

## Tool: Indicators

This Factsheet gives an overview of the Indicator Tool, one of the Tools developed within the PEGASO project for coastal and marine integrated assessment.

### Background and objectives

Indicators are quantitative/qualitative statements or measured/observed parameters that can be used to describe existing situations and measure changes or trends over time. Their three main functions are simplification, quantification, and communication.

Indicators generally simplify complex phenomena so that communication of information to policy-makers and other interested parties, including the general public, is enabled or enhanced. They are powerful tools in the feedback loop to an action plan, as an early warning signal about an emerging issue, or in providing concise message for engagement, education, and awareness.

Three categories of indicators should be included in an ICZM indicators set:

- Sustainable Development Indicators (SDI): They cover issues that are relevant for sustainable development
- Impact indicators: They are measures to show that the ICZM Plan outputs are achieved (Impact indicators are linked to objectives and are expected to be achieved in the medium-long term.)
- Performance indicators: They are measures to show that project activities are undertaken, it can be a policy (or project)

In the framework of PEGASO the use and the identification of indicators have different objectives:

- Provide the partners responsible of the CASES with a simply and ready to use set of indicators.
- Support the work of the Regional Assessment
- Provide the PEGASO end-users a set of indicators which could then be used for the implementation of ICZM Protocol for the Mediterranean and of other relevant policy frameworks (e.g. EU Marine Strategy Framework Directive, EU Water Framework Directive)

### Conceptual framework:

The application of the ICZM principles set forward in the Protocol will require the development of a set of indicators, and a good understanding of the direct, and indirect drivers of change. The selection of the PEGASO indicators set is based on the review of the previous ICZM indicator framework, and on several criteria:

1. Needs of the ICZM Protocol, and its link to the ecosystem approach
2. Needs and requirements from other relevant policy frameworks (MSFD, WFD, Natura 2000,..)
3. Needs of the CASES
4. Needs of the Regional Assessment

Referring to the PEGASO conceptual framework (see table 2, and 3 of Integrated Coastal Zone Management and the Ecosystem Approach, Draft Deliverable 2.1.1a) with regards to the ICZM Protocol (point 1) some specific topics have been preliminary identified :

1. Landscape definition and composition
2. Carrying capacity (resource uses)
3. Governance indicators (participation, institutions, land use policies, cross-sectorial policies)
4. Land uses
5. Hazards and Risks

### Tool's contribution to ICZM / Integrated Assessment

Indicators can be used either to define the main objectives of the ICZM plan/ project by identifying the emerging issues, or to monitor the progress and the achievements of the ICZM plan/project objectives  
 Within the Integrated Assessment indicators are a way to measure, and to easily communicate main issues, and trends at different scales

#### What it can do

Indicators can help in measuring the status of the coast, and the main trends of relevant issues, and on the three pillars of sustainable development, environment, economics, and society. Indicators can measure the progress of an ICZM plan and in communicate with stakeholders, and end-users.

#### What it can't do

Indicators cannot provide information about future trends if not associated with scenarios.

### Implementation Process

The identification and collecting of data for measuring indicators can be a very difficult and challenging process. Therefore, a simple, preliminary ranking of relative importance of the main types of indicator in relation to the ease of gathering will facilitate the process.

STEP 1. Identification of main coastal issues to be measures

STEP 2. Selection of relevant indicators from the PEGASO indicators set, taking into account also data availability

STEP 3. Data collection

STEP 4. Indicators compilation

### Data

Environmental, social, and economic statistical data

### Needs and requirement

Knowledge, expertise needs, manpower, statistics

### Expected Results

Status of the coast organized by coastal issues, measure of the progress towards ICZM implementation

### Documentation Notes:

*A Handbook for Measuring the Progress and Outcomes of Integrated Coastal and Ocean Management.* IOC Manuals and Guides, 46; ICAM Dossier 2. Paris, UNESCO. 2006 (English)

Chua T., Lee J., Hu H., and Ross A. *Measuring the performance of integrated coastal management programmes.* Proceedings of the international Conference on the Sustainable Development of the Seas of East Asia: Towards a New Era of Regional Collaboration and Partnerships. 2003

*Indicators of Sustainable Development: Guidelines and Methodologies.* Third edition. New York, United Nations  
*Mediterranean Strategy for Sustainable Development.* Athens, UNEP-MAP

For more information on Environmental Territorial Diagnosis tool and a list of publications, handbook and/or guidelines visit: <http://www.pegasoproject.eu/xxxxxxx.htm>