

## Vectors of change in European Marine Ecosystems and their Environmental and Socio-Economic Impacts

The VECTORS project seeks to develop integrated, multidisciplinary research-based understanding of changes taking place in our marine environment, the mechanisms for them and the ecological impacts expected from them. VECTORS will examine how these changes may affect the range of goods and services provided by the oceans, the ensuing socio-economic impacts and some of the measures that could be developed to reduce or adapt to these changes.

The understanding developed through VECTORS will contribute the information and knowledge required to inform the development and implementation of forthcoming strategies, policies regional seas conventions, management bodies and regulations such as the:

- IMO International Convention for the control and management of ships' ballast water and sediments
- EU Maritime Policy
- EU Marine Strategy Framework Directive.

A VECTORS Marine Stakeholders Workshop took place on Wednesday 5 February 2014 at Europe House, London, UK. The workshop was attended by a wide range of stakeholders from the North Sea, Baltic Sea and Western Mediterranean, representing 26 organisations from over 13 EU member states. As well as introductory presentations from key members of the VECTORS project, the event was structured primarily to facilitate interactive discussion with the stakeholders in order to better understand their concerns and hear about their experience of how policy and governance can help us to manage the marine environment. This feedback is being used in VECTORS to improve our current understanding of marine governance and learn from examples of best practice in order to better advise on future policy and risk assessment decisions based on scenario analysis.

Attendees were provided with a briefing document, including a list of proposed points for discussion, two weeks prior to the workshop. The workshop was divided into two sessions, the key feedback from each of these sessions is provided here and the plenary presentations are available online ([www.marine-vectors.eu](http://www.marine-vectors.eu)).



Prof. Mike Elliott (VECTORS WP Leader) gave the welcome and introductions to the workshop.



Dr Melanie Austen (VECTORS Project Co-ordinator) provided an overview of the VECTORS project.

## Current governance frameworks and best practice: discussion 1

This session was divided into two parts. The first discussion provided an overview of current governance frameworks (as 'horrendograms') and received feedback on whether there are any tools/pieces of legislation missing, whether the links between articles have been interpreted correctly, whether further pieces of legislation are missing, and are the different regimes coherent.

Key issues raised by the stakeholders included:

- » The 'horrendogram' illustrates the complex nature of current marine legislation but there was consensus amongst the stakeholders that most key pieces of legislation are covered by the diagram.
- » It would be useful to have a similar diagram for all individual member states to illustrate how the legislation is distilling down to the national and subnational level, to enable comparisons and to identify gaps.
- » The importance of transnational cross-border co-ordination was raised by several stakeholders with the suggestion for marine/maritime ambassadors to co-ordinate such activities.
- » The importance of assessing which activities are currently not protected was raised, as was the issue of weighting the legislation to show which are the most important.
- » The Blue Growth Agenda (e.g. large-scale offshore aquaculture, seabed mining, blue biotechnology) was highlighted as a rapidly developing sector for which there is currently limited regulation and little is known about the ecosystems in which the activities take place.
- » Linking Marine Spatial Planning, Integrated Coastal Zone Management and Strategic Environmental Assessments may provide a powerful tool to integrate governance across sectors.



## Current governance frameworks and best practice: discussion 2

The aim of the second part of the session was to discuss the main impediments to integrated marine management, to identify the roles of stakeholders, and to explore whether there are elements of good practice.

Key issues raised include:

- » Despite a move to an ecosystem approach to marine management, data are still collected sectorally and there is no 'one-stop-shop' to obtain data on the marine environment.
- » While there are many agencies, players and administrations involved in marine management, each is very familiar with their own sphere but often do not have the time or capacity to consider all the spheres and sectors.
- » The potential for stakeholder fatigue suggests that care needs to be taken with regards to when, where and how stakeholders are included in the marine management process.
- » There is a lack of resources to fully integrate stakeholders in the management process - in general the only people who are paid to attend stakeholder meetings are the meeting conveners.
- » Stakeholders provide a sense check for management with the point at which stakeholders are brought into the process being key however this is often dictated by political tradition.
- » The form of stakeholder communication was also an issue of concern – some stakeholders like round-table discussions whereas others prefer to communicate in different ways.
- » The scale of the issue is important. For example, it is easier to involve stakeholders in relation to wind farm developments on the Dogger Bank than in management of the North Sea as a whole.
- » Cross-border co-operation was deemed important although the timeframe available for such transnational co-ordination was deemed to be often prohibitively short.
- » The MSFD and MSP Directives are seen as a way forward for cross-border co-operation as it is obligatory for member states to work at the regional seas level, hence requiring more emphasis on cross-border co-operation.
- » Establishing actual and perceived risks is one of the biggest barriers – there is often a misunderstanding of what are the actual (as opposed to the perceived) conflicts.
- » It is important to understand the framing and implementation of the legal framework. For example, in the Netherlands it is easy for sectors to challenge the government, whereas in other member states this is not the case.
- » There are always opportunities to learn from others and a number of examples of best practice were highlighted, including local eco-management of artisanal fisheries in Catalonia, management of marine litter in the Netherlands, and the bottom-up process used for the Dogger Bank management plan.



## Future governance, risk assessments and scenarios

This session considered the priorities for tackling present and future marine hazards and risk, the value of risk assessment and scenario methodologies, and the validity and projected repercussions of the scenarios presented.

- » The breadth of present and future risks, e.g. shipping, marine litter, invasive species, ocean acidification, climate change, oil and gas developments, noise and the blue growth sector, which may significantly affect human societies.
- » It was recognised that we can control causes and manage for effects of endogenic (within the system) pressures such as oil exploration, however, exogenic pressures (those emanating from outside of the system, such as climate change), are more difficult as you can only manage for the consequences rather than the causes at the management scale (e.g. regional seas)
- » Risk assessment allows us to accommodate the precautionary principle and to take account of unintended consequences, for example species where data are limited.
- » There is a lack of clear and agreed realistic objectives for managing regional seas across sectors, agencies, countries, etc.
- » The lack of a clear set of priorities about future marine hazards and risks – if priorities were identified then the regulatory framework could be structured to meet these. For example, in the UK the draft marine plans for the east coast have been released, and although they discuss all of the sectors, they do not attempt to prioritise them - such marine plans are seen as an opportunity to develop such a list of priorities.
- » It is difficult to assign a list of priority marine hazards and risks for a number of reasons. For example, more affluent societies focus on long-term problems, less affluent societies focus on short-term issues, and in the long-term it is more difficult to make decisions on risk.
- » Scenarios can be used to “test” if policy actions are robust and sustainable and may be a great tool to force you to think ahead and to model changes in society – you need the extremes to think the unthinkable – if not it is too safe.
- » The scenarios proposed in VECTORS are valid for marine policy, governance and management and given the future is uncertain, all four scenarios are needed in the analysis. However, at present, the scenarios only take into account growth of populations and the economy, and not declines in these factors.
- » The big challenge is communicating the findings of the scenarios research effectively to stakeholders and policymakers. However there may be some politically difficult elements of the scenarios and therefore these will need sensitive handling.