A more holistic approach to beach management by a Local Authority - Academic Couplet, Co

1. Policy Objective & Theme

- ADAPTATION TO RISK: Managing impacts of climate change and safeguarding resilience of coasts/coastal systems
- ADAPTATION TO RISK: Integrating coherent strategies covering the risk-dimension (prevention to response) into planning and investment
- SUSTAINABLE USE OF RESOURCES: Sound use of resources and promotion of less resource intensive processes/products

2. Key Approaches

- Integration
- Participation
- · Knowledge-based
- Socio-economic

3. Experiences that can be exchanged

A strategic couplet, an interactive alliance between multi-disciplinary academic experts and a local authority, leading to more holistic, integrated and less site-focused management approach.

4. Overview of the case

This case describes the application of a strategic alliance (couplet) between the local authority and a research centre to address the problem of coastal erosion on soft beaches in Donegal (Ireland) and advise on soft engineering approaches. This relationship enhanced capacity of the Council staff in dealing with erosion. A more holistic approach to ICZM was nurtured which represented a move away from traditional, site-focused management.

5. Context and Objectives

a) Context

County Donegal is geographically the most northern county in Ireland. The varied coastline is dominated by long stretches of rocky cliffs interspersed with many sandy beaches and dune systems, estuarine inlets and offshore islands. A number of the county's sand and dune systems have some form of conservation designation attached. County Donegal is sparsely populated, highly rural, and there are problems of high unemployment, partially due to the demise of the textile industry and to changes in the agricultural sector. Recreational use of the coast has become increasingly important given Donegal's proximity to Northern Ireland and an attractive exchange rate. Golf courses, caravan parks and holiday homes have proliferated and contributed to, what can only be described as, inappropriate coastal development. This in turn has led to a decline in conservation status, aesthetic quality and amenity value in some locations. Tourism is promoted nationally but remoteness and lack of infrastructure limit its growth potential.

The issues facing beach managers in Donegal are broad and multi-faceted. Coastal erosion is important with 90% of soft coastline considered at risk and hard coastal defence measures often leading to increased erosion downdrift. There is also a public perception that action should be taken to prevent coastal erosion, despite the fact that it is a natural process in any coastal system. The proliferation of holiday homes and over-development of remote villages has led to increased pressure on

infrastructure, such as water services and sewerage systems, as well as incompatible user conflicts.

b) Objectives

The main aims of the expert couplet, in recent times, are to: appraise the potential viability and scope of a proposed regional coastal management centre; give advice to Council engineers on the use of soft engineering approaches to coastal erosion; and provide research to assess the nature of coastal erosion leading to the development of an appropriate management strategy. The strategic advice would reflect the adoption of a more holistic and less site-focused approach to ICZM.

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

a) Management

Donegal County Council is the local authority responsible for development planning and control, housing, road improvement and maintenance, pollution control, water services and community development. As with the majority of coastal local authorities in Ireland, the Council also assume the role of de facto coastal managers. More recently the Council has taken a proactive role in developing sectors that may contribute to addressing unemployment, in particular, marine and coastal recreation, tourism development and value-added food processing. The Centre for Coastal & Marine Research (CCMR) of the University of Ulster, Coleraine, leads the research and provides advice.

b) ICZM tools

A multi-disciplinary approach was used to improve understanding of the links between physical coastal processes and human activities. In the first instance this culminated in devising alternative management plans for seven beach study sites including studies of public opinion and perception as well as the existing legal and administrative frameworks for beach management. These subsequently became part of the Council's overall spatial plan at a strategic level. Dissemination of the lessons learned was achieved by the Council's publication of a coastal management good practice guide. Though the studies were site specific, the academic couplet used the context of the relationship to develop awareness within the Council of the need for a more holistic, strategic approach to coastal planning and management, supported by evidence. This was done in a gradual process between the personnel involved at a personal level.

In Autumn 1997 the University established its MSc programme in coastal zone management. Significantly, one of the first graduates of this masters course was later employed by Donegal County Council in a defined coastal management role, one of the very first such appointments by any local authority in Ireland. This appointment led to even closer links between the Council and the University Following this appointment links between CCMR and DCC continued formally in a number of different ways, the first involved an assessment of a planning proposal application to build a golf course in 1998, another was a study of the erosion status and management options of all soft shorelines on the Inishowen Peninsula (2002) while a comparative cross-border study of beach management practices in the Republic of Ireland and Northern Ireland took place in 2003. Eventually, the need for an ICZM framework at the County level was inculcated among the most senior and influential officers within the Local Authority and a major outcome of all of these interactions was the inclusion of ICZM objectives in Donegal's County Development Plan and County Strategy.

To help build capacity within the council a two-day training course, regarding Couplet mechanisms and ICZM was run for staff of the Council with a coastal remit. The need for more informed decision making also led to the council to fund a three year PhD study on coastal erosion and management at seven different coastal sites. This now provides them with scientific backing for future management decisions. The couplet is now progressing work on a local climate change adaptation strategy for the Donegal region and aims to provide research which can feed into a future Maritime Spatial Plan for a pilot area in Donegal.

7. Cost and resources

No information is available.

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

The CCMR encouraged the Council to adopt a more holistic and less site-focused ICZM approach. This proved the Couplet to be a mechanism to influence management at a strategic level and enhance management capacity in the local authority. In recent years, the Donegal Couplet specifically facilitated the use of soft engineering approaches to coastal erosion, addressing both regional and local scale coastal erosion, sea defence and effects of sea level rise. As the Council staff have habitually sought informal advice from the research centre since the EU Demonstration Programme on ICZM, even outside the scope of the projects, their own capacity to manage the coast has been continuously developed.

9. Success and Fail factors

The fact that the link between this couplet pair dates back for more than a decade, as they had previously worked informally together on the ICZM Demonstration Programme and later on as consultant/client relationship, built up familiarity and trust between the persons/institutions involved. One of the main differences between the previous types of relationship and the formal interactive Couplet is the fact that the nature and broadness of focus of the latter provided a mechanism to influence management at a strategic level. Another important difference is that the current relationship enhanced management capacity in the local authority, whereas the previous had only limited influence.

In the Republic of Ireland, there is no single entity with responsibility for policy setting and implementation of coastal management. The decision to engage in the approach here described did not emerge from Council policy but it was individual, insightful Council employees that paved the way for action. Donegal County Council had previously frequently engaged external consultants to undertake technical work, particularly in coastal issues, as in-house expertise in this area was limited.

10. Unforeseen outcomes

There was a two way transfer of knowledge: the research group obtained an improved understanding of ICZM constraints in an operational context. The influence of the Couplet also helped lead to the appointment of a beach manager as part of a beach recreational strategy which was considered a key outcome.

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13. Sources

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