Valuing Fisheries in Marine Use Policy and Planning in the UK: A Fishing Industry Perspective

Dale Rodmell

National Federation of Fishermen's Organisations

International Institute of Fisheries Economics and Trade (IIFET)

Conference

14th July 2016

The National Federation of Fishermen's Organisations

Is economic valuation a friend to the fishing industry?

- Intuitively… Well it should be but often isn't.
- Examples of negative uses: NGOs advocating that the French fleet was not viable in deeps seas, Comparing recreational bass fisheries with commercial.
- Economics side-lined when determining fishing opportunities.

French Deep-Sea Fisheries:
a historical and economic perspective


THE SUNDAY TIMES

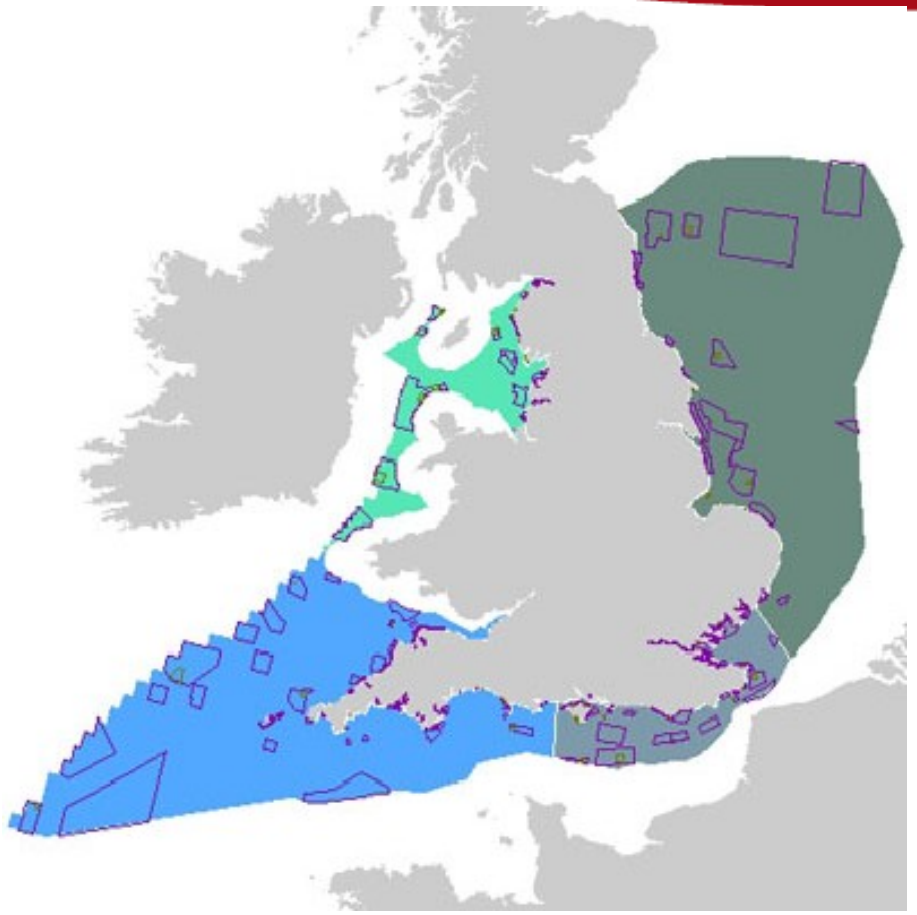
Sea bass must be kept for anglers, experts say

Kevin Dowling Published: 30 November 2014

Content

1. Marine Conservation Zone planning process in England
2. Marine Planning in England and offshore wind-farm licensing.

Marine Conservation Zone Planning



Rules for the selection of MCZs

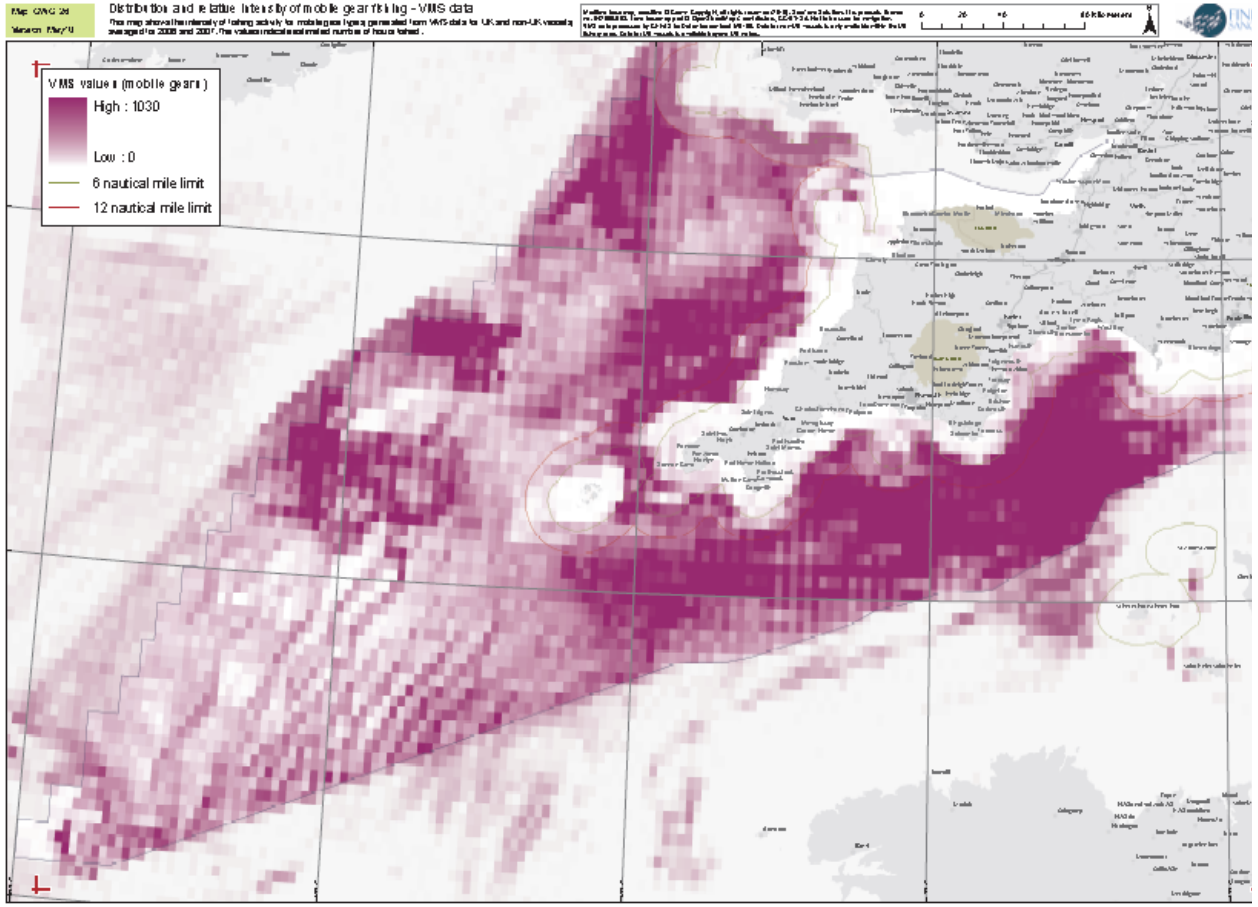
- Ecological Network Guidance: Criteria for planning an ecologically coherent network: Representivity, replication, adequacy, viability, connectivity…
- Nothing about socio-economics.

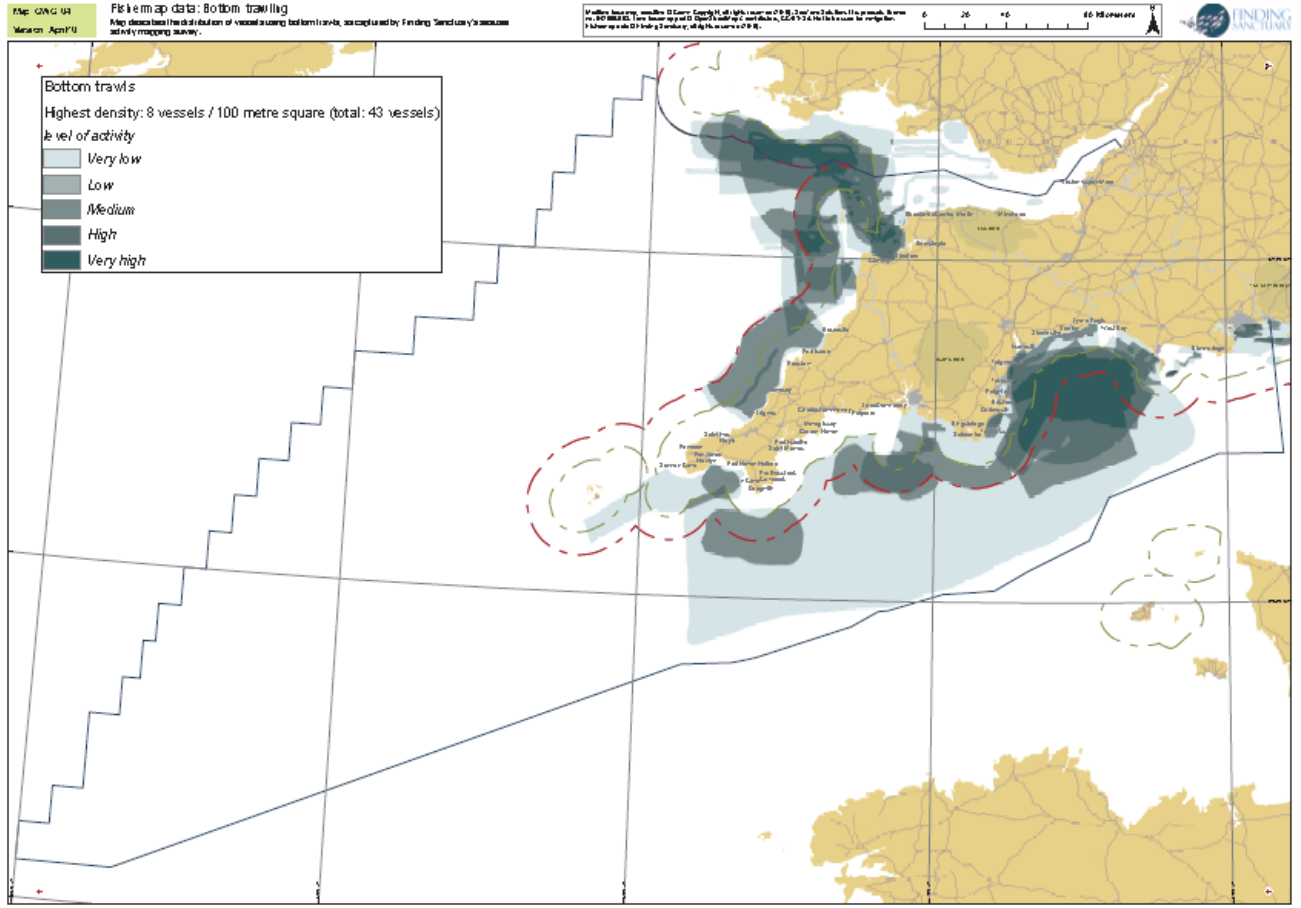
23. Where multiple areas are identified that equally contribute to achieving the network design principles and further ecological considerations, those features which have been less impacted (or are less likely to have been impacted) by human activities should generally be considered a higher priority for MCZ identification than more degraded examples of the same feature.

Stakeholder mediation/dialogue

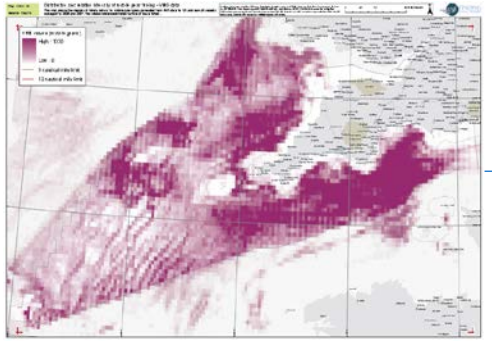
- Lack of clarity over management measures
- Stakeholder adopted assumptions:
  - Bottom trawling impacting = restricted
  - Static/pelagic gears unaffected
- Least worst within confines of ENG informally adopted group principal (but varied across projects/ groups).

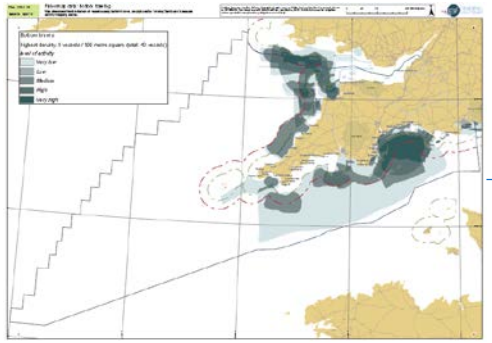
Mapped expression of fisheries value

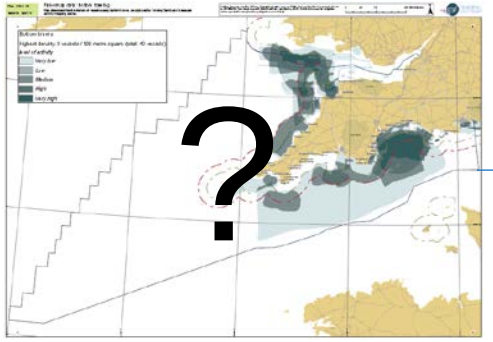


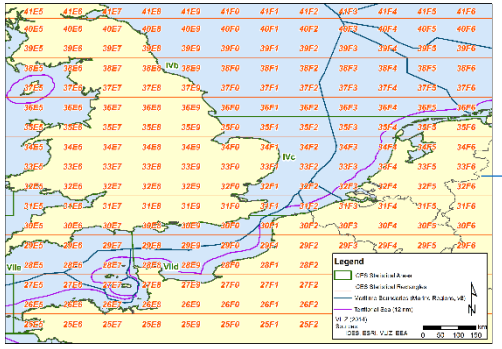


Impact Assessment: Fisheries Value









Model 1
Combines processed VMS data with MMO iFISH data for vessels of over 15 metres

Model 2
Combines vessel-specific Fishermap data with vessel-specific MMO iFISH data for vessels of less than 15 metres

Model 3
Combines aggregate Fishermap data with MMO iFISH data for vessels of less than 15 metres

MCZ Fisheries Model
Combines models 1, 2 & 3

Quantitative Assessment

- Average sale values 2007-2010
- Fisheries management scenarios applied
- Expressed in 2 ways:
  - Annual landing values affected
  - Economic impact = Change in GVA = Value of landings by gear group x % income constituting GVA, where GVA = operating profit + crew share. (Economic data derived from Seafish fleet annual surveys).

Data / Methodological Issues

- Assumptions on defining fishing when using VMS data.
- Proportion of total landings where an exact match has been made between the reported activity and the satellite data (62%)
- Not all fish landed are declared or sales recorded:
  - Catches <50kg not required.
  - Buyers of less than 25KG a day not required to submit sales notes.
  - Informal sales network for small boats supplying hospitality industry with small, high value amounts of fish. Average values can therefore be depressed.

Other Limitations

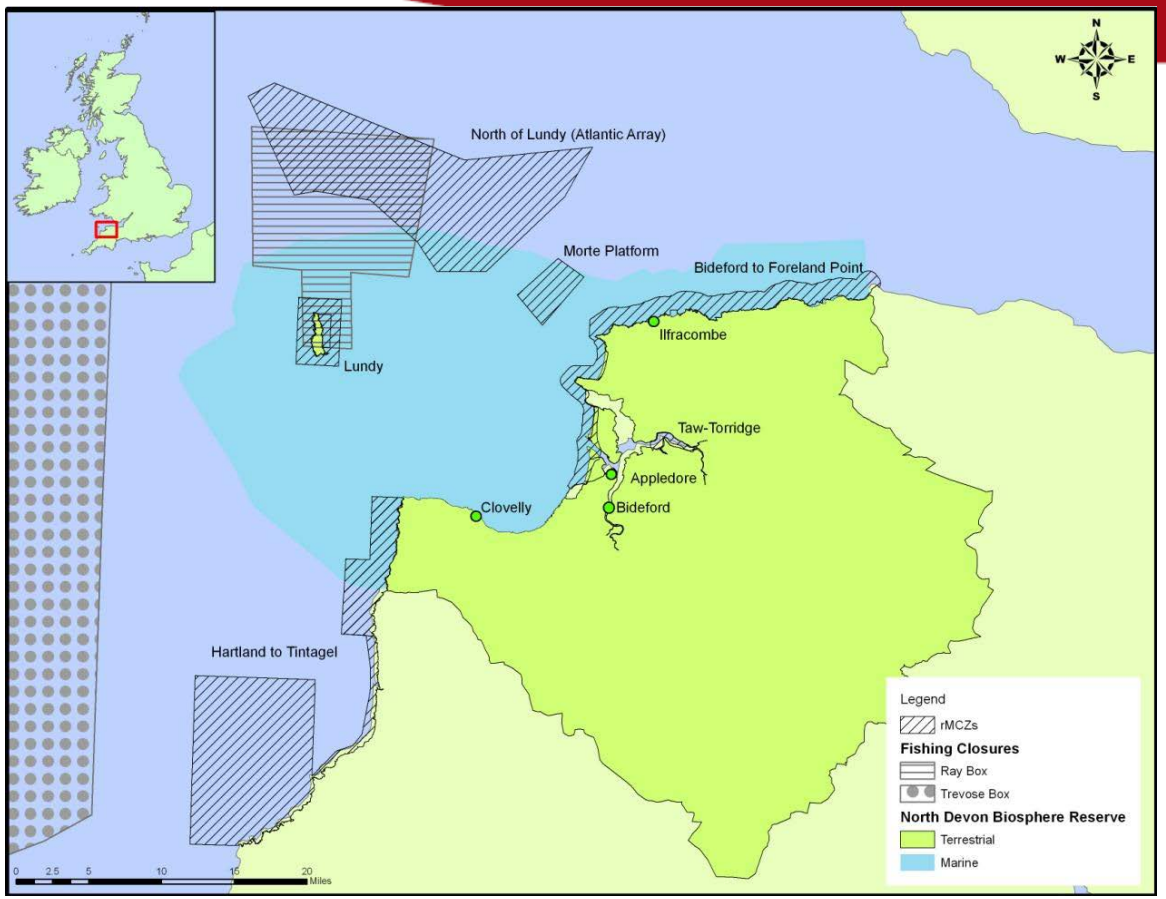
- GVA did not a measure of changes in costs and earnings.
- Based on 2007-10 landings data. Period for a number of fisheries when landings historically constrained and profitability is low.
- It was not future looking although for other sectors it did consider future plans and projects
- EU fisheries often absent in the analysis.
- No consideration of down stream value in supply chains.
- Distributional impacts due to aggregation by gear-group.

Qualitative Assessment

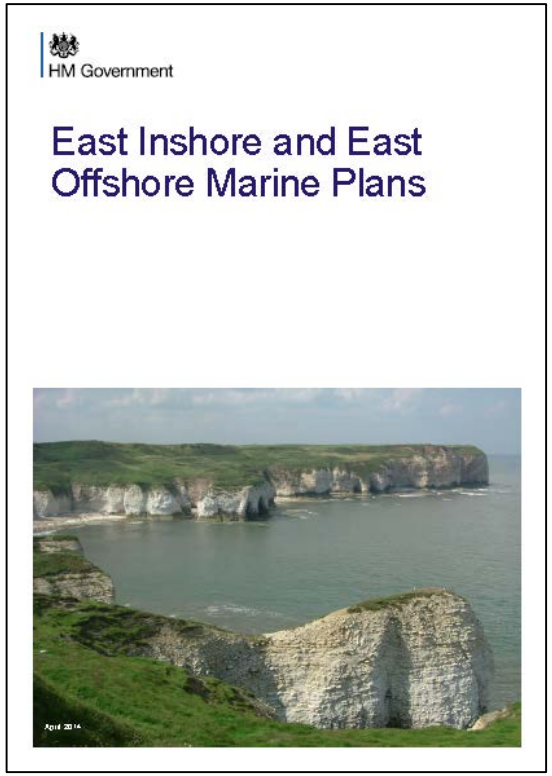
- Interview survey.
- Anticipated impacts: displacement, gear adaptation, change of species, fleet exit, up stream and down stream businesses
- Limitations:
  - Sampling not random, connected to project, responses to hypothetical scenarios, variable level of knowledge.

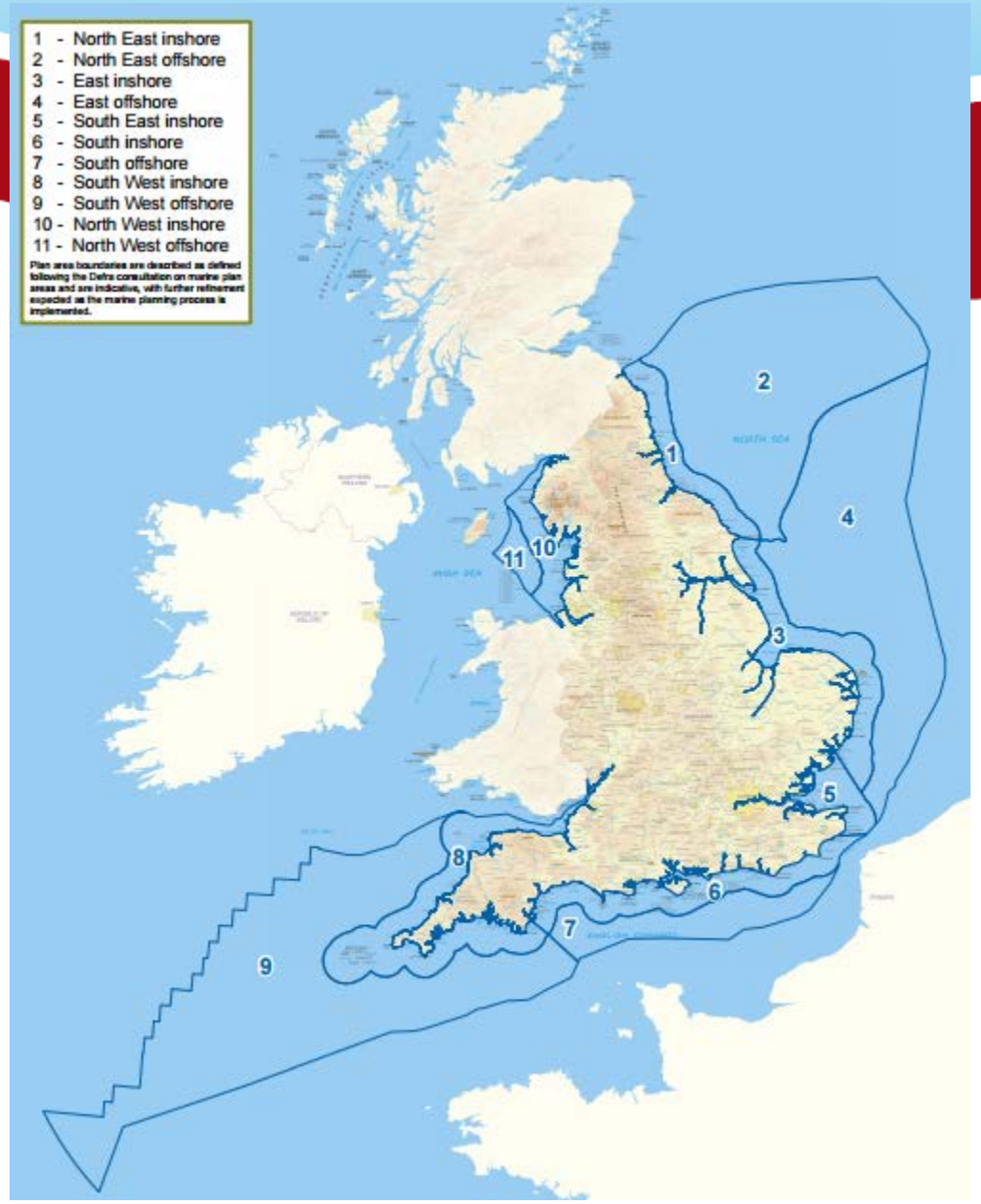
Reflecting on the Findings: North of Lundy MCZ

- Disconnect between findings and industry views.
- “£138K would represent an approx value from one of our <16 mtr trawlers who work outside the 6 mile limit and gross £350K per annum. Our estimate from a whitefish turnover of £2.5 M is £1.0 M.”
- “The value of landings affected by the is significant and the pMCZ may have impacts on the viability of the businesses of some North Devon Fishermen.”
- “displacement is likely to be significant, it is expected that this may lead to gear conflict between displaced trawlers and static gear fishermen off North Devon”



Marine Planning and Licensing





Positive Policies

Policy OG2

Proposals for new oil and gas activity should be supported over proposals for other development.

Policy EC3

Proposals that will help the East marine plan areas to contribute to offshore wind energy generation should be supported.

Pecking Order

Strong Safeguarding

Policy DEF1

Proposals in or affecting Ministry of Defence Danger and Exercise Areas should not be authorised without agreement from the Ministry of Defence.

Policy OG1

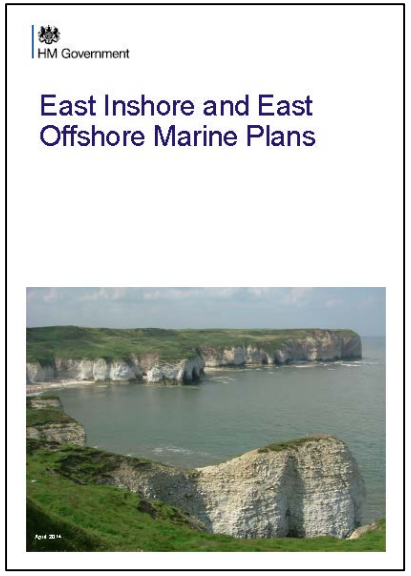
Proposals within areas with existing oil and gas production should not be authorised except where compatibility with oil and gas production and infrastructure can be satisfactorily demonstrated.

Policy AGG1

Proposals in areas where a licence for extraction of aggregates has been granted or formally applied for should not be authorised unless there are exceptional circumstances.

Policy AGG2

Proposals within an area subject to an Exploration and Option Agreement with The Crown Estate[226] should not be supported unless it is demonstrated that the other development or activity is compatible with aggregate extraction or there are exceptional circumstances.



Weaker safeguarding

Policy AGG3

Within defined areas of high potential aggregate resource, proposals should demonstrate in order of preference:

a) that they will not, prevent aggregate extraction

b) how, if there are adverse impacts on aggregate extraction, they will minimise these

c) how, if the adverse impacts cannot be minimised, they will be mitigated

d) the case for proceeding with the application if it is not possible to minimise or mitigate the adverse impacts

Policy FISH1

Within areas of fishing activity, proposals should demonstrate in order of preference:

a) that they will not prevent fishing activities on, or access to, fishing grounds

b) how, if there are adverse impacts on the ability to undertake fishing activities or access to fishing grounds, they will minimise them

c) how, if the adverse impacts cannot be minimised, they will be mitigated

d) the case for proceeding with their proposal if it is not possible to minimise or mitigate the adverse impacts

- Fisheries relatively spatially diffuse
- Plan policy not spatially defined
- Interpretation by applicants
- Case for elevating important areas in marine planning system
- How to define and interpret value

Policy FISH1

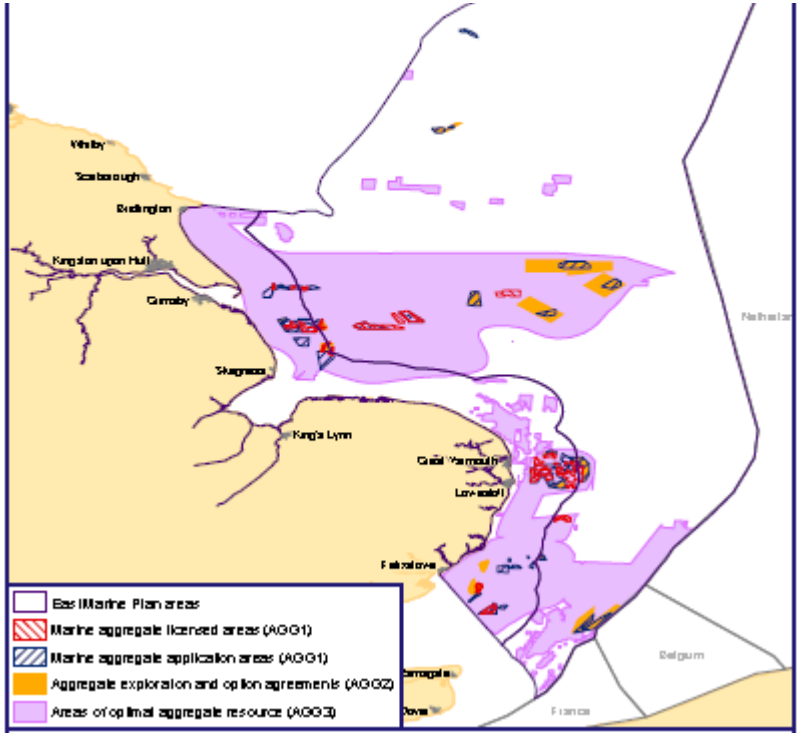
Within areas of fishing activity, proposals should demonstrate in order of preference:

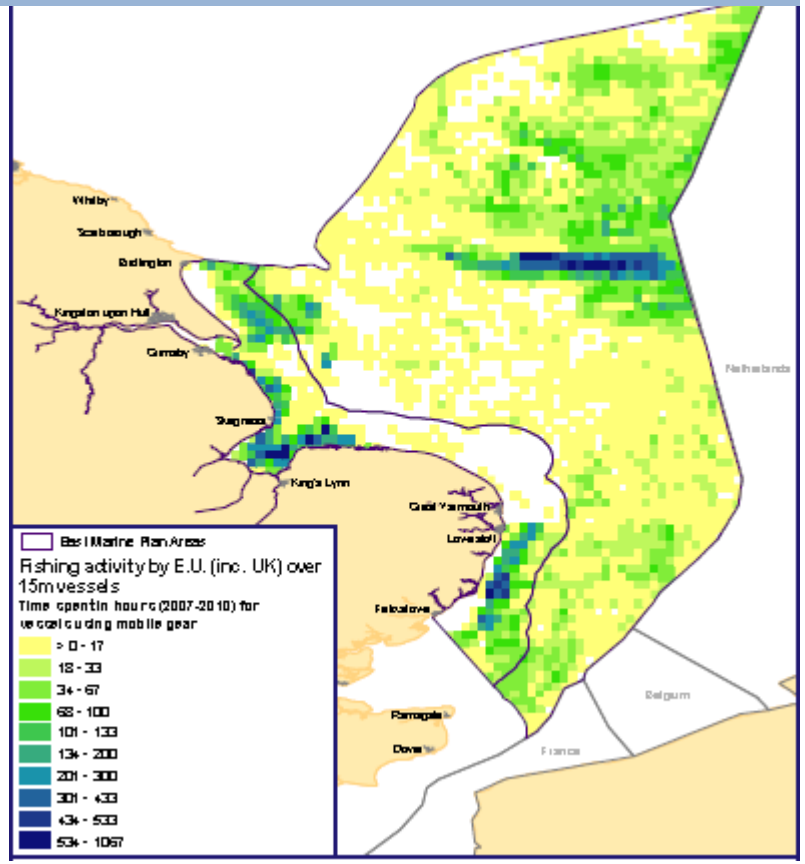
a) that they will not prevent fishing activities on, or access to, fishing grounds

b) how, if there are adverse impacts on the ability to undertake fishing activities or access to fishing grounds, they will minimise them

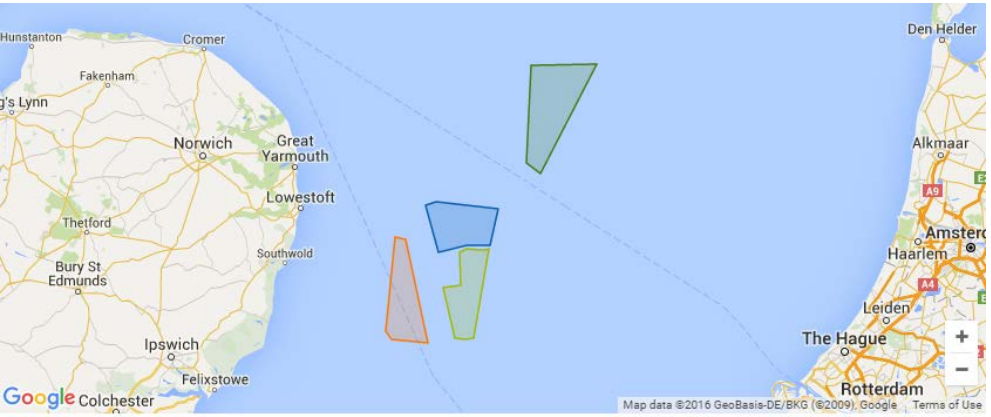
c) how, if the adverse impacts cannot be minimised, they will be mitigated

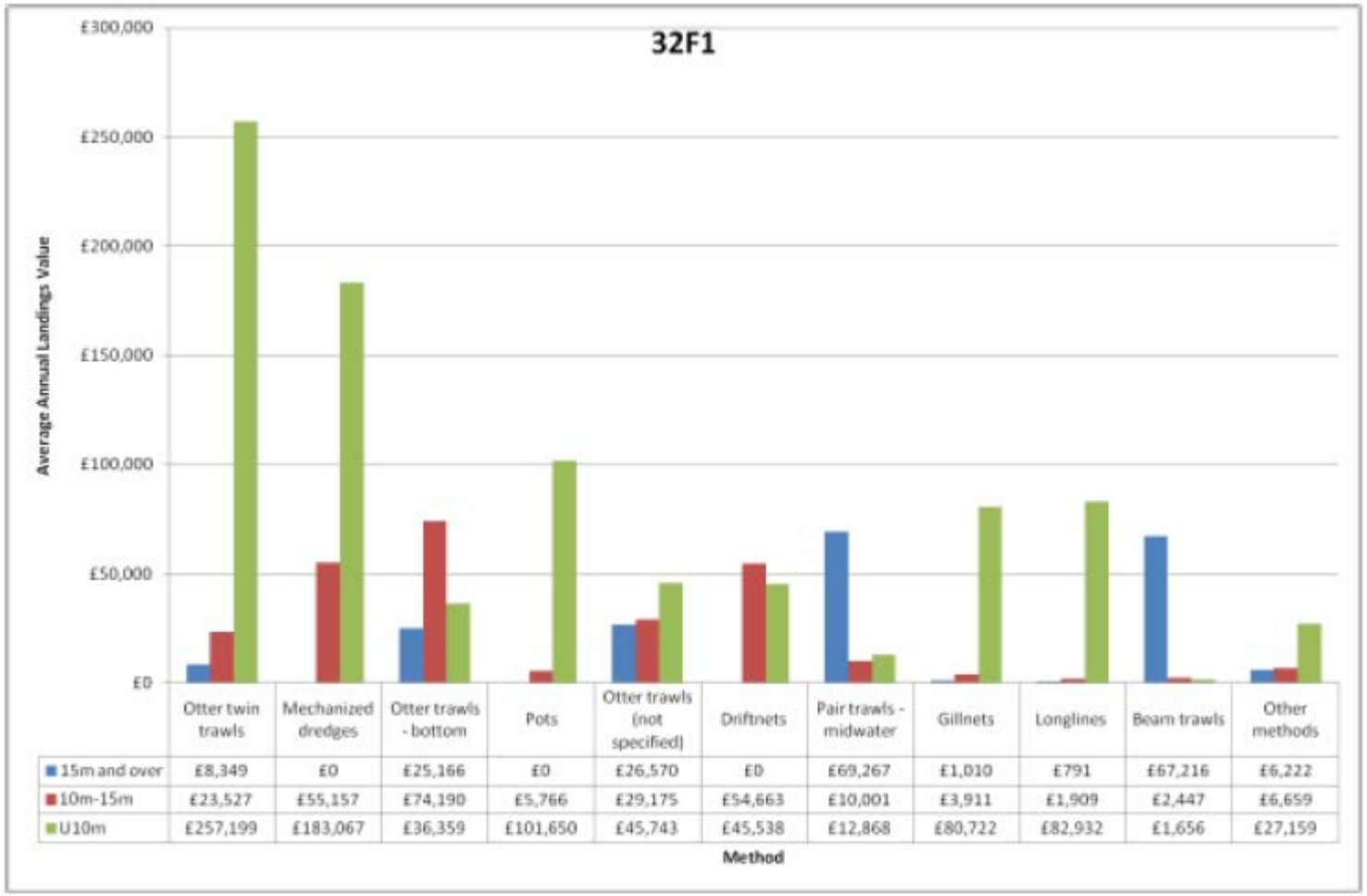
d) the case for proceeding with their proposal if it is not possible to minimise or mitigate the adverse impacts





Licensing: Economic valuation





	Otter twin trawls	Mechanized dredges	Otter trawls - bottom	Pots	Otter trawls (not specified)	Driftnets	Pair trawls - midwater	Gillnets	Longlines	Beam trawls	Other methods
15m and over	£8,349	£0	£25,166	£0	£26,570	£0	£69,267	£1,010	£791	£67,216	£6,222
10m-15m	£23,527	£55,157	£74,190	£5,766	£29,175	£54,663	£10,001	£3,911	£1,909	£2,447	£6,659
U10m	£257,199	£183,067	£36,359	£101,650	£45,743	£45,538	£12,868	£80,722	£82,932	£1,656	£27,159

Impact Matrix				
Receptor sensitivity	**Magnitude of effect**			
	High	Medium	Low	None
High	Major impact	Major impact	Moderate impact	No impact
Medium	Major impact	Moderate impact	Minor impact	No impact
Low	Moderate impact	Minor impact	Minor impact	No impact

Receptor Sensitivity Characteristics	
Receptor Importance/Sensitivity	**Characteristics**
High	Category of fishing receptor that by virtue of vessel design is limited in it operational range and method versatility. A high dependence upon a single, spatially restricted fishery or a limited number of short duration, seasonal fisheries.
Medium	Category of fishing receptor with a wide area of operation but with limited method versatility. A dependence on a limited number of fisheries.
Low	Category of fishing receptor with an extensive operational range and high method versatility . Ability to exploit a large number of fisheries.

Magnitude Characteristics	
Extent	**Characteristics**
High	A high proportion of total annual landings weights/values derived from fishing within the East Anglia ONE site or over the offshore cable corridor.
Medium	A moderate proportion of total annual landings weights/values derived from fishing within the windfarm site or over the offshore cable corridor.
Low	A minor proportion of total annual landings weights/values derived from fishing within the East Anglia ONE site or over the offshore cable corridor.
None	Receptor has no history of fishing in the areas under consideration.

- Semi-quantitative but subjective scoring but displacement vulnerability is implicit.
- Aggregation at gear group (distributional impacts),
- Invariably fisheries impacts assessed as minor/low impact = low/not significant in EIA terms. This downplays role of impact mitigation.
- But a fishing ground may still be lost! Much of our work therefore focuses on promoting mitigation/co-existence.

Concluding Observations

- The practice of framing fisheries value is:
  - invariably at a higher unit of aggregation than an individual business.
  - as a proportion of landed value or GVA.
  - often assumed to be made up from other grounds
- In contrast, industry frame of a lost fishing ground.
- Future use of marine space for fisheries is discounted.
- Application of economic value tends to be late in a process of planning, and therefore can lose its usefulness.
- Fisheries relatively low down the pecking order in both MPA planning and marine planning.
- Fisheries are relatively spatially diffuse at marine planning scales and variation in “value” can challenging to interpret from spatial data.
- Spatial planning tools that attach/differentiate “value” within marine planning function have most potential to be useful in guiding decisions that minimise impacts to fisheries. Later stage impact assessment applications are potentially most useful in informing mitigation measures.

Thank you!

NFFO

30 Monkgate

York

YO31 7PF

Tel: 01904 635430

Email: Dale.Rodmell@nffo.org.uk