem Approach Process” of the Mediterranean Action Plan (Barcelona Convention), which needs deeper scientific and technical support. Therefore, there is a substantial need to develop in the region additional scientific understanding for assessing good environmental status in a coherent and holistic manner.

In this respect, the call will deal with the development of State indicators for the assessment of environmental quality of Mediterranean coastal and marine waters, put forward in the MSFD, and hence the definition of links between targets and management measures. Taking into account the experience existing in the Atlantic region, the comparison of methodologies and the transfer of knowledge between both regions will be valued.

Key science support and management tools are also considered, including, for example:

- the development of tools to assess in an integrated manner the state of the marine environment based on the information available

- the development of automated, real time, multidisciplinary observing networks and the development of data assimilation tools;
- the provision of broad-scale physical and habitat mapping of the marine environment;
- the development of tools to integrate environmental information and data on human pressures, in order to understand, predict and manage impacts on the marine environment

The improved knowledge should be essential for the implementation of the MSFD, notably the:

- determination of good environmental status (GES);
- establishment of environmental targets;
- establishment of monitoring programmes

The research should be complementary and take into account national and EU funded research projects currently being implemented.