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Ocean protection: why citizens' values matter

By: Andrew Farmer (Institute for European Environmental Policy)



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CORRESPONDING AUTHOR

Andrew Farmer, IEEP

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INSTITUTE FOR EUROPEAN ENVIRONMENTAL POLICY (IEEP)

Brussels Office
Rue Joseph II 36-38,
1000 Bruxelles, Belgium
Tel: +32 (0) 2738 7482
Fax: +32 (0) 2732 4004

London Office
11 Belgrave Road
IEEP Offices, Floor 3
London, SW1V 1RB
Tel: +44 (0) 20 7799 2244
Fax: +44 (0) 20 7799 2600

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EXECUTIVE SUMMARY

The ocean today faces pressures on an unprecedented scale, which have grown from being localised to those at a global scale, including marine litter, habitat destruction, pollution, as well as climate change. Given these pressures, it is critical to improve ocean management. However, governance is a particular challenge for the ocean given the wide range of international, EU and national policies that affect its management.

This paper argues that understanding citizens' values and using them in decision making will provide a stronger governance framework for ocean protection and a more robust foundation for the difficult decisions that need to be made. This may include both better design of policies and greater acceptance. This understanding of values, "capturing" them and using them in decision making is the "values-based approach".

Different values are easier to define and easier to quantify, describe or interpret in relation to ocean protection than others. As a result, debate and decision making can be dominated by some values and ignore others like the sense of identity of coastal communities and the recreational value of the sea. This is especially the case for goods and services with financial value, so that wider cultural, social and emotional values can be overlooked. This can result in communities and individuals feeling divorced from decision making and even that decisions are being taken directly contrary to what those people consider to be important.

Capturing the values could be viewed as never-ending task, as the oceans are important for virtually everybody, and there are many stakeholder groups interested in them at different scales, from the local to the national and international scale. This presents a challenge for EU-level processes as the potential number of people with an interest and values is enormous. Values also change. However, it is important to distinguish core values people have (which are slow to change) with how they express those values on a particular issue (which might alter as information changes).

The discussion of values that people hold regarding the ocean does presume that people have this connection. Therefore, there is a critical role for enhancing ocean literacy.

Capturing values and using them (including seeking compromises between potentially conflicting values) are separate, but strongly inter-related, activities. Different institutions, processes and policies have mechanisms or requirements for some sort of dialogue or consultation with the public, although these vary at different governance scales (at local level some gathering together of stakeholders can be envisaged, but at EU level the challenge is significantly harder).

This paper notes the importance of public engagement within decision making in the MSFD, MSP, WFD, CFP and other EU policies, but there is a significant challenge in serious full engagement to explore values as opposed to limited consultation.

At EU level, policy development processes have a particular challenge to capture and use people's values. There are consultation mechanisms for ex-ante and ex-post policy development and evaluation, for example, but these are limited. Focus should be given to develop mechanisms to enable EU citizens' values to be better captured and used.

1 The challenge of ocean protection

1.1 Introduction

The ocean today faces pressures on an unprecedented level, which have grown from being localised to global scale, including marine litter, habitat destruction, pollution, as well as the pressures of climate change (Toropova et al., 2010). Several of these issues, especially marine litter, have become increasingly recognised as important by the public in recent years.

The ocean supports vital natural systems including climate regulation, fresh water circulation and carbon dioxide storage. It provides food (being the primary source of protein for a billion of the world's poorest people) and many other natural resources. The threats to the ocean represent a significant threat to people.

Many people feel very connected with the ocean. Even those that live hundreds of kilometers away from it can feel a strong relationship with it and place a high value on it. Understanding these values and including them within the governance of the oceans (whether at EU level or local level) will provide a stronger case for ocean protection, built on the values of citizens and not simply the views of politicians or technocrats.

This paper discusses the importance of capturing and using the values of citizens in ocean (and wider environmental) protection – a "values-based approach". It then discusses how different EU institutions, processes and policies can be adapted to support a values-based approach. This paper builds on the work of the Marine CoLab¹ in exploring the values-based approach for ocean protection, supported by the Calouste Gulbenkian Foundation.

1.2 Problems facing the ocean

There is a wide variety of problems facing the ocean. Each of these would require a report on its own to be fully explored, so here they are only listed for reference:

- Over-fishing – both legal fishing due to poor regulation of fisheries and illegal, unregulated and unreported fishing. These activities affect the target stocks and also impact non-target species.
- Habitat destruction – aggregate extraction, construction, harmful fishing techniques, etc.
- Toxic pollution – metals, persistent organic pollutants, pesticides, etc.
- Nutrient pollution – such as from agricultural run-off leading to eutrophication.
- Coastal pressures – coastal development (ports, tourism, etc.) affecting the interaction between land and sea (in particular destruction of coastal fringe habitats essential for productivity for fisheries, etc.).
- Litter – shipping, ghost fishing nets, land-based litter, etc.
- Acidification from rising carbon dioxide in the atmosphere.
- Invasive alien species, such as from ballast water discharges, disruptive native plant and animal communities.
- Rising sea temperatures, causing problems such as coral bleaching and melting of land and sea ice.

¹ The Marine CoLAB is an established collaborative group of individuals from ten organisations: ClientEarth, Fauna and Flora International, Forum for the Future, Institute for European Environmental Policy, International Programme on the State of the Ocean, Marine Conservation Society, New Economics Foundation, Thames Estuary Partnership, Funding Fish and the Zoological Society of London.

These are simply some of the problems facing the ocean. It is important to stress that some are caused by activities taking place directly on or in the sea (fishing, oil exploration), while others reflect activities that are taking place on land (e.g. agriculture, port and coastal development).

For many years, society did not realise that human activities could have an impact on the ocean – chemicals and materials could be dumped in it with the expectation that they were (literally) a “drop in the ocean”. Of course, there were localised coastal problems and concerns over over-fishing of some stocks and on issues such as whaling, but the vastness of the ocean still coloured much thinking. Now there is more scientific evidence on the impacts of human activities on the ocean, and citizens are increasingly aware of at least some of these impacts (e.g. plastic pollution) and the related potential consequences to human wellbeing.

The degree to which the pressures that the ocean is facing can be addressed depends on the scale and the nature of the causes:

- Some pressures may arise directly from the actions of individual citizens (e.g. discarding litter). In this case, informing citizens of the connection to ocean protection can stimulate behavioural change (e.g. reducing litter), particularly if this is supported by the provision of alternative choices for consumers (e.g. water fountains as an alternative to plastic bottles).
- Some are undertaken by commercial activities, but there is still a strong link to choices made by citizens (e.g. on which fish to consume), though regulation is also needed. In this case, informing citizens can lead to changed consumption patterns which, in turn, affect decisions of commercial companies. However, in some cases change is limited, hence the need often for supporting regulation.
- Some are more difficult for citizens to influence through their own actions, so that the only route is through regulatory action (e.g. for ballast water control). Awareness by citizens is nevertheless helpful in building support for regulatory intervention.

1.3 The governance challenge

Governance is not only about who does what, or what needs to be done, it is about how decisions are made. Given the pressures the ocean is facing, it is critical to improve ocean management. Of course, given the source of pressures on the ocean, this also means improving the management of a number of activities and pressures on land which lead to negative ocean impacts.

Governance is a particular challenge for the ocean. At UN level the legal framework for ocean protection is fragmented and often poorly enforced (whether UNCLOS or other frameworks). Within the UN Sustainable Development Goals, SDG 14 aims to “conserve and sustainably use the oceans, seas and marine resources for sustainable development”. It is useful to note that the SDG links both ocean protection and ocean use, thus combining concepts of environmental and human dimensions. The targets adopted to help deliver the SDG focus on reducing impacts (litter, acidification, illegal fisheries, etc.), conservation of marine protected areas (MPAs) and enhancing economic benefits to specified communities. At this level, the SDG and its targets do not challenge the way that marine management is undertaken – how to address the social dimension (whether values for protection or values for use) in relation to delivery of the targets.

At EU level there is a variety of instruments for ocean governance. The oldest and those that has had the most impact are the Common Fisheries Policy (CFP) and the Birds and Habitats Directives. To this has been added the Marine Strategy Framework Directive (MSFD) and the Directive of Maritime Spatial Planning (MSP) (and many more), such as specific instruments initiated at EU-level tackle oil pollution, litter from ships, etc.). There are also a variety of ‘soft’ measures within an Integrated Maritime Policy, as well as requirements to address some marine issues within EU water legislation, etc. Wider policies also impact significantly on the ocean, such as those on renewable energy. Each of

these policy frameworks has different territorial focus (regional, national, etc.) with different requirements to integrate with other policies.

Alongside all of the EU policies, national policies on spatial planning and, in particular, different aspects of economic and social planning interact with the EU policies. This leads to policy complexity that people and implementing bodies find hard to navigate – the competing demands and hierarchies of priorities are difficult to explain. Further, when this is all put together there is often still little consensus on how to manage the ocean for long-term health and prosperity of the many stakeholders and their competing demands.

Addressing these governance challenges requires a number of actions:

- Greater clarity on the interaction between objectives and processes between policies (e.g. CFP and MSFD).
- Greater emphasis on proper implementation of policies to deliver their goals and so meet their governance outcomes.
- More joined-up analysis of policy objectives and interactions within the EU's policy evaluation processes.
- Developing processes for the integration of the social dimension into ocean management processes to bridge the gap between people and policy and to provide strong societal buy-in to delivering ocean protection.

The final point is explored in the following chapter by considering values in the context of ocean protection. These concern different policies and can help drive action towards solutions; implementation problems can also lead to complaints and further action (currently the focus of action under the Commission's Compliance Assurance Action Plan), etc. The subsequent chapter explores how different EU institutions, processes and policies could better take account of people's values and so enhance ocean (and wider environmental) protection.

2 Values and why they drive future ocean protection

2.1 Understanding values

This paper argues that understanding citizens' values and using them in decision making will provide a stronger governance framework for ocean protection and a more robust foundation for the difficult decisions that need to be made. This may include both better design of policies and greater acceptance of the policies. This understanding of values, "capturing" them and using them in decision making is the "values-based approach". However, before discussing the use of values, it is important to consider what we mean by values.

Kastrinos (2018) has argued that the key for the pursuit of sustainable development is "the reflexivity of the political process... reflexive governance combines democratic representation with processes of learning and knowledge creation". This view encompasses different elements, but what is clear is a need for a stronger connection between people and governance decisions. There is increasing scepticism by (some) people not only of political leaders, but also of technocrats (e.g. scientists) who inform policy making (European Commission, 2015). While one response to this is to argue for better education and information, another is to seek to identify what people value and reflect that explicitly within governance decisions at different scales.

There are many theories about human values and how these shape people's attitudes and behaviours on everything, including the environment. Schwartz (2006), for example, distinguished six aspects of people's values:

1. Values are beliefs that are linked inextricably to affect.
2. Values refer to desirable goals that motivate action.
3. Values transcend specific actions and situations (e.g. obedience and honesty are values that are relevant in many contexts).
4. Values serve as standards or criteria that guide the selection or evaluation of actions, policies, people, and events.
5. Values are ordered by importance relative to one another to form a system of priorities.
6. The relative importance of values guides action (the trade-off between values guides attitudes and behaviours).

These descriptions of values focus on an individual's personal view of what is important and how they guide the attitudes, decisions and actions of an individual. However, they also guide how an individual would expect others to act. People expect (or hope) policy makers and policy implementers to support such values. However, in considering the approach to values set out by Schwartz, it is evident that decision-making that ignores people's values is at a severe risk of creating feelings of powerlessness and disenfranchisement and, not least, poor outcomes for the environment and society. In contrast, where people see the consequences of their values being translated into governance decisions, the policies are likely to garner greater support.

The marine environment has many values. Some value is expressed in the economy through the trade of goods and services (such as fish, minerals, etc.) and therefore has a market price, but much of the value that people attach to the ocean and its associated benefits have no monetary basis. Values include: indirect use (the value of the biogeochemical properties of the marine environment), existence value (from the very existence of ecosystems regardless of use) and bequest value (the expected value of ecosystems to future generations as perceived by the current generation). The

current dominant narrative around the ocean is based on monetary values. As a result, this can often lead to short-term thinking and over-exploitation of resources.

Different values are easier to define and easier to quantify, describe or interpret in relation to ocean protection. As a result, debate and decision making can be dominated by some values and ignore others like the sense of identity of coastal communities and the recreational value of the sea. This is especially the case for goods and services with financial value, so that wider cultural, social and emotional values can be overlooked. This can result in communities and individuals feeling divorced from decision making and even that decisions are being taken directly contrary to what those people consider to be important. As a result, groups can end up in silos opposed to each other – decision making becomes antagonistic rather than co-operative. Identifying what connects people to the ocean and seeking to enhance these values helps to provide support to decisions – aligning the values of communities with actions for ocean protection provides a strong sustainable foundation for ocean protection.

Different studies have explored values in different ways. A recent exhaustive review (Pantzar et al., 2017) of the economic benefits of MPAs in Europe, for example, found evidence of economic benefits from MPAs for different sections in the community. Importantly, where potential conflicts related to MPA designation can arise, evidence suggests that these can be avoided or reduced through use of governance structures in which stakeholder engagement is taken seriously in decision-making from the outset. Improved governance enhances the perception of the legitimacy of MPA decision-making and can address perceived power-relationships issues (Hattam, et al., 2017).

In mapping the values that people have of the ocean, it can be seen that there is often a strong relationship with core human values. The following figure, produced by the Marine CoLaboration through discussion on the exploration of different values, highlights that while some values people attach to the ocean are clearly concerned with the biophysical functioning of the system (e.g. nutrient cycling), other perceived values of the ocean (e.g. creativity) are more closely aligned to values people assign to themselves, their close associates or their community. This emphasises the need to look for values not simply by seeking to disentangle possible physical services that the ocean provides by examining the ocean, but by asking about values from people themselves. The language and how value is described may be quite different, but the perspective for ocean management will be as important.



2.2 Capturing values and using them – the values-based approach

It is one thing to stress the importance of values in decision-making. It is another to understand and use those values. It is useful to consider these as two steps – “capturing” values and using them. Together they constitute the values-based approach (Russi et al., 2013).

Capturing the values could be viewed as never-ending task, as the oceans are important for virtually everybody, and there are many stakeholder groups interested in them at different scales, from the local to the national and international scale, including the fishery and tourism sectors, people visiting beaches and seas, conservation NGOs, etc.. This presents a challenge for EU-level governance processes as the potential number of people with an interest and values is enormous. Values also evolve over time (see also discussion on ocean literacy). However, it is important to distinguish core values people have (which are slow to change) with how they express those values on a particular issue (which might alter as information changes, even though the value upon which it is based does not change). For example, people might have a core value of fairness and use that to express how they view the fair distribution of fishing rights. However, with different information, they might change their view on specific fishing rights, but the core value of fairness has not changed. It is easier to place value to the ocean at a local level (e.g. coastal communities, fishermen, etc), as the impacts and the benefits are more visible.

There is a variety of ways that values can be captured in practical marine management. For example, the Community Voice Method (Cumming and Norwood, 2012), using films of individuals and workshops, has been used by Marine Conservation Society at specific locations (Ranger et al., 2016) to capture a diverse range of values of MPAs (monetary and non-monetary) so as to give all stakeholders an equitable and credible voice in considering management of the sites. The method has been used to explore values away from immediate polarised policy debates, seeking to explore shared values. The concept of shared values explores the reconciliation of potentially conflicting values through processes to explore those values together (Irvine et al, 2016).

In seeking to understand and capture people’s values of the ocean, it is important to take into account the results of a study undertaken by the FrameWorks Institute (Lindland and Volmert, 2017). This found that while people have a generally positive attitude to the ocean (and therefore are instinctively

positive towards actions to protect it), when their understanding is probed in more depth, significant gaps are revealed – *“there are a series of holes in public thinking about ocean and marine conservation that affect people’s willingness to engage with the issue and undermine their support for specific solutions”*. The FrameWorks Institute suggests ways of communicating (around particular cultural models) which help to elicit improved understanding (and avoid negative outcomes).

In seeking to capture values it is important to stress that each case is different. At the local level it may be easier to define the community to engage with and what techniques may be appropriate and what interests to consider in that unique situation. At a larger scale there is a different challenge. At a European scale, not only is the size of the community huge, but it is diverse as to its interests, cultures, etc. In such cases it is important to map out the different communities and interests that should be engaged with to explore their values – this helps to avoid dominance by the more vociferous, e.g. particular countries or businesses, and identify marginal communities that should be more actively encouraged to give their voice.

Capturing values and using them (including seeking compromises between potentially conflicting values) are separate activities. Different institutions, processes and policies have mechanisms or requirements for some sort of dialogue or consultation with the public, although these vary at different governance scales (at local level some gathering together of stakeholders can be envisaged, but at EU level the challenge is significantly harder). However, in practice this is often very limited and effectively engages interest groups rather than the general public or communities. These processes may be open to absorbing more information about people’s values, but in practice there are barriers. First, little time is given to engagement with the public – all too often the default position is a short internet public consultation by an EU institution on a draft plan, issue, etc. – this is not going to capture people’s values. Second, the engagement should be an iterative process – as values are understood, contradictions, opposition, synergies, etc., between these will all become apparent. Effort should be made in the decision making process to seek common ground between these views, looking for solutions that work for all. Indeed, this process helps to drill down to people’s core values and, therefore, identifies solutions with long-term social acceptance. This requires more engagement and more time, which is rarely the case in practice.

The following chapter explores the values-based approach in different EU institutional, policy and process contexts and how this approach should be taken forward to enhance ocean (and wider environmental) protection to deliver what people actually value.

2.3 The importance of ocean literacy

The discussion of values that people hold regarding the ocean does presume that people have this connection. Further, while it may be expected that people will hold some values regarding the ocean, this presumes some degree of understanding either of the ocean or of what services it provides, particularly to the individual (Cava et al., 2005). For example, to support the development of ocean literacy, the following seven key principles of ocean literacy were developed by the Ocean Literacy Network (Cava et al., 2005):

1. The Earth has one big ocean with many features.
2. The ocean and life in the ocean shape the features of Earth.
3. The ocean is a major influence on weather and climate.
4. The ocean makes the Earth habitable.
5. The ocean supports a great diversity of life and ecosystems.
6. The ocean and humans are inextricably interconnected.
7. The ocean is largely unexplored.

There is considerable effort at different scales to enhance ocean literacy². Allowing people to uncover their relationship to the ocean, for example, allows them to understand how their actions, the actions of others and policies affecting those actions affect this. For example, the recent increase in awareness of the public in the problems of marine litter can be used to create a better understanding of the relationship between individuals and the ocean. This connection has been used by the Oneless campaign³ in London to seek to stop the use of single-use plastic bottles as part of a values-based approach to decision making. More widely, The Wildlife Trusts (2005), for example, noted the following potential benefits to ocean governance arising from enhanced public understanding of the ocean:

- Acceptance of personal responsibility for state of the ocean.
- Pressure of politicians and decision-makers.
- Better management of the ocean.
- Expression through consumer choice, such as sustainable seafood.
- Great appreciation of the marine environment.
- Better understanding of human impacts.
- Increased participation in marine conservation.
- A sense of stewardship of the marine environment.
- Support for environmental initiatives.
- Greater understanding of the value of marine resources and human dependency on them.
- Improved decision making for protected areas.
- Greater assimilation of local/traditional knowledge into decision making.

There is not space in this paper to explore the background, theory, practice and outcomes of ocean literacy. However, it is important to stress its importance within the values-based approach. Indeed, several techniques that seek to elucidate people's values of the ocean may, themselves, contribute to some extent in enhancing understanding of the ocean, its processes and/or the services it provides.

² A good example at EU level is the Sea Change Project which is an EU H2020 funded project that aims to "establish a fundamental "Sea Change" in the way European citizens view their relationship with the sea, by empowering them, as Ocean Literate citizens, to take direct and sustainable action towards a healthy ocean, healthy communities and ultimately a healthy planet." <http://www.seachangeproject.eu/>

³ See <https://www.onelessbottle.org/>

3 Policies, processes and recommendations

3.1 The over-arching need to integrate the values-based approach in EU policy processes

This paper makes the case for the importance of capturing the values of citizens, of communities, in decision making. This includes not only decisions on, for example, local coastal and marine management, but should also include the way that EU policies are developed and the EU institutions work. This chapter explores how the values-based approach is important for the delivery of EU policies for ocean protection and management and for specific processes (which applies to wider environmental management).

3.2 The values-based approach within individual policies

The EU has adopted a large range of legislation and policies that affects the marine environment. Indeed Boyes and Elliott (2014) suggest that there are more than 200 items of such law and policies. There are the overarching policies such as the Blue Growth Strategy and Integrated Maritime Policy. Then there are the principle EU environmental policy instruments for wider ocean protection of the Marine Strategy Framework Directive (MSFD) and the Birds and Habitats Directives. The latter establishes requirements for protection of particular sites and species. The MSFD sets out a requirement to determine objectives for all marine waters (within the Exclusive Economic Zone⁴ of a Member State) and measures to deliver these. It does this within the adaptive six-year cyclical planning framework of developing Marine Strategies (setting objectives and adopting measures to achieve these).

The MSFD calls for the active involvement of the public in the establishment, implementation and updating of Marine Strategies. The extent of such public involvement is mixed. In this regard it reflects the pattern of variation in the extent of public involvement found for the Water Framework Directive and others (Veidemane et al., 2014). There is significant potential for the development of Marine Strategies to be used to stimulate wide engagement with the public on their views of ocean protection, their values, concerns and questions. This should include coastal communities and the wider populations in Member States. This engagement should include the setting of objectives – the targets of the MSFD – and should certainly not be limited to placing draft Marine Strategies online for a formal consultation period.

Bringing all of the elements together to set objectives, let alone measures, for the MSFD is a huge challenge for Member States. This governance challenge would be made much more robust by adopting the values-based approach to the content of Marine Strategies. This would also provide a stronger case for authorities in taking the conclusions from these engagement activities to inform other policies within which key decisions are necessary (e.g. for fisheries). However, this should be integral to the Ecosystem Approach mandated by the MSFD, which is explored in the following section.

A similar opportunity lies with the Directive on Maritime Spatial Planning (MSP). The MSP Directive explicitly highlights the importance of dialogue between stakeholders. MSP as a planning tool seeks to reconcile different interests operating in a given marine space. There are often conflicts (e.g. between fisheries, habitat protection, renewable energy development, etc.) and while consultation with representatives of these interests will usually take place, there is a need for wider community engagement to understand the values which enable these interests to be considered alongside wider

⁴ The Exclusive Economic Zone of a country is the marine area over which countries have exclusive jurisdiction.

community values and provide the basis for developing planning solutions that reconcile these needs, based on wider acceptance.

The Common Fisheries Policy (CFP) presents a greater challenge with regard to the values-based approach. Many view the CFP as a policy that attempts to deliver controls over fisheries to ensure sustainability of fish stocks, which does not always succeed due to the interests of particular groups or countries. It is important to stress that the legal basis for the CFP states that its scope includes the conservation of marine biological resources and the management of fisheries targeting them. It is technically a conservation instrument. It also has specific aims to ensure that fishing and aquaculture activities contribute to long-term environmental, economic, and social sustainability. The question is, how are these long-term aims to be defined? Defining them simply with regard to fishing communities and interests, taking account of legal constraints from environmental legislation such as the Habitats Directive is not sufficient. The environmental, economic and social sustainability must include wider community interests and social values.

The mechanisms to deliver the values-based approach within the CFP are largely missing. However, the change to regional governance of the CFP at the last reform of the policy which took effect in 2014 is a step forward to improved decision making and the potential for closer engagement with people. The best approach to working towards the values-based approach within the CFP is at country level, and within regions within countries. The governance structures of the CFP themselves are not geared to develop the values-based approach themselves (yet), so the participants within those structures should do so. This is a challenge to go beyond the usual interest groups of fisheries decision making. There is also likely to be overlap with similar actions of engagement under the MSFD, so some synergies and efficiencies are possible.

These policies are just some that concern ocean protection and management. There are others addressing upstream issues, such as the Water Framework Directive (WFD) (with its emphasis on “active” engagement with people and its coverage of coastal waters) or policies on waste management and their consequences for the control of marine litter. Effectively, engagement under the MSFD should highlight the values and concerns that people have for ocean protection, no matter what the policy context. Some may be addressed in measures adopted under the MSFD, others will need to be addressed by the CFP, WFD, etc. In any case, proper engagement in an open way with communities will have the added value of enhancing the potential for improved policy coherence.

3.3 Values in the Ecosystem Approach

EU law concerned with marine management includes obligations to adopt an Ecosystem Approach (MSFD), Ecosystem-Based Approach (MSP Directive) and Ecosystem-Based Management (CFP). The MSFD approach is directed at the ‘management of human activities’ and objectives are both the achievement of good environmental status and also that the capacity of ecosystems to respond to human pressures is ‘not compromised’, but otherwise the MSFD does not formally expand on it. However, the social dimension is important and, within this, the values that people place on the ocean and its services.

A useful starting point in considering the Ecosystem Approach is the definition of the UN Convention on Biological Diversity (CBD):

“The ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. Application of the ecosystem approach will help to reach a balance of the three objectives of the Convention. It is based on the application of appropriate scientific methodologies focused on levels of biological organization which encompass the essential processes, functions and interactions

among organisms and their environment. It recognizes that humans, with their cultural diversity, are an integral component of ecosystems."

This definition views both ecosystem functioning and societal development as integral to the concept. From an ocean biophysical perspective an Ecosystem Approach emphasises the protection of ecosystem structure, functioning, and key processes. In doing this it encompasses the interconnectedness of the different biological and physical components of the system, as well as the broader interconnectedness of the ocean to land and air. However, the Ecosystem Approach also integrates ecological, social, economic, and institutional perspectives, recognizing their strong interdependences. As a result, the concept for marine management can be simplified to "A resource planning and management approach that integrates the connections between land, air and water and all living things, including people, their activities and institutions." (Farmer, et al., 2014).

It is clear from this that the functioning of societies is part of the required approach to ocean management in EU law. This is far more than simply determining the economic consequences of particular management decisions, but requires an understanding of the relationship (economic, cultural and spiritual) of communities to the sea and, therefore, how marine management decisions not only protect, but enhance these.

Further, the Ecosystem Approach is clearly a form of adaptive management, which is integral to the cyclical planning nature of the Marine Strategies of the MSFD. Adaptive management is needed as setting long-term goals today based on inadequate science must be subject to re-evaluation (Holling, 1978). Not only does the scientific understanding of biological functioning, physical systems and human pressures on these change, so does the relationship of communities with the ocean. Their values need to be continuously captured and integrated into revised management objectives and actions (Mee, 2005). Adaptive management requires a bottom-up approach if the socio-ecological systems encompassed by an Ecosystem Approach are to be understood to inform improved management decisions.

In conclusion, proper understanding of the Ecosystem Approach in the adaptive management framework of the MSFD must include a proper understanding of the relationship of people to the biophysical system of the ocean. This includes their values. Capturing these and integrating them into the implementation of the MSFD is, therefore, critical in delivering ocean protection.

3.4 Using the Values Base Approach to deliver for MPAs

There is a particular challenge for the values-based approach with the establishment and management of MPAs. The very establishment of an MPA is a statement about value – the species and habitats there are special enough to warrant particular protection. They are an explicit statement that the ocean deserves protection. On the one hand this presents an opportunity to communicate wider ocean protection issues using the MPA as a starting point (so contributing to ocean literacy). On the other hand, the measures to protect the MPA may not always be well received by some of the local community.

We need to move away from a perception by people that designation of an MPA is nothing more than placing a big "keep out" sign on an area of the sea. We need to engage with communities to explore why they value their immediate area of sea and how this relates to protection options for an MPA. The current consultation processes are often difficult, obscure and insufficient for this purpose and so may not reflect the values of a community. It is important to start from a position which is not antagonistic, but to begin with the premise of seeking to maintain and protect what the community as a whole values and benefits from (which may be different from individual interests within that community). Of course there will be occasions where different values are not able to be reconciled,

but too often the immediate response to hearing that MPA designation might occur is negative, rather than seeing it as an opportunity to support people's values.

Engagement is not only a processes that is necessary for the designation of MPAs, it is also important in their management. Once designated and attention is given to an MPA, all sorts of monitoring will take place which will uncover new issues, problems, solutions, etc. Decisions made early on concerning management will change and it is critical to involve the community in these. They can see that a difficult decision is producing a positive result. They can discuss alternatives and seek to reconcile differences. Most of all, they will see that the MPA is part of their community and not simply something placed upon them by powers from above.

3.5 Encouraging citizen engagement at EU level

The EU has recognised the gap between the views (or values) of citizens and their perceptions of the decisions and processes at EU level. The primary response to this gap was to adopt the "citizens' initiative", whereby EU citizens could create a petition which, if enough signatures were raised, would be considered by the Commission.

There are also other direct routes through which citizens may approach the EU institutions, including petitioning the European Parliament, responding to public consultations and formal complaints. It is important to note that the latter allow the public to respond according to an agenda provided to them (questions in a consultation or provisions in EU law).

What is missing is the ability for citizens to make a case for the things that they value in a coherent way for policy makers to listen. Yes, something could be formulated in a petition, but values are hard to capture and, as we have seen, often have many dimensions.

The EU needs new ways to engage directly with citizens. The EU is there to serve the needs of citizens, but the interpretation of those needs is often via the filter of representatives (official and unofficial) in Brussels. The challenge of the "democratic deficit", suspicion and feeling of powerlessness needs to be addressed.

This is far from easy to achieve, but it must involve different actions "on the ground" where people are. This is much more than the current Citizens' Dialogues. Different processes and techniques are likely to be needed for different situations, Member States, etc., depending on opportunity, culture, scale, etc.

While technology progress enables more voices to be presented (not necessarily heard) in various online fora, there is always the danger that these simply become the focus of attention to a few with the loudest voices or the preserve of those with fringe ideas battling for attention. The voices and values of most ordinary citizens can be obscured.

For relatively local decision making there are very good examples of how to capture community values. Different techniques may be required to capture values for EU level policy making. It should be possible at least to use these techniques to "sample" EU citizens' values and it should also be possible to develop new ways to uncover values and for these to feed into EU policy development, such as creative use of social media.

3.6 Ensuring values are addressed in ex-ante and ex-post evaluations by the European Commission

All policies need evaluation – checking if they are fit for purpose. Essentially, evaluation asks what problem(s) a policy is trying to solve, whether it will do this and whether it will do this in an effective and efficient way. The European Commission has formalised two main approaches to policy evaluation:

- Impact Assessment: evaluating what policies can deliver before they are adopted. Typically this includes examining different options to see what works best.
- Evaluations of existing policies: looking to see how policies have delivered, costs, unintended consequences, etc. Sometimes several policies covering a particular area of law might be examined together in what the Commission calls a “Fitness Check”.

In evaluating whether an existing policy or a proposed policy is “fit” for the purpose it is intended, it is important that fundamental questions are asked about what this means. If not, then the whole evaluation can be built on a false premise.

Firstly, in Impact Assessment, the starting point is a “problem definition” – what is the problem that a proposed policy is trying to address? This is where it is essential that the values that people have for the ocean and for the wider environment are fully understood and captured. For example, in exploring a problem facing our coasts, a simple formulation around deprivation, transport, fisheries, etc., could well fail to capture what coastal and non-coastal communities actually value, what values may be been lost and what needs to be enhanced. Without this, a proposed policy might tackle the “problem” as formulated, but merely be a sticking plaster for the bigger issue or, at worst, be counterproductive.

A further part of the analytical framework for policy evaluation is “relevance”. For ex-post evaluation this largely asks if the older policy is still addressing the right problems. Again, such analysis rarely challenges what this means – not simply how has the original issue evolved, but whether it captures all of the values that citizens would expect to see.

This then means that for both ex-ante and ex-post evaluation there needs to be a fundamental re-think about what policies are trying to achieve and how this is to be determined and formulated.

Once the starting point is properly formulated, many of the analytical processes of policy evaluation can proceed as set out in Commission guidance. However, there is one area where the issue of capturing citizens' values of the ocean and the wider environment presents a further challenge. This concerns the formal consultation processes required for all policy evaluations by the Commission. This usually involves a public internet consultation, some targeted stakeholder consultations and some workshops. In some cases there may be meetings at Member State level also. In any case, this is a relatively formalised and standardised process. It is commendable that the formulation of questions in public consultations is now more structured from the citizens' point of view rather than the Commission's, but it still is a limited means to determine what really matters to people.

Of course the Commission has limited budget and evaluations have a limited timetable, but some greater attempt to uncover what matters to people is essential if EU policies are to evolve to meet the needs of all citizens.

Finally, with regard to policy evaluation, the European Parliament also contributes its own assessments. MEPs have a unique relationship to the citizens of the EU. How that relationship manifests itself varies across Member States and there will always be a challenge where MEPs represent large constituencies or where politics is particularly partisan and it may be difficult to represent all. The time, resources and mechanisms that MEPs have for capturing people's values is limited, but they have freedom to explore how to do this in different ways as is most suitable for their

constituents. MEPs represent an important avenue for making the values of EU citizens heard within EU policy making.

3.7 Recommendations

In conclusion, in order to take forward a values-based approach to ocean protection for Europe, the following recommendations are made:

- All institutions and stakeholders (EU, Member States, public and private) should explicitly recognise the importance of the values-based approach.
- Member States, public and private institutions and EU institutions should identify ocean literacy needs relevant to them and establish processes, funding, etc., to deliver improved ocean literacy.
- Member States should identify where there are opportunities to introduce a true values-based approach in the implementation of specific policies and processes, including for the MSFD, CFP, MSPD and specific elements of MPA designation and management.
- Member States should introduce, develop and enhance tools for the values-based approach based on the specific needs and circumstances of the communities in those countries.
- The European Commission should develop new techniques and tools to enhance the understanding and capture of the values of EU citizens.
- The European Commission should trial longer and more in-depth identification and use of citizens' values in specific items of policy evaluation (ex-ante or ex-post). From this lessons can be learned for adaptation in other policy evaluation exercises.
- EU funding should be made available to support initiatives at Member State level to introduce the values-based approach to decision-making, in particular in support of EU policy implementation.
- The European Parliament (and individual MEPs) should examine how better to understand and use citizens' values and how to recognise these within the loud voices of individuals and lobby groups.

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