The Marine Bill: Cornucopia or Pandora's Box?

Editorial

Compromises will have to be made on the Marine Bill in the face of uncertainty and conflicting demands. The Bill represents a key chapter in a longer story, during which we must adaptively learn how to better manage and conserve our seas.

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In the challenges facing the marine environment hardly any interest favours the *status quo*[1], because this benefits neither developers nor conservationists. The responses to the ongoing consultation on the Bill[2] show tensions between calls for stricter marine nature conservation provisions and calls for more streamlined consents procedures and more certainty for developers. DEFRA may have to make compromises rather than seeking consensus on some issues.[3]

Most interests agree that the Bill represents a rare opportunity to make major changes to the policy framework for marine biodiversity conservation and resource exploitation. Set out below are four critical issues which must be addressed by the Bill.

i. Ensuring the health of marine ecosystems

The 'ecosystem approach' lies at the heart of the Government's strategy to reconcile and integrate conservation objectives with sustainable social and economic development goals. This 'holistic' approach will enable the management of human activities and conflicting objectives to maintain both the health of ecosystems and human well-being. This includes living within our environmental limits.[4] It is a key means of delivering the Government's vision for 'clean, healthy, safe and biologically diverse' seas.[5] Ecosystems are considered to be 'healthy', when the resources and services they provide are flowing sustainably, their structures and processes are being maintained, and their integrity and resilience promoted.

Marine ecosystems are very complex and display high degrees of variability over various spatial and temporal scales. Given our lack of knowledge on these complex structures and processes, it is likely that decisions taken in keeping with the ecosystem approach will have to be made under high degrees of uncertainty on an adaptive *ie* 'learning as we go along' and precautionary basis[5]. In this respect, the precautionary principle is now an important element of many international and national environmental policies. The UK Government has accepted the importance of both the ecosystem approach and the precautionary principle[6] in

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various policies, including the Marine Bill consultation[2] and its antecedents, the *Safeguarding Our Seas*[5] strategy and *Safeguarding Sea Life*[7] response.

The precautionary principle requires judgements to be made on the cumulative impacts of development activities on ecosystem structures and processes and the significance of these impacts for the 'health' of the ecosystems. This requires a balance in decision-making between the scale of ecological impacts and the economic and political effects of restricting development activities to reduce these ecological impacts. It will be challenging to reach *and defend* these judgements, given the related challenges of proving the significance of observed ecosystem perturbations and establishing cause-effect relationships in complex systems. The significance and causes of ecological perturbations will always be debatable whilst economic impacts will always be more immediate and obvious. Developers fear decisions will err towards ensuring ecosystem health, leading to 'paralysis through precaution', whilst conservationists fear decisions will err towards permitting developments at the risk of causing further ecosystem 'illnesses'. Striking a balance when addressing these contrasting fears will be a major challenge when the Bill is finalised and implemented.

ii. How can stakeholders be involved in marine decisions?

Involving stakeholders is a key element of the ecosystem approach, as this includes local knowledge in decision-making and helps address uncertainty. It also ensures that conservation objectives are integrated with sustainable social and economic development goals, in keeping with the ecosystem approach. As such, the ecosystem approach is only partly about natural science. It is also about coupling economic, social and political systems with ecological systems to achieve better governance. This improves the integration of policies and allows all relevant sectors of society to be involved in decisions.[8]

Involving stakeholders in decisions that will affect them is another key principle of the Marine Bill consultation[2] and its antecedents, the *Safeguarding Our Seas*[5] strategy and *Safeguarding Sea Life*[7] response. But who are the stakeholders? Some fishermen, for instance, argue that members of the public, with only indirect marine interests, do not have a sufficient understanding of the seas and the activities that they support, and so should not be involved in decisions that directly affect users.[9] The Government, on the other hand, recognises that the seas are a public resource therefore public involvement in decision-making processes should be facilitated.[10] Such participation is also central to the concept of 'stewardship'.[11] If only people who rely on the seas for their livelihood are involved, there is a risk that their vested exploitation interests will dominate decisions. If indirect stakeholders are involved, there is a risk that they will be unaware of the complexities of the marine environment and the uses it supports, therefore their participation will be partially informed and preservationist interests may dominate decisions.

This raises the need for an executive decision-making body to arbitrate on conflicts and take the final decisions in the face of uncertainty and irreconcilable

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conflicts, *ie* compromises. The Government proposes that a Marine Management Organisation (MMO) might adopt such a role and sets out a number of related issues and options[12], but it is clear that such an organisation will have many questions and major challenges to address.

iii. How will marine spatial planning work?

Marine spatial planning (MSP) can provide a holistic approach to managing and protecting the marine environment, addressing cumulative impacts and reducing uncertainty for developers.[13] It is the approach on which the Bill is largely based, and which has been prominent in its antecedents, as it is considered to be both a means of delivering the ecosystem approach and the framework for providing for an appropriate level and breadth of stakeholder participation. MSP has been piloted[14] and trialled[15] in the Irish Sea, though these were essentially exploratory studies that assessed data availability and mapping issues and simulated the development of regional and local plans.

The implementation of MSP will also need to address the appropriate balance between a proactive plan led and a reactive consents led approach. The terrestrial planning system is essentially plan led, whereby different types of development are allocated to specific areas in agreed plans and applications for development consents are assessed against these. Whilst there have been numerous calls for the extension of the planning system to our seas, there are many differences between the land in the sea that make a plan led system difficult to implement:

- **A given area of sea may often support a diversity of different uses**, partly due to the three dimensional and wider-scale nature of seas, whilst tracts of land are generally more restricted in the number of uses they can support, and these uses tend to be more exclusive and intensive.

- **The complexity, scale and connectivity of the marine environment**, coupled with assessing cumulative effects on ecosystem processes, means that it will be very challenging to adopt a plan led system as part of an ecosystem approach.

- **Levels of information:** there is arguably not enough information on the biophysical and use attributes of different areas on which to base a prescriptive, proactive spatial plan that allocates specific development activities to specific areas. MSP may provide for such information to be collated, but sufficiently detailed levels are often only generated by developers and regulators through EIA assessments for major development, and this is likely to continue to be the case given the challenges of studying the marine environment.

- **Such major marine development proposals would generally be 'called-in'** by central government for assessment and decision, as are major terrestrial development proposals, in view of but not necessarily based on proactive regional/local plans.

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Marine Spatial Planning may be able to (a) establish principles, objectives and general preferred use categories, (b) collate information on the spatial and temporal distribution of different activities, and (c) collate existing environmental information. It is likely to be a consents led system, though perhaps to a lesser degree than under the *status quo*. Proactive marine spatial plans may be produced in keeping with the concepts of the ecosystem approach and stakeholder involvement, but they will only be significant if they form the basis for decisions on development activities and proposals.[16] Marine Spatial Planning may yield significant benefits in addressing gaps in marine data and knowledge, and highlighting conflicts between different marine interests, especially if pursued on an adaptive basis.

iv. A network of highly protected marine areas?

A key element of Marine Spatial Planning will be the inclusion of an ecologically coherent and fully representative network of highly protected marine areas (HPMAs), in which all extractive uses are banned. Such a network could make a key contribution to improving marine biodiversity conservation and adopting the ecosystem approach. This is a critical element of the NGO views on what the Bill should achieve, and English Nature's maritime strategy includes the objective of fully protecting 20-30% of each marine habitat type[17] whilst the Royal Commission on Environmental Pollution has recommended that 30% of the UK's seas be fully protected.[18] The Government, however, seems less than convinced of such a need. Its response to the RCEP argued that whilst multiple-use marine protected areas (MPAs) have a role, including partial/seasonal fishing closures, it is uncertain about the scientific basis of the RCEP recommendation.[19] This indicates that the prospects for the Bill to include an objective and obligation to designate a target area as HPMA are less than good.

The Bill's likely emphasis will be on providing for multiple-use MPAs with partial use restrictions on a fit for purpose basis, including for nationally important sites. Whilst this will be an improvement on the current UK MPA network, the omission of an obligation to designate a target area as HPMA will be viewed by many as a fundamental flaw.

Healthy marine ecosystems and healthy economies?

The consultation on the Bill is commendably comprehensive in that few, if any, options are ruled in or ruled out. A draft Bill will be considered in the third session of this Parliament (Oct/Nov 2007 – Oct/Nov 2008). Increasing certainty for developers and streamlining the development consents process are key objectives of the Bill - it is not just about improving marine nature conservation measures.

Discussions at a recent workshop for the Marine Bill on the integration of ecological and socio-economic objectives quickly developed into polarised arguments, that have been raging at least since the Stockholm Conference (1972), as to whether healthy ecosystems underpin economic development or whether

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economic development provides for ecosystem conservation initiatives. Such debates will continue, but at least the Bill, the resulting legislation, and subsequent policy initiatives will provide a focus for them in relation to our seas. The Bill thus represents a key chapter in a longer story, during which it should provide for us to adaptively learn how to better manage and conserve our seas.

References and notes

[1] *Review of marine nature conservation - interim report* (2001) European Wildlife Division, DEFRA, para. 146. www.defra.gov.uk/wildlife-countryside/ewd/rrrpac/marine/10.htm

[2] *A Marine Bill: a consultation document of the Department for Environment, Food and Rural Affairs* (2006) www.defra.gov.uk/corporate/consult/marinebill/index.htm

[3] Comments made by senior DEFRA representative at the Marine Bill Forum, London, 18 May 2006.

[4] Para 4.5 of consultation document cited in note 2.

[5] *Safeguarding Our Seas* (2002) www.defra.gov.uk/environment/water/marine/uk/stewardship/index.htm

[6] The precautionary principle: "Where evidence exists of likely significant impacts or damage, we will make decisions that aim to avoid damage to the ecosystem, marine resources, human health or other users, and put in place pre-emptive measures to protect them, rather than trying to repair damage (which may be irreversible) after the event. Nevertheless, where it is in the public interest, there may be circumstances where some damaging activities will go ahead with suitable requirements for mitigation or (where possible) compensation of damage. As a final resort, those who do cause damage should be held responsible and pay for it rather than the burden being shouldered by the tax-payer – in line with the polluter-pays principle". Para. 4.10 of consultation document cited in note 2.

[7] *Safeguarding Sea Life: the joint UK response to the Review of Marine Nature Conservation* (2005) www.defra.gov.uk/wildlife-countryside/ewd/rmnc/index.htm

[8] Arguments included and principles cited in Laffoley, D.d'A et al. (2003) *Adopting an ecosystem approach for the improved stewardship of the marine environment: some overarching issues*. English Nature Research Reports, No. 538. www.english-nature.org.uk/pubs/publication/PDF/538.pdf and Laffoley, D.d'A et al. (2004) *The ecosystem approach: coherent actions for marine and coastal environments*. www.english-nature.org.uk/pubs/publication/pdf/ecosystemapproach.pdf

[9] Author's own ongoing research: *Fishermen's perspectives on the challenges raised by no-take zone proposals in SW England.* www.homepages.ucl.ac.uk/~ucfwpej/icem.htm#SWNTZ

[10] Para. 2.3 and 4.7 of document cited in note 2.

[11] "We see stewardship as entrusting people with a responsibility to care for the community they belong to. It means involving people in protecting the oceans and seas and using the resources they offer wisely. The benefits of stewardship include better decision-making, reduced reliance on regulation, generating a positive role for people and organisations and greater inclusiveness." Para. 122 of document cited in note 5.

[12] Section 11 of document cited in note 2.

[13] Box 1, p. 5 of document cited in note 7

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[14] *The Irish Sea Pilot Final Report: marine nature conservation and sustainable development* (2004) www.jncc.gov.uk/page-2767

[15] *Marine Spatial Planning Pilot* (2006) www.abpmer.net/mspp/

[16] "The world moves into the future as a result of decisions, not as a result of plans. Plans are significant only in so far as they affect decisions... if planning is not part of a decision-making process, it is a bag of wind, a piece of paper, and worthless diagrams" Boulding KE (1974) *Reflections on planning: the value of uncertainty*. www.fs.fed.us/eco/eco-watch/ew910321

[17] English Nature (2005) *Our coasts and seas – making space for people, industry* ***and*** *wildlife*. www.english-nature.org.uk/Science/coasts_and_seas/default.asp

[18] Royal Commission on Environmental Pollution (2004) *Turning the tide: addressing the impact of fisheries on the marine environment.* www.rcep.org.uk/fishreport.htm. Para. 8.96

[19] *The UK Government Response to the Royal Commission on Environmental Pollution's Twenty-Fifth Report Turning the Tide – Addressing the impact of fisheries on the marine environment* (2006) www.defra.gov.uk/fish/sea/pdf/turningtide-govresponse.pdf. Pp. 8-9.

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