

Implementing coastal risk management through shoreline management plans - UK

1. Policy Objective & Theme

- ADAPTATION TO RISK: Integrating coherent strategies covering the risk-dimension (prevention to response) into planning and investment
- SUSTAINABLE USE OF RESOURCES: Preserving coastal environment (its functioning and integrity) to share space
- SUSTAINABLE ECONOMIC GROWTH: Balancing economic, social, cultural development whilst enhancing environment

2. Key Approaches

- Integration
- Participation
- Knowledge-based
- Ecosystems based approach

3. Experiences that can be exchanged

The development of a shoreline management plan which is a non-statutory document that sets out strategic guidance designed to assist coastal defence decision-making for a defined length of coast over the next 100 years. ('Coastal defence' means protecting the coastline from erosion by the sea and defending low lying ground from flooding by the sea). The Plan aims to identify sustainable coastal defence options based upon economic criteria, whilst having an overview of both the natural environment and the human and built environment. They allow the development of a policy framework to reduce these risks in a sustainable manner. These plans suggest in broad terms how the coastline should be managed in the future.

4. Overview of the case

A shoreline management plan is a large-scale assessment of the risks associated with coastal processes and helps to reduce these risks to people and the developed, historic and natural environment. It is an important part of the UK's strategy for managing flooding and coastal erosion which aims to manage risks by using a range of methods which reflect both national and local priorities. It seeks to reduce the threat of flooding and erosion to people and their property and benefit the environment, society and the economy as far as possible.

5. Context and Objectives

a) Context

The shoreline, and its development and/or protection, cannot be entirely free of risk. Coastal processes cause flooding events, coastal erosion and instability which can affect people, properties and infrastructure in susceptible locations. Although coastal defences may reduce these risks, they cannot eliminate them entirely. The development of sustainable policies for risk reduction in coastal areas necessitates a strategic approach. Such policies form an important contribution to national flood strategies and coastal erosion risk management. These Plans should also integrate with all other relevant, coastal policy documents at national level as well as any regional spatial strategies and local development frameworks. Shoreline Management Plans are being produced around the whole coastline of England and Wales to enable coastal engineers to identify long term, sustainable policies for coastal defence.

b) Objectives

The aim of a shoreline management plan is to provide the basis for policies for a length of coast and set the framework for managing risks along the coastline in the future. The objectives are set within the scope of the government's strategy for managing risks from flood and coastal erosion and include i.a. setting out the risk from flooding and erosion, discouraging inappropriate development in high flood/erosion risk areas, meeting national and international nature conservation legislation and biodiversity objectives. An important aspect is to work in partnership with all interested organisations and the public. Shoreline management plans take into account the long term timescale of coastline evolution.

6. Implementation of the ICZM Approach (i.e. management, tools, resources)

a) Management

The Environment Agency and the Department for Environment, Food and Rural Affairs are working in close partnership with local authorities to achieve sustainable coastal risk management through the preparation of shoreline management plans. Once produced the implementation is the responsibility of the Environment Agency and the local authority.

ICZM tools

Given the tremendous diversity of coastal formations, there can be no uniform approach to risk management in all locations. Coastlines recede or advance with changes in current, wind and tide and it would be unrealistic to expect to maintain the coastline in all places as it is now. The operating authorities responsible must look at the range of options and avoid burdening future generations with the cost of maintaining unsustainable defences. It is necessary to develop responses that are appropriate to the area at risk and wherever possible achieve sustainability through working with, rather than against, coastal processes. A variety of responses for managing risk are now available e.g. managed realignment, reduced tidal inundation, flood control areas, effective engineering techniques, warning systems. The shoreline management plan will provide information on coastal evolution and coastal risks and the suitability of e.g. managed realignment along certain parts of the coastlii

Shoreline management plans begin with an initial scoping followed by assessments of the shoreline management issues. These form a framework for the choice of the most appropriate defence policy for the different parts of the coastline under study. In the current round of shoreline management planning, the policy options are (a) no active intervention, (b) hold the line, (c) advance the line and (d) managed realignment. The policies are determined for the immediate time period, 20-50 years and 50-100 years. Throughout the process there is stakeholder consultation and the final draft plan is subject to a full public consultation. Once agreed, the Plans are widely disseminated. They are reviewed every five years.

Many managing authorities have adopted the recommendations of their shoreline management plan as a basis for production of individual strategic plans, monitoring programmes and studies for all or part of their coastline. This will often dictate investment in appropriate capital improvement projects. The first generation Plans (begun in 1995) were both innovative and a big step forward towards better understanding of the coast and the need for strategic planning. They are now being reviewed to ensure full account is taken of the latest information and future challenges. For example, natural coastal processes might make it inadvisable to build defences at certain locations because of adverse effects elsewhere. At other locations, the likely cost of defences compared to the assets protected may make investment in defences uneconomic and again the Plan should reflect this. Shoreline management plans provide a long-term vision for a sustainable coast where future decisions can be taken with confidence using the best available evidence and effective engagement with local communities. A key output of the Plans are associated Action Plans which are updated annually.

7. Cost and resources

No information is available.

8. Effectiveness (i.e. were the foreseen goals/objectives of the work reached?)

One of the key benefits in the development of shoreline management plans is the consultation process that is needed between

the national and local counterparts and the involvement of a large number of interested stakeholders. There is a real need for close liaison between the coastal defence authorities and the local planning authorities.

9. Success and Fail factors

The successful introduction of shoreline management plans would not have been possible without the full cooperation of the Ministry's regional engineers who assisted local coastal engineers with implementation.

10. Unforeseen outcomes

As a result of re-organisation, the responsible Ministry has delegated a number of their duties to the Environment Agency and as such the Environment Agency are responsible for overseeing the delivery of second generation shoreline management plans. There is a need for political adoption of the Plans at local level. In one case, local politicians did not want to adopt a shoreline management plan due to unpopular policies but such a decision can lead to the access of grant-aid for any further works in that area being stopped.

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13. Sources

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