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# **Implementazione della GIZC in Mediterraneo**

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**1. Integrated Coastal Zone Management and Sustainable Development: Principles, Goals and Activities**

**2. Implementation of ICZM in the Mediterranean: The Protocol for ICZM, Madrid 2008**

- **1970s: sectoral approaches** to the management of the coast; the aim was to address specific problems (erosion, oil spills).

- **1980s: the concept of ICM developed:** increasing consideration of the complexity of relationships, greater geographical coverage; multiple-uses approach.

National jurisdictions were the spatial limits.

- **Late 1980s: sustainable development concept** - UNCED (United Nations Conference on Environment and Development)

- Within this context, **Agenda 21, Chapter 17.** Systemic approach, management as a dynamic process, larger geographical coverage, new tools considered.

- **European Union:** from 1994 onwards.

ICM at the regional scale (the Mediterranean). MAP (Mediterranean Action Plan) 1975-1976 (1995).

- In 2008: Integrated Coastal Zone Management Protocol (Madrid, January)

## Definition

ICM, according to **UNEP**: ICM is a process of achieving goals and objectives of environmentally sustainable development in coastal areas, within the constraints of physical, social and economic conditions, and within the constraints of legal, financial and administrative systems and Institutions. (UNEP, 1995, p. 56)

### Basic elements:

- ICM has to be tailored on the **specific (physical, socio-economic, political, legal, financial) conditions** of the coastal areas considered.

- ICM aims at **protecting** coastal environments and resources, and at **promoting the efficient and sustainable use** of coastal resources.
- ICM requires **coherent geographical coverage**, and **involvement of all the relevant stakeholders**
- **Consensus and public support** is essential to get results
- A **mix of approaches and tools** have to be considered in the design and implementation of ICM

# Adaptive management

- **Limited knowledge, uncertainty** with respect to cause-effect relationships: these elements call for the adoption of an adaptive style in management
- **'Learning through doing' and 'Learning by experiencing'**. This means to choose the first step, on the basis of available information, and to monitor the outcomes.
- **Monitoring** is essential for measuring progress.

## **Ecosystem-based approach in ICM**

- It is based on the concept of **'fully functioning ecosystems'**. What has to be maintained is the capacity of ecosystems to provide ecological services and meet social demands.
- This approach aims at harmonizing the goals of: conservation, sustainable use of living and non-living resources, equitable social distribution of the economic benefits resulting from the exploitation of resources and of ecosystems' services.



## Ecosystem-based approach - Main principles:

- The problem of defining the goals of management (regarding land, water, resources) is a matter of **societal choice**. Importance of decentralisation
- **Economic instruments** can play a fundamental role in the implementation of the approach
- What has to be protected and made sustainable over time is the **structure and the functioning of ecosystems**
- The **spatial scale** of management is important to implement the approach
- **Change of ecosystems can not be avoided.**

## Integration in ICM

- ICM is a dynamic and participatory process. It is based on the acknowledgement of the relationships between ecosystems, socio-economic and political systems. This means that one of the most important aspects of coastal management is the attempt **to integrate approaches, disciplines, tools, and administrative management systems.** Therefore, integration is important with respect to a variety of dimensions.

- **Integrating different sectors.** Integration between land-based and marine-based uses; management of conflicts between the governmental units and institutions that have formal responsibility for the uses' development.
- **Vertical integration between government and administrative levels.** Different levels of power interact (the state level, the regional level, the Municipality level, etc.) in managing a certain use of the coastal area. Conflicts / Coordination / Integration.

- **Spatial integration.** The land and the marine dimensions have to be considered in an integrated way. Land-based activities impact on sedimentation processes and on water quality; this has consequences for coastal and marine-based uses. Marine-based activities need a continental and coastal settlement to develop. Water pollution problems in coastal areas can affect land-based uses. Land and marine areas have different legal and planning regulations, that have to be clearly acknowledged.

- **Integration between scientific disciplines and between science and policy/management.**

Firstly, 'hard' sciences and social sciences have to attempt to share concepts, approaches, perspectives.

Secondly, natural and social sciences have to point out the relevance of their research, the most important results, and how they contribute to shed light upon the future evolution of coastal ecosystems.

Politics and management have to stress the economic, social and political priorities of the system, as they emerge from a process of societal choice, and which implications can arise for the management of the environment.

- **The integration at international scale.** Coastal issues can be defined within the limit of national jurisdictions. In many cases, however, coastal issues involve relationships between different Countries (transboundary pollution, management of living resources, maritime transit, etc.). In these cases, international cooperation and the search for coherence in national policies are important elements to deal with.

- **Integration between tools. Coastal planning** is important. Other tools, however, have to be considered in the design and implementation of an ICM programme. In particular: **management plans, economic tools** (incentives, 'green' taxes, economic evaluation (Total Economic Value), 'green' accounting), and **environmental education**. In some European experiences (e.g. UK) the role of non-statutory plans and voluntary initiatives is increasing.



## The problem of integration

- Integration, both vertical and horizontal, is the most important problem. Integration can lead to the **redistribution of power and of financial resources**. Integration can imply a **change in status** and position.
- A fundamental aspect is **communication**:  
Integration costs time at the beginning  
but it can eventually result in less 'last-minute-conflicts'

- **Negotiation** and search for consensus, coalition building
  - Formal / **not-formal integration**: formal integration can result in boycott initiatives, or in lacking support. New agencies or intergovernmental committees, with coordination functions. High education agency; importance of providing the new structure with an autonomous financial budget.
- ..... **ICM has to promote organisational changes.**

# **The long time required by ICM**

## **for getting results**

- **Gap between the long time required for..... and the political and electoral cycle.** Politicians and the highest levels of civil servants need **results in the short term**. The capability to achieve results and the effectiveness of the money spent for launching an ICM programme, have to be demonstrated in a short term.

- Against this background, important role of the so-called '**pilot project**' and '**practical exercises**'. They contribute to build the local capacity to address problems; moreover, they aim at demonstrating that results can be achieved in the short term by adopting an ICM approach, thus strengthening and widening **social and political support**.
- A **clear framework of general and particular objectives** helps to cope with the problem.

## **General and particular objectives, and the vision**

- **General objectives** are the objectives that the ICM process aim at addressing in the long term.
- On the basis of these objective, ICM process have to define a set of **particular (coherent) objectives**
- The process has to define '**temporal windows**' (e.g. 3-5 years), in which the achievement of the particular objectives is **monitored and assessed**.
- A '**vision**' can be useful to gain and maintain social support (qualitative description; rhetorical picture)

## **The definition of spatial limits**

- The definition should be inspired by the **rationale of addressing effectively coastal issues.**
- The issue is problematic since the very definition of the spatial limits is a fundamental step for **defining, representing and socially/politically contextualising the problems/opportunities to cope with.** (To choose the spatial scale is not only important for the **'problem-solving'** phase, but also for the **'problem-defining'** one).

- Anyway, the decision is a critical aspect in particular when new formal regulation powers are promoted.
- **Zoning**: different areas, with different regulation features and tools.

## The mix between tools

- All the different and available tools can be utilized for addressing coastal issues.
- The implementation phase needs a **mix of statutory and voluntary tools**: 'Command and control' – Self-regulation
- Importance of the **system of incentives**. To search for consensus and public support is essential
- **Education**



# The assessment of policies and of results

- The problem is: **'does it work?'**
- Few initiatives have been implemented
- Problem of funding: public (international) / private funding
- No answer to the question: has the ICM process contributed to address the problems/opportunities?
- Generally speaking, **attention is paid to organisational achievements** (new plans, new programmes, level of public involvement and support, etc.)

***ICZM is the ideal arrangement  
for which everybody strives,  
but few attain.***

K. Klayton and T. O’Riordan, “Coastal processes and Management”, in Environmental Science for Environmental Management, T. O’Riordan ed., Longman, 1996, p. 160

# The ICZM Protocol and the Barcelona Convention

- **Mediterranean Action Plan 1975 (MAP)**
- **Convention for the Protection of the Mediterranean Sea Against Pollution, 1976** (assess and control marine pollution and formulate national environmental policies)
- Amendments adopted in **1995 (Convention for the Protection of the Marine Environment and the Coastal region of the Mediterranean)**:  
.... Contracting Parties shall commit themselves to promote ICZM...;  
ICZM is one of the priority; CAMP (Coastal Area Management Programme)
- **Within the MAP legal base 7 protocols have been issued:**
  1. Dumping Protocol, 2. Emergency Protocol, 3. LBS Protocol,
  4. Biodiversity Protocol, 5. Offshore Protocol,
  6. Hazardous Waste Protocol, 7. **ICZM Protocol**

# The role of **CAMP** (Coastal Area Management Programme)

- **Promoting SD and ICZM**
- Implementing MAP legal instruments
- **Co-operating with and assisting countries** to solve priority problems and to introduce ICZM and tools
- To create **national teams and co-operation network** with international centres and experts
- Co-ordinated by **PAP/RAC**

# ICZM Protocol: General Provisions (articles 2-7)

- **Definition of the 'coastal zone'** (geomorphological area in which the interaction between .....
- **Definition of ICZM:** dynamic process for the sustainable management/ use of coastal zones, taking into account at the same time the fragility of coastal ecosystems and landscapes, the diversity of activities and uses, their interactions, the maritime orientation of certain activities and uses and their impact on both the marine and the land parts.
- **Geographical coverage:** a) the seaward limit of the coastal zone: the external limit of the territorial sea; b) the landward limit of the coastal zone: the limit of the competent coastal units as defined by the Parties.
- **Objectives of ICZM.** Among the others: reference to natural hazards and climate change; achieve coherence between public and private initiatives and between all decisions by public and private actors which affect the use of the coastal zone.

- **General Principles of ICZM:** a) special attention to intertidal areas; b) Carrying capacity; c) ecosystem approach; d) participation and transparent decision making process; e) cross-sectoral organized institutional coordination; f) Formulation of land use strategies, plans and programmes covering urban development and Socio-economic activities; g) regarding the uses of the costal zone, and their interaction, priority should be given to public services and activities requiring the immediate proximity of the sea; h) balanced allocation of uses, avoiding unnecessary concentration and urban sprawl; i) preliminary assessment of risks of location policies and infrastructure development; l) effective restoration actions shall be implemented when damage to the coastal environment occurs.

- **Coordination:** a) ensure institutional coordination in order to avoid sectoral approaches (horizontal coordination); b) institutional land-marine coordination; c) vertical coordination.

# **ICZM Protocol: Elements of ICZM (articles 8-15)**

- **Definition of a 'No-construction' area:** 'taking into account the areas directly and negatively affected by climate change and natural risks, **this zone may not be less than 100 metres in width** .... Stricter national measure determining this zone shall continue to apply.

**The width of the above area may be adapted** 'in areas having particular geographical or other local constraints (population density, social needs, and where individual housing, urbanisation or development are provided for by national legal instruments'). The Parties shall notify to the Organisation their national legal instruments providing for the above adaptations.

- **The national legal system shall include criteria for the SD of the Coastal zones:** a) Identifying and delimiting, outside protected areas, open areas in which urban development and other activities are restricted or prohibited; b) limiting the linear extension of urban development and the creation of new transport infrastructures; c) ensuring that environmental<sup>1</sup>

concerns are integrated into the rules for the management and use of the public maritime domain; d) freedom of access for the public to the sea and along the shore; e) restricting or prohibiting the movement and parking of land vehicles, as well as the movement and anchoring of marine vessels, in fragile natural areas on land or at sea.

- **Economic activities:** among the others: a) specific attention to activities that require proximity to the sea; ... e) importance of indicators and monitoring for assessing the relation between economic development and carrying capacity; f) to promote codes of good practice among public authorities, economic actors and NGO.

- **Specific coastal ecosystems:** wetlands and estuaries, marine habitats (legislation, planning, management, co-operation), dunes (prevention, rehabilitation, restoration, compensation with non-financial measures)

- **Coastal landscapes:** aesthetic, natural and cultural value (legislation, planning and mngmnt, irrespective of their classification as protected areas).



- **Islands:** special protection to islands, including small islands (participation of the inhabitants in the protection.... also on the basis of their local customs and knowledge; interaction among islands in national coastal strategies, plans and programmes, particularly in the field of transport, tourism, fishing, waste and water).
- **Cultural heritage** (first option: preservation in situ).
- **Participation:** appropriate involvement of the stakeholders; involvement may extend to partnerships; legal and administrative tools for addressing conflicts.
- **Awareness-raising, training, education and research**

# ICZM Protocol: Instruments for ICZM (articles 16-21)

- **Monitoring and observation mechanisms and networks:** to strengthen existing appropriate mechanisms for monitoring, or create new ones; national inventories of coastal zones – information on resources and activities, institutions, legislation and planning that may influence coastal zones; exchange of scientific experience, data and good practices; Mediterranean networks; collect data on the base of reference format and process; public access to the information derived from monitoring and observation mechanisms and networks.
- **National coastal strategies, plans and programmes:** each Parties shall further strengthen or formulate a **national strategy** for ICZM and coastal implementation plans and programmes consistent with....; the national strategy shall set **objectives**, determine **priorities**, identify ecosystems needing management, as well as all **relevant actors**

and processes, enumerate the **measures to be taken and their cost** as well as the **institutional instruments and legal and finance means** available, and set an **implementation** schedule. Coastal plans and Programmes shall specify the orientations of the national strategy and implement it at an appropriate territorial level....

- **Indicators**: the Parties shall define appropriate indicators in order **to evaluate the effectiveness** of ICZM strategies, plans and programmes, as well as the progress of implementation of the Protocol.
- **Land policy**. Among the others: 'in order to ensure the sustainable management of public and private land of the coastal zones, Parties may adopt mechanisms for the acquisition, cession, donation or transfer of land to the **public domain** and institute easements on properties.
- **Economic, financial and fiscal instruments**: to adopt instruments to Support local, regional and national ICZM initiatives.

# ICZM Protocol: Risks affecting the Coastal Zone (articles 22-24)

- **Natural hazards:** the Parties shall develop policies for the prevention of natural hazards; vulnerability and hazard assessment studies; prevention, mitigation and adaptation measures to address the effects of natural disasters, in particular of **climate change**.
- **Coastal erosion:** to maintain or restore the natural capacity of the coast to adapt to changes; when considering new activities and works (including defence works), attention has to be placed to their effects on coastal erosion and on direct/indirect **economic costs** that may result.

# **ICZM Protocol: International Cooperation (articles 25-29)**

- **Training and research**
- **Scientific and technical assistance**
- **Exchange of information and activities on common interest**
- **Transboundary cooperation**
- **Transboundary environmental assessment**

# **ICZM Protocol: Institutional provisions**

## **(articles 30-33)**

- **Focal Points:** each Party shall designate a Focal Point to serve as a liaison with the Centre on the technical and scientific aspects of the implementation of the Protocol and to disseminate information at the national, regional and local level.
- **Reports:** the Parties shall submit to the ordinary Meetings of the Contracting Parties, reports on the implementation of the Protocol.
- **Institutional coordination**
- **Meetings of the Parties**

# **ICZM Protocol: Final Provisions**

## **(articles 34-40)**

- **Signature:** `This Protocol shall be open for signature at Madrid from 21 January 2008 to 20 January 2009 by any Contracting Party to the Convention
- **Entry into force:** `This Protocol shall enter into force on the thirtieth (30) day following the deposit of at least six (6) instruments of ratification, acceptance, approval or accession.

**The Protocol on ICZM in the Mediterranean is available at the PAP/RAC web site**

**<http://www.pap-thecoastcentre.org>**