



1. Requirement overview:

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| Requirements       | Information to develop a framework for gathering information on the economic and social baselines of Marine Protected Areas (MPAs).  |
| Requirement detail | <p>The MMO requires information on the economic and social baselines of Marine Protected Areas (MPAs). This should be achieved through the development of a framework for social and economic assessments to be made. The framework should provide a systematic, auditable and repeatable process that can be used across the whole MPA network. It is recognised that the relevance and importance of activities will vary between sites locally and regionally.</p> <p>Also valuable to this requirement is the completion of assessments for all MPA sites, to complement the existing evidence base for MPAs.</p> <p>In particular, whilst there may be good information on fisheries behaviour and landings, further valuation techniques and assessments of displacement behaviour are required. In addition, very little information and data is available to the MMO on recreational activities at a site level.</p> |
| MMO use            | <p><b>Marine Conservation:</b><br/>Assess the potential impact of a byelaw on a given community and make sure that any such impact has been properly assessed within the IA process</p>  |
| External interest  | Natural England, JNCC, Cefas   |
| Delivery target    | 2018, Quarter 4  |

2. Aims and objectives

Aims:

- develop a consistent framework for the delivery of social and economic assessments across the MPA network,
- improve underlying data and understanding related to fishing and recreational activities that potentially occur within the MPA sites

Objectives:

- develop overarching framework for social and economic valuation of MPAs

- provide a consolidated list of recreational activities within MPAs
- provide options for social and economic valuation of the recreational activities identified, and describe the implications of their use
- further develop options for fisheries valuations within MPAs
- investigate data sources that could be exploited to support assessment of recreational use at a site scale

### 3. Existing evidence

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| MMO      | <p><a href="#">MMO1013: Compilation of spatial data on marine recreation activities</a> provided data at a national and east coast resolution that is not immediately applicable at an MPA site scale. The report provides a basis for the consolidation of a list of recreational activities that may be occurring across the MPA network. It also includes existing datasets and relevant organisations that should form the starting point for any data mining activities.</p> <p><a href="#">MMO1035: Social impacts of fisheries, aquaculture, recreation, tourism and marine protected areas (MPAs) in marine plan areas in England</a> forms an excellent basis and can be used at an early stage in the project development to produce an up to date literature report. It should be noted that the report does not explicitly put societal and activity changes within a valuation framework. Most trends are tracked generally as a 'direction of travel' based on management decisions, societal changes, and political will.</p> <p><a href="#">MMO1012: Marine social and economic data: A critical review of tools and methods to apply marine social and economic data to decision making</a> is an extensive review of marine social and economic data and tools that may facilitate decision-making and should be considered at the outset of any commissioned work into this request.</p> |
| Academic | <p>Both <a href="#">Exeter University</a> and <a href="#">Potts et al. (2014)</a> have explored the non-tangible benefits (such as health and culture) that may flow from coastal areas and MPA's. This may assist contextualising affects beyond monetary value, though only moderate effort should be applied here to further exploring these.</p> <p>Work undertaken by <a href="#">Kenter et al. (2013)</a> has reviewed the potential changes in monetary and non-monetary values associated with MPAs in relation to UK divers and sea anglers. Though this particular work focuses on only two of the potential recreational activities occurring within MPAs the methodologies used should be carefully considered for their potential use in any future framework. An online survey, between December 2012 and January 2013 (Kenter et al., 2013) recorded results for 1,683 sea divers and anglers which may similarly be worth exploring as part of any data mining activities.</p> <p><a href="#">Rees et al. (2010)</a> looked at the case study area of Lyme Bay to explore the value of marine biodiversity to leisure and recreation activities. This work demonstrated the causal link between improved diversity metrics and recreational activities, within Lyme Bay. This work does not directly match the Impact Assessment framework required by the MMO but methodologies within</p> |

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|       | may well be usefully incorporated as part of a recreational use valuation within the overarching structure.  |
| Other | <a href="#">Dickie et al. (2014)</a> uses marine benthic habitat maps, coupled with associated goods and services, to run scenarios for changes in fisheries behaviour at a site scale. Though this used some fairly well known valuation methodologies the coupling to marine benthic ecosystems was novel. Unfortunately the underlying ecosystem model was not highly robust due to the available resolution of community data, and similarly that of the vessel monitoring data. Improvements in monitoring data sets and the potential for iVMS systems may allow such a pathway to be once again explored in the future. In the context of the current evidence request valuation changes from fisheries behaviour scenario testing could be a relevant methodology and provide a useful context for further developments. |

#### 4. Current activity

The MMO is currently exploring opportunities to align this current evidence need with future aspirations around Tranche 3 designations that will be required across the DEFRA group. Similarly the MMO is looking to interact with a DEFRA project, led by Cefas, to explore opportunities to influence the scope of the work.

#### 5. Associated evidence requirements

There are no current similar requirements.

#### 6. Potential delivery route

Although we have set out how we think we can deliver this evidence requirement, we'd like to hear from anyone interested in working with us to deliver all or part of this requirement.

#### Partnering within the Defra group

Due to the nature of the request it is likely that partnering across the Defra group could be a priority delivery route for the MMO. Evidence on the socio-economic baselines in and around MPAs has the potential to contextual a wide array of advice and decision making. Work exploring designation of Tranche 3 sites would benefit from such an evidence base and should be explored.

#### Commissioning

Due to the time limited nature and need for this particular request, if achievable, the MMO may wish to consider direct commissioning of both the data mining and framework development elements of this work beyond partnering and internal delivery. Direct commissioning will ensure the work can be delivered in line with the MMO's immediate needs. This delivery route is a lower priority than that looking to deliver through partnership. However, were partnering to not be successful direct commissioning will be considered the primary delivery route.

## **Knowledge exchange**

Upon completion of this work, knowledge exchange will be required to communicate the outputs from commissioned work. This knowledge exchange will encompass the translation of the project outputs into the team of relevance and its subsequent utilisation to deliver socio-economic valuations for all MPA's of relevance.

See table 1 for timescales.

## **7. Contact**

For more information or to add further research to the existing evidence list please email [evidence@marinemanagement.org.uk](mailto:evidence@marinemanagement.org.uk)

**Table 1: Delivery timescales 2016 to 2020**

| Delivery Route                              | 2016 |    |    | 2017 |    |    |    | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    |  |
|---|------|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|--|
|   | Q2   | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 |  |
| <b>1. Partnering within the Defra group</b> |      |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |  |
| <b>2. Commissioning</b>                     |      |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |  |
| <b>3. Knowledge exchange</b>                |      |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |  |

Key

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|  | No activity                |
|  | Actively undertaking       |
|  | Outside of delivery target |