

# Development of diagnostic and exploratory decision-support tools for assessing the performance of MPAs in the Mediterranean and New Caledonia - FR

## 1. Policy Objective & Theme

- SUSTAINABLE ECONOMIC GROWTH: Balancing economic, social, cultural development whilst enhancing environment

## 2. Key Approaches

- Knowledge-based
- Technical

## 3. Experiences that can be exchanged

The development and use of marine protected areas progress and impact indicators as an MPA management tool.

## 4. Overview of the case

The chosen areas in the Mediterranean and in New Caledonia (South Pacific) represent a variety of coastal ecosystems and cultural contexts: a coral reef ecosystem with a network of marine reserves in New Caledonia, and two Mediterranean-type ecosystems within Natural Reserves.

## 5. Context and Objectives

### a) Context

MPAs are a recognized ICZM tool. They usually are multi-objective in regard to coastal ecosystem's conservation and use management. However, little is still known about the efficiency of these tools with respect to their assigned objectives. Most of the described approaches focus on species abundance without taking in account the overall response to the ecosystem conservation measures. Such a comprehensive approach requires a robust baseline and indicators fitting to the natural system and the activities at stake.

### b) Objectives

The objectives are :

- to identify and formalise MPA managers' objectives and priorities;
- to select among the issues raised those that are affordable in regard to the means and timing of the work;
- to come up with robust analysis methodologies leading to reliable diagnostics for assessment;
- to identify the appropriate indicators with regard to the issues raised and with the help of the available methodologies.

## 6. Implementation of the ICZM Approach (i.e. management, tools, resources)

## **a) Management**

The type of management was through co-participation of MPA managers and scientists using different kind of meetings and workshops and more methodological ones to construct the ecological, economical and decision-making indicators, with a final workshop for feedback and planning of future activities.

## **b) ICZM tools**

Development of MPA indicators through surveys, inventories, statistical and simulation models.

## **7. Cost and resources**

The project was funded by the LITEAU national programme for a cost of €120,000 and had a duration of 3 years (2004-2007).

## **8. Effectiveness (i.e. were the foreseen goals/objectives of the work reached?)**

The issues of concern for the MPA managers have been gathered with regard to MPA type and main purpose. The available knowledge has been gathered and complemented by surveys (questionnaires) mainly addressed to the fishing activity, either professional or non-professional. A set of MPA management indicators was developed including their description, their methodology and their meaning in regard to the response of the MPA system. The objectives were achieved although not with the same impact depending on the context of development of the MPAs.

## **9. Success and Fail factors**

A number of the indicators tended to be too sophisticated to be easily appropriated and integrated in a regular monitoring system. Some of them are also too costly to acquire (video-monitoring, etc.).

## **10. Unforeseen outcomes**

During the life of the initiative, the approach has been extended to the Atlantic coast, in a newly created Marine Park, the Iroise Sea Marine Park.

## **11. Prepared by**

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## **13. Sources**

- MEDD LITEAU 2 Final report. 2007 – D. Pelletier, Fisheries Ecology and Modelling, IFREMER, New Caledonia



LITEAU2-Pelletier (785.76 KB) 