

DECARBONISING THE EU FISHING FLEET

OPPORTUNITIES, CHALLENGES AND CRITICAL ELEMENTS FOR A NECESSARY TRANSITION



Our Fish

ClientEarth[⊕]

CONTEXT

Fishing is an energy-intensive activity that produces vast amounts of greenhouse gas (GHG) emissions. It has been estimated that fishing vessels released approximately 207 million tonnes of CO₂ into the atmosphere in 2016,¹ and yet the marine fishing industry is excluded from global assessments of GHG emissions.² In light of the current climate crisis, and as every economic sector needs to contribute to the collective efforts to reduce GHG, the fishing sector must make decarbonisation a priority, as the shipping industry has done.

The transition to cleaner energy sources required by the European Green Deal, and in the legislation being developed to make that transition possible (including the revision of the Energy Taxation Directive)³, offers an opportunity to decarbonise the fishing sector in the European Union (EU). Indeed, in order to align itself with the objectives of the EU Green Deal and other relevant international agreements, the fishing industry will need to switch to new sources of energy. However, so far there are no objectives set, no action plans created, or any notable public discussion in the EU about decarbonising the fishing sector.

To catalyse this critical but absent public discussion, ClientEarth and Our Fish produced a briefing paper, [Decarbonising the EU fishing fleet: Lessons from today's shipping industry](#), in which we analyse the main decarbonisation solutions being considered by the shipping industry, and provide an analysis of the pro's and cons of these solutions for the fishing sector. On the 14th of June 2022, we held a workshop during which experts presented the decarbonisation solutions available in the maritime sector, followed by a discussion with various stakeholders on what is needed to decarbonise the fishing sector. The presentations and a recording of the workshop are available on our campaign website.⁴

While the journey to decarbonisation is still in its primary stages, progress already made within the shipping sector has provided momentum and can offer relevant examples for the decarbonising the fishing fleet. This paper presents our recommendations and does not reflect in any way the views of workshop participants.

REGULATORY BACKGROUND

At the global level, the International Maritime Organisation (IMO) adopted a set of targets in 2018 to reduce GHG emissions from international shipping by 50%, compared to 2008 levels. As part of this, the IMO sets out to reduce the carbon intensity of international shipping by 40% in 2030 and 70% in 2050.⁵ Although these objectives are not sufficient to deliver on international commitments to keep warming below 1.5 degrees, they have instigated the decarbonisation of shipping and are substantially more ambitious than those which exist for the global fishing fleet, which currently lacks any agreed decarbonisation objectives.

The world's fishing fleet is primarily powered by diesel engines that operate on distillate fuels. Burning these oils releases vast amounts of carbon emissions and air pollutants. Gases released, including carbon (estimated at 207 million tonnes of CO₂ in 2016⁶), methane (CH₄), nitrous oxide and chlorofluorocarbons, linger in the atmosphere for long periods of time and contribute to global warming.

In a bid to reduce the EU's reliance on fossil fuels and to engage in an energy transition, in 2020, the European Commission launched the European Green Deal. The Green Deal calls for a 90% reduction in GHG emissions from transport and aims to safeguard ecosystems and biodiversity.⁷ As part of this initiative, in December 2020, the European Commission launched the "Sustainable and Smart Mobility Strategy". This strategy requires all modes of transport to be sustainable, including through the transition to low-carbon fuels and zero-emission vehicles.

Despite this very ambitious policy background, the fishing sector is still heavily dependent on fossil fuel⁸ and there is no decarbonisation strategy or roadmap to tackle the sectors heavy fossil fuel dependency. Even worse, the sector still relies on an indirect fossil fuel subsidy to operate: a fuel-tax exemption, made mandatory at the EU level, through the Energy Taxation Directive.

A report released by the European Court of Auditors on 31 January 2022⁹ showed that energy taxation can support efforts to combat climate change. It underlined that current tax levels do not reflect the extent to which different energy sources pollute. It also highlighted that even though renewable-energy subsidies almost quadrupled over the 2008-2019 period, fossil fuel subsidies *"have remained relatively constant over the last decade despite commitments from the European Commission and some Member States to phase them out"*.

In this context, the revision of the Energy Taxation Directive foreseen in the European Green Deal offers the opportunity to align taxation of fishing fuel with the EU's climate objectives and the Polluter Pays Principle. Indeed, the EU agreed in its Green Deal and its Climate Law to transition to a sustainable Europe that achieves climate neutrality by 2050.¹⁰ This will not happen without the elimination of all fossil fuel subsidies (exemptions, tax advantages and rebates). Most recently, at the global level, Heads of State committed through the Glasgow Climate Pact to eliminate "inefficient" fossil fuel subsidies, recognising that if this does not happen, all other climate actions will be negated.

The need to introduce fossil fuel taxation in the fishing sector goes hand-in-hand with the need to have a decarbonisation plan for the industry. This paper is aimed at sharing recommendations and resources developed as a result of the June 2022 workshop, and to instigate action on the necessary path to decarbonising the EU fishing sector.





RECOMMENDATIONS

The fishing sector will be a technology taker from the shipping industry. It is relatively small compared to the shipping transport sector and will therefore have to adapt to the technologies developed within the broader maritime sector.

1. REGULATORY FRAMEWORK

The existing regulatory framework is not sufficiently developed to drive decarbonisation of the fishing sector.

The revision of the Energy Taxation Directive (ETD) alone will not be enough to support and direct the fishing industry towards decarbonisation, as it will address only the issues of fuel price and taxation. If the revision of the ETD is successful and fishing fuel is taxed, any revenue generated by this tax would need to be reinvested in decarbonising the sector in order to make the shift to cleaner energy sources.

A port policy needs to be established, to develop comprehensive rules that will lower pollution at shore and avoid bunkering on the high seas by offering the necessary utilities for supporting decarbonisation in port, such as facilities to recharge batteries or to provide alternative and cleaner fuels.

The EU Common Fisheries Policy (CFP) regulates the conservation of marine biological resources and the management of fisheries targeting them.¹¹ It includes capacity ceilings, which may need to be reconsidered or redefined in order to facilitate decarbonising the EU fishing fleet, as decarbonisation alternatives may occupy significantly more space onboard fishing vessels, which will in turn impact on storage space available for fish or fishing gears.

Finally, and most importantly, in the context of the current ecological, climate and energy crisis, a strategic reflection regarding the future of the fishing sector in Europe should be held, and should lead to the development of a transition plan that will lead to a low-environmental-impact and low-carbon fishing sector.

2. FUNDING

In this period of ecological and energy transition, funding should be available to support decarbonisation of the fishing sector.

The current European Maritime Fisheries and Aquaculture Fund¹² adopted in 2021 lacks the vision to include decarbonising the fishing sector. On the contrary, it is built on the idea of supporting the sector even when it is economically or environmentally unsustainable. Future funds should include a clear vision for EU fisheries and give a strategic direction so that funds proactively support a fishing sector that delivers environmental and social benefits.

In the existing funding regulations, there are limitations for the building of new fishing vessels due to the state of overfishing in most EU seas. However, conversion of existing fishing vessels towards hybrid solutions is supported.

Some alternatives to fuel can be developed through conversion of existing engines or fishing vessels, but depending on which technology will be used, at some point decarbonisation might also require building new fishing vessels. Future funding for this possibility will have to be developed hand-in-hand with a reflection on how to calculate and limit fishing capacity, taking into account the health of fish populations in EU waters and in waters where EU vessels operate.

The Just Transition Fund and the RepowerEU initiative will also offer support to innovative projects aiming at decarbonising the fishing sector.

As mentioned above, taxation income should also be redirected towards decarbonising the sector.

3. RESEARCH & INNOVATION

Research will need to encompass not only the ability of the alternative energy to allow for fishing activities, but also to cover security and safety on board for fishers. Environmental toxicity will also need to be researched, given the high toxicity of some alternatives to fuels proposed, such as ammonia.

Innovation in decarbonising the fishing sector will require flexibility as it is a diverse industry and there will be no “one size fits all” solution. It will depend on the fuel consumption, the gears used, the time at sea spent, etc. At the beginning of the transition, hybrid solutions such as batteries and fuel, or fuel and biogas, or wind propelling systems and fuel, will be necessary in moving towards complete decarbonisation.

The EU must not only remain open to changes, but nurture, inspire and incentivise an innovative mindset for the transition of the fishing sector to a decarbonised and low environmental impact future. Drawing a parallel with the car sector: in the space of ten years e-cars have become a reality, with the transition occurring more rapidly than imagined or planned. It is possible that such rapid developments can take place in the coming years for the fishing sector. Indeed, if we are to halt the catastrophic impacts of the climate crisis, they must.



¹Greer, K., Zeller, D., Woroniak, J., Coulter, A., Winchester, M., Palomares, M.D. and Pauly, D., 2019. Global trends in carbon dioxide (CO₂) emissions from fuel combustion in marine fisheries from 1950 to 2016. *Marine Policy*, 107, p.103382.

²Parker, R.W.R., Blanchard, J.L., Gardner, C. et al. Fuel use and greenhouse gas emissions of world fisheries. *Nature Clim Change* 8, 333–337 (2018). <https://doi.org/10.1038/s41558-018-0117-x>

³Taxation and Customs Union. n.d. Revision of the Energy Taxation Directive. [online] Available at: <https://ec.europa.eu/taxation_customs/green-taxation-0/revision-energy-taxation-directive_en> [Accessed 2 June 2022].

⁴<https://stopfossilfuelsubsidies.eu/decarbonisation>

⁵Imo.org. n.d. Initial IMO GHG Strategy. [online] Available at: <<https://www.imo.org/en/MediaCentre/HotTopics/Pages/Reducing-greenhouse-gas-emissions-from-ships.aspx>> [Accessed 11 May 2022].

⁶Krista Greer et al. Global trends in carbon dioxide (CO₂) emissions from fuel combustion in marine fisheries from 1950 to 2016, *Marine Policy* (2019). DOI: 10.1016/j.marpol.2018.12.001

⁷European Commission - European Commission. 2022. A European Green Deal. [online] Available at: <https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en> [Accessed 13 May 2022].

⁸Report: Climate Impacts & Fishing Industry Profits From EU Fuel Tax Subsidies - Stop Fossil Fuel Subsidies

⁹European Court of Auditor report, Review 01/2022: Energy taxation, carbon pricing and energy subsidies

¹⁰Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law'), OJ L 243, 9.7.2021, p. 1;

¹¹REGULATION (EU) No 1380/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC. OJ L 354, 28.12.2013, p.1

¹²Regulation (EU) 2021/1139 of the European Parliament and of the Council of 7 July 2021 establishing the European Maritime, Fisheries and Aquaculture Fund and amending Regulation (EU) 2017/1004, OJ L 247, 13.7.2021, p. 1