

# Sea change: securing a future for Europe's seas

International Marine Protected Areas conference  
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## Abstract



### Securing a future for our seas

**Dr Helen Phillips, Chief Executive, Natural England**

Dr Phillips will set out the (urgent) need for network of Marine Protected Areas. She will examine the role of different MPA designations and call for increased collaboration between European partners and marine users to deliver the coherent, ecological network to bring long-term security and sustainability to Europe's marine environment.

### Why trans-border co-operation is important in delivering the European MPA network

**José Rizo, Principal Administrator at the unit ENV D2, Marine, in the Directorate General Environment in the European Commission.**

The presentation will start by reviewing some concepts of Marine Protected Areas, paying particular attention to those aspects that may be the most affected by transboundary considerations. Designation processes, concepts such as sufficiency, baseline, etc, will also be presented from a transboundary perspective. Reference will be made, where possible, to EU legislation (namely the Habitats Directive and the Marine Strategy Framework Directive) and to some global and regional processes (e.g. OSPAR).

The presentation will then cover the issues of boundaries at several levels: MPA, boundaries of the sea, regional boundaries, etc. Again, the reference to EU legislation will be clear. Conclusions will be made on key issues to be addressed when considering transboundary aspects for the designation of Marine Protected Areas.

### Lessons learned from international experience with marine spatial planning

**Charles (Bud) Ehler, President of Ocean Visions**

Marine spatial planning (MSP) has proven to be a powerful approach to reducing conflicts and stimulating compatibilities among multiple uses of marine areas especially in western Europe over the past decade. MSP is an operational approach that can lead to the elusive goal of ecosystem-based management. Origins of MSP can be traced back to the initial development of zoning plans for the Great Barrier Reef Marine Park in

the early 1970's and similar approaches to other marine protected areas from the 1990s to date. It can also be used to provide the basis for networks of marine protected areas as is being done in the development of Australia's five bioregional plans for its exclusive economic zone. UNESCO's Intergovernmental Oceanographic Commission and Man and the Biosphere Programme have recently published a guide to "Marine Spatial Planning: a step-by-step approach toward ecosystem-based management" (2009), based on international experiences. Lessons learned from this experience base, both positive and negative, will be drawn for MSP and the planning of MPA networks.

### **The science of marine reserves**

**Professor Mark Carr, University of California**

Science has and continues to inform the policy of marine reserves and, more broadly, marine protected areas (MPAs) in three key areas: (i) identifying their potential roles for management and conservation of marine species and ecosystems, (ii) the design of individual protected areas and networks, and (iii) evaluating the effectiveness of protected areas in achieving their intended management and conservation goals. With the global increase in the number of MPAs and evaluation studies, there is a plethora of examples of species and ecosystem-level responses to the implementation of individual MPAs. In contrast, because networks are only recently being implemented, documented network-wide responses are rare. Thus, the current focus of science is to inform each of the three key areas above in the context of networks.

Potential roles of MPA networks are traditionally dichotomized into fisheries management and conservation goals, with fisheries management goals focused on their role in contributing to sustainable fisheries yields. Recent syntheses suggest that networks are key to simultaneously achieving both fisheries and conservation objectives. Moreover, additional roles of networks for fisheries management are receiving greater attention (e.g., stock assessments, informing various aspects of ecosystem-based fisheries management). Recent developments in the design of networks involve biophysical models for informing patterns of larval transport and population connectivity, which can also incorporate bioeconomic models of the interaction between fisheries and alternative network designs. Approaches for evaluating region-wide ecosystem effects of networks are emerging through the integration of these models with empirical measures of population responses to MPAs.

### **Managing marine ecosystems in a changing climate**

**Dr Keith Brander, Senior Researcher, Danish Institute of Aquatic Resources**

Change is underway in the political and social climate for managing marine ecosystems as well as in the physical and geochemical climate. Marine ecosystems have been affected by human activities for hundreds or thousands of years but some of the threats, such as climate change and acidification, are more recent than others. Unfortunately the old threats (e.g. overfishing, pollution, habitat disturbance, species introductions) do not go away just because there are new ones. History provides insights into impacts of past natural climate cycles; the vulnerability of species with certain life history strategies and the composition and variability of past marine ecosystems. The distribution, abundance and diversity of marine species have changed over the last fifty years, with rapid poleward shifts in plankton, fish and other taxa along the European shelf that are attributable to climate. Species richness of fish and plankton has been increasing in areas around the British Isles over the past 20 years, but the consequences of this for functional groups (e.g. top predators) or for ecosystem services (e.g. carbon sequestration) is not clear.

Changes in distribution and ecosystem character are likely to continue and will cause difficulties for location specific management (e.g. MPAs). Quota management of fisheries based on historic patterns of distribution and abundance will also have to adjust. Reduction and relocation of fishing effort is an effective “no-regret” strategy for both adaptation to climate change and mitigation of greenhouse gas emissions. The design of MPA networks and their role in reducing fishing effort depends on connectivity due to larval dispersal and migration and behaviour of fishing boats. Continued international cooperation and coordination is needed to deal with human pressures (acidification, hypoxia, pollution, species introduction) that MPAs do not address and also to assess and, if possible, protect the many components of marine biota that are little constrained by the seabed characteristics and geography of MPAs (e.g. plankton, nekton and many larger marine species that migrate). A well designed programme for monitoring the effectiveness and cost of MPAs will help in future decision making about their scale and location.

### **MPAs, spatial planning and the Marine Strategy Framework Directive – parallel universes or joined up policy?** **David Connor, Head, Marine Ecosystems, UK Joint Nature Conservation Committee**

There are policy initiatives at national and European levels to develop networks of marine protected areas and to bring together sectoral planning mechanisms into more coherent marine spatial planning systems. Additionally EU Member States adopted the Marine Strategy Framework Directive in 2008 and a goal to achieve Good Environmental Status by 2020. These major new policies appear to have been developed in relative isolation from each other, yet all will potentially have a major influence on how our entire marine waters are managed. Whilst some links have been made explicitly (e.g. MPAs are a specific requirement in MSFD delivery), there remains little guidance on how the three policies might in practice work together and whether their goals are fully compatible. This talk will explore how Good Environmental Status might be defined and its possible relationship with MPAs and spatial planning. Ways in which MPAs, MSFD and spatial planning could be integrated will be considered.

### **Managing human pressures in Norwegian marine ecosystems**

**Dr Erik Olsen, Head of Research Programme for Oil and Fish, Institute of Marine Research, Norway**

Starting in 2002, the Norwegian government initiated work for the Norwegian European Economic Zone to develop integrated marine ecosystem-based management plans in Norwegian waters. The Barents Sea and adjacent areas was the first area for which a plan was developed. Five ministries formed a steering group for leading the development of the plan, while the scientific work and analyses were carried out by government research institutes and directorates. The aim of the plans was to manage the overall pressures from the human activities petroleum, shipping and fishing. Analysing areas of biological value in relation to human use was a central method used to develop the large-scale area-based management frameworks for petroleum and devising new shipping lanes. At local scales closer to the coast, a network of Marine Protected Areas (MPAs) is under development, with three MPAs for lobster-preservation and stock rebuilding being the first examples of strong area-based marine protection measures implemented in the Norwegian EEZ.

### **The Wadden Sea World Heritage Site: Cooperation to protect and manage a shared site**

**Jens Enemark, Executive Secretary, Wadden Sea Secretariat, Germany**

The Wadden Sea is the largest temperate-climate, sandy-muddy tidal system in the World which is largely sheltered by barrier islands and which experiences only minor river influences. The Wadden Sea is shared by Denmark, Germany and the Netherlands. The Dutch-German Wadden Sea which constitutes the

largest part of the Wadden Sea was inscribed on the World Heritage List in June 2009. Since 1978 the three countries cooperate to protect the Wadden Sea as one ecological entity. The presentation will outline the joint protection and management scheme for the Wadden Sea and the factors that have contributed to a successful trans-boundary cooperation resulting in a comprehensive protection of the Wadden Sea and what the challenges to continue to protect and manage the Wadden Sea as an ecological entity.

### **German MPAs – managing activities beyond 12 miles**

**Dr Ingo Narberhaus, Marine Science Officer, German Federal Agency for Nature Conservation**

Germany's ten offshore Natura 2000 sites have meanwhile been listed on the lists of European Sites of Community Interest (SCIs) and have thereby been officially accepted by the European Commission as part of the Natura 2000 network. Altogether the sites cover an area of more than 10,000 km<sup>2</sup> which is about 31% of the German EEZ. Together with the coastal sites more than 20,000 km<sup>2</sup> of the German North and Baltic Seas are now protected. This amounts to more than 41% of all German marine waters, which is to date the largest percentage of any European state.

The legal premises are hence broadly developed – but what is the effect of these defined areas actually on the ground? According to the habitats directive EU member states are bound to develop management plans within six years after their site designation. In installing an efficient management regime, however, it has to be acknowledged that the regulating competences are differing with respect to the activity in focus. Whereas specific plans or projects (such as sea bed mining) can only be approved after environmental impact assessments under German law, regulating competences concerning other major human activities are very limited for each member state. For example, fisheries and shipping are administered by the EU Common Fisheries Policy and the International Maritime Organization, respectively.

BfN has started extensive research and development projects to deliver the scientific basis for specific management measures in the offshore MPAs. A special focus has recently been set on developing management options for fisheries. The so called EMPAS project was accomplished in cooperation with ICES and identified specific conflicts that arise from fishery activities in German offshore waters in the light of the conservation objectives of the NATURA 2000 sites therein. As a result an ICES advice in 2008 recommends several options for fisheries management in the German EEZ.

In this presentation the BfN approach to fisheries management in the German EEZ as well as other management related activities for the MPA network will be illustrated.

### **The MPA Agency and strategy for developing the French MPA network**

**Olivier Laroussinie, Director, French MPA Agency**

In 2005, the action plan for marine biodiversity under the French national strategy for biodiversity recognized the need for a string effort in increasing in the MPA network based on the development of the Natura 2000 network and the establishment of 10 marine nature parks (a new tool, specially designed marine nature protection). In April 2006, a new law set up the principles of the marine nature parks and additionally, as a result of the debate at the Parliament, created an Agency dedicated to MPAs to boost the whole system. This rapid increase in the political interest given to MPAs didn't end there. A national debate being organized mid-2009 on the future of French seas and maritime activities concluded that the objective for MPAs was to cover 20% of all areas under French jurisdiction before 2020 and no take areas 10% of it.

Three objectives are given to the Marine protected areas Agency: to assist the public authorities in setting up and managing the MPAs network, to manage the Marine nature parks, and to give support to the other MPAs managers. A first strategy for MPAs in the French mainland was adopted in November 2007, followed by similar strategic exercises at the regional level and in overseas territories. The method relies mainly on collecting the existing information, discussing it with stakeholders and drawing maps representing the issues in three domains: ecosystems, natural heritage and human activities and resources; then discussing the best strategy for creating new MPAs and managing the existing ones. Carrying out this strategic work, different questions arise, particularly concerning the improvement of information available and the changing of scales.

### **UK MPA initiatives**

**Jon Davies, MPA Programme Manager, Joint Nature Conservation Committee, UK**

The UK is committed to fulfilling its obligations under international agreements and European legislation to designating Marine Protected Areas (MPA) and building MPA networks. The UK Government and the Devolved Administrations in Northern Ireland, Scotland and Wales are taking forward initiatives that will deliver these obligations.

The talk will provide an overview of these different initiatives in a UK context, describing how they will deliver an ecologically coherent network of well managed MPAs. It will cover both European Natura 2000 work and the different projects emanating out of recent and proposed national legislation. It will briefly cover the Marine Conservation Zone Project covering English territorial waters and UK Offshore Waters of England, Wales and Northern Ireland, including a brief introduction to the Regional MCZ Projects. It will also provide an update on developments in Welsh territorial waters and Scottish Waters.

Ultimately, the different approaches in England, Northern Ireland Scotland & Wales need to link together to deliver the UK's commitment towards a coherent network of well-managed MPAs.

### **Global good practice in stakeholder engagement**

**Diana Pound, Director, Dialogue Matters, UK**

Involving stakeholders in environmental decisions should mean that decisions are better informed, more robust and easier to implement. However, not all stakeholder participation delivers on these claims. Natural England wanted evidence of what works to inform the Marine Conservation Zone projects. Our research included reviewing 27 success stories from 17 countries and 10 codes or protocols. From these and other sources we built up a comprehensive list, which is summarised below:

- Prepare for participation ensuring the organisation/s sponsoring the participation understand the different nature and ethics of this approach and there is sufficient time, funds and resources to support it.
- Carry out systematic stakeholder identification of who needs to be at the heart of the process and involved in deliberative workshops, and who can be involved in other ways.
- Have a core ethic that respect for stakeholders underpins all actions and stakeholders have real influence, can make a genuine difference, and their time and effort is valued and appreciated.
- Ensure the process is skilfully designed and project planned so that it has clear structure, sequencing, stages, levels of involvement and influence, and all parts work together (avoid ad hoc workshops or other activities).
- Ensure the process goes through clear phases that help people shift from adversarial positions to open up, share knowledge, generate ideas, and find agreement.

- Use skilled workshop designers/facilitators who help groups work together in a cooperative way and can be trusted to act impartially and independently (including from sponsoring bodies)
- Base workshops on deliberative techniques, principled negotiation and consensus building. Consider cutting edge practice: 'Systems Thinking' and 'asset based' approaches.
- Ensure decisions are well understood, well supported, technically sound, and can be implemented. A key to this is including relevant experts and regulators in the stakeholder group deliberations.

Report reference: Pound, Diana., 2009. Adopting effective stakeholder engagement processes to deliver regional Marine Protected Area (MPA) networks. Natural England Commissioned Report, Number 008 (NECR008). Available at [www.naturalengland.org.uk/publications](http://www.naturalengland.org.uk/publications)

### **Governing MPAs – getting the balance right between people, state and market-focused approaches** **Dr Peter Jones, Lecturer, University College London**

Governance means different things to different people, depending on their ideological and theoretical perspective. It has been defined as 'what governments do to govern' through to 'governing with governments'. In keeping with the latter definition, many people focus on the role of 'stakeholder participation' in governance, particularly in the context of MPA co-management. This presentation will outline the interim findings of a UNEP project to develop a best practice guide on MPA governance, involving 20 MPA case studies from around the world, focusing on an analysis of the relative roles of the state, people and markets in effectively governing MPAs. A particular emphasis will be placed on how governance approaches are combined and the particularly important role that the state plays in ensuring MPAs are effective in achieving their biodiversity and resource conservation benefits.

It is argued that governance approaches based on providing for the participation of people and promoting the role of markets (including allocating property rights) can complement the roles of the state in ensuring appropriate decisions are taken and effectively enforced, but that they are no substitute for the leadership and controlling roles of the state in MPA governance. The MPA governance manual will give detailed guidance on how different incentives (economic, interpretative, knowledge, legal and participative) can be combined to provide a balanced and effective approach to MPA governance.

### **Integrating science and stakeholders in MPA network design – the story so far in south-west England** **Tom Hooper, Project Manager, Finding Sanctuary, UK**

Finding Sanctuary is one of England's regional Marine Conservation Zone (MCZ) projects. In this presentation I will aim to show why involving stakeholders in decision making ultimately leads to a better outcome for conservation and for stakeholders. I will also show how England's regional MCZ projects are gathering and presenting scientific information to a representative group of stakeholders to help them make decisions on MCZ site location and management objectives. I will introduce the way we have grouped stakeholders and the methods we have used to attract them and collect information.

One of the key areas for Finding Sanctuary is the role played by a balanced and representative Steering Group of stakeholder interests and I will show how information is being presented for them to make decisions and introduce the local, international and scientific feedback processes that have been set up to support them.

## **Adequacy: approaches to scoping the extent of a MPA network**

**Dr Carlo Rondinini, Research Scientist, University of Rome**

Biodiversity conservation is only one of the many competing interests that humans have on the use of the Earth's resources. Because these are finite, planning for their use requires the definition of broad goals and the formulation of explicit targets. This involves the operational translation of goals based on the available data, which in the case of conservation targets are invariably incomplete and patchy. Conservation targets are necessary because they allow to take operational decisions and measure success.

The objective of this presentation is to review methods for the formulation of ecologically meaningful quantitative targets for the coverage of habitat types within a protected area network. I identified five groups of methods applicable to habitat types that identify: (1) fixed percentage targets across all habitats based on species-area relationship, or habitat-specific targets based on (2) species-area relationship, (3) heuristic principles, (4) trade-off of target size with reserved area (as a proxy of cost), or (5) spatially-explicit Population Viability Analysis (PVA) for selected species. No ideal method exists. The species-area relationship method is the most objective, but it only aims at species representation, not persistence which requires reserve design criteria. Heuristic methods are the most flexible since they can accommodate a variety of specific goals (conservation of biodiversity patterns, processes, ecosystem services) and biodiversity data of variable quality and quantity. Composite targets that integrate different methods have the highest chance to make the best use of all available data.

## **Efficiencies in crowded seas: systematic decisions support tools**

**Jeff Ardron, Director, High Seas Program, Marine Conservation Biology Institute, USA**

Increasing maritime usage means that conservation decision-making takes into account several sectors, as well as marine ecology. Providing spatially efficient solutions to such multi-criteria problems usually exceeds the abilities of conventional approaches, thus requiring decision-support tools. Without such tools, it has been shown that agreements can be "lose-lose," with lost economic as well as conservation opportunities. This presentation will highlight the need for systematic conservation planning that can pull together results from various individual studies and sectoral interests to provide a composite picture necessary for meaningful decision support. The use such planning tools also provides a means by which many elements necessary for maritime spatial planning and ecosystem-based management are drawn together –including not just the data, but also the tough decisions around conservation goals, objectives and targets, as well as which human activities are compatible with those.

## **Delivering monitoring in MPAs: design and reality**

**Dr Bill Sanderson, Senior Marine Monitoring Ecologist, Countryside Council for Wales**

Statutory obligations often task government agencies to develop monitoring programmes that have a tendency to be generic. Conversely, site-specific biodiversity interests and management pressures of MPAs focus the development of performance indicators more sharply. Appropriate performance indicators are inevitably governed by the objectives of an MPA, a network of MPAs or the overarching legislative drivers. However, programmes of monitoring are often financially limited and can be set against other substantial constraints such as: our own ignorance of marine habitats and species; expectations of scientific rigour; the changing policy and legislative context and institutional reorganisation and change. These considerations are discussed as well as opportunities for improvement.

## **Effectiveness of existing N2K site management schemes in England**

**Tony Child, Natura 2000 Project Officer, Thanet Coast Project, UK**

The 'North East Kent European marine site' is the case study used to illustrate the management effectiveness of Natura 2000 (N2K) sites in England. The site comprises 2 Special Areas of Conservation, 1 Special Protection Area and a Ramsar designation and is particularly well known for its extensive chalk - and urban - coastline.

The current Management Scheme for 2007-12 was launched on 17 April 2007, following comprehensive stakeholder dialogue workshops. The Scheme is the responsibility of the Management Group and was the first revision of the original 2001-6 Scheme that had been produced through a similar stakeholder consultation process.

The Thanet Coast Project was one of the main actions of the Management Scheme of this N2K site. The project helps to raise awareness of the marine and bird life, works with local people to help safeguard the site, runs wildlife related events and activities, and keeps everyone informed of progress.

The project has successfully engaged with the local coastal community. Particular examples include:

- helping local users to produce the first set of voluntary Coastal codes for a Marine Protected Area
- training local volunteers (Thanet Coastal Warden Scheme) to help look after their patch of coastline
- running extensive public events and specific community activities and projects (from beach cleans, beach play, art, Eco-school clubs to a celebration of 'Fishing & Eating for Healthy Seas').

The effectiveness of management is not only measured by biological monitoring of the site features, but also by looking at the wider process. One such tool that does this is the Score Card developed for OSPAR that was adapted from the World Bank.

The successful approach used in NE Kent would not be possible without successful partnership work - from the relevant authorities, organisations and groups, to the help of volunteers. However it also relies upon continual grant applications and support from partners and local businesses to ensure that the work continues.

## **Strangford Lough: a restoration case study**

**Joe Breen, Head of Aquatic Science Team, Department of Environment, Northern Ireland**

Strangford Lough has been described as the Jewel in the Crown of UK Marine Protected Areas designated as ASSI, RAMSAR, AONB, MNR, SPA and SAC. It is my contention that the jewel has become tarnished through a series of poor decisions and a lack of understanding of responsibilities. As a community of stakeholders we are required to polish it back to its former glory through restoration and good management with the ultimate goal of achieving a sustainable environment while promoting sustainable development opportunities. The purpose of this paper is to describe the Strangford story from its identification as an environmentally significant site, a centre of world class scientific investigation, through various designation exercises, conservation measures, misunderstanding and recognition of European Directives, site damage, infraction and restoration. Strangford is a story from which we should all learn and strive never to repeat again.

## Fisheries measures in MPA's

**Ton Iljstra, Projectleader, Fisheries Department, Ministry of Agriculture, Netherlands**

Protecting the marine environment and integrating marine fisheries presents an immense challenge to managers of Natura 2000 sites. First of all, our knowledge of the marine ecosystems is - compared to that on land - very limited. Also the effects of specific types of fishing are not always well known. Lastly, especially in the North Sea, the legal regime for the conservation of the marine environment and that of fisheries is very complex due to the exclusive competence of the EU and of the obligations of coastal states under the Common Fisheries Policy. On October 6 2009, the Dutch government concluded an agreement with the International Council for the Exploration of the Sea (ICES) to the effect that ICES is to develop a scientifically sound process between all stakeholders, the aim of which is to develop fisheries measures in marine protected areas in the Dutch North Sea (FIMPAS Project). The presentation will address the issues to be dealt with in the FIMPAS project. The three most important of which - gathering information, conflict analysis and management options - will also be the object of three workshops between February 2010 and January 2011.

## Can marine protected areas (MPAs) sustain scallop fisheries?

**Dr Bryce Beukers-Stewart , Lecturer in Marine Environmental Management, University of York, UK**

Fisheries for invertebrate species such as scallops are thought to be particularly suited to management through the use of marine protected areas (MPAs). This is because scallops have predictable distributions and are relatively sessile – hence it should be possible to effectively protect significant proportions of the breeding stock. In theory, high levels of breeding within these protected areas should then seed surrounding fishing grounds with increased numbers of young scallops. MPAs may also help mitigate the negative effects of scallop fishing gear on sensitive benthic habitats. To assess the evidence for such a win-win scenario we conducted a global review of well managed scallop fisheries with a particular emphasis on the utility of MPAs.

This talk will focus on one of the fisheries examined – the Isle of Man fishery for great scallops (*Pecten maximus*), given its obvious relevance to the wider situation in the United Kingdom (UK). An MPA has now been established off the SW coast of the Isle of Man for 20 years and another protected area was declared last year off the east coast. Within the original MPA scallop densities and biomass have increased exponentially over time. Consequently, reproductive output in the protected area may now be as much as 100 times greater per unit area than from the adjacent fished area. There is strong circumstantial evidence that this has increased commercial catch rates on surrounding fishing grounds – backed up to some extent by recent hydrodynamic modelling. An in depth genetic study, currently underway, may shed further light on the actual contribution of the MPA to fisheries production.

The Isle of Man example demonstrates the important role MPAs can play in improving management of scallop fisheries. However, along with the other fisheries studied around the world it indicated that effective governance and other management measures are also essential. Based on these findings, we conclude by presenting a set of principles for improving the management of UK scallops fisheries.

## **Maasvlakte II Project**

**Pim de Wit, Project Manager, Department of Environmental Affairs, Port of Rotterdam Authority, The Netherlands**

Maasvlakte 2 is a port expansion project in balance with nature. The development of 2000 hectares of new port and industrial area is part of Project Mainport development Rotterdam. The project's main goal is to achieve a double objective by improving living conditions and spur economic development within the region. Maasvlakte 2 is sited in the Natura 2000 site "Voordelta", a coastal area designated as SPA, SAC and MPA. After an appropriate assessment it became clear that provisions of Article 6 (4) for Maasvlakte 2 applies. The European Commission requested an advice, since due to the project 2,8% (2455 ha) of shallow sandbanks of the Voordelta will be lost.

The loss of habitat (1110) will be compensated by improving the nature values and sea floor integrity in the Voordelta by 10% (25.000 hectares) by restricting uses and closing of area's for human activities. A comprehensive nature compensation package will assure the loss foraging area for the common tern, common scoter and the sandwich tern as well. An extensive monitoring programme will be carried out to investigate the recovery of benthic fauna, concentrations and spread of suspended matter, physical effects and underwater noise. This programme will assure that the negative effects will stay within the permitted boundaries. Port reclamation began in September 2008 with the aim that new facilities will be operational from 2013 onward and the whole Maasvlakte 2 will be completed in 2033.

## **Restoration & monitoring in MPAs – an extractive industry perspective**

**Mark Russell, Director, Marine Aggregates, British Marine Aggregates Association**

At first glance, the relationship between an extractive industry and an area of nature conservation protection would appear to be wholly negative. By the very nature of the activity, an extractive industry removes something from the environment and in doing so results in an impact that is unlikely to be complimentary to the objectives of an area which is being protected.

In actual fact, there are circumstances where extractive activities can make a very positive and significant contribution to biodiversity gain. Taking the terrestrial aggregate industry as an example, quarry operations (past and present) are associated with over 700 SSSI designations in Britain. Even today, over 200 sites of nature conservation interest (SSSI, NNR, SPA & Ramsar sites) are located within the boundaries of working quarries. In many cases, the biodiversity gain is derived from deliberate actions which restore a previously worked site to a more valuable habitat type. However, there are also benefits derived from the fact that public access to working quarries has to be heavily restricted, for obvious health and safety reasons.

The British marine aggregate sector makes a significant contribution to the sand and gravel requirements of England and Wales – meeting 20% of the demand, as well as supplying markets overseas and supporting beach nourishment requirements for large scale coast protection schemes. In meeting these needs, the spatial extent of the dredged area is broadly comparable to that quarried on land (137km<sup>2</sup> offshore compared to 150km<sup>2</sup> on land).

There are though some fairly fundamental differences between the two activities, not least in the intensity of the extractive impact taking place, the relative ability of the respective receiving environments to recover naturally, the proportion of the respective receiving environments being impacted, and the very different regulatory, policy and ownership controls that apply. Against the background of what has been achieved on land, this presentation will explore some of the positive contributions that the marine aggregate sector can make in supporting the development of marine protected areas.

## **Renewable energy and protection of marine areas – coincidence or conflict?**

**Kurt Jensen, Environmental and Fisheries Liaison Officer, DONG Energy, Denmark**

The areas selected to become the future marine protected areas have in the past been under severe pressure from human induced activities such as pollution, fishery, aggregate production, invasive species and most recently climate change. Some of these influences may be removed or diminished – except the climate change. Unless we get control over this all efforts may be in vain.

Renewable energy production in UK has been pushed out into the sea resulting in an increasing conflict with marine protected areas. We have no choice; renewable energy production and protection of the marine life have to go hand in hand. Consequently, all efforts should be done to include renewable energy production in marine protected areas. Examples show that it will in most cases be possible and not even difficult if we implement the protection in a pragmatic way that concentrates on real problems and not details of less importance.

## **OSPAR network of marine protected areas in the North-East Atlantic**

**Henning von Nordhiem, Chair, OSPAR Convention**

The ministers for the environment of the Contracting Parties to the Oslo-Paris (OSPAR) and Helsinki (HELCOM) Conventions agreed in 2003 to develop and evaluate by 2010 an ecologically coherent network of well-managed Marine Protected Areas (MPAs) in the Baltic Sea and the North-East Atlantic. As of today, 139 MPAs have been designated from the Arctic waters as far north as Svalbard (Norway) to the Azores at the southern boundary of the OSPAR Maritime Area, covering more than 140 000 km<sup>2</sup> in total. Despite these efforts, collectively the OSPAR MPAs only represent approx. 1.00 % of the OSPAR Maritime Area.

As the majority of sites are coastal, a higher proportion of the territorial waters of OSPAR Contracting Parties is subject to protection by OSPAR MPAs. Further offshore, only a limited number of sites have been designated to date, with no MPA yet established in Areas beyond National Jurisdiction. The distribution of MPAs across the five OSPAR Regions is likewise still imbalanced, with 122 out of the 139 existing MPAs situated in only two Regions, namely the North Sea and the Celtic Sea.

The OSPAR Network of MPAs does not, therefore, adequately cover all typical features of the relevant diverse biogeographic regions, and therefore cannot yet be judged to be ecologically coherent. Though most of the OSPAR MPAs are subject to management obligations as set out in the EC Habitats Directive, for the time being detailed information by OSPAR Contracting Parties on the type, extent and effectiveness of management measures applied in the various sites is too limited to allow a comprehensive assessment.

OSPAR has assumed a pioneering role in the global process of establishing MPAs in Areas beyond National Jurisdiction. With substantial support of the scientific community, a number of ecologically significant areas have been identified with seven being proposed. The most advanced being a proposal originally elaborated by WWF to protect a significant 320 000 km<sup>2</sup> section of the Mid-Atlantic Ridge around the Charlie-Gibbs Fracture Zone. However, it remains a most actual challenge for OSPAR to settle and agree upon management of this site and all complex political and legal issues in conjunction with a number of recent Extended Continental Shelf claims of Contracting Parties which will affect the designation of an MPA in the High Seas (ABNJ) until its Ministerial Meeting in 2010.

## **The CFP reform process and an ecosystem approach**

**Poul Degnbol, Adviser (Scientific Matters), DG Mare, European Commission**

Fisheries may be the human activity which, beyond climate change, has the most pervasive impact on marine ecosystems and an ecosystems approach is required for the management of fisheries. The ecosystems approach can however be implemented from one sector alone. Healthy marine ecosystems can only be safeguarded through a policy which involves all sectors which impact these ecosystems. This is why the EU sees the Integrated Maritime Policy and especially its environmental pillar, the Marine Strategy Framework Directive, as a key to the implementation of an ecosystem approach to marine management. The Habitats Directive supports this by ensuring specific protection of a network of representative habitats. The Common Fisheries Policy must therefore support these policies by putting instruments in place whenever regulation of fisheries is required to achieve the objectives of the Marine Strategy and to protect Natura 2000 sites. Beyond this measures must be taken to protect sensitive species, sensitive habitats and ecosystem integrity. The present CFP has fallen short of protecting the future of fish stocks and thus the future of fisheries to the detriment of marine ecosystems. This is according to the analysis of the Commission due to a framework for decision making and implementation which encourages a short term perspective and a reform is needed which will turn this around by encouraging a long term perspective with ecological sustainability at the core. Managing fisheries on the basis of marine ecosystems and increased involvement of stakeholders including a requirement for the sector to take responsibility and be accountable are among the options which may lead to a sustainable future fisheries in the EU.

## **Marine Protected Areas from a fisherman's perspective**

**John Butterwith, Chief Executive, North Devon Fishermen's Association, UK**

The fishing industry is passionate about its history, and equally passionate about a sustainable future. As an original stakeholder on 'Finding Sanctuary' three years ago representing the inshore fishing industry, John was adamant that there should not be any further MPAs in addition to SACs. This position was in view of the fact that the fishing industry was already being burdened with offshore wind and wave farms, marine aggregate extraction, foreign fishing activity up to the six mile limit, and the many restrictive measures imposed by Government. However, it was realised that fishermen do not own the sea, and with the advent of conservation areas, it was necessary to be "in it to steer it" in order to obtain the best possible outcome for both marine conservation and a viable fishing industry. The expression was first used early in the year when addressing the Isle of Man Government, and has now been widely used to encourage stakeholder engagement.

The Lundy Marine Nature Reserve was put in place in the mid 1990's by north Devon fishermen and adopted by English Nature in 2003. In 2004 we voluntarily closed a 300 sq km area of the Bristol Channel to mobile fishing methods for six months of the year. Both measures were in the name of conservation. We agree to having MPAs, but in the right context. They will not be accepted as "as well as" closures in areas where there is wind farm development and aggregate extraction. The fishing industry and Natural England are beginning to work together again, as lessons have been learnt from earlier badly planned MPAs, and Natural England have been financially supportive in our application for MSC status for Bristol Channel trawl caught fish.

The development of MCZs through the four regional projects based on the Finding Sanctuary model is essential in order to achieve the right balance. However, there are very real concerns at the short time for the delivery of marine site proposals to Natural England and JNCC, and it is more important to get it right rather than deliver what would be to hand at the deadline. The fishing industry is very concerned about the network of MPAs, and the consequences of displaced effort. Whilst it may be argued that more fish would be available adjacent to MPAs, the concentration of more boats into smaller areas would see a heavy exploitation of the stocks which would render fishing activity unviable. A financial incentive needs putting into place to take vessels out of the catching sector.