

Introducing several Tools and Measures

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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).