

# The Triple Challenge in UK Offshore Wind Farms

A multi-stakeholder approach through key informant interviews

*Executive Summary*

## *The Issue*

- *Offshore wind energy is a very promising source of green energy for the UK, and the number of Offshore Wind farms has increased rapidly over the last 2 decades.*
- *Government targets set in 2020 and 2022 plan to at least double the offshore wind capabilities of the UK by 2050.*
- *The wind farms can have societal and environmental effects that have not been properly studied or accounted for in the development of these wind farms.*
- *The interaction between green energy goals, societal impacts, and environmental and biodiversity impacts is known as the “Triple Challenge” in conservation biology.*
- *The perception of these lesser known effects can have impacts on the success of wind energy policy and future expansions, and should be studied to investigate equitable and fair ways of making the shift to green energy.*

## *Summary of key findings*

- *Decarbonisation was viewed as a positive and worthwhile goal*
- *Perceived costs of wind farms were concentrated at a local level, while the perceived impacts at a national and global scale were positive*
- *Lack of marine spatial planning was seen as a cause of many negative impacts*
- *Lack of onshore infrastructure was seen as a major hurdle to the positive impacts of OWFs by all parties*
- *Environmental damage to the seafloor was seen as a major concern, while the potential positive effects of artificial reefs were not seen as a promising offset to those local damages*
- *Energy security, cheaper energy, and job creation were all seen as potential but as yet unrealised positive impacts of OWFs*

## *Key policy recommendations*

- Current **targets for Offshore wind capacity should be clarified**. They should also be made binding to avoid targets changing constantly.
  - *Three different policies currently exist, each with a different offshore wind energy production target by 2030*
- Offshore wind capacity targets should **incorporate goals to expand the national grid** in order for the energy produced to be utilised
  - *“We need to join up the offshore consenting with what happens onshore” - Civil servant*
  - *“We need policy and infrastructure beneath [offshore wind] targets to make sure we can meet them” Developer*
- The bidding process for new builds should **prioritise bids that use UK labour and manufacturing**
  - *[Job numbers] “seem like they are just written on the back of a fag packet” Policy advisor*
  - *“The UK consents process prioritises cheaper projects so of course we can’t always use local labour or manufacturing” Developer*
  - *“the impacts of overseas manufacturing can also be pretty big, we want to use UK manufacturing but those projects are more expensive to the taxpayer which is another consideration” Civil servant*
- **Research into the impact of artificial reefs needs to be expanded** and conducted long-term
  - *“if we use the right materials we could use [the artificial reef effect] to our benefit” Ecologist*
  - *“its difficult to know the impacts...without [information on] the starting state of the area” Ecologist*
- Marine spatial planning efforts should **take into account the joint impact of MPAs and OWFs** on small-scale fishermen
  - *“It’s about what the cumulative effect is, and without a [marine plan] no one is considering multiple impacts” Fisherman*

### *Impacts at Scale*

- The majority of perceived negative impacts were at a local level, policy makers need to take this into account and both make efforts to minimise these negative impacts, and realise the potential benefits at local levels.

### *Politics and policy*

- Without binding targets, the goal posts are constantly moving, making people less confident in the fact that they will ever see the benefits of the new green energy sources.

### *Who we are*

- This research was conducted by Lydia Anderlini, an MBIol student at the Interdisciplinary Centre for Conservation Science (ICCS), Department of Biology, Oxford University, supervised by Professor E.J. Milner-Gulland (Department of Biology), Dr. Thomas Catchpole (CEFAS), and Dr. Hollie Booth (Department of Biology/The Biodiversity Consultancy).

### *What we did*

- A series of interviews was conducted with fishermen, wind farm developers, relevant civil servants, and aquatic ecologists. The interviews were designed to investigate their priorities and concerns regarding the expansion of offshore wind farms in the UK and the North Sea. Thematic analysis was then used to identify the key areas of perceived negative and positive impacts, as well as concerns and hopes for the future of wind farm expansion and the policy around it.

### *Find out more*

- To find out more about this study, please scan the QR code below to read a full copy of Lydia's Masters thesis or email E.J. Milner-Gulland: [ej.milner-gulland@biology.ox.ac.uk](mailto:ej.milner-gulland@biology.ox.ac.uk)