

4.3 Policy, Socio-Economic & Legal Research Programme

4.3.1 Introduction

The marine sector has received increasing policy attention in recent years. Its development as an economically active³⁴, commercially viable, and environmentally and socially sustainable sector is in keeping with some of the most important objectives of European and Irish economic (competitiveness and growth), social (social inclusion and cultural diversity) and environmental (biodiversity and sustainability) policies.

Consequently, it is essential that the outputs from research and innovation in the marine sector support policy development that is, in turn, underpinned by an appropriate legislative and regulatory framework. This framework should be based on the best available socio-economic data and analysis. The dynamic nature of the marine sector means that it is essential to keep developments in the sector under constant review.

4.3.2 Key Opportunities and Challenges

Competitiveness and Moving up the Value Chain

The competitive economic climate has resulted in many industries in the marine sector coming under severe economic and commercial pressure in recent years, e.g. aquaculture, fish processing and water-based tourism. A better understanding of these pressures has implications for the regional distribution of economic activity in Ireland and the overall competitiveness of the economy.³⁵ In addition, many of the weaknesses that exist, particularly in the traditional or the more mature sub-sectors associated with the marine, can be attributed to poor business models. This includes issues such as the absence of effective organisation structures, integration of business along the supply chain, lack of appropriate economies of scale, lack of competitive market structures, lack of investment in R&D by firms, and the absence of linkages with the third-level sector. These issues require further research.

Non-market Values

There are important non-market benefits (e.g. quality of life, assimilative capacity, etc) associated with many marine resources. However, the techniques and data to estimate the value (or replacement value) of these resources are not sufficiently developed in Ireland to enable any proper quantitative economic assessment to be made of them. Future European regulatory intervention in the marine sector is likely to

³⁴ 'Economic' is used in the sense of 'public' and 'private' goods, as well as 'market' and 'non-market' values.

³⁵ The following example from the marine sector illustrates the complexity of achieving sustainable and economically viable communities. The objective of achieving greater cost-efficiency and competitiveness requires greater scale in the fish-processing sector. However, this strategy may conflict with the desire to sustain employment in culturally and socially 'rich' coastal communities.

focus strongly on the protection of non-market values and may result in spatial planning along similar lines to that for the landmass. This trend has already started with the application of water management units to coastal areas, under the Water Framework Directive, and recent development of marine protected areas. In this context, heightening the awareness of the non-market values of the sea and demonstrating the true value of the marine resource beyond its capacity to deliver goods and services are challenges for the future.

Sustainable Commercialisation

The development of the marine sector must be understood within the context of its overall value as a public natural resource/asset. In this context, it is important to identify those situations where clear market imperfections exist and where social returns exceed those to private investors. The optimisation of social returns requires that:

- > the resource base is fully understood and 'valued' in terms of its biodiversity, quality and contribution to unique socio-cultural communities; and
- > enhanced marine monitoring systems be incorporated into marine management and policy advice.

As a result, the cost of protecting the marine resource can be more easily quantified, appropriate legislation more easily drafted and effective policy regimes more easily implemented.

Social and Cultural Capital

The marine sector has important regional socio-economic impacts. Fifty-six percent of employment and 'value-created' by the sector is located outside the most developed regions of the country. The contribution of the marine resource is strongest in what are otherwise lagging regions. Stronger multiplier effects (employment and value-added) apply for the sector in these regions. The marine sector is, therefore, of particular importance to achieving a better regional balance. Coastal communities on the west coast present significant challenges in terms of achieving a better regional dispersion of activity. Communities require a certain scale of economic activity in order to retain essential services and sustain essential physical and social infrastructure (i.e. stock and networks of leaders, risk-takers and entrepreneurs, and their formal and informal communication and support networks). The loss of either form of infrastructure inhibits the remaining activity and undermines competitive activity, which, in turn, leads to further decline. In this way, communities are weakened as the workforce moves out to seek opportunities and employment. Those who move are usually most centrally involved in maintaining the social infrastructure and are an essential factor in driving recovery.

For these reasons, recovery depends on more than just reinstating the numbers of those economically active in an area. The social infrastructure, in the form of social networks and their cultural dynamics, also has to be re-instated. Consequently, the costs associated with regeneration are greater than the costs of maintaining the community in the first instance. Standard models of economic development tend to underestimate the costs of losing economic activity. They fail to recognise that the value of economic activity in an area in danger of undergoing decline is not captured by the commonly used metrics of output, incomes and employment, which use average conditions in the national economy. Communities can be maintained in more cost-effective ways when the activities pursued are well integrated with the local economy. Thus, the development and enhancement of marine-related activities in coastal communities should be given priority. Research is required to identify the most culturally compatible and appropriate methodologies for the valuation of cultural diversity.

Greater Integration with Social Sciences

Since public welfare and the public interest often exceed private welfare and interest, public goods, such as environmental, social and cultural capital, are often central to public debate. Consequently, a well-informed debate on these questions is needed so that public welfare and social cohesion are maximised. In addition to the contribution of the public to such debates, the knowledge and insights of lawyers, economists, and political and social scientists are required. They help to identify and quantify many public goods associated with the marine. Their contribution, and that of the public, will best ensure the full understanding of the resource base; including its inextricable association with the unique socio-cultural communities that depend on it.

A key issue for Ireland's marine development is the low profile of the culture of the sea and the absence of a policy culture that promotes the sea. In order to advance and enhance a culture of the sea and a culture of marine policy, and to increase awareness of the culture of marine-dependent communities, research in the social sciences field is required.

Governance, Legislation and a Commercial Ethos in the Public Service

One of the priorities for marine research and innovation is to support the role of government by bringing forward sound research and scientific advice to meet international, national and regional commitments, and to provide evidence and an analytical framework for policy choices. In addition, an active programme of policy research would provide opportunities for Ireland to shape future developments, in order to ensure that an appropriate governance and regulatory framework evolves to support innovation. It is widely recognised that such an approach is needed in Europe to support the growth of the knowledge economy. The overall requirement for research activities in this area should be to establish a knowledge base for efficient and responsive regulation and policy development.

The innovation-supporting reform of governance requires new fora for public consultation and discussion about major innovations and the direction of technological change³⁶. Achieving greater competitiveness requires the transformation of knowledge-creation and information management into tangible products and legislation and regulation and policy that is more appropriate. Since the public sector is a major player in these areas, a significant re-configuration towards a more customer-driven and market-conscious ethos and practice is required.

Specific consideration needs to be given to Ireland's participation in the work of international organisations (ICES, OSPAR and UNESCO's advisory body on the law of marine scientific research) and the fact that we have yet to implement the 1982 United Nations Law of the Sea Convention and several other international agreements. Within national legislation and regulation, there is a need to research the law and policy underpinning:

- > Marine spatial planning;
- > Integrated coastal zone and ocean management;
- > Foreshore use; and
- > Research, enterprise, and the commercial development of the marine sector.

³⁶ These may include consensus conferences and foresight programmes.

Integration of Irish Marine Policy with European/International Policy

Ireland's marine law and policy reflects developments within these areas in the European Union (e.g. the Common Fishery Policy). In many cases, national legislation responds to developments in European law, e.g. in relation to sustainable development, food safety and navigational safety. Consequently, there is a need to regularly review developments in European and international law and provide advice on the implementation of European Community policies in Ireland, including:

- > Proposed European Marine Strategy Directive
- > Common Fisheries Policy
- > EU Maritime Policy
- > Energy Policy
- > Maritime Transport Policy.

4.3.3 2020 Vision

2020 VISION

By 2020, there will be a much greater national awareness of both the market and non-market value of the marine resource. Greater synergies among the productive sectors utilising the resource will exist. This will result in an increased overall contribution of marine resources to Irish regional, social and economic development.

The outputs of marine related research and innovation will be employed to deliver on the broader social, environmental and public policy requirements that are unique to the marine area. Marine research will support and inform policy development, and, in turn, an appropriate legislative and regulatory framework will underpin new policy.

4.3.4 2013 Objectives

The following objectives have been identified as critical milestones to be achieved by 2013.

2013 OBJECTIVES

- 1 Achieve an understanding of issues relating to the competitiveness of the Irish marine sector.
- 2 Ensure the availability of high quality socio-economic data for all marine sectors through collaboration with the relevant data collection agencies.
- 3 Develop an understanding of the changing skills and labour and supply and demands needs of the sector.
- 4 Develop/adapt techniques that will allow the identification and, where possible, quantification of the non-market benefits associated with marine resources.
- 5 Promote an awareness of these non-market benefits and incorporate understanding of them into future policies for the development of the sector.
- 6 Establish a knowledge base for efficient and responsive regulation and policy development.
- 7 Achieve a balance between regulation and development policies in order to maximise sustainable economic development.
- 8 Develop a better understanding of the culture of marine-dependent communities.

4.3.5 Key Research Programme Outputs

The key outputs from a Policy, Socio-Economic and Legal Research Programme are:

- > A definition of the factors that determine the marine sectors competitiveness;
- > High quality marine related socio-economic data;
- > Techniques to identify and quantify non-market benefits of Ireland's marine sector; and
- > A knowledge base that supports policy development.

4.3.6 RTDI Capacity/Capability

The government, and in particular DCMNR, has a central role in the definition, formation and implementation of marine legislation, regulation and policy to underpin the sustainable development of the marine sector. It is supported by independent research agencies and the third-level sector. These include the Marine Institute, the Economic and Social Research Institute (ESRI), the Marine Law and Ocean Policy Centre (NUI-Galway) and the Policy Centre (TCD); as well as other institutions and consultants.