

UNEP Statement:

“How to plan and implement ICZM”



Ibrahim Thiaw

*Director,
Division of Environmental Policy Implementation,
United Nations Environment Programme – UNEP, Nairobi*

Humanity has long had a love affair with the narrow coastal fringe where both terrestrial and marine resources are easily accessed and economic activity is vibrant. Approximately 3.4 billion people – more than half the world’s population – currently live there, and by 2025, that number will increase to 75 percent. The majority of large metropolitan centres are located near coastal harbours and on low-lying coastal plains. Both subsistence and broad-scale agriculture flourish on the productive coastal floodplains – 25 per cent of global primary production takes place in the coastal zone and 90 percent of the world’s fish is either caught or farmed in coastal waters.

Unfortunately, disjointed or short-sighted coastal management can result in un-checked urban expansion, ribbon development, poor management of coastal watersheds and the destruction of fragile habitat. As much as 90 percent of all inhabited coasts will be heavily impacted by development by 2050, while more than 80 percent of pollution in coastal waters stems from land-based activities in cities, towns and farms.

This requires urgent attention due to the fact that coastal and near shore habitats provide important and valuable ecosystem services, including the sequestration of carbon. Yet these habitats are being lost four times faster than our rain forests and the rate of loss is accelerating. While humanity extends its love affair with the coast, the ecosystems services that are the very foundation of development are showing signs of stress and fatigue, putting at risk our livelihoods, our security and our quality of life.

At the inaugural World Oceans Conference in Manado, Indonesia, May 2009, governments again expressed their concern that coastal and marine ecosystems continue to be threatened by land-based and sea-based pollution and socio-economic pressures.

Governments also recognised that “healthy and productive coastal ecosystems ... have a growing role in mitigating the effects of climate change on coastal communities and economies in the near term” and that “an integrated coastal and ocean management approach is a key in promoting resilience, and thus fundamental to preparing for and adapting to the effects of climate change ...”

In this context, UNEP’s mission is to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations (www.unep.org).

One of UNEP’s significant achievements is the Regional Seas Programme which was launched in 1974 and aims to address the degradation of the world’s oceans and coastal areas through the sustainable management and use of the marine and coastal environment. Today more than 140 countries participate in 18 Regional Seas programmes.

One of the first Regional Seas to develop an Integrated Coastal Zone Management (ICZM) Protocol was the Mediterranean. Signed in January 2008, the ICZM Protocol encourages Mediterranean countries to improve the management of their coastal zones and to deal with emerging coastal environmental challenges, such as the climate change.

The ICZM Protocol is a unique legal instrument because:

- It represents innovation in international law – there was no precedent of such a regional initiative;
- It is forward-looking – it aims at preventing as well as reacting to coastal problems;
- It covers key emerging issues crucial for improving coastal management and protection;
- It helps to ensure better coordination of national, regional and local authorities and includes NGOs and other interest groups; and
- It ensures reporting on the implementation of the Protocol, including measures taken, their effectiveness and the problems encountered in implementation.

A Global Environment Facility funded project entitled “The Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem” is implementing the agreed actions for the protection of the environmental resources of the Mediterranean Sea and its coastal areas (2009-2013) and is supporting the implementation of the ICZM Protocol.

The ICZM Protocol was developed as a response to countries asking for a legal instrument to help improve management of the marine and coastal environment. Its success is being followed up by other Regional Seas e.g. the Western Indian Ocean.

Given its unique position within the UN system, as the voice for the environment, UNEP can act as a broker to bring the scientific community and decision-makers closer together.

UNEP does this for the coastal and marine environment in two ways:

First, it provides information to convince policymakers about the economic value of marine and coastal environment. We are aware that marine ecosystems are multi-trillion dollar assets linked to sectors such as tourism, coastal defence, fisheries and water purification services, however it becomes more and more clear that these ecosystems are also our natural allies against climate change (the Blue Carbon Report: http://www.unep.org/pdf/BlueCarbon_screen_english.pdf).

UNEP stimulates an approach, which take costs & benefits into account as well as trade-offs between economic development and the conservation or improved management/restoration of marine and coastal areas.

Examples of trade-offs include the negative effects of water pollution in England & Wales reducing the value of waterfront property and tourism losses valued at US\$100 -160 million per year, which far outweighs the water treatment costs mitigating the water pollution. Another example concerns an investment of US\$ 1.1 million to restore nearly 12,000 hectares of mangroves in Vietnam, which is estimated to have saved US\$ 7.3 million per year in dyke maintenance, increasing the physical protection of coastal communities and the productive fisheries. This is also an important adaptive measure helping to address the potential impacts of climate change.

Second, it helps convince policymakers that the protection and sustainable development of coastal and marine environments depends very much on human activities on the land. Management therefore demand a multi-disciplinary and cross-sectoral response, i.e., an integrated ecosystem-based or Hilltops-2-Oceans (H2O) approach. UNEP provides the Secretariat to the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA-Marine), a multilateral initiative launched in 1995. The GPA-Marine emphasises the importance of the link between watersheds, river systems, coastal estuaries and the marine environment, and focuses on the development of comprehensive, continuing and adaptive programmes of action within a framework of ICZM. This requires changes in policies, institutions and practices in the member countries.

Through multilateral initiatives such as the Regional Seas Programme and the GPA-Marine, UNEP will continue to bring different interests together. It will also bring to the table best practice and successful case studies to guide and ‘show the way’ to countries and regions, which have expressed a desire to improve their marine and coastal environments.

We wish the CCC publication success in its efforts to increase communication between coastal stakeholders through showing excellent examples of coastal cooperative projects and to strengthen the exchange of the needed knowledge on coastal concepts, tools and measures.

Introducing several Tools and Measures

Robbert Misdorp

Leadership, long-term vision and funding are required to set up an ICZM or a coastal cooperative programme for a particular area.

In order to facilitate the first phase of an ICZM programme, which deals with planning activities, specifically identifying and analysing coastal problems, collecting data, preparing policies and decision-making, we have developed a number of tools. These tools, supporting the ICZM planning phase, are related to an imaginary area and to natural and socio-economic developments and are mostly GIS based. They facilitate the analysis of problems and provide possible solutions related to spatial planning and include the impacts of different functional uses. The tools also contain building blocks for Cost - Benefit analysis and Environmental Impact Assessments.

The tools support policy making as well as capacity building. Training is an important element of any ICZM programme particularly for the management of specific coastal regions such as Marine Protected Areas (MPA). A training manual for MPA managers was therefore also developed.

All these tools are described by their developers and made available in this CCC publication (see CCC V-1-1 & 2).

The second stage from planning to implementation faces often serious obstacles.

Adaptive coastal options are subdivided into three categories: Retreat, Accommodate (people continue to use the land, no attempts to prevent flooding) and Protect (IPCC – 1990). These can be applied for different types of land use, such as built-up areas, wetlands and agriculture/aquaculture (see figure : CCC II-3-5).

In order to help address some of the current pressures on the coastal zone and the possible future impacts of climate change, a limited number of examples are provided. These include innovative, adaptive coastal measures, presented by those who have helped develop the techniques.

Most of the examples belong to the second category: Accommodate.

The list is not exhaustive but is concerned with practical and applied innovative technology or methods. These options help increase coastal resilience, are environmental friendly and economically beneficial. They are so-called 'no-regret' measures, often with multiple benefits, such as mangrove planting, which increases bio-diversity, provides protection against flooding, generates food from subsistence fisheries, and is an innovative way of adapting to the anticipated impacts of climate change. Mangrove planting, is also very beneficial from a macro-economic perspective, see UNEP – Statement.

You can contact the developers/authors for more information about the planning tools and the adaptive measures; see List of Authors for contact details (CCC V-2).