



# The interaction of marine renewables and fisheries – assessing socio-economic impacts

16<sup>th</sup> April 2015,

Southampton

Lynda Rodwell, Plymouth University









# Fisheries Displacement and Mitigation working group

- “aims to promote better understanding of the challenges in resolving interactions between fisheries and marine renewable energy focussing on measures to improve co-existence of the two sectors”

**RESEARCH  
WITH  
PLYMOUTH  
UNIVERSITY**



**NATURAL  
ENVIRONMENT  
RESEARCH COUNCIL**

# Timeline of key events

- 2011 - MarCoPol forum workshop – Plymouth
- 2012 – Scoping workshop and survey EIMR conference, Orkney
- 2013 – Expert workshop, York
- 2014 – Mitigation agenda publication
- 2015 – NFFO/Seafish review finalised





# The Fisheries and Marine Renewable Energy Working Group: creating an agenda for improved co-existence



Maria Campbell, Jiska de Groot, Matthew Ashley, Lynda Rodwell  
 Centre for Marine & Coastal Policy Research, Plymouth University, UK  
 maria.campbell@plymouth.ac.uk



## Introduction

As an emerging industry, Marine Renewable Energy (MRE) is expected to play a major contributory role if the UK is to successfully reach its desired target of renewable energy production by 2020 (DECC, 2011). However, due to the competing objectives and priorities of MRE and other industries, for example fisheries, and in the delivering of conservation measures, the demand for space within our marine landscape is increasing, and interactions are inevitable. In this research we investigate the challenges in resolving interactions between fisheries and marine renewable energy. We focus on the improved co-existence between the two sectors and developing a mitigation agenda for fishing effort displacement in the UK. This research was carried out as part of the work of the Fisheries and Marine Renewable Energy Working Group (FMREWG) and funded by the Marine Renewable Energy Knowledge Exchange Programme (MREKEP), a Natural Environment Research Council (NERC) project and co-ordinated by Plymouth University.

## Methods

The first method included a scoping survey questionnaire conducted at the Environmental Interactions of Marine Renewable Energy (EIMR) in Orkney May 2012. Participants responses to questions were given a data needs score based on their ranking of importance of certain issues presented, resulting in priority areas and research gaps being identified. A Scoping workshop followed (Rodwell *et al.*, 2012) and data was coded according to an inductive process in order to identify key themes and challenges. Individuals were selected for the final expert workshop, held in York in April 2013 (Rodwell *et al.*, 2013). Data from this workshop was coded according to a deductive process, as themes had already been identified from the initial workshop. This provided further insight into the existing codes and contributed to the practical components of the mitigation agenda. Both workshops were based on the Delphi-method and in order to enable discussion participants from different backgrounds and regions were divided into groups.

## Results

### Questionnaire Survey

To explore the range of knowledge exchange options between MRE & fishing sectors and identify research gaps/ priority areas

### Scoping Workshop

1. What are the priority issues?
2. What are the barriers to progress?
3. How can we mitigate problems?
4. What are your thoughts on consultation process?

Key themes & challenges identified

### Data issues

- Data needs
- Monitoring
- Fishing activity, spatial scale & cumulative impact
- Socio-economic data
- Data sharing & availability

### Assessment methods

- Choice of appropriate method (Plotter, VMS, Mapping tools)
- Marine Spatial Planning?

### Communication, consultation & collaboration

- Legitimacy of consultation practice
- True representation of fishers
- Inter-jurisdictional communication

### Expert workshop

1. Review of past research
2. Case study review
3. Recommendations for action
4. How to achieve consensus on action

### Mitigation Agenda

## ACTION

Overcoming data issues in assessment of displacement

Development of consultation protocol between MRE and fishing sectors

Development of methods for assessing displacement

Figure 1. Flow chart outlining the basic process of this project from survey to the final workshop, and an overview of key themes, challenges and recommendations for action

## Discussion

This research has enabled the authors and members of this Working Group to bring about a set of activities and action points to mitigate fishing effort displacement as a result of MRE development. One of the final recommendations was the development of a Mitigation toolkit, in order to open up research channels and share ideas and case studies among various practitioners, academics and industry representatives. Collaboration needs to be more strategic and will require multiple partner support in order to target issues of communication, full representation of the fishing industry and inherent problems in data availability and utility.

## Conclusions

This Working Group, the first of its kind in the UK, brings together individuals from a nationally diverse group of academics, regulators, policy makers and representatives from fisheries, MRE sectors and conservation bodies. It has the potential, for the first time, to develop effective guidelines and protocols for both mitigation and assessment of displacement of fishing effort, for the entire life cycle of MRE projects, and has further potential to adapt to the needs other countries facing similar challenges.

## References

- Campbell, Stehfest *et al.* (2014) Marine Policy, 45: 293-300; De Groot, Campbell *et al.* (2014) *OCMA*, 102: 7-18; DECC (2011) UK Renewable Energy Roadmap. Department of Energy and Climate Change, London, 107 pp; Rodwell *et al.* (2012) MREKEP Results from first scoping survey Orkney May 2012, 20 pp (avail. NERC); Rodwell *et al.* (2013) Final Report on the Expert Workshop for the MREKEP, 33 pp. (avail. NERC).

## Acknowledgements

The authors would like to acknowledge the financial support of NERC MREKEP for the organisation of both the scoping and expert workshops. Thanks in particular are also due to Dr Annie Linley who provided advice and comments for the life cycle of the project. We would also like to thank the workshop participants for their input and continued support.



## Results

### *Questionnaire Survey*

To explore the range of knowledge exchange options between MRE & fishing sectors and Identify research gaps/ priority areas

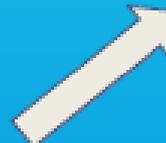


### *Scoping Workshop*

1. What are the priority issues?
2. What are the barriers to progress?
3. How can we mitigate problems?
4. What are your thoughts on consultation process?



### *Key themes & challenges identified*



#### *Data issues*

- Data needs
- Monitoring
- Fishing activity, spatial scale & cumulative impact
- Socio-economic data
- Data sharing & availability



#### *Assessment methods*

- Choice of appropriate method (Plotter, VMS, Mapping tools)
- Marine Spatial Planning?



#### *Communication, consultation & collaboration*

- Legitimacy of consultation practice
- True representation of fishers
- Inter-jurisdictional communication

Figure 1. Flow chart outlining the basic process of this project from survey to the final workshop, and an overview of key themes, challenges and recommendations for action



## *Expert workshop*

1. Review of past research
2. Case study review
3. Recommendations for action
4. How to achieve consensus on action

## Mitigation Agenda

## **ACTION**

Overcoming data issues  
in assessment of  
displacement

Development of  
consultation protocol  
between MRE and fishing  
sectors

Development of methods  
for assessing  
displacement



