Our Fish

CLIMATE IMPACTS & FISHING INDUSTRY PROFITS FROM EU FUEL TAX SUBSIDIES

A SELECTION OF CASES WITHIN EUROPEAN FISHING FLEETS

SEPTEMBER 2021

CONTENTS

1. INTRODUCTION

EU tax exemptions for fuel are harmful subsidies that reduce the costs of fishing, therefore leading to an increase of fishing capacity, and thus contributing to overfishing in the European Union. Since 27 October 2003, energy products supplied for use as fuel for the purpose of navigation within EU waters, including fishing, are exempted from taxes.[1] For years, these indirect support mechanisms by EU Regulations have added to the direct subsidies with which the EU has supported the fishing industry. In this study, we demonstrate the vastness of this indirect support through fuel tax exemptions and the scale of resulting CO_2 emissions, and preview the impact of the proposed tax exemption elimination by the European Commission under the review of the Energy Taxation Directive (ETD).[2] We recommend that fuel exemptions in the fisheries sector should be completely eliminated through the revision of the ETD, in order to deliver on multiple European and international laws and commitments, such as the European Green Deal, EU Common Fisheries Policy, Paris Agreement, Leaders Pledge for Nature and the UN Sustainable Development Goals.

1.1. EU FISHERIES

The EU committed to end overfishing by 2015, or by 2020 at the latest,[3] and to protect 10% of EU waters by 2020.[4] However, rampant overfishing continues and the majority of EU fish stocks remain overfished and/or outside safe biological limits.[5] European seas are the most heavily trawled in the world;[6] which has been a great area of concern – even more so given recent estimates that globally, the fishing industry produces the same amount of annual CO2 emissions by trawling the seabed as generated by the aviation sector.[7] With subsidies constantly granted to the fishing industry, fishing capacity is inflated and destructive overfishing is exacerbated. De-taxation schemes for fuel consumption do not just harm fisheries, they harm the economy by propping up unprofitable fishing. As the World Bank Sunken Billions report stated:

"By reducing the cost of harvesting, for example, through fuel subsidies or grants for new fishing vessels, subsidies enable fishing to continue at previously uneconomic levels. Subsidies effectively counter the economic incentive to cease fishing when it is unprofitable."[8]

1.2. SUBSIDIES VERSUS THE EARTH EMERGENCY

Fuel tax exemptions for the EU fishing industry are of special concern in light of the global climate and biodiversity crises. By exempting marine fuel from taxation, the EU is using public money to subsidise the burning of fossil fuels and incentivise pollution. Such practices are at odds with EU's polluter-pays principle, enshrined in the Treaty on the Functioning of the European Union[9] and reaffirmed in its Biodiversity Strategy.[10] These tax breaks also directly undermine the EU climate objectives set with the adoption of the United Nations Sustainable Development Agenda, the Paris Agreement and European Climate Law.[11] A revised ETD would serve to enable the achievement of EU climate goals and make EU fisheries more sustainable. This can only be done if tax exemptions for the fishing industry are completely removed from the revised directive and if all energy products are taxed according to their energy and

1 - COUNCIL DIRECTIVE 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32003L0096&from=EN

2 - European Commission, 2021. Proposal for a COUNCIL DIRECTIVE restructuring the Union framework for the taxation of energy products and electricity (recast). COM (2021) 563 final https://ec.europa.eu/info/sites/default/files/revision_of_the_energy_tax_directive_0.pdf

3 - REGULATION (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. https://eur-lex.europa.eu/eli/reg/2013/1380/2019-08-14

4 - Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive). https://eur-lex.europa.eu/eli/dir/2008/56/2017-06-07

5 - Scientific, Technical and Economic Committee for Fisheries (STECF), (2021). Monitoring the performance of the Common Fisheries Policy (STECF-Adhoc-21-01). Publications Office of the European Union. https://doi.org/10.2760/26195

6 - The PEW Charitable Trust (2021). Lessons From Implementation of the EU's Common Fisheries Policy. Mixed record highlights steps still needed to turn the tide towards better management. https://www.pewtrusts.org/-/media/assets/2021/03/eone-lessonslearned.pdf

7 - Sala.E et al (2021). Protecting the global ocean for biodiversity, food and climate. Nature, 17 March 2021. https://www.nature.com/articles/s41586-021-03371-z

8 - Willmann, Rolf; Kelleher, Kieran.2009. The sunken billions : the economic justification for fisheries reform (English). Agriculture and rural development Washington, D.C. : World Bank Group. http://documents.worldbank.org/curated/en/656021468176334381/The-sunken-billions-the-economic-justification-for-fisheries-reform. p.14.

9 - Article 191 (2) of Treaty on the Funciontng of the European Union.

10 - European Commission (2020). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. EU Biodiversity Strategy for 2030: Bringing nature back into our lives, 20 May 2020, COM(2020) 380 final. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0380

11 - Regulation (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'). http://data.europa.eu/eli/reg/2021/1119/oj

carbon content. Not only would an effective taxing of marine fuel increase the budget of EU member states, it could directly be used to assist the transition to more sustainable and energy efficient solutions in the fisheries sector, such as more innovative engines (electric or bio-hydrogen engines) and less destructive, fuel consuming fishing practices.

1.3. THE UNLEASHED POTENTIAL OF THE ENERGY TAXATION DIRECTIVE REVIEW

A revised ETD would serve to enable the achievement of EU climate goals and make EU fisheries more sustainable. This can only be done if tax exemptions for the fishing industry are completely removed from the revised directive and if all energy products are taxed according to their energy and carbon content. Not only would an effective taxing of marine fuel increase the budget of EU member states, it could directly be used to assist the transition to more sustainable and energy efficient solutions in the fisheries sector, such as more innovative engines (electric or bio-hydrogen engines) and less destructive, fuel consuming fishing practices. It would also deliver on multiple European and international laws and commitments, such as the European Green Deal, EU Common Fisheries Policy, EU Climate Law, Paris Agreement, Leaders Pledge for Nature and the UN Sustainable Development Goals.

1.4. THE EU'S FLAWED APPROACH

This study looks at specific fishing fleets of selected member states and describes scenarios that show how much money the EU fishing fleet would have had to pay in taxes if, between 2008 and 2018, fuel for fishing fleets would have been taxed. This money can be seen as a huge support mechanism to mostly large, industrial, and often destructive, fishing fleets.

Under the European Commission proposal to revise the ETD, released as part of the Fit for 55 package, aimed at drastically cutting CO2 emissions in order to reach carbon neutrality by 2050, the Commission has therefore surprisingly proposed a tax rate of just 3% for the fishing industry. This extremely low tax rate would perpetuate the false inflation of the fishing industry, with particularly damaging results for low-impact and small-scale fishers who would not reap the benefits from the subsidy, but will pay the price in declining fish stocks and marine health, and increased vulnerability to worsening climate change. Even more nonsensical, is the fact that the ETD proposal does not cover taxation for the distant fleet and the fleet fishing outside EU waters, which are also the most fuel-consuming fleets.

In addition, the report calculates CO2 emissions from fuel consumption of those selected fishing fleets, another factor relevant when looking at the widespread, urgent need to find ways to reduce carbon emissions in all sectors. A recent study estimates CO2 emission for fuel from global marine fisheries at "approximately 207 million tonnes of CO2 in 2016 [...]". That particular year, the industrial fishing sector "released around 159 million tonnes of CO2, i.e., 4 times more than in 1950 and accounted for 77% of global CO2 emissions from marine fisheries".[12]

12 - Krista Greer et. al.: Global Trends in Carbon Dioxide (CO2) Emissions from Fuel Combustion in Marine Fisheries from 1950 to 2016. Marine Policy (Sep. 2019). https://www.sciencedirect.com/science/article/pii/S0308597X1730893X.

2. METHODS

In order to compare the varying CO2 impact of fishing fleets with the scale of the subsidies received, we have selected fishing fleets that are either economically powerful, environmentally damaging and/or socially important, from five major EU fishing nations.

Selected fleets for this study are as follows:

- France: Purse seiners fishing in distant waters outside of the EU
- Spain: the entire demersal trawler fleet
- Italy: all vessels fishing with polyvalent passive gear under 12m length
- Netherlands: the entire pelagic fishing fleet
- Portugal: longliners between 24 – 40m length

Fuel consumption numbers for these fleets have been directly extracted from the data set of the Annual Economic Report on the EU Fishing Fleet 2020 (AER) by the Scientific, Technical and Economic Committee for Fisheries (STECF).[13] Limitations to the data sets are briefly described below, however more detailed information is available in the full Annual Economic Report 2020.[14]

The main difficulty when estimating and calculating potential amounts of tax money saved by the fishing industry is that no marine fuel is taxed in the EU or has been taxed in the past, therefore tax percentages used are based on assumptions as to what tax the EU and the member states would be using if they would tax marine fuels.

Firstly, according to a number of sources within the shipping industry, the majority of fishing vessels use lighter marine gas oil (DMA) or marine diesel (MDO) for fuel, instead of heavy fuel oil, which is mostly used by larger commercial shipping vessels. Even though marine gas oil is much more expensive, heavy fuel oil needs to be heated for pumping and injection into the engine, and is hence not very practical for fishing.[15] Even larger fishing vessels such as ocean-going trawlers mostly use gas oil.[16] [17] Hence, **for the purposes of this report, we assume that taxes on gas oil would be most relevant to the fishing industry sector.**

In terms of choosing the appropriate factor to calculate tax savings in numbers, one option is to look at the EU Council Directive on the taxation of energy products itself. The directive sets out a **minimum level of taxation** applicable to motor fuels (in Annex 1, Table A), which is **€0.33/l** since 2010. There are current exemptions and reduced tax rates for certain industrial fuel uses, however many member states are using numbers that are even higher than this minimum setting for tax gas oil.

This leads to the second option for calculating tax rates: Using the historic **EU weighted average excise duties for gas oil for road transport** in the 'Weekly Oil Bulletin' published by the European Commission between 2008 and 2018, the average excise duty is at **€0.67/l**.[18]

Hence, this report uses two scenarios to show the range of estimated tax savings for the fishing industry sector – whereas the **first scenario (using €0.33/l tax)** is seen as a potential underestimation and the **second scenario (using €0.67/l)** is a slight overestimation of what the industry would have had to pay in taxes over the past 10 years.

13 - Scientific, Technical and Economic Committee for Fisheries (STECF): STECF 20-06 - EU Fleet Economic and Transversal Data_fleet Segment.Xlsx - Economic Analysis - European Commission, 2020.
14 - Scientific, Technical and Economic Committee for Fisheries (STECF): The 2020 Annual Economic Report on the EU Fishing Fleet (STECF 19-06), 2020.
15 - Mabanaft Group: Marine Gasoil (MGO), accessed 26th Jan. 2021, https://www.mabanaft.com/en/news-info/glossary/details/term/marine-gasoil-mgo.html.
16 - Royal Greenland A/S: Climate and EnergyRoyal Greenland A/S, Sep. 11 2020, accessed 26th Jan. 2021, https://www.royalgreenland.com/sustainability/responsible-footprint/climate-and-energy/.
17 - Alfa Laval Corporate AB: Reducing Fuel Costs by Converting to HFO (Heavy Fuel Oil), Jun. 24 2019, accessed 26th Jan. 2021, https://www.alfalaval.com/media/stories/marine/reducing-fuel-costs-by-converting-to-hfo-heavy-fuel-oil/.
18 - European Commission: Weekly Oil Bulletin - 2005 Onwards, 2019.

The report also calculates and compares the amount of tax that would have been paid under the new European Commission's proposed ETD rate. Under the European Commission proposal to revise the ETD, released as part of the 'Fit for 55' package, aimed at drastically cutting CO_2 emissions in order to reach carbon neutrality by 2050, **the Commission has therefore surprisingly proposed a tax rate of just €0.036/l for the fishing industry**.[1] This extremely low tax rate would perpetuate the false inflation of the fishing industry, with particularly damaging results for low-impact and small-scale fishers who would not reap the benefits from the subsidy, but will pay the price in declining fish stocks and marine health, and increased vulnerability to worsening climate change. **Even more nonsensical, is the fact that the ETD proposal does not cover taxation for the distant fleet and the fleet fishing outside EU waters, which, as this report highlights, are also the most fuel-consuming fleets.**

Lastly, in order to calculate the CO_2 emissions via fuel consumption, a study by Greer et. al uses an approach that derives the consumed fuel from fishing effort data. The study clearly states that the carbon dioxide emissions by marine vessels are directly correlated with fuel consumption and says further: 'The amount of CO_2 emissions, or the emissions factor (EF), varies by fuel type. Generally, less refined and heavier fuel types (e.g., marine diesel) generate higher emissions than distilled and refined fuels (e.g., 4-stroke engine gasoline fuel). [...] The EF used in this study for marine diesel was 3.17 tonnes of CO_2 per tonne of fuel ($tCO_2 \cdot tfuel^{-1}$), while the emissions factor used for gasoline was $3.01 tCO_2 \cdot tfuel^{-1}$.[19] We will use the marine diesel factor of **3.17 t of CO2 per tonne of fuel ($tCO_2 \cdot tfuel^{-1}$)** to calculate CO2 emissions for each selected fleet segment in this report.

It is important to note that this report does not include all estimates of CO2 emissions from the EU fishing industry; those caused by bottom-trawling of the seabed and resuspension of carbon, estimated to be equivalent to the aviation sector on a global scale annually,[2] are not included; nor are the emissions caused by the removal of fish and marine life.

2.1. LIMITATIONS

The Annual Economic Fishery reports contain data provided by each member state. Therefore, some of the data needs to be taken and analysed knowing that it is partly incomplete. For example, the AER report 2019 mentions: 'This year's submissions from France and Spain improved but continue to be incomplete, in particular missing effort and landings data for the years 2008-2009 and days-at-sea not provided by FAO sub-regions; some issues remain for fleets in the EU Outermost Regions (France)'.[20]

The AER reports themselves do not contain detailed methodology explanations and it is not fully transparent as to where all the data is derived from.

As the member states submit all data to the European Commission's Joint Research Centre (JRC), the Centre provides a guidance document on how to submit the needed data. The guidance states that for fuel consumption, advice on a preferred method of gathering the data could not be provided, as it would depend on national context. However, suggested methodologies are:

"1. Obtained directly from survey
2. Obtained from administrative sources (e.g. in case tax exemptions are used in the country)
3. Derived from other surveyed variables: Regression models could be used by some MS (regression models using 'engine power', 'days at sea' and 'coefficient of fuel consumption by engine power')"[21]

For 'engine power', data is derived from the EU fleet register and a sum of the power of the main engines of the vessels is calculated. As it is listed by each segment in the AER report also, it can be assumed that an average of vessels within each segment is used. For 'days at sea' methods suggested are either obtaining the data from logbooks or directly by surveys.[22]

19 - Krista Greer et. al.: Global Trends in Carbon Dioxide (CO2) Emissions from Fuel Combustion in Marine Fisheries from 1950 to 2016, 2019.

20 - Scientific, Technical and Economic Committee for Fisheries (STECF): The 2019 Annual Economic Report on the EU Fishing Fleet (STECF 19-06), 2019. https://op.europa.eu/en/publication-detail/-/publication/ca63ab82-c3bf-11e9-9d01-01aa75ed71a1

21 - Joint Research Centre (JRC), European Commission: EU-MAP Guidance Document for 2021, n.d., https://datacollection.jrc.ec.europa.eu/dc/fleet/guidance.

22 - Joint Research Centre (JRC), European Commission: EU-MAP Guidance Document for 2021,

3. EU FLEET OVERVIEW

EACH YEAR THE EU FLEET:

BURNS
2.3B LITRES
OF FUEL

PRODUCES
7.3M TONS
OF CO_2

EVADES
€759M-€1.5B
IN TAXES

According to the Annual Economic Report on the EU Fishing Fleet, the combined EU fishing fleet consisted of 63,593 active vessels in 2018, which is the most recent data available. This EU fleet "consumed 2.3 billion litres of fuel to land 5.2 million tonnes of seafood with a reported value of €7.7 billion. The Gross Value Added (GVA) and Gross Profit (all excl. subsidies and fishing rights) was estimated at €4.3 billion and €1.8 billion, respectively."[23]

The net profit of the whole EU fleet was estimated at almost €1 billion - which was a 23% downward trend from 2017. As the 2020 AER report states, "lower catches and an increase in fuel prices partly explain this overall reduction. […] Nowcast estimates indicate that the performance of the fleet rebounded in 2019, while projections for 2020 show a contraction back to 2018 levels, chiefly brought on by the COVID-19 outbreak."[24]

The **small-scale coastal fleets (SSCF)** of the EU, with a total number of nearly 48,000 vessels, makes up **75% of the active EU fleet, making it** the largest sector of the fleet. However, it accounts for just 8% of the gross total tonnage and 32% of total engine power of the EU fleet. In 2018, the sector increased its profits (net and gross) by more than 7% to the year before – to a **net profit of €124 million**.

The **large-scale fleet (LSF)**, with 15,344 vessels in 2018 (only 24% of all vessels), covered 75% of the gross tonnage and 62% of the engine power of all EU vessels combined. The sector contributed to over 80% in total EU landings. The LSF sector was profitable although with a 19% decrease in net profit, which is a continuation of a decline since 2017. **Net profit for the LSF amounted to €800 million in 2018**.

The **distant water fleet (DWF)** totalled only 250 vessels in 2018, hence less than 1% of the total amount of vessels in the EU fleet. However, it accounts for 17% of the total gross tonnage and 6% of the engine power. The fleet contributed 14% of total EU landings and 6% of the net profit, which amounted to **€60 million in 2018**.[25]

By taking those 2.3 billion litres of fuel estimates for the whole EU fleet and running calculations as described above, it can be observed that **the combined EU fishing fleet saved between €759 million and over €1.5 billion in taxes, and produced nearly 7.3 million tons of CO2 - in one year. This is the same amount of CO_2 as all of Malta produced in 2019, and the equivalent of 31,250 annual salaries based on a monthly income of €4000**.

23 - Scientific, Technical and Economic Committee for Fisheries (STECF): The 2020 Annual Economic Report on the EU Fishing Fleet (STECF 20-06), 2020. https://op.europa.eu/en/publication-detail/-/publication/dbcabb5c-3dba-11eb-b27b-01aa75ed71a1

24 - Scientific, Technical and Economic Committee for Fisheries (STECF): The 2020 Annual Economic Report on the EU Fishing Fleet (STECF 19-06), 2020.

25 - Scientific, Technical and Economic Committee for Fisheries (STECF): The 2020 Annual Economic Report on the EU Fishing Fleet (STECF 19-06), 2020.

4. SPANISH DEMERSAL TRAWLER FLEETS

900+ VESSELS | **3,720M LITRES** FUEL CONSUMPTION | **12M TONS** CO_2 EMISSIONS | **€1,200M-€2,500M** FROM TAX EXEMPTIONS | **4,000-8,500** ANNUAL SALARY EQUIVALENT | **€134M** PROPOSED TAX PAYMENTS

The AER report 2020 states that the Spanish fleet is very diversified, related to species caught as well as gear types and fishing areas, i.e., the fleet is divided into 60 segments.[26] For the demersal trawler fleet, there are 13 different fleet segments, fishing in various regions (NAO (North Atlantic supra region), MBS (Mediterranean Sea & Black Sea) and OFR (Other Region)) and with various lengths of vessels. Beam trawlers (TBB) are not listed in the Spanish data. 907 vessels are categorised under these fleet segments in 2018 – a reduction from 1,470 vessels in 2008.

Note: Demersal trawlers are always listed under the group DTS – which means Demersal trawlers and/or demersal seiners. It is therefore possible that the numbers below include demersal seiners as well as trawlers.

For 2018 alone, the demersal trawler fleet consumed over 262 million litres of fuel, and hence saved €86 million - €175 million in taxes. At the same time, carbon emissions amounted to over 830,000 tons of CO2. **This is more CO2 than all of Somalia produced in 2019**.[27]

For the time frame between 2008 and 2018, the Spanish demersal trawler fleet **consumed over 3.72 billion litres of fuel**. Hence, they saved between **over €1.2 billion and €2.5 billion in taxes over 10 years. This money could instead have been used to employ 4,000-8,500 Spaniards on an average salary in a range of jobs.**[28] **During this period, the fleet segment emitted nearly 12 million tons of CO2 directly from fuel, not including the CO2 generated by disturbing the seabed, which also generates enormous emissions**.[29]

YEAR	NUMBER OF VESSELS	FUEL CONSUMPTION (IN L)	SAVED € DUE TO TAX EXEMPTION (SCENARIO 1 AT 0.33€/L)	SAVED € DUE TO TAX EXEMPTION (SCENARIO 2 AT 0.67€/L)	PROPOSED TAX PAYMENTS IN € (AT 0.036€/L)	CO_2 EMISSIONS IN TONS (EMISSIONS FACTOR 3.17tCO_2/t FUEL)
2008	1470	377,142,003	124,456,861	252,685,142	13,577,112	1,195,540
2009	1436	435,521,454	143,722,080	291,799,374	15,678,772	1,380,603
2010	1303	376,521,990	124,252,257	252,269,733	13,554,792	1,193,575
2011	1175	330,256,062	108,984,500	221,271,561	11,889,218	1,046,912
2012	1112	346,632,126	114,388,602	232,243,524	12,478,757	1,098,824
2013	1040	368,481,258	121,598,815	246,882,443	13,265,325	1,168,086
2014	1022	329,852,231	108,851,236	221,000,995	11,874,680	1,045,632
2015	972	328,231,233	108,316,307	219,914,926	11,816,324	1,040,493
2016	930	278,213,586	91,810,483	186,403,102	10,015,689	881,937
2017	936	287,408,066	94,844,662	192,563,404	10,346,690	911,084
2018	907	262,188,036	86,522,052	175,665,984	9,438,769	831,136
TOTAL		3,720,448,043	1,227,747,854	2,492,700,189	133,936,130	11,793,820

Table 1: Fuel consumption, tax exemption (under Scenario 1 and 2), proposed tax payments under the ETD (COM (2021) 563), and CO2 emissions for the combined demersal trawler fleet in Spain

Looking at the various segments of demersal trawlers in Spain, the highest fuel consumption was with the 24-40m fleet fishing in the North Atlantic region, followed by the over 40m fleet fishing in distant waters. The latter are only 33 vessels, compared to 108 vessels for the 24-40m North Atlantic fleet.

26 - Scientific, Technical and Economic Committee for Fisheries (STECF): The 2020 Annual Economic Report on the EU Fishing Fleet (STECF 20-06), 2020.

27 - https://ourworldindata.org/co2-emissions

28 - The Gross average monthly salary in Spain is €2,279/month. https://en.wikipedia.org/wiki/List_of_European_countries_by_average_wage

29 - Sala et al, (2021) Protecting the global ocean for biodiversity, food and climate. https://doi.org/10.1038/s41586-021-03371-z

5. FRENCH PURSE SEINERS IN DISTANT WATERS

22 VESSELS | **114M LITRES** FUEL CONSUMPTION | **360K TONS** CO_2 EMISSIONS | **€38M-€77M** FROM TAX EXEMPTIONS | **€0-€4M** PROPOSED TAX PAYMENTS

According to the AER 2020, of 5,570 active vessels in the French fishing fleet in total, the national distant water fleet consists of 22 tropical purse seiners over 40 metres (and one vessel of 33m length that uses hooks), catching tuna in South Atlantic and Indian Oceans. They represent less than half of one per cent of the fleet (0.4%), and generate approx. 15% of the national fleet's income.[30]

For this distant water fleet, data is only available for 2017 and 2018. In these two years only, the fleet consumed 114 million litres of fuel. This represents more than 18% of what the French fleet uses in total, which amounts to 624.3 million litres of fuel for those 2 years.

The AER report states on fuel consumption for the French fleet in general: "After 3 years of decline, energy consumption increased by 2.3% in 2018. This was mainly due to the distant water fleet with a high increase in consumption (+28%)."[31]

This fleet of just 22 vessels saved between €38 million and €76 million in just two years. CO2 emissions on the other hand exceeded 360,000 tons.

YEAR	NUMBER OF VESSELS	FUEL CONSUMPTION (IN L)	SAVED € DUE TO TAX EXEMPTION (SCENARIO 1 AT 0.33€/L)	SAVED € DUE TO TAX EXEMPTION (SCENARIO 2 AT 0.67€/L)	PROPOSED TAX PAYMENTS IN € (AT 0.0036€/L)	CO_2 EMISSIONS IN TONS (EMISSIONS FACTOR 3.17tCO_2/t FUEL)
2017	**22**	**50,138,073**	**16,545,564**	**33,592,509**	**1,804,970.62**	**158,938**
2018	**22**	**64,130,035**	**21,162,912**	**42,967,123**	**2,308,681**	**203,292**
TOTAL		**114,268,108**	**37,708,476**	**76,559,632**	**4,113,652**	**362,230**

Table 2: Fuel consumption, tax exemption (under Scenario 1 and 2), proposed tax payments under the ETD (COM (2021) 563), and CO2 emissions for the French purse seine fleet in distant waters (for 2 years). *Data for earlier years not available.*

30 - Scientific, Technical and Economic Committee for Fisheries (STECF): *The 2020 Annual Economic Report on the EU Fishing Fleet (STECF 20-06)*, 2020.

31 - Scientific, Technical and Economic Committee for Fisheries (STECF): *The 2020 Annual Economic Report on the EU Fishing Fleet (STECF 20-06)*, 2020.

6. DUTCH PELAGIC TRAWLERS

7 VESSELS | **681M LITRES** FUEL CONSUMPTION | **2.2M TONS** CO_2 EMISSIONS | **€225M-€456M** FROM TAX EXEMPTIONS | **667** ANNUAL SALARY EQUIVALENT | **€0-€24.5M** PROPOSED TAX PAYMENTS

The AER 2020 analyses the decline of the Dutch pelagic trawler fleet as follows: "The number of pelagic freezer trawlers (TM40XX) strongly decreased through the years (-50%). In 2008 there were 14 trawlers, in 2018 only seven left among the Dutch flag. Most of them were and are operative among foreign flag, often to better utilise EU pelagic species quota owned by other Member States."[32]

Apparently, the Pelagic trawler fleet predominantly operates "in the North East Atlantic Ocean and to a lesser extent in the North Sea. The fleet targeted pelagic species, particularly herring, mackerel, horse mackerel and blue whiting. The total estimated value of landings was over €116.5 million. [...] Information about the economic performance of the overall companies with cost allocations is not available, so it is hard to evaluate whether those profits resemble reality".[33]

In 2018 alone, those seven vessels consumed over 44.5 million litres of fuel - which amounts to nearly 28% of the total fuel consumption of the Dutch fishing fleet, which is estimated around 161 million litres. Those seven vessels alone therefore saved between €14 million and €30 million in taxes within one year. At the same time, carbon emissions amounted to over 140,000 tons of CO2.

Between 2008 and 2018, the fleet consumed over 680 million litres of fuel, and hence **saved €225 to €456 million in taxes**, and emitted over 2.1 million tons of CO_2. **These vessels are owned by just a few companies, meaning that all net profits are going into a few hands, whilst collected taxes could have instead helped pay 667 Dutch people a salary for that decade**.[34]

YEAR	NUMBER OF VESSELS	FUEL CONSUMPTION (IN L)	SAVED € DUE TO TAX EXEMPTION (SCENARIO 1 AT 0.33€/L)	SAVED € DUE TO TAX EXEMPTION (SCENARIO 2 AT 0.67€/L)	PROPOSED TAX PAYMENTS IN € (AT 0.036€/L)	CO_2 EMISSIONS IN TONS (EMISSIONS FACTOR 3.17tCO_2/t FUEL)
2008	**14**	**83,777,332.96**	**27,646,520**	**56,130,813**	**3,015,984**	**265,574**
2009	**13**	**72,282,718.90**	**23,853,297**	**48,429,422**	**2,602,178**	**229,136**
2010	**12**	**75,657,968.80**	**24,967,130**	**50,690,839**	**2,723,687**	**239,836**
2011	**14**	**75,810,755.14**	**25,017,549**	**50,793,206**	**2,729,187**	**240,320**
2012	**12**	**55,092,310.36**	**18,180,462**	**36,911,848**	**1,983,323**	**174,643**
2013	**13**	**56,842,885.79**	**18,758,152**	**38,084,733**	**2,046,344**	**180,192**
2014	**10**	**61,155,380.45**	**20,181,276**	**40,974,105**	**2,201,594**	**193,863**
2015	**7**	**49,000,438.55**	**16,170,145**	**32,830,294**	**1,764,016**	**155,331**
2016	**7**	**49,987,024.56**	**16,495,718**	**33,491,306**	**1,799,533**	**158,459**
2017	**8**	**57,112,367.98**	**18,847,081**	**38,265,287**	**2,056,045**	**181,046**
2018	**7**	**44,508,406.43**	**14,687,774**	**29,820,632**	**1,602,303**	**141,092**
TOTAL		**681,227,590**	**224,805,105**	**456,422,485**	**24,524,193**	**2,159,491**

Table 3: Fuel consumption, tax exemption (under Scenario 1 and 2), proposed tax payments under the revised ETD (COM (2021) 563), and CO2 emissions for the Dutch pelagic trawler fleet over 40m.

32 - Scientific, Technical and Economic Committee for Fisheries (STECF): *The 2020 Annual Economic Report on the EU Fishing Fleet (STECF 20-06)*, 2020.
33 - Scientific, Technical and Economic Committee for Fisheries (STECF): *The 2020 Annual Economic Report on the EU Fishing Fleet (STECF 20-06)*, 2020.
34 - The Gross monthly salary in The Netherlands is €2808. https://en.wikipedia.org/wiki/List_of_European_countries_by_average_wage

7. ITALIAN VESSELS UNDER 12M

7K+ VESSELS | **548M LITRES** FUEL CONSUMPTION | **1.7K TONS** CO_2 EMISSIONS | **€181M-€367M** FROM TAX EXEMPTIONS | **€19.7M** PROPOSED TAX PAYMENTS

According to the AER 2020, the small-scale Italian fleet (SSCF) described here accounted for 66% of all vessels under the Italian flag. However, performance is declining. "In 2018, the average price of total SSCF landings decreased by 16% compared to 2017 as a result of a decrease in average prices of certain target species. Over the same period, the volume of landings has increased by 3%. The number of vessels has remained unchanged as well as the effort (expressed in sea days)."[35]

In 2018 alone, the fleet segment consumed 28.5 million litres of fuel, and therefore saved between €9 million and €19 million in taxes. At the same time, carbon emissions amounted to 90,000 tons of CO_2. **Between 2008 and 2018, the fleet consumed almost 548 million litres of fuel, and hence saved between €180 million and €367 million in taxes, and emitted over 1.7 million tons of CO2 from burning fuel.**

YEAR	NUMBER OF VESSELS	FUEL CONSUMPTION (IN L)	SAVED € DUE TO TAX EXEMPTION (SCENARIO 1 AT 0.33€/L)	SAVED € DUE TO TAX EXEMPTION (SCENARIO 2 AT 0.67€/L)	PROPOSED TAX PAYMENTS IN € (AT 0.036€/L)	CO_2 EMISSIONS IN TONS (EMISSIONS FACTOR 3.17tCO_2/t FUEL)
2008	7885	56,756,405.60	18,729,614	38,026,792	2,043,231	179,918
2009	7834	63,668,456	21,010,591	42,657,866	2,292,064	201,829
2010	7822	58,570,937	19,328,409	39,242,528	2,108,554	185,670
2011	7850	74,109,058	24,455,989	49,653,069	2,667,926	234,926
2012	7674	56,252,686	18,563,386	37,689,300	2,025,097	178,321
2013	7624	71,777,583	23,686,602	48,090,980	2,583,993	227,535
2014	7597	32,419,915	10,698,572	21,721,343	1,167,117	102,771
2015	7457	36,967,947	12,199,422	24,768,524	1,330,846	117,188
2016	7322	35,589,941	11,744,681	23,845,261	1,281,238	112,820
2017	7346	33,176,143	10,948,127	22,228,016	1,194,341	105,168
2018	7,327	28,515,522	9,410,122	19,105,400	1,026,559	90,394
TOTAL		547,804,593	180,775,516	367,029,078	19,720,965	1,736,541

Table 4: Fuel consumption, tax exemption (under Scenario 1 and 2), proposed tax payments under the revised ETD (COM (2021) 563), and CO2 emissions for the Italian vessels under 12m using polyvalent gear

35 - Scientific, Technical and Economic Committee for Fisheries (STECF): *The 2020 Annual Economic Report on the EU Fishing Fleet (STECF 20-06)*, 2020.

8. PORTUGUESE LONGLINERS

56 VESSELS | **147M LITRES** FUEL CONSUMPTION | **466K TONS** CO_2 EMISSIONS | **€48M-€98M** FROM TAX EXEMPTIONS | **€0-€5M** PROPOSED TAX PAYMENTS

Portugal's 24-40m longlining fleet is a rather small segment (56 vessels in 2018) compared to the overall Portuguese fishing fleet with 7,887 vessels in total. 43 of those vessels are operating in the wider North Atlantic area, which leaves 13 vessels fishing in the outer fishing areas defined as 'other regions'.[36]

In 2018, those **56 vessels consumed over 13 million litres of fuel and hence saved between €4 million and nearly €9 million**. At the same time, emissions were over 42,000 tons of CO2. Between 2008 and 2018 the fleet is estimated to have used nearly 147 million litres of fuel – which makes for tax savings between €48 million and over €98 million. In those years, total CO2 emissions amounted to over 465,000 tons of CO2, which is **the equivalent amount of emissions as the country of Andorra**.[37]

YEAR	NUMBER OF VESSELS	FUEL CONSUMPTION (IN L)	SAVED € DUE TO TAX EXEMPTION (SCENARIO 1 AT 0.33€/L)	SAVED € DUE TO TAX EXEMPTION (SCENARIO 2 AT 0.67€/L)	PROPOSED TAX PAYMENTS IN € (AT 0.036€/L)	CO_2 EMISSIONS IN TONS (EMISSIONS FACTOR 3.17tCO_2/t FUEL)
2008	57	14,850,363	4,900,620	9,949,743	534,613	47,076
2009	62	16,140,833	5,326,475	10,814,358	581,070	51,166
2010	64	16,381,101	5,405,763	10,975,338	589,720	51,928
2011	65	16,012,128	5,284,002	10,728,126	576,437	50,758
2012	65	13,768,718	4,543,677	9,225,041	495,674	43,647
2013	61	12,639,097	4,170,902	8,468,195	455,007	40,066
2014	61	11,500,358	3,795,118	7,705,240	414,013	36,456
2015	58	6,007,183	1,982,370	4,024,813	216,259	19,043
2016	60	12,987,745	4,285,956	8,701,789	467,559	41,171
2017	57	13,272,174	4,379,817	8,892,357	477,798	42,073
2018	56	13,314,642	4,393,832	8,920,810	479,327	42,207
TOTAL		146,874,342	48,468,533	98,405,809	5,287,476	465,592

Table 5: Fuel consumption, tax exemption (under Scenario 1 and 2), proposed tax payments under the revised ETD (COM (2021) 563), and CO2 emissions for the Portuguese longline fleet segments between 24-40m length. *For 2015 there are the same amount of vessels in the fleet, fuel consumption numbers of some sections are incomplete.

36 - Scientific, Technical and Economic Committee for Fisheries (STECF): *The 2020 Annual Economic Report on the EU Fishing Fleet (STECF 20-06)*, 2020.

37 - https://ourworldindata.org/co2-emissions

9. CONCLUSIONS

Through the burning of 2.3 billion litres of fuel each year, the EU fishing industry is producing 7.3 million tonnes – or the equivalent amount of CO2 as all of Malta. They evade paying taxes of €759 million to over €1.5 billion on this fuel each year - money which could be funding a transition to more energy efficient fishing methods, training people into new jobs or paying over 31,000 salaries based on a monthly income of €4000. Moreover, the most destructive and fuel-hungry fishing vessels benefit the most from these perverse subsidies, while the climate, fisheries, and small scale fishers suffer the consequences.

The EU has an obligation according to the new European Climate Law to eliminate as much CO2 as possible in order to reach climate neutrality by 2050. As Inger Anderson, Executive Director of the United Nations Environment Programme said when the latest IPCC report was released: every ton of CO2 counts. And the EU fishing fleet must be responsible for paying the true price of CO2 emissions from fossil fuel burning.

The ETD review proposes a small, nominal tax for the fishing industry, but this will do nothing to halt the climate crisis or restore the EU's overfished and unhealthy seas. Tax exemptions for the fishing industry should be completely removed from the revised directive and all energy products taxed according to their energy and carbon content. This will simultaneously increase the budget of EU member states and help fund a transition to a more sustainable fisheries sector that doesn't cost the earth.

10. APPENDIX:

10.1. GENERAL ABBREVIATIONS

AER Annual Economic Report on the EU Fishing Fleet
DCF Data Collection Framework
JRC Joint Research Centre
MS Member State

10.2. FLEET SEGMENT DCR[38]

The fleet segment is defined by the gear code and the vessel length category

FISHING_TECHNIQUE = gear codes - see codes below
VESSEL_LENGTH = vessel length class - see codes below. It defines the minimum and maximum vessel length of fleet segment

The segmentation to level 2 is defined in Appendix III of the Commission Regulation 1639/2001, to level 3 in Appendix VIII and to level 4 in Appendix X.

VESSEL_LENGTH

VL0012 = vessels less than 12 metres in length
VL1224 = vessels between 12 metres and 24 metres in length
VL2440 = vessels between 24 metres and 40 metres in length
VL40XX = vessels greater than 40 metres in length

38 - European Commission: *Fleet Segment DCR*, accessed 26th Jan. 2021, https://datacollection.jrc.ec.europa.eu/wordef/fleet-segment-dcr.

FISHING_TECHNIQUE

		Level 1	Level 2 (1)	Level 3	Level 4
Non Active vessels			non active vessels		
Active vessels	MB	Mobile gears			
	TBB*		Beam trawl		
	NSS			North Sea < 221kW	
	NSL			North Sea > 221kW	
	NSO			Outside North Sea	
	DTS*		Demersal trawl and demersal seiner		
	OTB			Bottom trawl	
	STB				Single trawl
	PTB				Paired trawl
	TTB				Twin trawl
	MTB				Other multirig trawl
	FTB				Four-panels trawl
	HTB				High-opening trawl
	DSS			Danish and Scottish seiners	
	SDN			Danish seiners	
	SSC			Scottish seiners	
	DTP			Polyvalent	
	PTS*		Pelagic trawls and seiners		
	OTM			Pelagic trawl	
	STM				Single trawler
	PTM				Paired trawlers
	PEL			Pelagic seiner and purse seiner	
	PELFAD				With FAD
	PELNOFAD				Without FAD
	PPS			Polyvalent	
	DRB*		Dredges		
	DRH			Hydraulic dredge	
	DRO			Other dredges	
	MGP*		Polyvalent mobile gears		
	MGO*		Other mobile gears		
	PG* (VL0012)	Passive gears			
	FGL			Fixed gears and lines	
	FGN			Fixed nets	
	FTN				Trammel nets
	FEN				Entangling nets
	GIN				Gill nets
	HOK*		Gears using hooks		
	LON			Longlines	
	LONSUR				Surface longlines
	LONBOT				Bottom longlines
	LONMID				Mid-waterlines
	HOO			Other gears using hooks	
	HOT				Troll line
	HOP				Pole line with live bait
	HOW				Pole line without live bait
	DFN*		Drift nets and fixed nets		
	DNE			Drift nets	
	FPO*		Pots and traps		
	FPT			Fish traps (2)	
	FPC			Crustaceans pots (3)	
	PGP*		Polyvalent passive gears		
	PGO		Other passive gears		
	PVG	Polyvalent gears			
	PMP*		Combining mobile & passive gears		
	NOL	Vessels with no license			

(1) According to level 2 (appendix III) data should only be reported for the gear codes in bold*.

(2) Including trap nets and pound nets.

(3) With possible subdivision by target species.

10.3. GEOGRAPHICAL STRATIFICATION BY REGION[39]

The Geographical stratification by region table provides the match between Supra regions, Regions and Sub-regions/ fishing grounds.

Note that the geographical stratification in the EU-MAP has been redefined.

Apart from more disaggregated Regions in the North Atlantic (NAO), the CECAF areas around Madera and the Canary Islands are now included in the Supra region of the North Atlantic (now termed NAO, previously termed Area 27 in the DCF/AER). Under the DCF, these areas were included in OFR (Other regions). The differences between the DCF and EU-MAP are highlighted in the tables below.

Geographical stratification by region as set out in Table 5C of Commission Decision (EU) 2016/1251 (EU-MAP).

Supra region code	Supra region (level III)	Region (level II)	Sub region / fishing ground (level I)
NAO	Baltic Sea; North Sea; Eastern Arctic; NAFO; Extended North - Western waters (ICES areas V, VI and VII) and Southern Western waters	NAFO N	AFO division
		Baltic Sea I	CES sub-division
		North Sea Eastern Artic	ICES division
		North-Western waters	
		Non-Union North-Western waters	
		Southern Western waters I	CES / CECAF division
		CECAF areas around Madeira and the Canary Island	
MBS	Mediterranean Sea and Black Sea	Mediterranean Sea Black Sea	GSA
OFR	Other region	Other regions where fisheries are operated by Union vessels and managed by RFMOs to which the European Union is contracting party or observer (e.g. ICCAT, IOTC, CECAF areas not included in NAT, etc.)	RFMO sampling sub-areas (except GFCM)

Geographical stratification by region as set out in Table 5C of Commission Decision (EU) 2016/1251 (EU-MAP).

Supra region code	Supra region (level III)	Region (level II)	Sub region / fishing ground (level I)
Area 27	Baltic Sea, North Sea and Eastern Arctic and North Atlanti c	Baltic Sea I	CES sub-division
		North Sea and Eastern Arctic I	CES division
		North Atlantic I	CES/NAFO division
MBS	Mediterranean Sea and Black Sea	Mediterranean Sea Black Sea	GSA
OFR	Other region	Other regions where fisheries are operated by Union vessels and managed by RFMOs to which the European Union is contracting party or observer (e.g. ICCAT, IOTC, CECAF etc.)	RFMO sampling sub-areas (except GFCM)

39 - *European Commission: Geographical Stratification*, accessed 26th Jan. 2021, https://datacollection.jrc.ec.europa.eu/web/dcf/wordef/geographical-stratification.

10.4. DEFINITION OF SMALL SCALE, LARGE SCALE AND DISTANT WATER FLEETS IN THE AER REPORTS

The three main types of fishing activity used in the AER are defined as:[40]

- Small-scale coastal fleet (SSCF) - includes all vessels under 12 metres using static gears. According to the DCF gear definitions these include: 'drift and/or fixed netters', 'pots and/or traps', 'hooks', 'passive gears only', 'other passive gears', 'polyvalent passive gears only', 'active and passive gears'.
- Large-scale fleet (LSF) - segment includes all vessels over 12 metres using static gears and all vessels using towed gears operating predominately in EU waters. According to the DCF gear definitions these include: 'dredgers', 'demersal trawlers and/or demersal seiners', 'other active gears', 'polyvalent active gears only', 'purse seiners', 'beam trawlers', 'pelagic trawlers'.
- Distant-water fleet (DWF) - includes EU registered vessels over 24 metres operating in 'other fishing regions' including EU outermost regions

40 - Scientific, Technical and Economic Committee for Fisheries (STECF): *The 2020 Annual Economic Report on the EU Fishing Fleet (STECF 19-06)*, 2020.

Our Fish

our_fish

Contact: rebecca@our.fish