



# ICZM

*The **ZONE**  
Of ICZM*

# factsheet

Bite-sized introductions to  
Sustainable Development  
themes

SMAP III Technical Assistance  
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## WHAT ?

Integrated Coastal Zone Management does not just focus on the narrow line where the land meets the sea, as this is a purely geographical definition. ICZM considers the seaward and landward areas or zones as well. This is because many coastal resources and activities do not take place right on the coastline, but offshore and landward and we need to encapsulate them into the ICZM planning process. So although the coastline is the defining feature of the coast, if we look at natural process, resources and activities on the coast, then we must also consider some distance into the sea and onto land as well because these areas are strongly influenced by the joining of the land and sea. Thus, we can initially define the “zone” in ICZM as being the landward and seaward area which is heavily influenced by the meeting of the land and the sea.

Some approaches to integrated coastal management do not use the term “zone” as used in ICZM. In fact they call the approach Integrated Coastal Management (ICM) or Integrated Coastal Area Management (ICAM), or a number of other alternatives. This is largely a semantic issue and in reality all such approaches need to identify the area or zone which is under the “jurisdiction” of the plan.

## WHY ?

It is important to determine the zone or area over which an ICZM plan operates as this determines what is included and excluded from the plan. However, often this is not as simple as identifying the length of coast and then saying x km inland and y km offshore. This is because the coastal zone is defined by the influence of the coast, and this may vary along a stretch of coast. For example, if a coast is in an area with steep seabed and land relief, then the coastal zone becomes very narrow, as there is a narrow coastal shelf and the land quickly loses the coastal influence with altitude. This contrasts with an example where there is a large estuary of coastal lagoon system which can extend many kilometres inland from the actual coast. Thus, it is not useful to determine the coastal area in pure km terms, but how can we define a rational and working definition of the coastal zone?

A number of alternative approaches to delimiting the coastal zone have been used:

- **Variable distance definitions.** This approach uses a standard landward and seaward measure to define the position of the boundaries of the zone of the plan. For example, the seaward extent could be the mean low water line, or at a particular water depth when the seabed changes from shelf to deep sea (e.g. 150m) with landward defined by a particular altitude.
- **Definition according to use.** This approach defines the coastal zone in relation to human activities. Often this approach is used for single sector plans, for example the fishing grounds of a particular fishery. With multiple uses being considered with an ICZM initiative, selecting the criteria for landward and seaward delimitation becomes more difficult but can be based on the boundaries associated with particular issues.
- **Hybrid definitions.** This approach uses a different approach for the landward and seaward definition of the coastal zone. For example, Queensland State Government (Australia) defines the seaward extent as 3 nautical miles (~5.5km) and the landward extent as the area in which there are “physical features, ecological or natural processes or human activities that affect, or potentially affect the coast or coastal resources”.

So there are many ways to define the coastal zone. However, for ICZM, a rational approach needs to be taken to define the coastal zone, which then defines the “jurisdiction” of the plan. For example, it could be that the limit of inshore fishing grounds from ports in the study area could be the seaward extent and up to 5km inland, as long as land is <10m in altitude. Alternatively, it may be that boundaries are set more directly using administrative boundaries, especially if the ICZM initiative is derived at a local or regional level where it can only be responsible for administering the plan within their administrative boundary. Thus, in summary, common sense rather than complex statistics are need to define the coastal zone for an ICZM plan.

## WHEN ?

Defining the coastal zone is one of the first things to do in kicking-off an ICZM initiative. In fact, a definition or map of the boundaries is most likely to be included in the Terms of Reference or the Project Specifications at the outset. If it is not then the ICZM team need to work to define the zone at the earliest opportunity; this is because defining the boundaries of a plan are vital to then target the key stakeholders’ activities and issues which take place with the defined zone.

Even with the limits of the coastal zone defined in some rational way, some consideration needs to be given to issues and impacts external to the zone early on in the ICZM process. It is not possible to define a coastal area which operates as a "black box": inevitably it is affected by external inputs and impacts. For example, migration into and out of a coastal zone, and associated change in terms of culture and / or technology can only be considered as an external influence, especially if the migration involves another country. Equally, physical change on the coastal zone can be affected by factors many kilometres away, for example, building of dams in upland rivers tends to reduce sediment supply to the estuary and coast, and can lead to coastal erosion many 10's of kilometres away from the dam. In consequence, once the coastal zone is defined, the main external agents that transcend the boundaries need to be identified and considered within the ICZM plan if they are significant. It may be possible to ameliorate coastal conditions by reducing the impact of such external factors, but sometimes it is necessary to have within-coastal zone mitigation approaches; for example, housing and infrastructure for immigrants and coastal defence to reduce dam-induced coastal erosion.

## WHO ?

If higher-level political or policy actors have not defined the zone, then this should be done in a rational way by the implementing multidisciplinary ICZM team. However, this process should involve communication and discussion with a variety of organisations, in particular local-level or statutory government agencies. Government agencies tend to be defined along sectoral lines e.g. Fisheries, Transport (Ports and Harbours), Nature and Conservation, Tourisms etc., and they often have different jurisdictions. For example, in England the seaward jurisdictions for the following government agencies are: Local Planning Authorities (Mean Low Water), Harbour Authorities (3 miles), Sea Fisheries Committees (6 miles), Natural England – conservation body (12 miles) and Department of Trade and Industry – oil and gas exploitation (Exclusive Economic Zone; up to 200 miles). Thus, the definition of the zone is important in identifying who the responsible bodies for different aspects of management are. Clearly, the list of responsible bodies which have jurisdictions in the defined coastal zone need to be involved from the outset of the ICZM process.

## HOW ?

To create a rational definition of a coastal zone area requires some basic data. Data which could be used include: administrative boundaries, statutory government agency jurisdictions, land-use maps, demographic census data and physical and bathymetric maps and fisheries areas. From this set of data it should be possible to determine a rational and practical definition of the coastal zone.

## WHERE ?

Overlapping jurisdiction is prevalent in much of the region, so that determining or rethinking the "zone" has been an important aspect of a number of the SMAP III ICZM projects.

## SD LINKS

ICZM Factsheets, GIS, Stakeholder Participation.

## SUGGESTED READING

[http://www.theukcoastalzone.com/geocoast/Volume1/king\\_green.pdf](http://www.theukcoastalzone.com/geocoast/Volume1/king_green.pdf)

<http://www.monae.org/documents/Seaward%20limit%20New%20Zealand.pdf>

<http://www.fao.org/docrep/008/a0266e/a0266e07.htm>

[http://pdf.dec.org/pdf\\_docs/Pnacs564.pdf](http://pdf.dec.org/pdf_docs/Pnacs564.pdf)

<http://www.fao.org/docrep/008/y5880e/y5880e09.htm>