



# ICZM

The *INTEGRATED*  
Of ICZM

# factsheet

Bite-sized introductions to  
Sustainable Development  
themes

SMAP III Technical Assistance  
[www.smap.eu](http://www.smap.eu)

This project is funded by the European Union



Environment & Sustainable Development  
in the Mediterranean Region



## WHAT ?

“Integrated” means to unify parts together to make a whole. In Integrated Coastal Zone Management (ICZM), the term “integrated” corresponds to bringing together different sectors of the coast to permit a unified understanding of the coast. This is ultimately used to make better decisions about management of the coast. In ICZM, the type of sectors commonly involved include fisheries, tourism, oil and gas exploration, aquaculture, ports & harbours and recreation. The process of integration can occur horizontally (between sectors, e.g. the Ministry of Public Works, the Ministry of spatial planning and the Ministry of Tourism) or vertically (between layers of governmental and public users, e.g. local, provincial and national government levels). Nearly every area of coast in the world that we would want to manage will have a set of sectors involved. Integration is thus the process of bringing the diverse coastal sectors together, under the common management platform of ICZM.

## WHY ?

Classical approaches to management of coasts tend to target one particular sector, for example, fisheries or tourism. There has been a long history of sectoral management and this is exemplified by many of the statutory government organisations which manage the coast. For example, it is very common to find in many countries a Ministry of Fisheries and a Ministry of Tourism. Thus classical management of coasts tends to be focussed on one or small number of sectors, and involves one or a small number of government agencies.

A focus on management of a small number of sectors is adequate in an uncontested coastal area, as the sectoral implementation of plans do not compromise each-other. However, as coasts become more and more used, involve a wider array of activities, uses and pressures there tends to be more contest for the space and resources between the sectors. For example, there may be a desire to exploit an area of coast for tourism and recreation, aquaculture and oil and gas production; such uses are not compatible as they have negative effects on each other. These negative effects could be due to visual impact and pollution from oil and gas production on tourism and recreational activities, or through land use for aquaculture of the coastal hinterland which is a prime site for tourist hotel development. Thus, some approach is needed to maximise the benefits of the coastal area as whole; this approach is called integration.

Integration between sectors is necessary to maximise compatible sectoral activities whilst minimising the negative effects of increasing use. By considering the array of sectors involved in the coast in an integrated way, it is possible to formulate plans and strategies within ICZM that permit a blend of activities to maximise benefit in a sustainable way. In some cases, as well as maximising the blend of compatible activities, it is also possible for mitigation actions to be planned that limit the impact of one sector on another. For example, using trees to screen oil and gas plant and machinery from recreational areas, or development of wastewater treatment works for water discharges from aquaculture to maintain water quality and inshore fisheries. Integration thus serves to maximise benefits of the coast through identifying compatible activities, and mitigation measures where activities are incompatible.

## WHEN ?

Integration is necessary when there is a contest between sectors which cause conflict in uses and exploitation of the coast; this situation applies to most coastal areas. Exceptions may include large areas which are set aside for conservation (e.g. National Parks) or for tourism (Resorts). The problem is, however, that the process of integration in practise is not easy as there are many factors to consider. This description of integration used above corresponds to “horizontal” integration as explained above. Although this is probably the most important aspect of integration within an ICZM plan, there are other aspects of the term “integration” that need to be considered.

Each sector operating in the coastal environment has its own complexity; this has traditionally been the focus of sectoral planning. The approach to coastal use by a sector is affected by many aspects such as international and/or national policy and law, regional or local development plans and laws, the organisations involved (governmental, non-governmental and the commercial sector) as well as aspects of local specificity (e.g. cultural values). Thus we can also recognise “vertical” integration, as the way in which national and local governance of the sector operates. Depending on the sector and

the context it may be strong or weak. For example, there may be strong vertical integration in a fisheries sector, through strong national and regional fish-catch quota setting, regional and local level enforcement of catch quotas, and strong government control of the fish markets. By comparison, in the tourism sector where there is a general national-level policy, but implementation at the local scale is carried out by primarily commercial hotel and holiday companies who compete for market share, vertical integration tends to be weak. Thus, different sectors are likely to have differing characteristics of vertical integration and modes of governance. Understanding the key elements and drivers of vertical integration in the sectors is a vital requirement to permit ICZM plans with multi-sectoral ownership to be drawn up.

## WHO ?

The process of integration needs to be across all the involved sectors (horizontal integration) and also cover the different levels of organisations and drivers in each sector (vertical integration). To gain any degree of ownership of an ICZM plan, this means that wide discussion and consultation needs to take place. This should focus at the local and regional level organisations that operate within the coastal area, but should also cover national level government organisations. In addition, it may be necessary to involve wider relevant NGO's and commercial organisations with influence or investment in the area.

The process of involvement should focus on engagement and communication. Integrating the sectors means that individual representatives have to communicate with other individuals from outside their sector; such cross-sectoral engagement may be unfamiliar to many. Horizontal integration in more contested areas will inevitably not lead to "win-win" outcomes for all sectors. Thus, the building up of trust among key individuals is a pre-requisite for negotiation and acceptance of integrated ICZM plan outcomes.

## HOW ?

In order to develop effective integration in an ICZM plan, the following stages should be considered:

1. Engage with sectors to gain an understanding of how the "parts" work and the relationships that determine how the "parts" operate in the coastal area and then identify issues and conflicts between sectors in the coastal area in terms of sectoral plans.
2. Working with the key organisations, integrate the issues and conflicts together and try to identify management options which could lead to minimising conflicts between sectors; tools like impact matrices and GIS (Geographical Information Systems) may aid communication and assist this process.
3. If compatible uses between sectors cannot be confirmed, then identify any possible mitigation actions. Carry out wide consultation to further refine the management and mitigation options.

## WHERE ?

A number of the SMAP III ICZM projects have focused heavily on integration issues: Wilaya d'Alger (Algeria), Kroumirie & Mogods and Grand Sfax (Tunisia) and Lake Maryut (Egypt).

## SD LINKS

ICZM Factsheets, GIS, EIA (especially impact matrices), Stakeholder Participation.

## SUGGESTED READING

[http://www.encora.eu/coastalwiki/The\\_Integrated\\_approach\\_to\\_Coastal\\_Zone\\_Management\\_\(ICZM\)](http://www.encora.eu/coastalwiki/The_Integrated_approach_to_Coastal_Zone_Management_(ICZM))

<http://www.netcoast.nl/coastlearn/website/intro/integration.html>.

<http://www.iasonnet.gr/abstracts/prem.html>

<http://www.cbd.int/doc/publications/cbd-ts-14.pdf>

[http://www.pap-thecoastcentre.org/itl\\_public.php?public\\_id=314&lang=en](http://www.pap-thecoastcentre.org/itl_public.php?public_id=314&lang=en)