

Beaufort Marine Socio-Economic Workshop Abstracts

Defining Standard Statistical Coastal Regions for Ireland

Stephen Hynes, SEMRU, National University of Ireland, Galway

As with many other European member states, the coastal regions of Ireland are subject to increasing pressures from the country's rapid economic development in recent years. This development has consequent economic and environmental implications for present and future generations of Irish citizens and for Irish coastal communities in particular. In order to develop a policy framework and guidelines for improving a national approach to the management of coastal regions and associated resources one first needs to be able to define what is meant by 'a coastal region' in an Irish context and secondly be able to examine how the socio-economic characteristics of Irish coastal populations differ from a national perspective. This paper contains a range of official socio-economic statistics, from a range of existing statistical domains, compiled for the first time in terms of Irish coastal regions. These coastal regions are defined at a number of alternative levels of spatial aggregation. The compilation of such data is also important when one considers the recommendations of the European Council and Parliament concerning the implementation of Integrated Coastal Zone Management and the requirements of policies such as Integrated Maritime Policy for the European Union and the EU Marine Framework Strategy Directive.

Fishers: Scientists, Sociologists, Economists, Politicians and Marine Managers

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For approximately 50 years, marine scientists have collected data with the goal of producing models that allow them to manage sustainable fisheries. Unfortunately, even in data-rich fisheries, achieving sustainability has not always been possible as was seen most famously in the collapse of the northern cod fishery of Newfoundland in the early 1990s. In this fishery local fisherman had warned since the 1970s that the fishery was failing yet their warnings were ignored because some perceived their information to be too colloquial. Studies since have shown that these fishers did indeed have unique ecological knowledge about the fishery that they operated in. The goal of the Irish Fishers' Knowledge Project is to investigate whether Irish fishers have similar knowledge which could potentially be utilised in Irish/European fisheries management. So far we have found that Irish fishers not only have potentially unique ecological knowledge, but also unique knowledge of a social and economic nature. They also have many ideas that could shape marine policy and management.

Is a Strong Local Fishing Culture a 'Barrier' to Contemporary Rural Development?

Aine Macken Walsh, Rural Economy Research Centre, Teagasc

The contemporary rural development agenda seeks to focus less on primary production in the mainstream agricultural and fisheries sectors, and more on innovation, diversification and the creation of high value-added. The agenda, operationalised through the governance and rural development, employs a participatory approach, which aims to harness the capacity of local stakeholders in designing and implementing development interventions. Considering the rationale underpinning the contemporary rural development agenda areas like Iorras Aithneach, in South Connemara are potentially valuable sites for enterprises selling local 'design value' because they are laden with cultural commodities. However, the types of enterprises that are at the core of the contemporary rural development agenda – artisan food production, cultural tourism, and the valorisation of natural resources – remain peripheral to economic activity in Iorras Aithneach. This paper presents local contextual data and the results of qualitative interviews that highlight current and path-dependent socio-cultural factors which influence how local inhabitants think about their income-generating practices. The central crux of understanding the socio-cultural factors inhibiting manifestations of the

contemporary rural development agenda in Iorras Aithneach lies at the complex interplay between characteristics of this agenda as it is currently represented in the policy and operational spheres on one hand, and local forms of cultural and social capital on the other.

The Economics of the Marine Sector in Ireland

Karyn Morrissey, SEMRU, National University of Ireland, Galway

The aim of this paper is to provide a methodological framework for the economic analysis of the marine sector in Ireland at both the macro and micro level. It is currently estimated that the marine sector contributes approximately €3 billion to Irish GDP. However, in contrast to European counterparts such as Norway, Denmark and the Netherlands the marine sector is greatly under-developed in Ireland. The marine sector is a diverse sector and includes a variety of sub-sectors including among others fisheries, shipping, seaweed cultivation, aquaculture and renewable energy. Of interest to current public policy is the role each of these sub-sectors in both the marine and the broader economy. As such, a methodology which combines a newly constructed input-output table for the marine sector and a CGE model will be formulated. This framework will provide a complete picture of the marine economy in Ireland and allow 'what-if' simulations through the adjustment of parameters within the CGE model at the aggregate level. Secondly, the aggregate model is linked to a microsimulation model at the small area level in Ireland. Linking the macro to the micro allows one to examine the economic influence of the marine economy at the individual level in Ireland. Furthermore, various what-if simulations may be run to examine the effect of changes in the marine sector (for example, an increase in renewable energy) at the individual and/or small area level.

Applying Indicators to Aspects of Coastal Management in Ireland

Cathal O'Mahony, Coastal & Marine Resources Centre, University College Cork

The use of indicators to support improved coastal management is established practice at the European level, and follows international practice in the design and use of indicator sets and indicator-based information to measure progress in relation to sustainable development. This presentation will introduce the European dimension of indicator development for coastal management, and summarise to what extent indicators have been employed in the Irish coastal management context. In Ireland, integrated coastal management has been (and continues to be) delivered on a project basis and it follows that much of the associated research on indicator use has been delivered in a similar manner. Drawing upon the experiences of past projects, and using appropriate case study material, this presentation will outline how indicators have been used in Ireland for the purposes of (integrated) coastal management. Experiences to date suggest that indicators are a valuable tool for delivering a message on the state of our coastal environments; however, limitations of indicator sets can exist and they should also be clearly understood. Issues and challenges in the use of indicators for aspects of coastal management will be introduced, as well as suggestions on potential actions to improve the situation within scientific and practitioner communities in Ireland.

PhD work program in SEMRU

Analysis of regulatory constraints on the development of the marine economy: A financial portfolio theory approach

- Benjamin Breen, Beaufort Fellow

Balanced Local Development: Managing Shellfish Production in Killary

- Peter Cush, PRTL4 Doctoral Fellow

Economic Evaluation of Marine Renewable Energy

- Niall Farrell, Beaufort Fellow

Fishers' knowledge of cod stocks in the Celtic Sea

- Emma Martin, Marine Institute Fellow

Sustainable Innovation & Competitiveness in the Irish Seafood Sector through Market Orientation

- Ann Walsh, Beaufort Fellow

The Socio-Economic Impacts of Jellyfish in Ireland

Thomas Doyle, Coastal & Marine Resources Centre, University College Cork

Jellyfish are one of the most conspicuous members of our coastal fauna. Once considered unimportant, they are now known to play increasingly significant roles in coastal ecosystems and processes. This shift in awareness has been driven by the propensity of jellyfish to cause nuisance blooms, with potentially severe negative impacts on the tourism, fishery and energy sectors. Examples of such impacts abound. 21,000 people were stung and treated on the beaches of Catalonia in 2006; a population explosion of giant jellyfish caused severe damage to fisheries in Japan in 2003 and 2004; and in California during 2008, a bloom of jellyfish forced operators of a nuclear power station to take one reactor offline and reduce the other to half power. Such dramatic socio-economic impacts are mirrored in our own waters. Beach closures were forced in Dublin and Wicklow in 2005 due to the threat of a toxic jellyfish bloom, and in 2007, Northern Ireland's only salmon farm was closed when its entire fish stock was killed by a bloom of jellyfish of previously un-documented scale. With continued over-fishing, increased eutrophication and warming seas, the likelihood is that frequency and severity of such jellyfish bloom events will continue to increase – as will their subsequent socio-economic impacts. Here we provide an overview of the jellyfish problem, highlight some local case studies, and discuss two recently funded projects which aim to address some of these issues.

Valuation of Marine Ecosystem Goods and Services and Man's Impact on European Seas

Tom van Rensburg, Depart. of Economics, NUI Galway

The Irish Government is formally and legally committed to the conservation of deep water coral ecosystems and marine biodiversity conservation is now a significant policy objective in Ireland. In attempting to translate such general prescriptions into coral conservation management strategies, which also meet the commercial requirement for fish production, the state and the EU has shown considerable interest in non-market valuation of ecosystem goods and services. This paper provides a brief outline on valuation and its role in relation to Man's impact in the North East Atlantic. It also reviews one tool in the armoury of decision makers – choice modelling; used to value cold water coral ecosystems and their goods and services.

Economic Recession – Good News for the Coast?

John McKenna, School of Environmental Sciences, University of Ulster

The past decade has been a period of abundant and easy credit that fuelled a massive growth in property speculation and construction. Coastal property was particularly in demand, and there was a surge in construction of accommodation, especially holiday homes and apartments. Property prices rose to previously unimagined levels, which in turn encouraged coastal land owners to sell. Throughout coastal Europe there was an unprecedented explosion of development with vast numbers of single and multiunit dwellings being constructed for sale as holiday homes. This construction frenzy has had serious negative effects on both the coastal environment and the societies that live there. Environmental losses include the destruction and degradation of natural habitats, pollution of land and water, and overloading of water supply and sewerage systems. In particular, the emplacement of coastal defence structures prevents or hinders the operation of the physical and ecological processes necessary for sustainability. Social downsides include loss of community identity and cohesion, loss of community services such as shops and pubs, loss of tourist income and privatisation of the coast. The conclusion is that too much money is dangerous for the coast.

