

Marine Management Organisation (MMO) – Supplementary written evidence (NSD0053)

Evidence from Professor Selina Stead, Chief Scientific Adviser of the Marine Management Organisation and Executive Dean of the Faculty of Environment, University of Leeds following her evidence session on Tuesday, 2 November 2021.

Session 9: Q94. Many, 95%, of UK marine protected areas permit bottom trawling, which disturbs carbon stocks.

How do you envisage balancing the requirements of fishermen with the requirements of nature-based solutions for carbon storage?

The Marine Management Organisation (MMO) is co-developing with stakeholders, its interactive marine plans to enhance visualisation of different marine resource users' competing objectives such as food security from fishing and biodiversity conservation from marine protected areas (MPAs) in the same area of our seas and oceans.

Current management of MPAs is driven by legislation to further conservation objectives for designated features, rather than a wider objective of not releasing carbon. However, nature-based solutions such as blue carbon habitats are being considered - as the scientific evidence base grows around their role in reaching net zero targets - as part of the evolution of the MMO's marine planning system and in response to Recommendation 14 (... government should consider blue carbon habitats to improve the climate resilience of the seas) in the Benyon Review into HPMAs published in 2020: www.gov.uk/government/publications/government-response-to-the-highly-protected-marine-areas-hpmas-review/government-response-to-the-highly-protected-marine-areas-hpmas-review (accessed 12/11/2021).

The MMO is taking a leadership role as a marine manager in supporting the UK Government's sustainable development objectives and its vision for 'clean, healthy, safe, productive and biologically diverse ocean and seas'. Future scenario planning, is one tool being used with interactive marine plans to help visualise transparency in ensuring the best, available scientific evidence related to the social, economic or environmental elements of sustainable use of the same marine resource - for example the seabed - are considered and balanced in decision-making about licenses and regulation.

Are bottom trawling and carbon storage compatible?

The scientific evidence for describing the relationship between bottom trawling and carbon storage is at an early stage. As part of our evidence gathering for decision making, the MMO recognises the impacts of bottom trawling on the seabed is context-dependent. We appreciate the effects of bottom trawling on seafloor sediments are diverse and vary according to factors including sediment composition, topography, trawling speed, type of trawling gear used and abundance/type of benthic species, their biological traits, ecological function and monetary/non-monetary value to mention only a few. Thus the MMO continues

to collect evidence about the potential effects of bottom trawling versus no trawling on different sediments in the context of carbon storage as part of its development of marine planning. This helps to ensure decisions and advice are based on the best available scientific evidence.

Beyond considering the ecological impacts of bottom trawling on the seabed and the water column, the MMO is responsible for managing trade-offs in the pursuit of balancing socio-economic objectives with environmental objectives such as carbon storage in decisions on sustainable use of marine resources. The MMO uses marine planning to: take account of current fisheries activity (particularly to broadcast the interests to other sectors), highlight future planning for fisheries alongside other stakeholders' planning, and add relevant points which go beyond and add value to (rather than repeating) current measures. The focus is mainly to do with spatial aspects (e.g., plan policies to safeguard important areas for fishing or fish habitat) or join up with other measures (e.g., supporting the need for space in the intertidal/coast for relevant infrastructure such as processing facilities, particularly for land planning authorities to take account of).

Looking to the future, the MMO is ideally positioned to work more closely with key stakeholders such as the fishing industry and strategic partners to identify and assess nature-based solutions in relation to carbon storage that consider environmental, social and economic objectives. These might include phasing in any measures and trialling methods that can address any carbon storage and help the UK Government to reach its net zero targets.

Q99. I am seeking definitions of protected areas and highly protected areas.

There are many definitions for marine protected areas (MPAs). This had led to confusion about what is protected and how. The most widely used definition of a MPA is given below:

The International Union for Conservation of Nature (IUCN) and the Joint Nature Conservation Committee (JNCC), a Statutory Nature Conservation Body (SNCB) that advises the UK Government and devolved administrations on UK-wide and international nature conservation defines a protected area as: "A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values".

The MMO defines marine protected areas (MPAs) as designated areas of the ocean which include habitats and species essential for healthy, functioning marine eco-systems.

The UK Government has defined Highly Protected Marine Areas (HPMAs) as: "Areas of the sea that allow the protection and recovery of marine ecosystems by prohibiting extractive, destructive and depositional uses and allowing only non-damaging levels of other activities to the extent permitted by international law". Whereas MPAs are areas where activities are prohibited/restricted (only) to ensure that the designated features can reach/be maintained in favourable condition (as set by SNCBs).

The JNCC describe several types of MPA in the UK, which in combination are intended to form an 'ecologically coherent and well-managed network' as a contribution to the effective conservation and sustainable use of the UK's marine environment. These include: Special Areas of Conservation (SACs); Special Protection Areas (SPAs); Marine Conservation Zones (MCZs) and Nature Conservation Marine Protected Areas; Sites of Special Scientific Interest (SSSIs) and; Ramsar sites. Further details can be found at: <https://jncc.gov.uk/our-work/about-marine-protected-areas/#what-are-mpas> (accessed 12/11/2021).

An overview of the types of features protected within the UK MPA network in offshore waters is provided on the following JNCC website: <https://jncc.gov.uk/our-work/what-is-protected-in-mpas/> (accessed 12/11/2021).

If bottom trawling is permitted in protected areas, what are they being protected from?

The current network of MPAs (SACs, SPAs, MCZs, SSSIs and Ramsar sites) have a suite of conservation objectives to be achieved to maintain or restore designated species and habitats to 'favourable condition'. Human activities such as bottom trawling can still take place in these MPA sites if they are compatible for achieving site conservation objectives. This is determined for most (non-fishing) activities through the MMO marine licensing process, which places strict requirements on developers to ensure that their activities do not hinder MPA conservation objectives.

Fishing activity such as bottom trawling is not covered by the marine licensing processes. The impacts of fishing in MPAs in English waters inshore of 6 nautical miles is managed by the ten Inshore Fisheries and Conservation Authorities (IFCAs), principally through implementation of IFCA byelaws. The MMO manage the impacts of fishing in MPAs offshore of 6 nautical miles, principally through MMO byelaws, working closely with the IFCAs. The Marine and Coastal Access Act 2009 which established the MMO to oversee national marine planning, fisheries and licensing functions, also established the IFCAs. The North Eastern IFCA used local byelaws to establish two prohibited trawling areas nearly 100 years ago (information on no-trawl impacts can be found in Bloomfield et al., 2012). IFCAs are tasked to manage the exploitation of sea fisheries resources in a sustainable way and to protect and promote recovery of the marine environment including protecting and furthering the conservation objectives of MCZs.

For fishing activities within territorial waters (within 12 nautical miles) an established management framework has been in place since 2013 for the MMO and IFCAs, to introduce measures to achieve conservation objectives for the key types of MPAs in this area (SACs, SPAs and MCZs). The majority of MPAs are inshore and have already been assessed and managed. This includes many areas where bottom trawling is prohibited, for example the six current MMO byelaws protecting reefs, sandbanks and other seabed habitats within certain inshore MPAs. For fishing activities offshore (12-200 nautical miles), the MMO has new powers under the Fisheries Act 2020 to introduce management measures, and is

now actively undertaking the work to consider fishing activities impacts – such as bottom trawling - on MPA features on a case by case basis.

Currently there is wider discussion and drive, across the Department for Environment Food & Rural Affairs (Defra) group, to facilitate more 'co-existence', whether different methods in MPAs, co-existence between fisheries and MPAs or fisheries and other activities/sectors such as offshore wind or, where the latter is not possible, seeking to understand if the offshore wind site becomes a de facto MPA if not recovery 'zone'.

Q100. Can I follow up on the marine environment? Professor Stead, I wonder whether you could tell us how important the Crown Estate is as a stakeholder in the marine environment, for nature-based solutions, and what level of engagement the MMO has with the Crown Estate. I am afraid this committee was unable to get any engagement with it.

The MMO engage closely with the Crown Estate in development of Marine Plans in thinking about the strategic planning of uses of the marine area for sectors that the Crown Estate are closely involved in, namely aggregates, dredging disposal and offshore wind development, and more recently, for nature-based solutions to address the emerging carbon capture and storage issues.

An example where the Crown Estate has played a role in enabling a nature-based solution to address coastal defence is the 'sand engine'. The Bacton to Walcott Sandscaping Scheme, on the North Norfolk coast applied an innovative 'green infrastructure' solution that originated in the Netherlands. A large volume of sand was used instead of traditional approaches involving concrete or rock to naturally absorb some of the force of the waves. Coastal defences have been improved as have the beaches. Further details can be found at: <https://www.thecrownestate.co.uk/en-gb/media-and-insights/stories/2019-bacton-to-walcott-sandscaping-scheme/> [accessed 12/11/2021].

Reference

Bloomfield HJ, Sweeting CJ, Mill AC, Stead SM, Polunin NVC. 2012. No-trawl area impacts: fishers' perceptions, compliance and fish abundances. *Environmental Conservation*. 39(3), 237-247.

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