

7. Discussion and Recommendations

From the review presented above, a number of factors may be identified relevant to the management of the Swilly. These are outlined below. A number of recommendations are then made regarding a potential participatory ICZM structure for the Swilly.

Main Findings

This report has highlighted the diversity of management structures and approaches in place for Lough Swilly. It also notes that conflict exists between sectors and that a strong element of alienation exists between government departments and local communities. It also notes that there are development opportunities in some sectors that have not reached their full potential. A lack of information on the actual and potential economic benefits of development in several sectors is apparent. In this regard, current approaches to management are not ideal and might even be contributing to conflict.

The most relevant points in respect of management of the Swilly are listed below.

- ?? A sectoral system of management is in place for various sectors in the Swilly
- ?? There is little co-ordination policy and practice between sectors
- ?? Aquaculture has a particularly well developed development and management system
- ?? Other sectors have less well developed management structures
- ?? Some activities take place outside the formal management framework in the realm of traditional or common law rights
- ?? There is conflict among users and regulators, particularly between aquaculture and other sectors
- ?? The Swilly has potential for further exploitation in several sectors
- ?? The scale of future potential has not been investigated
- ?? The economic benefit of existing uses is not fully quantified
- ?? There is a climate of conflict and alienation of and among the community over current management arrangements, manifest in the creation of the umbrella group, Save the Swilly.

Recommendations

This report has shown that Lough Swilly has a diversity of natural, cultural and economic attributes. A diverse, multi-use economy exists on and around the Lough, that relies on its resources. It also demonstrates that conflict exists and has the potential to increase in parallel with pressure on the resource. A number of resource uses appear compatible while others are not. An atmosphere of mutual mistrust and suspicion exists both within the community and between the community and management agencies. Optimal management is not likely to be achieved by sectoral management under these circumstances.

A common theme to participatory estuary management initiatives elsewhere has been in the provision of a forum in which various sectoral and hierarchical objectives can be conveyed outside their traditional thematic and administrative homes. To this extent, most involve a high degree of participation and discussion and provide opportunities for co-ordination of activities. There appears to be a consensus that estuary-level management initiatives do help in conflict resolution

A constraint on each of these initiatives has been that while they provide a forum for integration, they do not appear to take an integrated approach to objective setting for estuary management, and instead rely on the pursuit of sectoral policies with modification to suit local pressures/opinions. This presents the difficulties of undue attention to those with political power, public sympathy, economic clout etc. and can be dismissed by others as mere 'talking shops'.

It is widely acknowledged in environmental management that a first step in sustainable utilisation is a stocktaking of the natural resources and the limits to their utilisation. This implies an assessment of the varying potential uses (which may change with time) and an assessment of the carrying capacity of an estuary for each of those uses. In estuaries a wide range of uses exists that frequently conflict with each other long before the carrying capacity for any single use is exceeded. Consequently, carrying capacity should be assessed for each category of uses independently as a purely scientific exercise. Economic appraisal of each of the potential uses can then be conducted to assist in subsequent decision-making, where the aim is to achieve economic development for an estuary and its immediate hinterland. Such a combined scientific appraisal of carrying capacity, coupled with economic analyses of development options, provides an informed foundation for the assessment of conflicts between different estuarine uses. The process of horizontal and vertical integration of estuarine management would be best served by such a foundation and prevent any such structure being dismissed as a talking shop.

In the case of Lough Swilly, a scheme is outlined below that builds upon previous experience of integrated management approaches to estuaries, but which introduces carrying capacity and economic appraisal as necessary pre-requisites for the optimal management of an estuary. Such an approach may provide the basis for estuary management elsewhere and it is presented as a test study or demonstration project in which the strengths and weaknesses of the approach can be tested.

STRUCTURE

A management body should be established for the Swilly that is representative of all interested groups and activities. They should include, conservation, fishing, aquaculture, agriculture, recreation, shipping, tourism, development etc. The group should comprise local organisations as well as government departments. The ideal lead agency to establish the group would be Donegal County Council, ideally

working in conjunction with the Coastal Research Group at the University of Ulster. This combination of an institution with a management responsibility together with an organisation with expertise in coastal zone management has worked successfully in the recent EU-LIFE beach and dune management project in Donegal.

REMIT

The remit of the body should be as follows:

To create a forum for exchange of information on matters relevant to the management of Lough Swilly
To conduct a series of carrying capacity and economic assessments of the future use of the Swilly
Through consultation, develop a management plan for the Swilly acceptable to all user groups and sectors
Provide a forum for monitoring adherence to the agreed principles and goals of the management plan.

This will not replace existing management structures, but seeks to involve existing sectoral management in an integrated approach to the management of the Swilly.

INFORMATION NEEDS

Information is necessary to aid management.

'Without accurate information decisions will be based on arbitrary or personal criteria. Long term values may be sacrificed for short term gain' (Boaden and Seed, 1985, p 195-196).

Equally, it is true to say that cost-benefit studies are not a substitute for political choices. They are however, useful in delineating options and assisting the decision-making process. Below a number of specific information needs are described that are viewed as crucial to the development of a sound management plan. The objective of the management group should be to achieve an agreed management plan through a participatory process guided by sound information. This reliance on accurate information sets this initiative apart from others in that it provides the potential for an increased measure of objectivity in decision-making.

1. **Carrying capacity assessment**. The ability of the Lough and its surroundings to accommodate and sustain various uses is constrained by many factors. These include dynamic factors (e.g. wind, wave and tidal current strength), topographical factors (e.g. depth, steepness), ecological factors (e.g. nutrient status, habitat distribution), socio-economic factors (social and cultural acceptability, economic potential) and legal factors (existing controls, designations, etc). The carrying capacity for each use (e.g. fishing, tourism,

aquaculture, waste disposal, recreation etc) should be considered from physical, ecological and social perspectives.

2. **Economic appraisal.** The economic benefits of all existing and potential (but realistic) uses of the Lough and its surroundings should be assessed in order to guide and inform the discussion process. Information does not currently exist that permits a reasoned comparison of the economic value of different sectors. The relative values of different sectors to the local and national economy should be assessed in a common framework to permit informed choices to be made regarding the promotion of future uses.

3. **Conflict assessment** (social acceptability). The cultural setting within which any activity takes place is important to its success. What is acceptable in one location may not be acceptable in another, although both may be legal. Having identified all potential uses, the capacity of the system to sustain them and armed with an economic appraisal, the community of users and managers is well placed to discuss the options for management and development of the Lough in the context of national policies, economic instruments and political constraints.

4. **Identification of players.** A representative selection of players from all sectors and levels of administration is required for a forum to work effectively. These need to be identified and encouraged to participate.

5. **Participatory decision-making (vertical integration).** This exercise provides the forum in which each level of society presents and receives information and opinion regarding perceived needs and goals in the context of the carrying capacity, economic benefits and conflict with other potential uses. A stage in this process could be the use of a compatibility matrix for the various uses such as that depicted in Figure 10 (After Carter 1988)

6. **Integration with sectoral planning (horizontal integration).** This exercise which would take place in tandem with 5. seeks to develop an appreciation of the desires, and opportunities of other sectoral interests for the benefit of society as a whole. An integrated management group provides a medium for this take place.

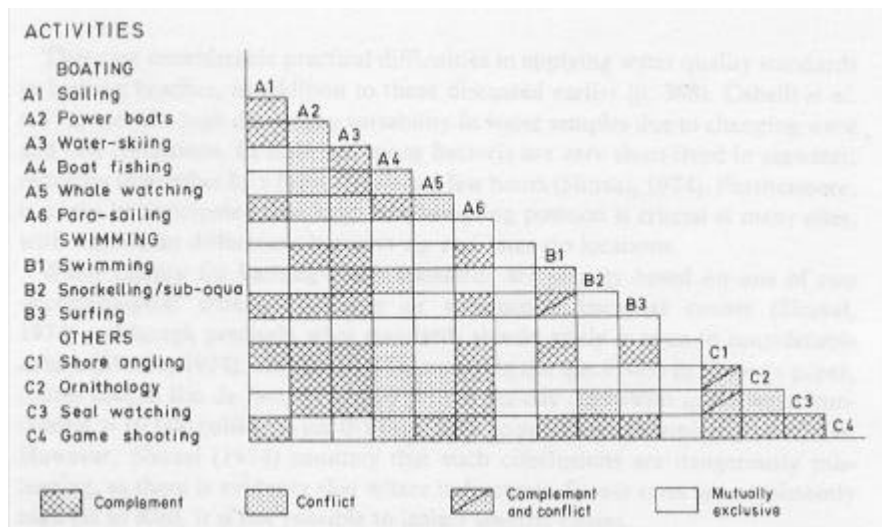


Figure 10. A compatibility matrix for coastal recreation (from Carter, 1988)

The carrying capacity, economic and conflict assessments are technical exercises that should set the basis for discussion by a horizontally and vertically integrated group that represents the interests of all players. Once completed, these studies would enable informed opinions to be stated and decisions to be made regarding the future utilisation of the Lough.

A problem with partnership-type estuary management initiatives, is their own sustainability. After a phase of initial funding, many initiatives, while viewed as successful, find it difficult to continue in the absence of sustained government or EU support. The primary costs of such initiatives are in project staffing and the costs of administration. The project outlined here envisages that an initial three year funding package during which the stages 1-4 which are the costly and one-off elements are completed would be succeeded by the maintenance of the forum through the acceptance of responsibility for co-ordinating future meetings of the forum by an existing organisation. It is envisaged that this could be facilitated by the provision of a secretariat function and chairmanship by the local authority and/or government departments. An independent chairman has been cited as a key to success in UK coastal fora and would be desirable in the case of lough Swilly. The forum would then be free to call on outsiders to provide information from time to time, and if additional information were to be collected this could be commissioned by participating departments. This would avoid the future sustainability problems.