

Coastal zoning

Challenge: Sea level rise

Adaptation response: Accommodation and management

Description

Coastal zoning is the division of coastal areas into zones that can be assigned different purposes and user restrictions. It allows multiple users to benefit from a coastal area under a broader sustainable management strategy. Coastal zoning schemes can constitute the regulatory and planning framework for other management options.

Coastal zoning is a relatively simple and effective way of managing and separating incompatible or multiple uses of a coastal area. In a specific zone, certain activities can be allowed, allowed with permission, or forbidden, and the zoning can be geared to a range of different conditions, such as economic development, tourism, conservation and hazard presence (Australian Government 2015a; Haslett 2009). The zoning is generally managed and enforced by public authorities and can be developed in consultation with different coastal stakeholders.

Implementation

The zoning system generally requires a high level of coordination and public participation and is regulated at different administrative levels. In many countries, laws, acts and planning regulations are already in place and coastal zoning activities will therefore be an integral part of these frameworks. Integrated Coastal Zone Management (ICZM) - where all key interests and physical conditions are considered - is closely related to coastal zoning.

Environmental Benefits

- Protects natural coastal environments and marine nursing grounds while at the same time allowing for economic and recreational activity.
- Adapts for a wide range of conservation purposes and can be combined with scientific monitoring programs to optimize the coastal resource use.

Socioeconomic Benefits

- Covers management of multiple uses of the same coastal area, benefiting everyone.
- Provides significant economic benefits through optimized value generation from the different coastal activities.
- Minimizes exposure to coastal hazards, for example through coastal setback policies.

Opportunities and Barriers

Opportunities:

- Has great potential for allowing multiple users to benefit from coastal area services.
- Can help maintain local coastal livelihoods, coastal biodiversity and broader economic activities for the benefit of all stakeholders.

Barriers:

- Requires a well-developed strategy based on ICZM use principles

- Requires a relatively high degree of public management, monitoring and enforcement to ensure it remains functional
- Different users with conflicting interests can violate associated laws and regulations, especially if the affected stakeholders are not engaged at an early stage.

Implementation considerations*

Technological maturity:	4-5
Initial investment:	2-4
Operational costs:	2-4
Implementation timeframe:	4-5

* This adaptation technology brief includes a general assessment of four dimensions relating to implementation of the technology. It represents an indicative assessment scale of 1-5 as follows:

Technological maturity: 1 - in early stages of research and development, to 5 – fully mature and widely used

Initial investment: 1 – very low cost, to 5 – very high cost investment needed to implement technology

Operational costs: 1 – very low/no cost, to 5 – very high costs of operation and maintenance

Implementation timeframe: 1 – very quick to implement and reach desired capacity, to 5 – significant time investments needed to establish and/or reach full capacity

This assessment is to be used as an indication only and is to be seen as relative to the other technologies included in this guide. More specific costs and timelines are to be identified as relevant for the specific technology and geography.

Sources and further information

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