

## Appendix 1 to Agenda item B6

Reducing CO<sub>2</sub> Meeting 07/01/2022

Present

Will Wright	KEIFCA
Dominic Bailey	KEIFCA
Ellie Wyatt	KEIFCA
Veronica Chan	Port of London
John Pinnegar	Cefas
Georg Engelhard	Cefas
Jesse Seaward	BAND Agency
Olivia Harrod	Cefas
John Nichols	TFA/TFA Fuel Ltd
Merlin Jackson	TFA/TFA Fuel Ltd
Ollie Jackson	TFA

Cefas have been working on a Defra project 'Moving Towards Net Zero Carbon Fisheries' linked to the climate change objective in the Fisheries Act 2020 and the Government's commitment to reach a reduction in carbon emissions of 78% by 2035 and net zero carbon emissions by 2050. The final report was due to be provided to Defra in March 2022.

Data from 2015-2019 was used in this project which has:

- Estimated greenhouse gas emissions in UK fisheries, and
- Proposed possible 'pathways' towards reducing emissions in the future, which were suggested to be organised as either:
  - o technological pathways
  - o operational pathways
  - o policy pathways.

Of the challenges facing achieving a reduction in emissions, there was no clear evidence of a decreasing trend in emissions over the period studied with few incentives available to encourage reduction.

Pelagic trawlers were estimated to have the highest emissions. Vessels using drift or fixed nets and pots and traps had the lowest emission levels. However, Pelagic trawlers had the lowest emissions per quantity of fish landed with beam trawlers found to have the highest emissions levels.

More carbon intensive vessels appeared to be linked to fuel use so in addition to being beneficial to the environment it would also be economically of benefit to vessels to make improvements.

In respect of technological pathways, in the short term industry could consider a switch to biofuels, hybrid diesel-electric propulsion and fully electric propulsion for in-shore vessels. In the medium term these could include liquefied natural gas or liquified bio gas from organic waste. Longer term, could include ammonia powered or hydrogen powered fuel cell vessels.

Operational pathways which Cefas had spoken to Producer Organisations (PO) with included basic maintenance; keeping hulls cleaned, engine tuned as well as reducing steaming/trawling speeds. In the long term fishing effort could be redirected to grounds nearer to their port or landing to a closer port.

Managerial or policy pathways would require a mandate or policy to encourage the use of low emission gear types, subsidies for low emission fuel types and innovation funding schemes.

Primary engagement had been with the fishing industry and representatives and they were due to meet with the Department of Transport. They had also met with the MMO, NE and JNCC who were more interested in the impact of fishing on the carbon stored in the sea bed. They were aware that Defra were setting up a team within the fisheries department to focus on climate change. Cefas acknowledged that they had not engaged with ports which had been flagged. Any suggestions of who to speak to would be useful.

TFA Fuel Ltd have been asked to supply bio fuel (HVO) by the Windfarm vessels in Ramsgate which they were hoping to start doing in April 2022. It appeared to be a reasonably easy fit for fishermen to change to in order to lower emissions. However, the cost was between 8p to 15p per litre more than ordinary marine diesel which for some fishermen would be prohibitive. If help was to be made available from the Government by way of VAT or fuel duty rebate then this would provide an incentive. TFA Fuel sold 3.5 million litres of fuel per year. There appeared to be some difficulty in ensuring sufficient quantities of HVO fuel could be supplied.

Port of London (PLA) had carried out a trial last year on the use of HVO fuel and published case studies on emissions and engine performance. One of their engineers took apart an engine that had used this fuel to see what effect the use of HVO had made on it, the results of which may be of use to others.

In respect of the use of alternative fuels such as hydrogen and ammonia there may be safety aspects that would need to be considered and it would be useful to consult with other port authorities.

PLA had produced a plan with the aim of getting to zero carbon emissions by 2040. They intended to transition to HVO fuel by 2022, electric vehicles by 2025, electric pilot cars by 2030, zero emission vessels by 2035 and all remaining vessels by 2040. A summary report could be found on their website <http://www.pla.co.uk/Environment/2040-Net-Zero-Target>

Vessel fuel contributed to over 99% of PLA emissions of nitric oxide and particulate matter. Switching fuel to bio diesel would help to reduce this, although this was seen as a short term solution and it was important to ensure that the HVO was sourced sustainably. One of the PLA vessels had been retrofitted with a Selective Catalytic Reductor which helped to reduce these emissions. It was their intention to replace the vessel fleet by 2040 to eliminate emissions completely. PLA already had one hybrid vessel in use.

These behavioural changes would lead to an increase in electrical demand, so it was intended to build a new sub station to cope with this and to install solar PV sites.

PLA's intention was to reduce waste, resources and water by 30% by 2030, 50% by 2040 and 80% by 2050. Carbon saving or offsetting would see the introduction of wildflower meadows in place of grass and the installation of brown and green roofs.

PLA have also began working with other users to educate them on reduction in emissions and had introduced green tariffs and schemes such as the Thames Green Scheme <https://greenscheme.pla.co.uk/> They would be happy to have conversations with the fishing industry to help them with understanding the impacts of bio diesel fuel.

BAND Agency suggested that it was very difficult to communicate data in a way that was reliable to everyone. There would be benefit in collating all viewpoints into a regional hub which could take individual projects forward. It appeared that the work being carried out was very well aligned and it was important to highlight this.

In respect of regional hubs, Cefas advised that the March workshop with Defra would map out more on the ground pathways and what needed to be done. The idea of regional hubs could be suggested there as an example of how to follow this through.

#### *Next steps for KEIFCA*

- Liaise at a regional level with PLA and TFA to look at the practicalities of local issues
- Look at a regional plan for the fishing industry on carbon reduction similar to that of the PLA
- Work with Cefas using the March meeting as an entry point
- TFA Fuel to adopt use of biofuel and report back on update and any issues