Power structures shaping EU fisheries

How the political economy favours industrial over small scale, low impact fishing





About Profundo

With profound research and advice, Profundo aims to make a practical contribution to a sustainable world and social justice. Quality comes first, aiming at the needs of our clients. Thematically we focus on commodity chains, the financial sector and corporate social responsibility. More informat\ion on Profundo can be found at www.profundo.nl.

Authorship

This report was researched and written by Barbara Kuepper. Correct citation of this document: Kuepper, B. (2025, January), *Power structures shaping EU fisheries - How the political economy favours industrial over small scale, low impact fishing,* Amsterdam, The Netherlands: Profundo, commissioned by Seas At Risk, BUND, Ecologistas en Acción and Sciaena.

Front page cover photograph by Christo Anestev - Pixabay.

Acknowledgements

Expert interviews informed parts of this study. The author would like to thank Daniel Skerritt (Senior Analyst, Oceana), Arne Kinds (Postdoc, Universidad de Santiago de Compostela), Ward Warmerdam (Senior Researcher, Profundo), and Bruno Nicostrate (Senior Policy Officer, Seas At Risk).

Disclaimer

Profundo observes the greatest possible care in collecting information and drafting publications but cannot guarantee that this report is complete. Profundo assumes no responsibility for errors in the sources quoted or for changes after the date of publication. When any error in this report comes to light, Profundo will promptly correct it in a transparent manner.



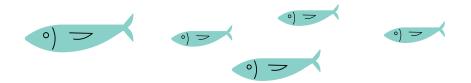








	1
Contents	
Summary Key recommendations from the study:	
Introduction	
1. Sector characteristics of EU fisheries	ç
1.1. The sector in numbers	
2. EU fisheries policy landscape	16
2.1 Policy instruments and key objectives	
3. Socio-economic aspects of EU fisheries	2
3.1 Allocation of fishing opportunities	2
3.2 EU fisheries subsidies	
3.3 Case study: Fisheries in Germany	
3.4 Case study: Fisheries in Portugal	
4. Conclusions and recommendations	46
4.1. Improve SSCF policy support	4 <i>6</i>
4.2. Implement Article 17 to quota allocation and tailor management	47
4.3. Review funding support and subsidies	
4.4. Improve data granularity and transparency	
4.5. Conclusion	
References	5£



Summary

The EU fisheries sector entwines important economic, environmental, and social dimensions. It contributes to food availability, and small-scale coastal fisheries (SSCF), particularly, are vital to coastal livelihoods and cultural heritage. To fulfil these roles, fisheries depend on healthy fish populations and a fair distribution of marine resources. Recognising these critical areas of attention, the latest reform of the EU Common Fisheries Policy (CFP) in 2013 introduced various measures to incorporate social, economic, and environmental dimensions in its sustainability agenda. Of particular interest in this context is Article 17, which encourages the application of socio-economic, and ecological criteria in allocating fishing opportunities and asks Member States (MS) to use transparent and objective criteria in doing so.

There is broad consensus that the more ecology-oriented and science-based management principles introduced by the reform have improved the environmental sustainability of EU fisheries. However, overfishing persists, and the European Commission (EC) and the MS must intensify efforts to avert a further decline in marine biodiversity, while fully rebuilding and preserving healthy population levels of all species. Due to the close interconnection of the different dimensions, these issues significantly influence the economic viability of fisheries and the livelihoods of fishers and coastal communities. The socio-economic status of the EU fisheries sector, and especially the challenges faced by SSCF, stand at the centre of this study.

However, evaluating the outcomes of the CFP concerning its social dimension is particularly challenging, as it misses clear definitions, and no exhaustive assessment system has been put in place yet. A lack of comprehensive and robust social data is a significant obstacle in thoroughly evaluating how MS allocate fishing opportunities, and the type of social criteria included, if any. There are doubts about the CFP's success in implementing social objectives, securing fair access to opportunities, quality livelihoods, and economic efficiency. Current quota allocation systems still rely heavily on relatively simple criteria like historical track records and vessel size – criteria considered to be outdated and insufficient to support SSCF and low-impact practices effectively. While SSCF contribute significantly to employment, community cohesion and are generally seen as using less destructive fishing methods, they remain under-supported and under-represented compared to industrial fleets. Meanwhile, examples of alternative allocation approaches in different MS illustrate ways to facilitate a transition towards low-impact fishing practices while securing income for those working in the sector.

The integrated industrial fishing companies operating across multiple EU and non-EU fishing grounds undoubtedly succeed in obtaining access to substantial quota shares. Large-scale fisheries (LSF) benefit from larger subsidy shares yet provide less employment and use more harmful fishing methods. The exemption under the EU's Energy Taxation Directive (ETD) is particularly controversial, as it reduces mainly the costs of the fuel-intensive fishing methods of large-scale and distant water fleets. Greater data availability and transparency could enable a full description of the economic and quota concentrations.

A conclusive answer to the question to what degree the industrial fisheries sector is favoured in the current EU fisheries political economy is hampered by a lack of comprehensive data disclosure and availability. However, there are ample indications that the adoption of market-based management principles and the effective granting of free fishing rights has been more beneficial for a privileged group of large-scale fishers who generated significant returns. Meanwhile, small-scale fisheries and their communities did not reap the same benefits due to unequal opportunities to advocate for their interests and access to resources. While closely interweaved with environmental and economic objectives, the social aspects need much stronger consideration to achieve the stated aim of the CFP to transition to a fairer fisheries economy that can be sustained in the long term.

Key recommendations from the study:

1. Improve SSCF policy support:

- EU fisheries policies should prioritise low-impact fisheries, improving job quality, fair income, and social cohesion in SSCF-dependent areas.
- To address the sector's social needs, transparent consultations with diverse stakeholders, including SSCF and independent experts, are essential for a balanced policy formulation and implementation.
- Public disclosure of decision-making processes and lobbying efforts could counter the influence of large-scale interests.

2. Implement Article 17 to quota allocation and tailor management:

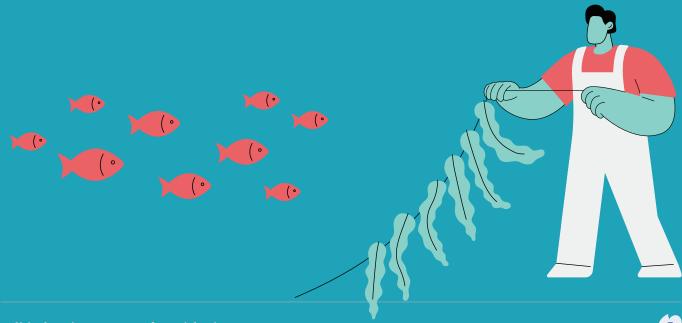
- In accordance with Article 17, a balanced approach to allocating fishing opportunities should consider socio-economic impacts like employment and cultural contributions alongside environmental criteria.
- A tailored management approach locally that emphasises the needs of the SSCF and sustainable practices could contribute to achieving environmental goals and social stability.
- Ensure allocation transparency and accessibility. Full disclosure of allocation criteria and public registers
 for quota allocations mechanisms and outcomes by MS are fundamental conditions to improve fairness
 and accountability in the management of fishing opportunities.

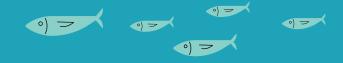
3. Review funding support and subsidies:

- Harmful subsidies, like fuel tax exemptions for industrial fleets, should be phased out. The remaining public funds should incentivise low-impact and energy-efficient fisheries and the integration of traditional, local fishing practices.
- Programmes for generational renewal, diverse participation in fisheries, fair resource access, and comanagement efforts should be supported. As no one size fits all, finding balanced solutions to subsidy reallocation should be the subject of further research.
- The long-term aim should be a transition towards a more sustainable and low-impact fisheries sector that is economically viable without constant public support.
- The EU should take a leading role at the World Trade Organisation in the global initiative to end harmful fishing subsidies and ensure that its fisheries policies support SSCF fairly and sustainably.

4. Increase data quality and accuracy:

- Data collection on socio-economic impacts should be strengthened to inform better management.
- Access to disaggregated socio-economic and environmental data would support fairer distribution and improve policy decisions.





Abbreviations

CFP	Common Fisheries Policy
СМО	Common Market Organisation
CR	Concentration Ratio
DaS	Days-at-Sea
DWF	Distant Water Fisheries
EC	European Commission
EEA	European Environmental Agency
EEZ	Exclusive Economic Zone
EMFAF	European Maritime, Fisheries and Aquaculture Fund
EMFF	European Maritime and Fisheries Fund
EP	European Parliament
ETD	Energy Taxation Directive
EU	European Union
FAD	Fish Aggregating Device
FTE	Full-Time Equivalent
GT	Gross Tonnage
нні	Herfindahl-Hirschman Index
IATTC	Inter-American Tropical Tuna Commission
ICCAT	International Commission for the Conservation of Atlantic Tunas
ІОТС	Indian Ocean Tuna Commission
ITQ	Individual Transferable Quota
LSF	Large-scale Fisheries
MBS	Mediterranean and Black Sea
MS	Member State
NGO	Non-Governmental Organisation
PO	Producer Organisation
RFMO	Regional Fisheries Management Organisation
SSCF	Small-scale Coastal Fisheries
STECF	Scientific, Technical and Economic Committee for Fisheries
TAC	Total Allowed Catch
TFP	Total Factor Productivity
VMS	Vessel Monitoring System
WCPFC	Western and Central Pacific Fisheries Commission
WTO	World Trade Organisation

Definitions

Demersal fish:

Found near or on the bottom of the sea.

Pelagic fish:

Found in the midwater and surface areas of the sea.

Benthic fish:

Found on or under the bottom of the sea.

Passive fishing:

Catching fish with static gear, e.g. hooks, fixed nets, pots, etc.

Active fishing:

Catching fish with towed gear or otherwise moved in deliberate pursuit of the target species, e.g. trawl nets, dredges, seines, etc. Demersal trawlers have a high risk of disturbing the seabed and a high bycatch rate of non-target species. Pelagic trawlers catch high rates of juvenile fish and vulnerable species.

Small-Scale Coastal Fishing (SSCF):

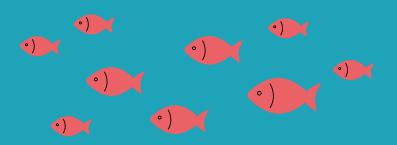
Vessels with a length <12 metres using passive gears.

Large-Scale Fleet (LSF):

Vessels >12 metres using static gears and all vessels using towed gears.

Distant Water Fleet:

EU-registered vessels >24 metres flying the flag of a Member State and fishing predominately in non-EU waters.





Introduction

This research study analyses the political economy landscape of fisheries in the European Union (EU). It builds on third-party scientific and grey literature, including data collections to describe the influence of the current market design, its underlying regulatory regime on the sector's social structure and the fairness of resource distribution. While fisheries' environmental and socio-economic dimensions are closely interconnected, the study focuses on the socio-economic aspects.

Fisheries is a vital business sector in Europe, contributing to food availability, providing employment, while playing a crucial role in the economic and social stability of many coastal communities. Its large fishing fleet gives the EU a special responsibility to make fisheries more environmentally sustainable, safeguard fish populations and healthy marine ecosystems while at the same time providing a fair distribution of resources and profits. Activities of EU fishing vessels are regulated by a set of policies, most notably the EU Common Fisheries Policy (CFP), which aims to ensure that fishing activities "[...] are environmentally sustainable in the long-term and are managed in a way that is consistent with the objectives of achieving economic, social and employment benefits, and of contributing to the availability of food supplies."

Indeed, policy changes over the years, particularly the 2013 CFP reform, have incrementally introduced principles for more ecology-orientated and science-based fisheries management. Good management shows some positive effects, as in recent years, the exploitation of an increasing number of fish populations under the CFP has reached more sustainable levels.² Nonetheless, fisheries, particularly by large vessels with destructive gears, continue to be the leading cause of marine biodiversity loss and ecosystem degradation through seabed damage, high rates of by-catch, and high CO2 emissions.³

Recognising the sector's socio-economic aspects, the CFP aims explicitly to provide circumstances for economically viable and competitive fishing and processing, contribute to a fair standard of living, specifically in the small-scale fisheries segment that provides most of the sector's employment, and promote coastal fisheries.⁴ However, there are indications that the different reforms of the CFP have instead built a business environment focusing on profit maximisation, which has favoured the industrial segment of the sector and created a concentrated situation that endangers other sector segments.

The political economy of the EU fishery sector can be broadly defined as the interaction between political institutions, economic structures, and social forces that shape policymaking and economic outcomes in the European context. Political decisions influence economic policies and outcomes and vice versa. Governance structures like the European Union and Member State (MS) governments, their fisheries-related regulatory environment, fiscal policies, market structures, as well as broader social and environmental circumstances and policies are among the many influencing factors.

Understanding the economic, social, and political drivers shaping the fisheries market is crucial to improving the sector, addressing inequalities and transitioning to a fisheries sector fully aligned with the CFP and the EU's broader sustainability goals. To this end, the study first provides a brief description of the key characteristics of the sector in Chapter 1, and specifically the small-scale coastal fisheries segment. Chapter 2 summarises the regulatory instruments for the EU fisheries sector and their key impacts. Chapter 3 then looks at the critical socioeconomic aspects of EU fisheries and their specific links with the low-impact SSCF segment. Chapter 4 concludes with the findings.





To frame the analysis, this chapter provides a brief overview of the fisheries sector landscape in the EU. It gives an overview of key economic indicators and looks specifically at the developments in the small-scale fleet as the segment that supports most livelihoods.

1.1 The sector in numbers

In 2021, the EU fishing fleet counted 54,213 vessels, of which 76% (41,237) were part of the small-scale coastal fisheries (SSCF) fleet. The large-scale fisheries (LSF) fleet accounted for 23% (12,738), with vessels between 12-24 metres accounting for the largest share (20%), while those larger than 24 metres made up 3% of the total. Less than 0.5% (238) were contributed by the distant water fisheries (DWF) fleet.

The total sector generated direct employment for 121,917 fishers or the equivalent of 81,747 full-time equivalents (FTEs) in 2021. Overall employment on EU fisheries vessels decreased by 11% since 2013. Around 29% of the workforce performed unpaid labour.^{c,6} Much unpaid labour is performed by women, particularly in small family-owned businesses; however, this work is often not recognised.⁷

Capture fisheries employment is comparatively concentrated among a relatively small number of member states (MS). Spain (26.3%), Italy (17.1%), and Greece (13.4%) have the largest shares, which also means that a significant share of employment is in the Mediterranean. The three countries account at the same time for a sizeable share of the SSCF fleet in the EU at a combined total of 49% Small boats under 12 meters dominate employment in EU fisheries, with a share of almost 50% (Table 3). Despite the significant share in landings accounted for by the industrial fishing fleet, its high efficiency means that employment is low.

The average annual remuneration per FTE in EU fisheries, including unpaid labour, was estimated at \le 26,387 in 2021. However, it ranged from more than \le 100,000 for fishers in the Belgian and Danish fleet to less than \le 2,500 for fishers in Cyprus and Bulgaria. Income is particularly precarious in the SSCF fleet (see section 1.2).

During 5.5 million days-at-sea (DaS) in 2021, the EU fishing fleet consumed a total of 1.81 billion litres of fuel. Total seafood landings amounted to 3.6 million tonnes with a value of \in 6 billion. The SSCF contributed 7% of the total weight, while the LSF accounted for 74% and the DWF fleet for 19%.

Not considering 17,415 inactive vessels.

b The LSF fleet is divided into 12-24 metres and > 24 metres length, as many 12-24 metres vessels fall into the 'artisanal' category based on their operation mode. DWF vessels are > 24 metres, flying the flag of a Member State and fishing predominately in non-EU waters.

c The EU data considers the estimated opportunity cost of unpaid labour; that is, the value that could potentially be earned elsewhere. These costs include, for example, the vessel owner's own labour (self-employed) and the unpaid labour of family members.

Infographic 1 Role of EU fleet segments, 2021

	EU fisheries sector in numbers							
	Small-scale coastal fisheries	Large-scale fisheries <24 m	Large-scale fisheries >24 m	Distant water fisheries				
Active vessels	76,1%	20,1%	3,4%	0,4%				
Engaged crew	† † † † † † † † † † † † † † † † † † †	31,6%	111111111	† † † † † 5,5%				
Catch (weight)								
	6,8%	22,5%	51,4%	19,2%				
Catch (value)	0000000 0000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6				
	15,7%	32%	35%	17,4%				

Based on Table 3 p50

Compared to 2013, EU fleet capacity decreased gradually, declining by 11% in the number of active vessels, decreasing by 8% in total engine power, and declining by 7% in gross tonnage (GT). The number of full-time fishers decreased by 20% (Table 3). The number of vessels had already reduced since the 1970s; however, many individual fleets concurrently experienced an increase in their average engine power while fish populations remained overexploited. These developments suggest fewer ships, but the remaining ones are, on average, larger and more powerful.

At the national level, four countries out of 22 evaluated generated net losses (Cyprus, Greece, Germany and France) in 2021, meaning the sector was not profitable after all expenses were subtracted from total revenue. 12

Spain is the leading EU fisheries country, accounting for 22% of the landed weight and 29% of the landed value in 2021. France follows with 14% of the weight and 21% of the value. The top five countries by landed weight also include Denmark (13%), the Netherlands (8%), and Ireland (6%), jointly making up about 64% of the EU landings reported in 2021. ¹³

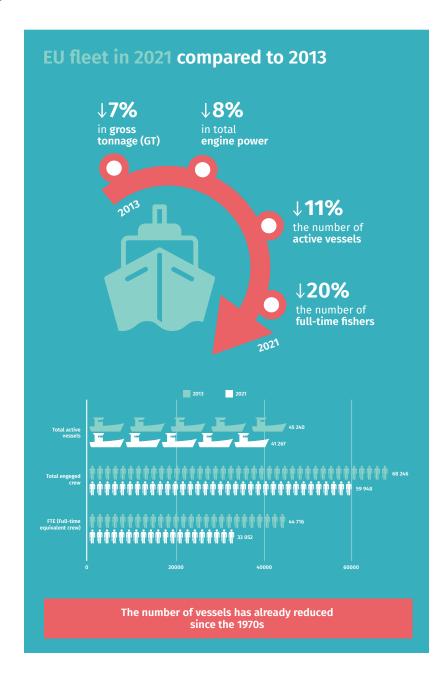
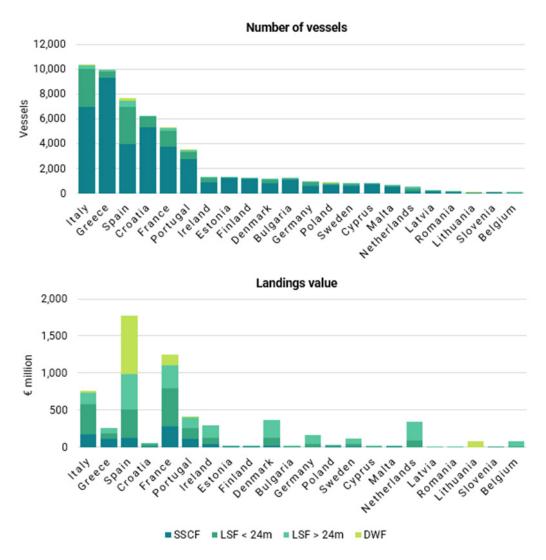




Figure 2 Active fleet composition in EU member states, 2021



Source: Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) – Data Annex, Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF).

In 2021, the EU fish processing industry counted 3,200 firms, generated a turnover of € 29.4 billion, and employed more than 111,000 people (102,000 FTEs). This was the highest level over the period 2013-2021. It processes marine catch, aquaculture production, and imported seafood. Around 98% of the processing enterprises are small- or medium-sized (SMEs, <250 employees). With 18% of the total, Spain has the largest share of enterprises. They accounted for 26% of the total EU turnover. Salmon, pollock, herrings, tuna, and shrimp are the top species processed by the EU industry by volume, accounting for roughly 50% of the total. 14

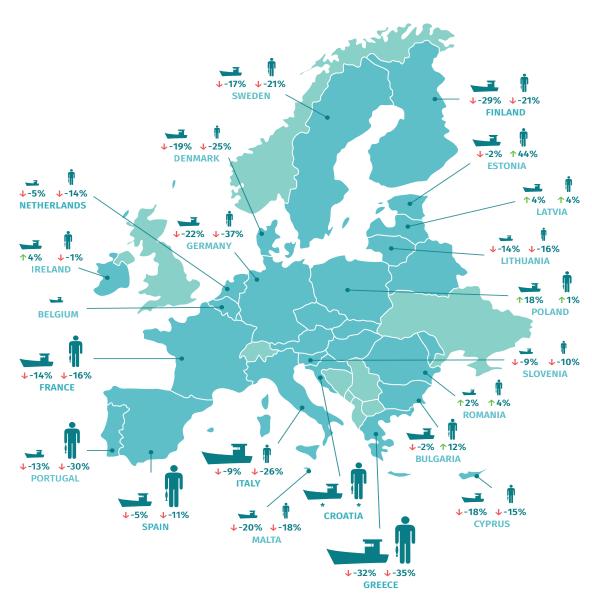
d The almost 184,000 FTEs in fisheries and processing do not yet account for additional indirect jobs in ancillary market segments.

1.2 The specific situation of small-scale coastal fisheries

The small-scale coastal fisheries (SSCF) in the EU, typically family-owned micro-businesses, provide the most employment and are an essential contribution to local economies. The SSCF fleet is particularly important in Southern Europe, where it has been playing a dominant role in the livelihoods of coastal communities for centuries. In 2021, the Mediterranean fleet accounted for around 57% of all vessels and 47% of the EU employment (FTE). The fleet supplied 9% of the EU landings in weight and 25% in value. The fleet supplied 9% of the EU landings in weight and 25% in value.

The largest SSCF fleets are in Greece, Italy, Croatia, Spain, France, and Portugal. However, in most of the 22 MS with a coastline, the number of SSCF vessels and the employment attached to them saw a significant decrease between 2013 and 2021 (Table 3). Across the complete SSCF fleet, the number of FTEs decreased by 31%, while the engaged crew decreased by 19%. In combination with a reduction in the number of active vessels by 9%, this development suggests a significant increase in part-time jobs.

Infographic 1 Development of active SSCF fleets per MS, 2013 to 2021



- * The evolution is biased due to regulatory adjustments after Croatia's accession to the EU in 2013.
- ** The size of the boat and person icons is proportional to their share of the total EU figures.
- *** Based on Table 4 p51.

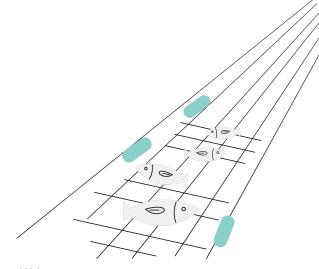
An analysis by WWF (2021) concluded that many workers in the SSCF sector still earn below the national minimum wage. Relative wages were generally the lowest and predominantly below the minimum wage for fleets from Bulgaria, Malta, Slovenia, Greece, and Cyprus, who operate their vessels exclusively in the Mediterranean and Black Sea (MBS). Poor wage performance not only raises concerns about the quality of employment but also whether the relevant fish populations may not be sufficient to provide a sustainable livelihood for the associated fishers. The study observed little change in this situation since 2012, indicating that policy changes and fisheries management have not improved socio-economic outcomes for fishers and coastal communities in the region. 17

Across the EU, the WWF assessment of 2018 data revealed that 43% of EU capture fisheries employment was associated with fleets in which the average wage was below the national minimum wage. However, at 70%, this share was even higher for vessels in the SSCF fleet, illustrating the scale of the issue in this fleet segment. A reason for this situation can be found in the shared remuneration systems commonly observed in the fishing sector. Receiving a share of the revenues rather than a fixed wage means low productivity leads to low income.

A wage that provides for an adequate living is an essential criterion for the quality of employment. Financial instability creates vulnerabilities, especially for the self-employed workforce and lower-paid workers, as observed during the recent economic crises. Despite their high significance for employment, SSCF vessels often perform poorly in wages and are marked by a high ratio of part-time employment, which may require supplementary employment. It is unclear whether such opportunities are currently available.²⁰

In the EU, the SSCF fleet is defined as vessels under 12 meters that do not use trawling techniques. It is considered less harmful to marine ecosystems than larger vessels using bottom trawling or longline fishing. SSCF use less fuel, causes less bycatch, and has lower discards. The catch is predominantly destined for local or regional consumption rather than industrial processing. Economically, SSCF in the EU have been found to use the production factors capital and labour more efficiently, resulting in twice as high productivity than the LSF. This difference is likely owed to shorter value chains and a stronger focus on quality. Furthermore, SSCF are critical in supporting the livelihoods of coastal communities by indirectly creating non-outsourceable jobs and play an essential role in the sustainable development of fisheries.

However, SSCF are not automatically a synonym for low-impact fisheries. Their operations and impacts must also be appropriately assessed, monitored and controlled.²⁵ It is not yet mandatory for the EU SSCF fleet to carry a vessel monitoring system (VMS) on board while being responsible for a considerable share of catches.^g The bycatch of vulnerable species in SSCF fisheries remains an issue, particularly concerning various species in France, Italy, and Spain²⁶ and harbour porpoises in Denmark, Germany, and Sweden.²⁷ Solving this issue requires improved fishing techniques, gear restrictions, and seasonal closures. Spain and Italy, especially, still register trawlers and dredgers under the SSCF fleet. In this context, a transition from trawling to passive, more selective fishing methods like gillnets, pots, and traps would be important.²⁸



e The WWF analysis is based on STECF data, which includes the estimated opportunity cost of unpaid labour.

f However, MS have at times differing definitions, applying somewhat differing length or gear criteria.

g Vessels under 15 metres are exempted until January 2026. For vessels under 12 metres, alternative systems including mobile apps using land-based networks will be developed. All fishing vessels under 12 metres will be tracked by January 2028, while some vessels under 9 metres may be exempt until 2030, depending on MS approval.

Netting influence - fisheries industry lobby

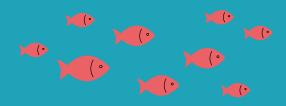
The industrial fishing lobby primarily targets the EU Council of Ministers as the body with decision-making power on the volumes of fish that can be caught. The influence of this lobby becomes visible when considering that scientific advice on maximum sustainable catch has repeatedly been greatly surpassed by EU politicians.

According to a lobbyist for large trawlers, "[t]he only reason why we are fighting sometimes against scientific advice is because we are convinced there is a flaw in it. That's why we will negotiate with the politicians and say "Please listen to us because we have more information that could be important – for a good setting of [TACs] and quota.""²⁹ In 2023, industry lobby group Europêche warned that "the CFP is being undermined by environmental policies" and expressed its support for the European Bottom Fisheries Alliance's criticism of the phase-out of bottom-contacting gears that is foreseen in the EC action plan to protect and restore marine ecosystems.³⁰ Meanwhile, in its evaluation of industry influence on biodiversity policy, InfluenceMap assigned Europêche an E-score of less than 30%, suggesting a broadly oppositional stance towards addressing biodiversity loss.³¹

While the TAC meetings of the Council are closed to the public, in 2017, NGOs Corporate Europe Observatory (CEO) and Seas at Risk uncovered how industry lobbyists with close links to the Dutch PP Group^h entered the Council of Ministers premises by obtaining press IDs. The lobbyists were observed as having meetings with the Dutch Government delegation in the middle of ongoing negotiations on new fishing quotas. At the same Council meeting, the Netherlands was able to secure higher quotas for several fish stocks, including some quota increases above scientific advice and EC proposals.³² Meanwhile, other stakeholders are not even able to gain insight into notes from the relevant Agriculture and Fisheries Councils, as no details on the position of different MS or the evidence presented are accessible. Already in 2020, the EU Ombudsman, in a recommendation to the Council, asked to "[...] proactively make public documents related to the adoption of the TAC Regulation at the time they are circulated to Member States or as soon as possible thereafter." However, the disclosure situation has not improved yet.

The European tuna lobby is especially strong. Investigations by BLOOM revealed that the annual number of industrial lobbyists within the EU delegation to the Indian Ocean Tuna Commission (IOTC) meetings more than doubled over a period of six years, from an average of eight in 2015 to 18 in 2021.³⁴ At the 2023 meeting, more than half of the EU's delegation was made up of fishing industry lobbyists. Around the same time, the EU objected to a proposal by African and Asian coastal nations to restrict the use of harmful fish aggregating devices (FADs) that disproportionately harvest juvenile tuna and attract other endangered species.³⁵ Yellowfin tuna populations in the Indian Ocean are in critical condition.³⁶ Concerns over the influence of the EU industrial fishery sector over Indian Ocean states were confirmed when the Seychelles, a country that is highly economically dependent on the EU and has more than a dozen EU-owned tuna vessels carrying its flag, made proposals to the IOTC meeting that appeared to have been made by Europêche and other tuna industry groups.³⁷ The EC rejected claims that the EU position was dominated by commercial interests.³⁸

Concerns over regulatory capture by industry interests are exacerbated by cases of revolving doors. In 2022, the NGOs BLOOM and Corporate Europe Observatory (CEO) filed a formal complaint to the EU Transparency Register, as the representative in charge of distant water fleets for the French government was appointed as director of the tuna group of the industry lobby organisation Europêche without adhering to the legal cooling down period of three years. This move coincided with crucial EU negotiations for tuna fleets from France and Spain. Their large-scale and non-discriminatory purse seiner fleets catch large amounts of unsorted species and juveniles of tuna, putting them in continuous violation of the existing legal framework.³⁹



h Through membership in industry lobby groups like the Pelagic Freezer-Trawler Association (PFA) and the European Association of Fish Producers Organisations (EAPO).

2 EU fisheries policy landscape

Regulations shape the operational environment of an economic sector, determining and influencing key factors such as market organisation, resource allocation, and competition. The EU fisheries sector is regulated and influenced by three key policy instruments: the Common Fisheries Policy, Common Market Organisation, and the EU Maritime, Fisheries, and Aquaculture Fund regulations. The following sections summarise the main objectives and approaches of these instruments before discussing their impact on the sector's socio-economic performance.

2.1 Policy instruments and key objectives

The Common Fisheries Policy (CFP), first introduced in 1970, is the primary legal framework governing all European Union (EU) fisheries activities. It covers fishing activities in EU waters, EU fishing fleets in international waters, and fishing agreements in exclusive economic zones (EEZ) of non-EU states. The governance of fisheries in EU waters is shared between the EU and its member states (MS), extending down to the level of regional and local governments, producer organisations (POs), and, in some cases, local fishing cooperatives with specific management powers.⁴⁰

The latest CFP reform was adopted in 2013 and entered into force in 2014, introducing various measures to achieve the objective of combining social, economic and environmental dimensions. Its stated aim is to ensure the long-term sustainability of fisheries and the availability of food supplies, while guaranteeing jobs and stable incomes for fishermen. It rests on three main pillars:

- CFP Regulation (EU) No 1380/2013;
- Common Organisation of the Markets (CMO) in fishery and aquaculture products Regulation (EU) No 1379/2013);
- European Maritime, Fisheries and Aquaculture Fund (EMFAF) Regulation (EU) No 508/2014.

2.1.1 Common Fisheries Policy

The CFP regulation emphasises the environmental, economic, and social dimensions of fisheries, with key measures including fish population management based on scientific advice and maximum sustainable yield, a landing obligation, and multiannual plans (MAPs) to manage fisheries in different sea basins. Under the CFP, the European Commission (EC) is authorised to negotiate fisheries agreements with non-EU countries. The policy enforces compliance through a fisheries control system, regulates fleet capacity, and applies sustainability principles, including to EU vessels operating outside EU waters. Its decentralised decision-making process allows MS to propose detailed measures, which the EC can transpose into law.⁴¹

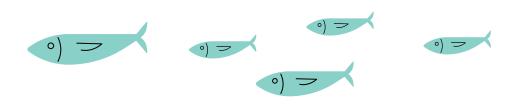
Low-impact practices are supposed to reduce the environmental impacts of fishing. At the same time, Total Allowable Catches (TACs) were established to determine the annual number of landings per MS that should be set without endangering the fish populations. ⁴² Annually, around 200 fishing opportunities are set in the form of TACs. TACs are shared among the EU MS through national quotas, with individual MS responsible for ensuring their quotas are not overfished. The European Council is responsible for setting TACs and allocating quotas to MS for each fish stock under its management. ^{1,43} During the 2013 CFP reform, Article 17 introduced the possibility to apply social, economic and environmental criteria to allocate fishing opportunities. It asks MS to use "[...] transparent and objective criteria including those of an environmental, social and economic nature". It clarifies that "[...] Member States shall endeavour to provide incentives to fishing vessels deploying selective fishing gear or using fishing techniques with reduced environmental impact."⁴⁴

In June 2024, the EC launched a public consultation to assess the effectiveness and efficiency of the CFP. The public input will feed into the evaluation, which will look at whether the CFP has achieved its objectives since 2013 concerning the long-term sustainability of fisheries and aquaculture, its contribution to the protection of the marine environment, the availability of food supplies, and a fair standard of living for coastal communities.⁴⁵

2.1.2 Common Market Organisation (CMO)

The first component of the CFP was the Common Market Organisation (CMO) regulation in fishery and aquaculture products. The current CMO seeks to protect producers and ensure the market's environmental sustainability and economic viability. By linking market considerations with management strategies, it aims to take an integrating role. Moreover, the CMO sets the legal framework for marketing standards, consumer information and certification, competition rules, market intelligence, and Producer Organisations (POS).⁴⁶

POs are essential to the objectives of the CFP and the CMO. In many places, they organise fishers from a specific area in cooperatives or other organisational and legal structures. They are recognised at the national level through a process overseen by the EU. POs can be involved in the allocation, management and monitoring of catch quotas and fishing efforts, the management of licences, the setting of internal rules, and the control and sanction of their members. Moreover, they support their members in marketing their products, improving traceability and monitoring, and applying sanitary measures. All POs must prepare and submit a production and marketing plan (PMP) to the public authorities to ensure the environmental sustainability of their fishery and aquaculture activities. Concerning small-scale fishers, the CMO regulation states that [...] where relevant, the specific situation of small-scale producers shall be taken into account when establishing producer organisations."



i TAC allocations are usually done annually, but in reaction to the 2023 EC CFP Implementation Report and recommendations for TACs to be based on a broader, ecosystem-based approach, the Council recently adopted multiannual TACs for some of the stocks (eight fish stocks in the Atlantic and the North Sea). However, without effective safeguards, multiannual TACs carry the risk of not following the most up-to-date scientific advice.

2.1.3 European Maritime, Fisheries and Aquaculture Fund (EMFAF)

The European Maritime, Fisheries and Aquaculture Fund (EMFAF) is a dedicated fund for the CFP. It replaced the previous European Maritime and Fisheries Fund (EMFF, 2014-2020), which was adopted as part of the 2013 CFP reform. The EMFAF priorities are to:

- promote sustainable fisheries and the conservation of marine biological resources;
- · support EU food security through competitive and sustainable aquaculture and markets;
- · facilitate the growth of a sustainable blue economy and prosperous coastal communities;
- strengthen international ocean governance and enable sustainably managed oceans.

The EMFAF has a budget of around €6 billion from 2021 to 2027. Until the end of 2023, 39% had been committed. About 87% (€5.31 billion) of the budget is managed jointly with MS, who create operational programmes approved by the EC. MS have considerable discretion in determining their spending. The funds are distributed based on the size of the fisheries and aquaculture sectors of each MS, with Spain (21%), France (11%), Italy (10%), and Poland (10%) as the largest recipients. The EU support is complemented by MS co-financing. The remaining 13% (€797 million) is managed directly by the EC or delegated to the European Climate, Infrastructure and Environment Executive Agency (CINEA). CINEA actions target the EU Green Deal initiatives like Farm2Fork and renewable energy.

In drawing up their EMFAF programmes, EU countries must consider SSCF specific needs and define the actions required for its development. They must also endeavour to introduce simplified procedures for SSCF businesses applying for support under the fund.⁵⁵

2.1.4 Other subsidy schemes

In addition to the EMFAF, the fisheries sector benefits from several other subsidy schemes. According to the Energy Taxation Directive (ETD), "[...] fuel for the purposes of navigation within Community waters (including fishing)" is exempt from taxation.⁵⁶ The subsidising value of the tax exemption depends on the fuel duties applied by MS and on the level of the fuel prices.

The European Commission has started a revision of the ETD in 2021 to align energy taxation with the EU's climate and environmental ambition, notably to phase out outdated fossil fuel tax exemptions, as well as promoting the upscaling of clean technologies. The Commission proposal would end the mandatory exemption for the fishing sector. However, this revision process has not yet been finalised by the Council of the EU, where unanimity is needed.

While in principle prohibited, state aid schemes can be allowed if they are below certain thresholds without effect on competition or trade. For the fisheries and aquaculture sector, such a De Minimis Regulation^j sets the threshold per company at &30,000 over three consecutive years, together with a national ceiling for the same period, amounting to &700 million for all EU countries combined. State aid may not be used for a list of ineligible operations (e.g. to buy fishing vessels or engines or to increase fishing capacity), but it can be used to pay certain costs sustaining fishing activity, such as aid for temporary cessation. Additional temporary state aid frameworks were adopted in 2020 in response to the COVID-19 pandemic, and 2022 related to Russia's war on Ukraine. Moreover, the temporary Brexit Adjustment Reserve was established to support the countries and sectors most affected by Brexit. It includes a &600 million allocation related to the fisheries sector.

That is, setting a minimum threshold below which certain regulatory requirements do not apply.

2.2 Policy impacts

Fishing is a significant driver of marine biodiversity loss and the degradation of marine ecosystems, yet it is also a vital source of livelihood for many fishers and coastal communities. Marine fish populations represent a common pool resource problem: unrestricted access leads to overuse and potential resource exhaustion, as seen with the collapse of North Atlantic cod in the early 1990s. The 2013 CFP reform aimed to prioritise Maximum Sustainable Yield (MSY), address bycatch, and move toward regionalisation.

There is broad agreement that the introduction of more ecology-oriented and science-based management principles in the 2013 CFP reform has improved the environmental sustainability of EU fisheries, albeit slowly. Key measures include the progressive implementation of a ban on discards (through the landing obligation) and adherence to science-based catch limits (MSY) by 2020. ⁵⁹ Despite only partial and insufficient implementation, these policy changes have led to positive effects, with an increasing number of fish populations now being exploited at more sustainable levels. ⁶⁰ However, critics argue that it prioritised short-term economics and still set quotas too high, often ignoring scientific advice and the need for ecosystem-based fisheries management, as foreseen in the CFP. ⁶¹ In consequence, overfishing persists and continues to threaten marine ecosystems and the long-term availability of fish as a public good. ⁶²

Much work remains to be done by the EC and the MS to avert a further decline in marine biodiversity, fully rebuild and preserve healthy population levels of all harvested species. In the EU Council decisions, multiple catch limits remain at levels above those recommended by scientists, meaning that MS, in effect, sign off on continued overfishing. According to the European Environment Agency (EEA), despite many years of regulation of the sector, 40% of fish and shellfish populations in European seas remain in poor condition or are being fished unsustainably. Only 2% of marine protected areas have management plans in place, and less than 1% are under strict protection, including from fishing. Even at MSY levels, ecosystem impacts and biodiversity loss linked to fisheries are ongoing, including bycatch of juvenile and untargeted species, highly disturbing fishing methods like bottom trawling and dredging, abandoned fishing gear ("ghost fishing"), and marine and air pollution mainly caused by the LSF, as well as large numbers of infringements including a lack of compliance with the discard ban, fishing in closed areas, or engine power fraud.

These issues directly and significantly influence the economic viability of all types of fisheries and the livelihoods of fishers and coastal communities. Indeed, there are also doubts about the CFP's success in implementing social objectives, securing fair access to opportunities, quality livelihoods, and economic efficiency. However, evaluating the outcomes of the CFP and its application in relation to its social dimension is even more challenging, as no real assessment system has been put in place.



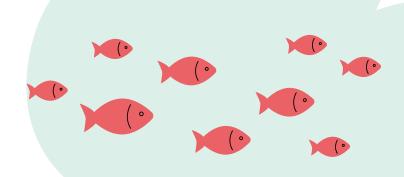


The EC sees the 2013 CFP reform as significantly advancing the recognition of the differences between small-scale and larger-scale fisheries at the EU level. It points to specific, enabling provisions^k as well as higher financial support and simplified procedures for SSCF under the EMFAF.⁶⁷ However, the CFP does not mandate a specific quota for small-scale coastal fisheries SSCF. Criteria such as environmental impact and local economic contributions may be considered, but incentive-based allocations for vessels using selective, environmentally friendly fishing methods, which may benefit SSCF, were demoted from an obligation to "endeavour".⁶⁸ This non-binding nature is reflected in a statement by the EC where it "[...] recognises the general difficulty of smaller operators to be heard in fisheries management and maritime spatial planning processes and continues to encourage Member States to consider their situation, impact and contribution to the local economy when defining and revising allocation criteria in accordance with the CFP Regulation".⁶⁹

Another shortcoming is that the CFP does not define social criteria, leaving the assessment and impact of the measures applied open to debate and making it impossible to evaluate appropriate applications. Detailed data on how MS allocate fishing opportunities, and the type of social criteria included are difficult to find despite the requirement of "transparent and objective criteria" formulated in Article 17.70

As shown in an analysis by WWF (2021), the socio-economic performance of European fisheries is highly variable across fishing fleets as distinguished by, for example, fishing gear, target species' size or location. For some socio-economic issues, low performance was observed across the entire EU fleet. However, a lack of comprehensive and robust social data is a major obstacle fully evaluating socio-economic impacts and the CFP's performance in relation to relevant objectives. This gap has also been identified at the EU level, resulting in a series of reports by the Scientific, Technical and Economic Committee for Fisheries (STECF) on the social dimension of the CFP and the development of an analytical framework and indicators to collect and provide relevant MS data. Data collection proves to be difficult, as shown by the fact that even two requests by the EC to MS (2016 and 2020) were not answered by all MS and data was often only of limited use. In 2023, the STECF published an analysis of MS responses to a questionnaire on their national fishery profile (NFP) and the implementation of Article 17. Its analysis revealed a lack of baseline information and various gaps in data reporting. The following chapter provides more information on the quota allocation approaches and other socio-economic indicators.

k E.g., under the CFP, Member States may give preferential access to the small-scale fleet in the 12-nautical miles coastal band, and the small-scale fleet is exempt from certain obligations that apply to larger vessels, such as fishing authorisations, landing declarations or sales notes.



Socio-economic aspects of EU fisheries

The socio-economic aspects of the EU fishery sector are shaped by the interaction between public policy instruments, economic actors, and society. Understanding how political, economic, and social drivers influence the fisheries market is essential for uncovering the causes of its failures and inequalities. To this end, the following sections discuss the specific barriers that commonly used approaches to allocating fishing quotas and financial support in the EU fisheries sector may pose, particularly for small economic actors with less resources and influence. Moreover, it highlights the challenges in investigating corporate concentration processes due to lack of transparency.

3.1 Allocation of fishing opportunities

The choices made in allocating fishing opportunities have important impacts as they affect a public resource and the livelihoods of many fishers and communities. Importantly, the allocation of fishing opportunities can be a powerful tool in supporting the large group of small-scale fishers. Therefore, they should balance environmental and social goals, prudently considering the socio-economic effects of implementing these criteria, in line with Article 17 of the CFP. If properly implemented, Article 17 could provide a crucial policy lever to transition EU fisheries away from intensive, high-impact fishing to low-impact fishing with less destructive methods, 74 and facilitate a transition to a fairer fisheries sector.

An important observation in this context is that the CFP requires objective and transparent criteria for allocating "fishing opportunities", but there is no clear and consistent definition of the term. Council Regulation (EC) 1224/2009 (Art. 4) defines it as a "quantified legal entitlement to fish, expressed in terms of catches and/or fishing effort". The Interpretations include quota management, which controls vessel landings or catches (output), and effort management, which limits fishing capacity, time, and space (input). Most MS use a mix of both systems but mostly focus on TACs.

3.1.1 Allocation systems and criteria

Despite the clear call for transparent and objective criteria in Article 17 of the CFP, its implementation is lagging, and data availability is patchy. However, assessing the objectivity of allocation criteria is challenging without comprehensive data disclosure on MS level. Recognising this shortcoming, the EC is engaging with MS and the STECF to improve the national quota distribution within MS in line with these requirements, including environmental, social and economic considerations.⁷⁷ The latest (2023) STECF report on social data in fisheries provides a detailed analysis of data availability and guidance on filling data gaps.⁷⁸

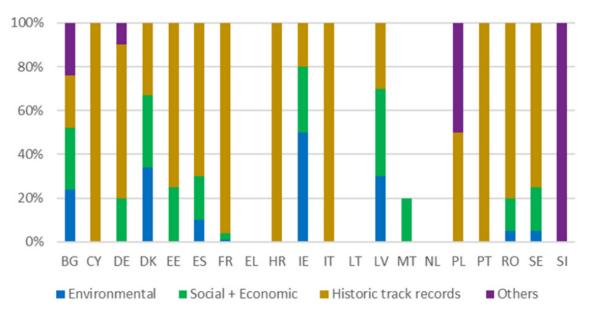
Individual MS decide how their fishing opportunities are subdivided and distributed among the national fishing fleet. ⁷⁹ As a result, quotas and other opportunities are implemented differently across MS. For example, France allocates quotas to POs by geographical criteria and those POs then manage the distribution to their members, while the Netherlands uses a system of individual transferable quotas (ITQs), turning distributed quotas into a property right that can be sold, bought or leased. ^{1,80} MS that fish in different seas or have stronger or weaker social safety nets still sometimes use the same approach. Equally, some neighbouring MS with similar fisheries can use nearly opposite allocation systems, like Belgium and the Netherlands. Moreover, age affects the distribution of fishing opportunities differently, with Denmark, Bulgaria and Greece targeting the young (new entrants) and Croatia the old (retirement). The flexibility and complexity of the allocation system also vary; Spain and France have dozens of separate systems for different fish species in fishing areas, whereas Denmark has only four. ⁸¹

ITQs, which are used, for example, in the Netherlands, Denmark and Sweden, are an example of quota allocation driven by market forces, rewarding market participants that increase productivity while keeping production costs low and befitting from economies of scale. Advocates of ITQ systems point to the potential to reduce overcapacity and overfishing, to contribute to stock recovery, increased employment, and rising economic rents. Criticism of ITQs is related to risks of increasing unemployment, marginalisation of SSCF, and economic disadvantages for local communities, while large industrial vessels benefit from the concentration of quota ownership. Moreover, the initial allocation of ITQs based on historical records ("grandfathering") is raising questions about fairness and equity in resource distribution.⁸²

As the latest analysis of MS reporting on social data shows, rather simple criteria that were already in place before the 2013 CFP reform, like historic track records and vessel size, remain the main criteria for allocating fishing opportunities across most MS (Figure 3). The status quo approach is viewed as a fair and measurable, and therefore objective, method that ensures economic viability and predictability for fleets, while also being supported by the argument that long usage confers legitimacy in practices. Historical catch data may rely on unverifiable records and could incentivize overfishing, while vessel length is an arbitrary measure. Using historic entitlement also ignores that the catches of SSCF may not have been recorded historically in the same systematic way as those of the larger-scale fleets and that the choice of reference period may introduce bias. Moreover, this criterion leads to unequal distribution, favouring those who may have caught fish at unsustainable levels. It also fails to account for the high fluctuation in catch volumes that are inherent to this activity. In prioritising past actions rather than future needs, they seem inappropriate to achieve meaningful progress towards the social, economic and environmental objectives of the CFP.⁸⁴

See Appendix 1 for a decision tree that visualises different fishery management systems.

Figure 3 Distribution of four types of fishing opportunity allocation criteria per MS (2022)



Note: Shares of different criteria were assessed by the MS themselves. Category 'Others' includes, for example, technical (such as vessel length) and legal criteria (such as history of compliance, historical licensing systems). Greece: no individual allocation of opportunities to vessels; Lithuania: mentions some environmental and social criteria, but mostly long-term transferable fishing concessions; Netherlands: Art.17 does not apply due to ITQ system

Source: Van Hoof, L., L. Goti, M. Tardy Martorell and J. Guillen (eds.) (2023), Scientific Technical and Economic Committee for Fisheries (STECF) - Social Data in Fisheries (STECF 23-17), Luxembourg: Publications Office of the European Union, p. 112.

Transparency forms a fundamental condition for good governance. It can be measured in relation to publicly available information on the fishing opportunities allocation criteria and their weightings. While the data situation may have somewhat improved since then, an analysis by the New Economics Foundation (2021) still seems relevant, especially in relation to public disclosure. It found that seven of the 22 MS published information on their allocation criteria. However, system transparency remained at a low level, with only three MS providing an explanation of how the criteria were weighted in the allocation decision, and only two MS had a comprehensive publicly available quota register (Table 1).85 However, some innovative criteria and system designs also emerged, and in some cases, recent reforms implemented certain safeguards, such as quota reserves for new market entrants.86

Political Socio-Economy of EU Fisheries



Table 1 Criteria applied in MS quota allocation systems

Member			Criter	Public disclosure				
State	Historical catch	Vessel size ⁱ	Social	Economic	Environmental	Criteria description	Criteria weighting	Criteria results
BE	×	✓	×	✓	×	×	×	×
BG	×	✓	✓	✓	✓	×	×	×
HR	✓	×	✓	×	×	×	×	×
СҮ	✓	✓	×	✓	✓	×	×	×
DK	✓	✓	✓	✓	✓	✓	~	✓
EE	✓	✓	×	×	✓	✓	✓	✓
FI"	✓	×	×	×	×	×	×	×
FR	✓	×	√	√	✓	×	×	×
DE	✓	×	×	√	×	✓	×	×
GR	✓	✓	√	×	✓	×	×	×
IE	✓	✓	√	×	✓	√	~	×
IT	✓	×	√	✓	✓	√	~	~
LV	×	×	×	×	×	×	×	×
LT	✓	×	√	✓	✓	✓	×	×
MT	✓	✓	√	✓	✓	×	×	×
NLii	✓	×	×	×	×	×	×	×
PL	✓	✓	×	×	×	×	×	×
PT	✓	✓	×	×	*	×	×	~
RO	×	√	×	✓	×	×	×	×
sv	×	✓	×	×	×	×	×	×
ES	✓	×	✓	✓	✓	×	×	×
SE	✓	√	✓	✓	✓	✓	×	×
Total Yes	17/22	13/22	11/22	12/22	12/22	7/22	1/22	2/22

Note: Length or power; Finland and the Netherlands stated that Article 17 is not relevant to their allocation systems due to Article 16 on transferable fishing opportunities.

Source: Carpenter, G. and C. Williams (2021), Who Gets to Fish in the European Union? A 2021 Update of How EU Member States Allocate Fishing Opportunities, London, UK: New Economics Foundation, pp. 32-33, 39-40.

Quota concentration in France

In France, most quotas are distributed among Producer Organisations (PO), which then allocate them to their members based on their historical catches between 2001 and 2003. New fishers without previous track record have little chance of joining a PO. Ecological impact of the gear or the socio-economic repercussions are not considered.⁸⁷

The rebuilding of the bluefin tuna population and increasing fishing opportunities in recent years led to a legal challenge by the Union of Small-scale Fishers from Occitanie in 2017 regarding the perceived discrimination in the allocation of quota to the small-scale sector. The union claimed that more diverse environmental and social criteria in line with Article 17, rather than historical landings, should be applied as the main criteria for bluefin tuna quota allocation. In 2021, a French tribunal annulled the 2017 ministerial order on bluefin tuna quota allocation, arguing it violated French law by almost exclusively relying on track records (over 90%) from 2012 to 2017 to distribute the quota. Moreover, the court found the system lacked transparency and objectivity, failing to meet the standards of CFP Article 17. This ruling created case law at the national level that could be applied to other quota allocation systems.⁸⁸

In May 2023, French environmental organisation BLOOM and three fishers' organisations lodged an 'ex gratia' appeal against the decree allocating fishing quotas between POs for the year 2023. According to the complainants, it favours industrial fishing to the detriment of marine ecosystems and better fishing practices. Concretely, this distribution system favours the PO FROM Nord, which obtains 44% of French quotas for its 155 members. With 117,000 tonnes, it takes most of the pelagic species' quotas, including 98.6% of the herring quota and 100% of the blue whiting quota. Meanwhile, the 220 member vessels of "Les Pêcheurs Normands" received only 6,500 tonnes across all species. For mackerel catch in the Channel, almost 59% of the 10,404 tonnes allocated to France for this species was allocated to the FROM Nord PO, while vessels not belonging to a PO had to share less than 0.8% of the mackerel quota. The dominance of FROM Nord can be explained by the presence of nine industrial vessels operated by France Pélagique, Compagnie des Pêches de Saint-Malo and Comptoir des Pêches d'Europe du Nord (Euronor), which in turn belong to the influential integrated Dutch fishing companies Cornelis Vrolijk and PP Group (see PP Group structure, Figure 5), and Alda Holding (linked to Icelandic fisheries company Samherji through ownership overlap).⁸⁹

3.1.2 Producer organisations

As mentioned in section 2.1.2, POs are often involved in the allocation, management and monitoring of catch quotas. In total, the EU counts around 200 producer organisations across 18 MS, ⁹⁰ managing 80% of the species under quota. ⁹¹ In 2017, the European Court of Auditors (ECA) concluded that while it saw positive examples, it was not always transparent to them which criteria were used to distribute the quotas to beneficiaries when MS delegated quota allocation to POs. The ECA voiced concerns over difficulties in assessing potential adverse environmental or social impacts and the risk of certain operators being favoured over others. ⁹² This opacity among PO members has, for example, also been observed in France, where a court case was filed in October 2023 to demand a transparent and equitable distribution of quotas. ⁹³ POs also have considerable lobbying power, mostly representing the interests of the large-scale fishing industry, which may undermine the interests of SSCF fishers.

SSCF fishers, representing 75% of the fleet but only 5% of the catch, are poorly represented in POs. The SSCF face challenges such as low quota access, low margins, and market vulnerabilities, worsened by external shocks like the COVID-19 pandemic. Dedicated SSCF POs could improve quota management and access to EU funds, but establishing them is difficult due to bureaucratic barriers, SSCF fragmented nature, and low profitability. While POs could offer SSCF benefits, the complex recognition process and lack of political will hinder progress. 94

Historically, several PO tasks have been aimed at regulating industrial fishing practices. Objectives such as managing bycatch, improving gear selectivity, and handling overproduction are largely irrelevant to SSCF, which face different challenges. However, the general legal framework for POs could help address SSCF-specific issues by creating POs dedicated to the sustainable development of SSCF. These POs would provide a tailored governance model, offering legal, institutional, and socio-economic legitimacy for SSCF actions, and consequently allow them to work more effectively with national and EU authorities. 95

In its report on the implementation of the CMO, the EC confirms that the functioning of POs for SSCF "remains a challenge". SSCF producers often have lower profit margins and limited administrative resources, which weakens the financial viability of a PO and limits their capacity to deal with the legal and administrative requirements. They often miss appropriate administrative and financial support for the setting up and operation of POs. Moreover, the specificities of their operations are often not reflected in the criteria for recognition, for example in relation to "sufficient economic activity in the area" (Article 14(1)(b)). Having said that, some POs of small-scale coastal fishers have been successfully set up in recent years, e.g. in Ireland, France, ⁹⁶ and Spain. ⁹⁷

3.1.3 Market concentration

Concentration and integration processes in the fisheries sector can take different forms:

- Horizontal integration: merging or collaboration between business entities at the same level of the supply chain (e.g., fishing companies combining fleets);
- Vertical integration: expanding business activities across different stages of the supply chain (e.g., a fishing company engaging in processing and distribution of fisheries products);
- Quota concentration: accumulating fishing quotas (e.g., by acquiring vessels with attached quota).

Increasing industrialisation of the EU fishing fleet and the concentration of fishing rights among large, profit-driven companies have been observed for years. These companies have accumulated capital by acquiring or merging with less competitive enterprises and expanding vertically across the supply chain. The level of concentration in the fisheries sector in the form of physical assets and quotas could provide helpful insights in relation to the fairness and accessibility of the market. However, a thorough analysis would require detailed data disclosure on the MS level, which does not exist. Ownership data and transparency on initial quota allocation, as well as reallocation processes, remain difficult to access and incomplete.

No ranking of fisheries companies active in the EU is available, but some examples of large, integrated fisheries businesses operating in the EU include:98

- PP Group (Netherlands): 38 vessels; revenues of €1.6 billion in 2022 (see Box below).
- Nueva Pescanova (Spain): 54 vessels; revenues of €1.1 billion in 2022;^{m,99}
- Royal Greenland (Denmark / Greenland): 13 vessels; revenues €877 million in 2022;
- Cornelis Vrolijk (Netherlands): ~90 vessels; revenues of €208 million in 2022.

A study commissioned by the Fisheries Committee of the EP (Warmerdam et al., 2018) was the first to attempt unravelling these structures across EU MS with a coastline and identifying drivers of integration processes. Horizontal integration leads to increased market shares of individual actors in a certain segment and less competition. In fisheries, it occurs structurally through adding new vessels or acquiring peers, or non-structurally through off-take agreements, quota swaps, or quota leasing where legally permitted. The study observed comparatively high levels of horizontal integration in Denmark, Estonia, Finland, France, Germany, Lithuania, the Netherlands, Spain, and Sweden. Many of these countries have ITQ systems in place, however, the study found that the levels of integration nonetheless vary considerably between them. Structural integration is influenced by factors like the regulatory environments (e.g., the ease of access by foreign investors), natural resources (e.g., the fishing segment), and firm performance. Stable and sufficient resources enable companies to pursue both vertical and horizontal integration, domestically and internationally, to secure raw materials. A broader fleet portfolio reduces companies' reliance on informal practices, while a supportive regulatory environment facilitates integration efforts. Horizontal integration efforts.

m Nueva Pescanova is the restructured and rebranded successor of the remainders of Pescanova. The 2013 collapse of Pescanova, Spain's largest fishing company at the time, was the biggest non-real estate business bankruptcy in Spanish history, driven by a hidden debt of €3.6 billion.

The Dutch PP Group

The family-owned PP Group is a fully integrated company active along the whole supply chain from net to table in an opaque network of companies spanning 20 countries, 103 including pelagic and demersal fishing and processing companies in the Netherlands, Germany, France, Lithuania, the Faroe Islands, Suriname, British Guyana and Morocco, as well as holdings in the United Kingdom, France (section 3.1.2), Spain, Portugal, Poland, Ivory Coast and Madagascar.¹⁰⁴ The company has (an interest in) a fleet of 38 vessels, 105 including various large freezer trawlers with lengths of more than 80 meters.

Together with fellow Dutch companies, Cornelis Vrolijk and W. van der Zwan, PP controls the Dutch pelagic fish market. 106 In the North Atlantic alone, PP's acquisition of Portuguese vessels with attached quotas, combined with its German investments, gave the company access to 20% of the 31 ships with EU authorisation to fish in this area. 107

During the ten-year period from 2013-2022, its asset value increased at a compound annual growth rate (CAGR) of 13%, from €458 million to €1.4 billion. During the same period, turnover grew at a CAGR of 15%, reaching €1.6 billion in 2022 (Figure 4). ¹⁰⁸ This development was enabled by the possibility of trading fish quotas and the option of using them as collateral to establish mid- and downstream businesses. 109 Due to the size of its operations and the fuel intensity of its fishing methods, the company's pelagic trawlers alone are estimated to benefit from around €23 million annually in fuel tax

CAGR 1,800 +15% 1.600 1,400 million € 1,200 1.000 800 600 400 200 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 ■ Turnover
■ Total assets

Turnover and asset development of PP Group, 2013-2022 Figure 4

Source: Orbis (2024).

Families owning a company **Annelies Ilena** Ultimate beneficial companies Companies owned by the ultimate beneficial companies Compagnie des Pêches Saint-Malo 100% Ocean Tiger Producer organisation 87.65% Fishing vessels → Company it is fully owned Emeraude Company it is partly owned 146 artisanal **FROM Nord** ➤ Company member of vessels Cornelis Vrolijk Group Compagnie des Pêches Saint-Malo Vrolijk family Visserij • ₹ 50% Oderbank Hochseefischerei Comptoir de Pêches d'Europe du Nord (Euronor) 100% 100% 100% 5 vessels (117m) 100% Westbank Hochseefischerei Absolutely Genuine Unipessoal 100% Maartje Theodora Santa Princesa 100% Wernemünder Hochseefischerei 100% Pesquera 100% Lodairo Mark (91m) Ancora 100% **Ostbank** Annie Hillina (86m) , 100% 100% 4 vessels Seefischerei **1009** Parlevliet & **UK Fisheries** Van der Plas # families 🚍 100% 100% Mecklenburger **PP** Group 100% **PP Thon** 100% **Dutch Whitefish** Hochseefischerei 50% 100% 50% Atlantic Highsea Rederij Samenwerking I Latvia Fishing 100% 50% BT2022 Fishing Company Company 100% 100% 100% 100% Margils (143m) 5 vessels **Silver Pit Alda Holding** 100% 100% **Baltlanta** Samherij owner 100% families 🖨 Margils (143m) **Ieva Simonaityte** (120m)

Figure 5 PP Group company structure (simplified)

Source: Orbis (2024); Alda Seafood Holding (2024), Sustainability Report 2023; Samherji (2022, December 29), "Baldvin Thorsteinsson acquires the foreign operations of Samherji Holding"; Kamer van Koophandel (2024), Uittreksel: BT2022; Firmas LV (n.d.), "Latvian Fishing Company SIA"; FROM Nord (n.d.), "Les flotilles".

industrial trawlers

PP Group are included.

Note: Simplified PP Group company structure focussing on a limited selection of the company's major, vessel-operating subsidiaries and large

For Alda Holding, only selected subsidiaries and vessels that are linked to

Solarte (92m) Simonas Daukantas (120m)

+11 vessels

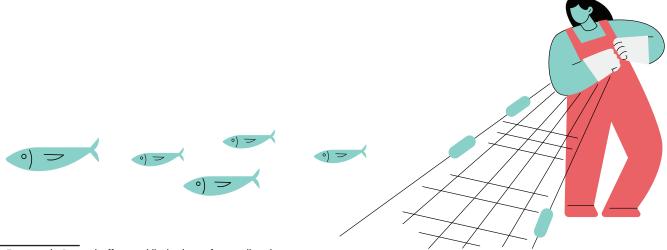
In 2019, a study commissioned by the Executive Agency for Small and Medium-sized Enterprises (EASME) followed, which aimed to quantify the concentration of power through horizontal, vertical, or conglomerate integration. It concluded that "[T]he common perception of fishing vessels being locally owned and operated is a simplification of a more complex network characterised in some cases by firms owning multiple vessels across several member states (MS), potentially concentrating access rights or opportunities to fish." ¹¹¹

Analysing the beneficiaries of fishing quotas faced several obstacles, which limited the conclusions. MS aggregate and disaggregate quotas differently on the national level than on the EU level. Additionally, allocation methods and the extent of quota transferability vary across MS, while conditions on quota holdings also differ, with some MS limiting allowable holdings and others don't. Although all focal MS require a commercial fishing license to access national quotas, some allow non-active fishers to hold and benefit from quota allocations. While some MS took the calls for transparency to heart, adata availability on the initial allocation of national quotas to fleets or the realised catches remains highly incomplete for MS which do not allocate quota per individual vessel (e.g., Belgium or Ireland). Despite the public ownership of fishery resources, key countries like France, Germany, and the Netherlands do not disclose details about the beneficiaries of quota allocations.

The study could eventually draw on 2018 data for six EU MS.º It uses different indicators to evaluate the level of concentration (CR4, CR8, and HHI)^p and the fairness of fishing quota distribution among all quota holders (Gini coefficient).^q It found significant variation in the level of concentration of quota ownership, with results ranging from instances of a single owner fully holding a specific TAC (Norway pout in Sweden and an albacore TAC in Spain) to TACs with hundreds of owners with equal shares, such as in Spain with its large fleet. Cases of high concentration in quota ownership for individual species were found, particularly in small pelagic species like herring or mackerel and demersal species like sole and plaice in the North Sea.¹¹²

The distribution of fishing quotas is often highly unequal, even though it may not be highly concentrated when many actors are involved. An unequal distribution among a small number of holders suggests a dominance of large actors. Where the same entities own quotas for different species, the total Gini coefficient assigned to a country's fisheries sector goes up.^{r,113} Therefore, the distribution appears more equal when a specific opportunity or species is analysed rather than combining all fishing opportunities or all species together (Table 2 and Figure 6).

Foreign ownership of fishing vessels, quotas, and licenses varied significantly between countries. The study highlighted that foreign ownership is linked to targeting specific fisheries, ensuring supply through vertical integration, or securing future access. It is typically linked to large pelagic vessels or large demersal trawlers. The analysis of the situation in the six MS suggests that for some TACs there are only a small number of main beneficiaries, often of a foreign nationality.



n For example, Denmark offers a public database of quota allocations.

o Belgium, Denmark, Ireland, Spain, and Sweden, and at the time still including the UK.

p The study uses CR4 and CR8 ratios to indicate the market share held by the top four and top eight firms, respectively, with CR4 focusing on the dominance of the top tier of the market. A Herfindahl-Hirschman index (HHI) from 0 to 1,500 is typically considered a low level of concentration, an HHI from 1,500 to 2,500 as moderate concentration, and an HHI above 2,500 as highly concentrated. While the total HHI across all TACs of a country tends to be low, it can reach high levels for individual TACs.

q The Gini coefficient takes a value between 0 and 1, where 0 indicates a perfectly equal distribution (i.e. all owners hold equal shares) and a value approaching 1 indicates an almost perfectly unequal distribution (i.e. one owner holds all quota, while all others hold no quota).

r Denmark and Sweden are examples of countries where the introduction of ITQs has led to a reduction of the fleet and quota owners and better economic performance of the remaining fishing vessels.

Table 2 Quota concentration across focal EU MS (2018)

MS	Quota tonnage	Quota value (€ mln)	Total CR4	Total CR8	Total HHI (range across TACs)	Total Gini (range across TACs)
BE	30,008	58.80	17.2%	28.8%	221 (218-222)	0.49
	00,000	00.00	11.270	20.0%	(210-222)	(0.48-0.49)
DIV	004 242	406.61	22.20/	27.20/	269	0.91
DK	804,343	486.61	23.2%	37.3%	(81-3,637)	(0.45-0.95)
ıc	176 005	100 57	22.00/	20.6%	180	0.73
IE	176,005	183.57	23.0%	32.6%	(52-2,695)	(0.22-0.62)
F0	251 100	007.50	10.5%	10.5%	56	0.90
ES	351,108	807.58	10.5%	10.5%	(2-3,566)	(0.18-0.84)
OF	007.000	100.00	46.00	46.00	727	0.92
SE	227,660	132.30	46.9%	46.9%	(26-5,000)	(0.16-0.69)
1117	456.755	F07.00	00.00	23.0%	212	0.85
UK	456,755	597.22	23.0%		(50-9,314)	(0.67-1.00)

Notes: See explanation of CR4 and CR8 ratios, HHI, and Gini coefficient in footnotes above.

Source: MRAG, AZTI & NEF (2019, February), Study on Ownership and Exclusive Rights of Fisheries Means of Production, Executive Agency for Small and Medium-sized Enterprises (EASME) of the European Commission, pp. 158.

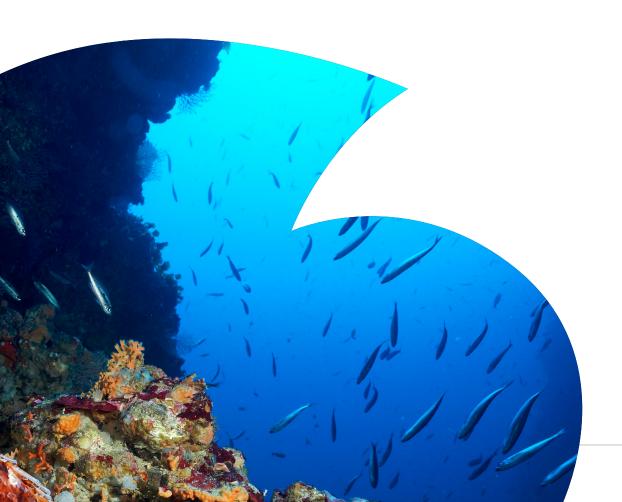
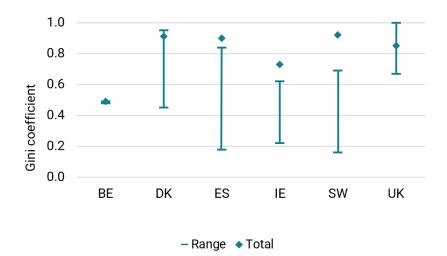


Figure 6 Distribution of fishing quotas among selected EU holders, value in 2018



Note: the graphic depicts the Gini coefficient as a measure of inequality as a range for different quotas and a total across all quotas in a country.

The higher the value, the more unequal the distribution among quota holders is.

Source: own elaboration, based on MRAG, AZTI & NEF (2019, February), Study on Ownership and Exclusive Rights of Fisheries Means of Production, Executive Agency for Small and Medium-sized Enterprises (EASME) of the European Commission.

In some countries and fisheries, a high level of vertical integration with downstream processing and marketing can be observed, especially in the large-scale segment of the EU fisheries fleet. Vertical integration is driven by companies' interest in controlling and securing supplies, reducing costs, and improving margins. Integration processes are influenced by a range of factors, including industry structure, access to sufficient fish stocks, and overall regulatory requirements.

Vertical integration is inherent to freezer vessels and factory ships where processing already occurs on board. Examples of segments with a high level of vertical integration include the large-scale fisheries fleets of France and Spain. Leading Dutch fisheries companies like Cornelis Vrolijk and PP Group have a large international market presence, with integration, especially in the pelagic fishing sector, also impacting other markets. Examples include the German high-sea freezer trawler fleet (see section 3.3) or the Portuguese cod fisheries (see section 3.4).

In most EU countries, particularly those with fishing activities in the North Sea, Atlantic and Baltic Sea, structural vertical integration is particularly common in the pelagic segment. Pelagic fisheries have higher catch volumes than the demersal segment and are generally considered to deliver a comparatively predictable and stable supply of certain fish species. Therefore, firms engaged in the pelagic segment can generate sufficient financial resources to engage in downstream vertical integration, generating additional income from value-adding processes.

In countries where vertical integration is hindered, non-structural processes of vertical integration are more common, for example, in the form of informal offtake arrangements. For example, regulations in Denmark specify a minimum income threshold from fishing for a company investing in the fish-catching sector. Aiming to keep capital speculation at bay and to prevent quotas from being owned by investors such as pension funds, it creates a hurdle for downstream companies to invest upstream. In Italy, the low level of development in the downstream fish processing segment drives offtake arrangements as a form of non-structural vertical integration that provides a certain level of stability to the few remaining operators. 114

s Much of the landings from demersal fishing are sold directly in the harbours or at auction. The demersal segment generates smaller catch volumes, meaning that financial income of demersal fishing companies tends to be lower and gives less opportunities for investments in downstream processing.

3.1.4 Alternative allocation approaches

To reduce their environmental impacts, fisheries ought to transition towards low-impact fishing practices while at the same time securing income for those working in the sector. Balancing these objectives requires considering the socio-economic impacts of incorporating environmental and social criteria in quota allocation. A recent report by Oostdijk et al. (2024) demonstrates that there are already models of better practices in allocating fishing opportunities that move beyond reliance on historical records and toward a fairer and more sustainable approach. These examples often prioritise a combination of length requirement with low-impact, passive gears for a percentage of the allocation, which often is related to a more labour-intensive fishery with cultural and socio-economic relevance for local communities. Other cases show allocations to encourage the new entry of young fishers or methods that prioritise assignment by equal share rather than track record and prevent concentration of quota. ¹¹⁵

Vertigo Lab developed quota reallocation scenarios that investigated the socio-economic impact of favouring artisanal fleets equipped with passive gears on the sector's revenues, contribution to GDP through added value, number of jobs and evaluated direct, indirect, and induced impacts generated by the sector. In doing so, it considered the environmental and social impacts associated with different fishing gears (Figure 7). ¹¹⁶

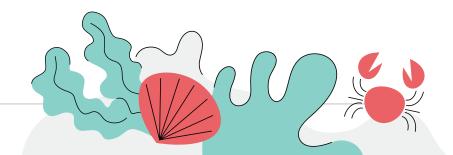
Figure 7 Environmental and social impacts associated with fishing gears



Impacts	Passive <12	Passive 12-24	Passive >24	Active <12	Active 12-24	Active >24
Unwanted catches						
Impact on the seafloor						
Fuel use per landed volumes						
Total jobs per landed volumes						

Note: Categorised by gear type and vessel lengths in meters. Source: Noirot, C., C. Jacob, M. Raffray and J.-C. Martin (2022, January), Study on Article 17 of the Common Fisheries Policy, VertigoLab, p. 29.

Overall, the study concludes that reallocating quotas in favour of environmental and social criteria seems to positively impact GDP and employment. Changes would be passed beyond the upstream fisheries sector throughout the entire value chain. Scenario 1, which proposes reallocating 10% of active gear volumes to passive gears while remaining in the same size category, anticipates direct and total impacts on production of an increase of almost 8 and 11%, respectively, compared to the baseline scenario. The total impacts on value-added are greater than 8.3%, and for employment 15.8% higher than in the baseline scenario. Scenario 2, which assumes 10% of quota from active gear vessels to be reallocated to the lower size class with passive gears, estimates the direct impact on employment to result in a rise by 8.1%, and the direct impacts on value-added to result in a 20.2% increase compared to the baseline scenario. The adjustments would clearly favour the small-scale and semi-industrial fleet with passive gears that have a smaller environmental impact but account for a large share of the jobs in EU fisheries.



3.2 EU fisheries subsidies

Fishing subsidies consist of direct or indirect financial transfers of public funds from different sources to increase the profitability of the fishing sector. The EU is among the top providers of fishing subsidies in the world. When designed and managed responsibly, these subsidies can have important positive impacts. They can play a vital role in supporting the livelihoods of fishers through the provision of financial stability and reduction of operational costs, particularly in small-scale and coastal communities whose economy heavily relies on fisheries income. Moreover, subsidies can enable fleet modernisation towards more efficient and sustainable fishing technologies.

Over the past two decades, the EU has undoubtedly made significant improvements in the way it provides fisheries subsidies. Lessons have been learned from past experiences, which led to the cessation of certain capacity-enhancing subsidies and the allocation of additional funds to beneficial subsidies such as better management, monitoring and enforcement. However, changes have been slow, and significant harmful subsidies still exist under different instruments. ¹¹⁷

Subsidies become harmful when they are unfairly distributed, favouring large-scale operations over small-scale fishers, and when artificially lowered costs incentivize investments in additional fishing efforts. An unfair subsidy distribution has been observed globally for years. The analysis of the distribution of subsidies across SSCF and LSF fleets based on 2018 data found that in developed economies, including the EU, LSF fishers received, on average, more than five times the subsidies level than an SSCF fisher in absolute terms, and more than twice the amount per total landed value. These findings confirmed a similar picture from an earlier analysis of 2009 data. 118

Subsidy categorisation

Subsidies are commonly classified into three categories:

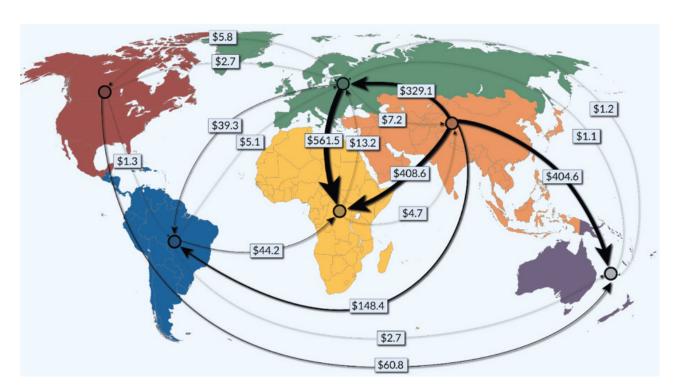
Beneficial subsidies promote conservation and management and ideally mediate the impact of overcapacity. Conservation, fish population assessment, and the recording of catch rates through monitoring, surveillance, and enforcement contribute to improving or restoring fish populations.

Capacity-enhancing or **harmful subsidies** are related to capital inputs and infrastructure investments that artificially reduce costs or enhance revenue and are, therefore, expected to lead to overfishing.

Ambiguous subsidies may have positive or negative impacts on fishery resources, depending on how they are designed and implemented. Examples include fisher assistance, income support programmes, and vessel cessation programmes.¹¹⁹

Capacity-enhancing subsidies contribute to fish population depletion and consequently aggravate risks for marine ecosystems and the livelihoods that depend on them. 120 The impacts are not limited to the subsidising nations, but spill from domestic waters to the high seas and foreign waters. Research shows that 20% to 37% of harmful subsidies support fishing in foreign waters or the high seas. Meanwhile, 40% of the harmful subsidies that support fishing in very low-resource nations' waters originate from high- and very high-resource nations, including the EU (Figure 8). 121

Figure 8 Inter-regional flows of harmful fisheries subsidies provided to distantwater fleets (US\$ millions)



Source: Skerritt, D.J., A. Schuhbauer, S. Villasante et al. (2023, June), "Mapping the unjust global distribution of harmful fisheries subsidies", *Marine Policy, Vol. 152*: 105611.

The following sections focus on the largest sources of fisheries subsidies in the EU, from the EMFAF and fuel subsidies in the form of tax exemptions.

3.2.1 European Maritime, Fisheries and Aquaculture Fund (EMFAF)

The main source of direct subsidies to the EU fisheries sector with a total budget of \in 6 billion is the EMFAF, which followed the EMFF in 2021 and runs until 2027 (see section 2.1.3). Over time, stated EU funding objectives under the fishery funds have shifted from fleet support to control measures, environmental protection, and activity diversification, though some fleet measures for vessels under 24 meters, such as young fishers buying second-hand vessels and engine upgrades, remain under certain conditions. Temporary or permanent cessation of fishing activities is also funded while capacity-boosting operations are mostly banned except in aquaculture and inland fisheries. 122

Investments on board or other fleet measures can only take place if fishing capacity is not increased, however, this ban has significant loopholes. By measuring fishing capacity in relation to the engine power of each fishing vessel, the fact that the EC itself reported in 2019 that engine power is not and cannot be properly monitored by MS is being ignored. Moreover, fleet measures are not supportive of an economically viable and solid fisheries sector. ¹²³

Despite a focus on achieving "sustainable fisheries and conserving biological resources", ¹²⁴ the agreement on the EMFAF overturned a European Parliament vote that had called for at least 25% of funds to be reserved for the protection and restoration of the marine environment. It also ignored the 2020 call by the European Court of Auditors to increase the contribution of the fund to marine conservation measures. ¹²⁵ This lack of ring-fencing funds for nature protection and restoration moved the responsibility to support such public interest projects from their EMFAF operation programmes to the MS. ¹²⁶

Despite the EMFAF's intention to support the CFP objective of minimising harmful impacts on the marine environment, between 5% and 12% of overall EMFAF funding may still be directed to biodiversity-harming

subsidies,^t an amount considerably higher than what is dedicated to restoring biodiversity.¹²⁷ An analysis of broader public fisheries funds in the Mediterranean, including the EMFF, found that 39% of EMFF allocations served to increase fishing pressure, largely through support for processing (54%) and infrastructure (28%). Just 3% of direct subsidies went to small-scale fisheries.128 Moreover, an analysis of fisheries subsidies provided in the Indian Ocean found that five EU MS – Spain, France, Italy, Portugal and Greece – accounted for 45% of fisheries subsidies provided by DWF fishing countries in 2018, the majority of which were categorised as harmful.¹²⁹

One reason small-scale fishers are receiving less funding is that they are not applying for it. Obstacles include insufficient information about available funds, overly complex application processes, and a lack of capital, as they must initially finance the work themselves and face long delays before being reimbursed. Meanwhile, the EMFAF foresees no prioritisation of funds for small-scale fishers. The only measure for the SSCF is the 100%-co-financing rate, which allows fishers to access funds without contributing their own capital. Similar to its predecessor, the EMFAF does not include preferential treatment for fishing vessels under 12 metres. Due to the lack of data on the spending under the EMFAF so far, findings on the preceding EMFF provide some interesting insights. Only 20% of those funds were spent on the SSCF, while 80% were distributed to large-scale fleets, with 12-24 m vessels as the biggest beneficiaries. Despite an obligation for MS with more than 1,000 SSCF vessels to adopt an action plan for the development, competitiveness and sustainability of this fishery, the reports were lacking details on plans and investments.

Estimates for the total factor productivity^u of the EU fishing fleet indicate that the SSCF's productivity is almost 200% higher in the North Atlantic and 16% higher in the Mediterranean and Black Seas compared to the fleet of large-scale vessels. The LSF fleet disproportionately benefitted from harmful subsidies, driving distortions in the efficient allocation of key inputs like capital, labour and energy. Therefore, small or large vessels cannot be considered synonymous with being unproductive or productive, respectively.¹³³

Research shows that DWF is almost exclusively conducted by the fleets of a handful of countries and the activities mostly occur within the Exclusive Economic Zones (EEZs) of low-income developing countries. Many of these fisheries would not be economically viable without government subsidies. At the same time, they only provide jobs and significant financial benefits to relatively few.¹³⁴

Separately, the EU has a \in 1 billion budget for the CFP's external dimension, which consists of funding multilateral fisheries management organisations (RFMOs) and bilateral fisheries partnership agreements (FPAs), which together account for a considerable share of EU catches. 135

The EU plays an important role in DWF on transboundary fish populations that are managed by Regional Fisheries Management Organizations (RFMOs). Catch history remains the main criterion for quota allocation across RFMOs. The Indian Ocean Tuna Commission (IOTC) exemplifies how subsidies have inflated the catch histories of distant water fishing nations (DWFNs), perpetuating their advantage in quota allocation over marginalised coastal states. From the EU, France, Italy, Portugal, and Spain operate in the Indian Ocean. These fleets exemplify how subsidies can pose a barrier to achieving more equitable fisheries. At least half of the DWF fleet of the EU (63 vessels) that operated in 2019 received subsidies for construction and modernisation via funds from the EU's Financial Instrument for Fisheries Guidance (FIFG). For the 31 subsidised vessels, the EU spent at least EUR 63 million for their construction and modernisation, while the governments of France and Spain contributed another EUR 12.59 million. The development in the Indian Ocean illustrates subsidies that, rather than supporting and protecting domestic emerging industries, are used to expand distant water fisheries to unsustainable levels over several decades. However, subsidy data is hard to track due to a fundamental lack of transparency, hindering a full evaluation of past subsidies' impact on future fishing opportunities.

t Including aguaculture.

u Total Factor Productivity (TFP) is defined as the portion of output not explained by the amount of inputs used in production. TFP measures the productivity of all inputs or factors of production, in terms of their combined effect on output.

v Sinan et al (2022) obtained vessel-specific EU subsidies from the published datasets for the EMFF by the EC for all MS, fishsubsidy.org dataset and data compiled from other published reports. Importantly, these figures do not account for EU payments to Comoros, Madagascar, Mauritius, and the Seychelles since 1986 (first agreement, with Madagascar) for their fleets to operate under fishing access agreements.

The EU's bilateral fisheries agreements consist of Northern Agreements and Sustainable Fisheries Partnership Agreements (SFPAs). Northern Agreements consist of shared stocks in the North Sea and the Northeast Atlantic, for which the EU and neighbouring countries exchange fishing opportunities (UK, Norway, the Faroe Islands, and Iceland).¹³9 SFPAs are concluded by the EU with third countries to gain access to fisheries resources in these countries' EEZ and are currently in force with 13 countries. The main SFPA types are tuna™ and mixed™ agreements. The total annual EU contribution amounts to around € 100 million, plus sectoral support to partner countries of more than 16.5 million per year. The access fees paid by vessel owners differ per country and species but only cover a part of these payments.¹⁴⁰ In the previous agreement period from 2015 to 2020, the fees paid by EU vessel owners covered around 34% of the access payments made from EU public funds (disregarding the sectoral support payments).¹⁴¹ Therefore, the remainder also constitutes a subsidy, which predominantly benefits the large DWF vessels, particularly from Spain and France.

Harmful subsidies that incentivise overcapacity and lead to overfishing are socially and economically inefficient. They can distort seafood markets, intensify inequality by undermining the economic viability of small-scale fisheries, increase CO2 emissions, favour DWF fleets and drive Illegal, Unreported, and Unregulated (IUU) fishing. Nowadays, an innovative policy should refer to the ambition to rebuild and protect marine resources and, with this, the linked economic activities, namely fisheries. Subsidy schemes should consider social analysis in funding decisions, conduct continuous data collection, and implement measures to apply the findings. At the same time, it is essential to aim for a transition towards a more sustainable and low-impact fisheries sector that is economically viable without constant public support. However, while they need the most support to adapt to environmental and social constraints, the EMFAF fails to prioritise investments in small-scale fisheries. Subsidies and constraints are supported to environmental and social constraints, the empty fails to prioritise investments in small-scale fisheries.



w Currently ten: Cabo Verde, Sao Tomé e Principe, Gabon, Cook Islands, Kiribati, Seychelles, Mauritius, Madagascar, Senegal, and The Gambia (with a hake component for the last two).

x Currently three: Greenland, Guinea Bissau, and Mauritania.

French fleet subsidies

The example of the French fishing sector illustrates positive changes in the new fund but also showcases the continuing shortcomings. French fishing vessels have received significantly less funding from the EMFF compared to previous funding rounds. \in 44 million was primarily allocated to temporary shutdowns to address the impact of COVID-19. However, this decrease in EU funding was offset by other financial support aimed at helping the sector deal with challenges connected to Brexit and rising fuel prices following Russia's invasion of Ukraine. He sector benefited from higher de minimis aid limits for diesel support, which, along with existing fuel tax exemptions, mostly benefits energy-intensive vessels. In 2021, fuel exemptions accounted for 63% of public subsidies, with 47% going to large vessels over 24 meters, representing just 3% of the fleet. These substantial fuel exemptions signal ongoing support for industrial fishing while investment in long-term solutions is lacking. He

The French example also visualises the skewed priorities of the subsidy programmes in relation to the conservation of biological resources and reducing the impact of fisheries on the marine environment. Despite provisions to this end included in the EMFF regulation, only 3.6% of the fund in France was allocated to these efforts, reflecting a low priority given to marine conservation. Subsidized projects, such as programmes to reduce bottom trawl abrasion (& 310,000) and the use of AI to limit bycatch (& 1.6 million), seem to focus on conservation but primarily aim to maintain trawling. Trawling is known to damage marine biodiversity and for being inefficient in job creation and energy use. 146

3.2.2 Fuel subsidies

Fuel costs are one of the main expenses of the fishing sector. At the same time, the EU fishing fleets are heavily subsidised by zero taxation rates on fuel. The exemption under the European Union's Energy Taxation Directive (ETD) reduces fishing costs and may, therefore, lead to a further increase in fishing capacity. Considering that fishery resources are a public good and that the significant management costs for fisheries are paid through government finances, it is of interest to understand the distribution of costs and returns.

Lowering the fuel price makes fishing trips more profitable, and consequently, fishing effort increases. Some fisheries management measures, such as TACs, can mitigate the incentive to increase fishing efforts in the presence of fuel subsidies. However, mitigating the incentive does not mean that it is removed. With around 60% of the landed weight, TACs only cover a share of EU landings, while fuel subsidies are provided to all fisheries. Moreover, in fisheries covered by TACs often non-target species are caught as by-catch. TACs are also not necessarily respected, as illegal, unreported and unregulated (IUU) fishing continues in the EU when unwanted catch is discarded at sea in breach of the landing obligation, often linked to highly destructive forms of fishing. As pointed out by the European Court of Auditors in 2022, "[m]isreporting of catches remains a major issue in EU fisheries". A reinforced control system entered into force in January 2024. However, the fact that the EC closed cases for failure to enforce the ban on illegally discarding fish overboard against Belgium, Denmark, France, the Netherlands and Spain in July 2024 put this commitment into question.

According to OECD estimates, EU countries increased their support for fuel use in fisheries over the years as a proportion of total support to individuals and companies in the fisheries sector (from 49% in 2012-14 to 67% in 2018-20). The missed EU revenue from this tax relief on more than 2 billion litres of fuel was estimated at a range of €700 million to €1.3 billion in 2023. Another study estimated a total of around €1.14 billion annually in 2021, including around €58 million from small-scale fisheries, €889 million from large-scale fisheries, and €189 million from DWF. 156

Considering the employment and catch of the small-scale fleet, these numbers illustrate a skewed distribution. Fuel subsidies favour fuel-intensive fishing methods. Due to their high fuel consumption, the subsidies are

particularly relevant for the high-seas fishing fleet. Large-scale fisheries travel longer distances to target the same species, which means that they have higher fuel costs in proportion to income than small-scale fisheries, which have higher labour costs in proportion to income. Moreover, trawling and other active fishing gears have a much higher share of fuel costs in their cost structure than passive gears.¹⁵⁷

A 2021 study by the European Commission's Joint Research Centre (JRC) found that eliminating fuel subsidies would move around 8% of the SSCF fleet, 34% of the large-scale fleet, and 22% of the DWF from profit to loss. Notably, 67% of the DWF already operates at a loss, even with subsidies in place. An OECD study on fishery subsidies found that support based on fuel consumption can make smaller, labour-intensive fishers worse off than they would be without, as fuel-intensive larger fishing operations can replace them more easily. Conversely, the removal of fuel subsidies on small-scale fleets could be positive as they could compete better on price. Moreover, fuel subsidies mostly benefit the vessel owners or operators of large-scale vessels, rather than the crew members. The EU fishing fleet has high rates of tax exemption for bottom trawling gear, such as demersal trawl or beam trawl. These are comparatively fuel-inefficient gear types, that is, showing higher fuel use per unit of catch. This means that one of the most fuel-intensive and ecologically harmful fishing techniques benefits from the tax exemption. These impacts make fuel subsidies a particularly unfair form of financial support, and contradict the EU's objectives of protecting marine environments and biodiversity and becoming climate-neutral by 2050.

In the revision of the ETD that has been ongoing since 2021, it is foreseen that currently exempted sectors, including fisheries, should "no longer be fully exempt". However, the fisheries industry argues that introducing fuel taxation would serve as "[...] a punitive measure for a sector that has already achieved its Green Deal target and is struggling with the geopolitical and socio-economic challenges in Europe." An EC proposal had initially foreseen to end the tax exemption. Instead, a small nominal tax for shipping within EU waters would be introduced, which would contribute to a fairer distribution of environmental costs. For extra-EU navigation, given the possibility of tax-free fuel bunkering outside EU jurisdictions, Member States would still be able to decide not to apply the tax. However, a new draft of the directive that was leaked in April 2024 reportedly considers a seven-year grace period for countries to introduce new tax rates and new exemptions for fisheries due to its "major economic importance to coastal communities". However, a new draft of the directive that was leaked in April 2024 reportedly considers.

A gradual elimination of the tax exemption could help ease the socio-economic impacts across EU fishing fleets and fishing communities. However, special and differential treatment should be limited to small-scale fishers using low-impact gear, provided it is not linked to promoting overfishing. The tax revenue gained could fund alternative subsidies with greater environmental, social, and economic benefits, including key EU concerns like energy reduction, decarbonisation, and fisheries management, as well as support fishing jobs. 168

3.2.3 WTO Agreement on Fishery Subsidies

In June 2022, the WTO Agreement on Fisheries Subsidies was adopted at the 12th Ministerial Conference (MC12). It aims to prohibit harmful fisheries subsidies as a key driver of the widespread depletion of the world's fish populations. The Agreement becomes operational when two-thirds of members (110) have deposited their "instruments of acceptance" with the WTO. The counter currently stands at 83. The EU was among the first members to sign. The agreement requires countries to provide data on their subsidies and the fleets and fish populations that are impacted by those subsidies. Moreover, its first and current version calls on member countries to stop funding illegal fishing and fishing on overfished populations. While the agreement represents progress, experts point out that its key measures are likely to have only minimal impact on harmful subsidies. It relies heavily on self-reporting by WTO members, raising doubts about its effectiveness. Moreover, the current narrowed focus dilutes the original objective of disciplining harmful subsidies more broadly. Negotiations for the second version are ongoing at the ministerial level to include additional targets to tackle subsidies contributing to overcapacity and overfishing while providing special and preferential treatment for developing and least-developed country members' interests. However, despite being close to an agreement, no consensus could be reached yet during the 13th Ministerial Conference in March 2024. Negotiations are expected to continue later in the year.

3.3 Case study: Fisheries in Germany

3.3.1 Economic indicators

Despite having two coastlines, Germany's fishing sector is relatively small. The active fishing fleet counted 897 active vessels in 2021(Figure 9). Another 345 vessels were reported as inactive, of which the majority were SSCF vessels. The number of active vessels decreased by 21% since 2013. At the same time, total vessel power and tonnage decreased only by around 10%, suggesting that, on average, individual vessels became bigger.¹⁷⁵

The active SSCF fleet (below 12 metres and using passive gear) made up almost three-quarters of the fleet (650 vessels). It decreased by 22% since 2013, with particularly high loss rates observed for small Baltic Sea cutters, which account for the majority of SSCF. The remainder of the fleet falls into the LSF category.¹⁷⁶



Figure 9 German fishing fleet development (active vessels), 2013-2021

Source: Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) – Data Annex, Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF).

Overall employment in the fishing sector decreased from 1,281 FTEs in 2013 to 749 FTEs in 2021 or by more than 40%. THEs, a much larger workforce is employed in the processing segment with its 210 enterprises. Women tend to work in POs, restaurants, processing or retailing. However, especially in the SSCF fleet, family members often work in the business as unpaid labour.

In 2021, the live weight of landings of the German fleet made up around 5% of the EU total. Fish-catching companies generated \in 160 million in landings income. Processing companies generated around \in 2 billion annually, a much higher turnover. It is noteworthy that only a small share of the total catch is landed in German ports (around 24% in 2021), as almost the entire catch of high-volume, low-price pelagic species is landed abroad, especially in the Netherlands (46% in 2021), Denmark, and Morocco.

The SSCF vessels contribute less to the overall landing volume compared to the bigger fleet segments but generate higher revenue per catch unit. Their catches tend to have greater value due to opportunities for direct marketing and local processing. 183

3.3.2 Quota allocation

The allocation of fishing opportunities is mostly managed through TACs. In 2021, 83% of the landed weight and 70% of the landed value were managed through catch quotas. Criteria include historical track records, the economic contribution of the fleet, the efficiency and suitability of the fishing operations, and the ability to supply market demand. No specific social or environmental criteria are used. The quotas, which are mostly allocated through POs, are attached to the individual vessels. While quotas were initially allocated to vessels at no cost to the owners, fishers tend to currently include the estimated value of the quota in the price when selling their

vessel. This creates a significant barrier for young fishers to enter the industry. 186

Non-quota fisheries are managed through limits on fishing capacity (licences) and effort (days at sea), as well as spatial, technical, and seasonal management. Criteria include historical track records, the fleet's economic contribution, the efficiency and suitability of the fishing operations, and the ability to supply market demand. No specific social or environmental criteria are used.¹⁸⁷

3.3.3 Sector developments

The bulk of the German fleet consists of small and medium-sized vessels, including around 220 North Sea shrimp trawlers and around 60 fresh-fish cutter trawlers operating in the North and Baltic Seas (below 24 metres in length). 188

The Baltic SSCF, which mainly targets herring and cod, has operated in an economically precarious situation for years, owing to the decline of cod and herring populations and accompanying quota cuts, poor fisheries management, and a lack of young successors. These trends are unlikely to reverse. Hore of these fishers are expected to shift to part-time roles or give up fishing. Hore medium-scale beam trawler fleet in the North Sea targets almost exclusively brown shrimps, a unique regional product that is not subject to a quota. However, bottom trawling has been under heavy criticism due to its impact on the fragile Wadden Sea habitat and high bycatch. With EU plans of a bottom trawling ban in marine protected areas, Hore end of small family-run shrimp fishing companies".

In terms of catch, SSCF accounted for only 1.4% of landings weight and 2.8% of landings value reported for Germany in 2021, while LSF contributed the lion's share of the landings. SSCF compete with the large-scale fisheries sector when products have lost their regional status and are sold at auction. In Germany, this applies mainly to cod and herring. However, market competition is not only determined by stock-specific fishing quotas as various species can be substituted for each other, especially in the case of so-called "whitefish". For example, fish sticks used to be produced from cod but are now commonly made from Alaskan Pollock.

The German LSF fleet mostly operates in the North Sea and Baltic Sea; however, large trawlers also fish in the North Atlantic, Eastern Atlantic, and distant areas. In 2022, it included 11 active vessels with a length of more than 40 meters, of which two beam trawlers, five demersal trawlers, and five pelagic trawlers (one of which was inactive). ¹⁹⁵ Due to the dominant role of a few quota holders and business confidentiality reasons, little statistical data is published on the German LSF segment. ¹⁹⁶ It is clear, though, that the German fisheries sector is marked by consolidation, with foreign ownership or investment playing an important role in the evolution of some segments. ¹⁹⁷ Dutch corporations have managed to access a large share of the fisheries resources. Several of the flatfish beam trawlers under the German flag that target mostly sole, plaice, and turbot are owned and operated by Dutch fishers with catch landed exclusively in the Netherlands. ¹⁹⁸

Five vessels in the German high-sea fleet belong to the vertically integrated Dutch PP Group (see Figure 5). ¹⁹⁹ Estimates based on 2017 data suggest that PP Group's complex web of German subsidiaries accounted for 100% of the German quotas for mackerel and blue whiting and 64% of the herring quota. ²⁰⁰ The other two vessels belong to the Netherlands-based Alda Holding, which is a spin-off of Icelandic fisheries company Samherji's international operations. ²⁰¹ Next to the two German trawlers, Alda Holding operates four vessels in Norway and two in Denmark. Its German subsidiary, Deutsche Fischfang Union (DFFU), almost quadrupled the value of its German assets since 2013, from $\mathfrak{C}33$ million to $\mathfrak{C}122$ million in 2022. Its turnover fluctuated between $\mathfrak{C}30$ million and $\mathfrak{C}50$ million during the same period, reaching $\mathfrak{C}43$ million in 2022. ²⁰²

3.4 Case study: Fisheries in Portugal

3.4.1 Economic indicators

Portugal's fishing fleet includes the mainland fleet and the fleets of the Azores and Madeira. Vessels operate predominantly in the Northeast Atlantic, Northwest Atlantic Fisheries Organisation (NAFO) and Svalbard/ Irminger areas (demersal trawlers), South Atlantic, Indian and Pacific oceans (surface longliners) and in the coastal waters of Madeira. The fleet counted 3,496 active vessels in 2021, a reduction of 13% since 2013 (Figure 10). At the same time, total vessel power and tonnage decreased by 8% and 13%, respectively. In 2021, the Portuguese fleet contributed around 5% of the EU-wide landing weight. The same time is the coastal waters of Madeira.

The SSCF fleet made up 85% of the fleet (2,760 vessels) and 95% of the more than 4,000 inactive vessels in the country. However, it only contributed 11% of the overall landing weight of the Portuguese fleet, while LSF contributed 83% and DWF 6%. The fact that the SSCF landing value share was 27% suggests a comparatively high value per weight of its catch. 205 Octopus, cuttlefish, and pelagic species like chub mackerel and skipjack tuna accounted for around 40% of the SSCF landing weight in 2021. 206

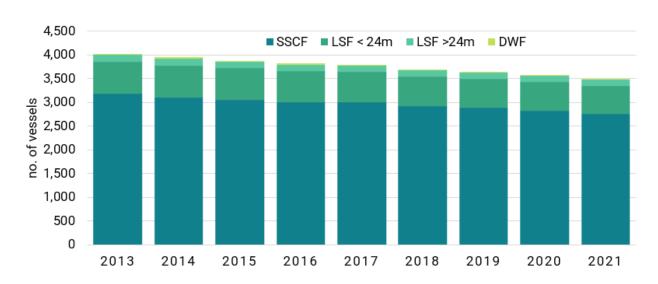


Figure 10 Portuguese fishing fleet development (active vessels), 2013-2021

Source: Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) — Data Annex, Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF).

Portuguese fish-catching companies generated € 420 million in landings income in 2021. Processing companies reported a production value of around € 1 billion in recent years. 208

With the exception of its North Atlantic fleet, most of the Portuguese fleet is marked by poor profitability and crew wages. Overall employment in the fishing sector decreased from 9,751 FTEs in 2013 to 7,905 FTEs in 2021. The processing segment employs another 8,000 FTEs in 157 enterprises. While having little visibility and no official data, women have been traditionally and still are an important part of the fishing industry in Portugal, especially in the canning industry.

3.4.2 Quota allocation

Fishing opportunities in Portugal are mostly managed through catch quotas, accounting for around 42% of the landed weight and value. Non-quota fisheries are managed via limits on fishing capacity (licences) and effort (days at sea), as well as spatial, technical and seasonal management. Moreover, some distant water stocks are under TACs set by RFMOs, while the remaining stocks are managed by national and bilateral quotas with Spain. New vessels must be accompanied by at least equal reductions in capacity. For stocks managed under either EU, ICCAT or distant water TACs, all quotas are allocated purely on the basis of historical activities. The distant water and ICCAT quotas are individual transferable quotas (ITQs), which can be leased and traded between licensed operators. Outside of the ITQ system, quotas can only be transferred together with the associated vessel.²¹³

3.4.3 Sector developments

The tradability of fish quotas created the option to accumulate fishing opportunities. This brought again the Dutch company PP Group into the picture (see box in section 3.1.3 and Figure 5), which expanded its Portuguese business in 2015 through the acquisition of old Portuguese vessels by auction to access their attached lucrative and sought-after fishing rights for cod in international waters of the North Atlantic. The total rights to target these already overfished fish populations were worth around € 100 million in 2020. The fishing rights in the North Atlantic are among the most important for Portugal, but of the 13 vessels fishing for cod in this area in 2015 only eight trawlers are left in 2024, operated by just five companies. PP combined the quotas of three Portuguese vessels on one, making the Santa Princesa the vessel with the biggest quota in the country's fleet. It holds 33.3% of Portugal's cod quota in Svalbard and Norway, and 25% of the Portuguese quota in the NAFO fishing zone, adding up to a total of 1,865 tonnes of cod or 30% of the country's cod quota in the North Atlantic. At the same time, PP managed to further increase its stake in the Northern Atlantic cod fishery through its investments in Germany (see section 3.3). Eventually, this gave PP access to 20% of the 31 ships with EU authorisation to fish in this area, making it very challenging for Portuguese businesses to compete. 215

Other companies operating multiple vessels include, for example, Largispot, with two vessels registered in Portugal, five in Spain and two in the Seychelles, and Pascoal & Filhos, with four vessels registered in Portugal. Pedro França, which operates three large vessels, states to hold around 25% of all Portuguese quotas in the North Atlantic. These large companies are all vertically integrated across the fisheries supply chain.

SSCF have a high social, economic and cultural importance in Portugal as fishing is an important economic sector in many communities with low economic diversification and is deeply embedded in culture and traditions. Fish landed by the SSCF fleet is of high quality and is either marketed fresh in the domestic market or exported. However, the segment faces several challenges, in the form of competition for space with new economic activities, competition with large-scale and aquaculture production, as well as complex governance, frequent policy changes, and inadequate management measures. SSCF have traditionally received little support – a consequence of and resulting in small-scale and artisanal fishers being poorly organised and represented and often disregarded in local, regional and national fisheries-related decision-making processes. Their POs do not have sufficient power to gain access to decision-making processes. In recognising this situation, a legal framework (Decree-Law 73/2020) was introduced in 2020 to support the implementation of co-management as a fisheries governance model. It led to the establishment of two fisheries co-management projects (Co-pesca and Partipesca) in Portugal. However, the influence of these associations apparently remains limited.

3.5 Case study: Fisheries in Spain

3.5.1 Economic indicators

The Spanish fishing sector has one of the largest fleets in the EU in terms of tonnage and employment while having a wide geographic scope of operations. The active fishing fleet counted 7,650 active vessels in 2021, a reduction of 13% since 2013 (Figure 11). The Spanish fleet is dominated by $SSCF^y$ with a fleet share of 52% in 2021, followed by LSF vessels with 45%. The DWF fleet accounted for a 2.5% share (192 vessels). Another 1,258 vessels were inactive, of which almost 90% belonged to the SSCF fleet.



Figure 11 Spanish fishing fleet development (active vessels), 2013-2021

Source: Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023),
The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) – Data Annex, Ispra, Italy: Scientific Technical
and Economic Committee for Fisheries (STECF).

Between 2013 and 2021, total vessel power and tonnage decreased by 10% and 12%, respectively. Overall employment in the fishing sector decreased by 16% since 2013 to 24,209 FTEs in 2021. Especially in SSCF, many jobs are unpaid labour (32%). Moreover, a large share of the SSCF fleet operates part-time, with 57% fishing less than 100 days per year. Like many other countries, the Spanish fisheries sector is struggling with generational handover as the workforce ages. The total live weight and value of landings dropped by around 11% each since 2013, but Spain remains the biggest fishing nation in the EU, accounting for 22% of EU marine catches in 2021.

With more than 25,500 FTEs, a much larger workforce is employed in the processing segment with its 604 enterprises, the most important in the EU sector. According to estimates by the Confederation of Spanish Fisheries (CEPESCA), another 150,000 jobs are indirectly supported by the fisheries sector. Fish-catching companies generated & 1.75 billion in landing income in 2021, while the seafood processing industry generated EUR 7.5 billion in income. Fish catching is dominated by men, but women make up a large majority of the processing workforce.

The Spanish fleet is highly diversified in terms of target species, gears, and fishing areas. LSF accounted for 41%, and SSCF for just 3% in landing weight. Despite only representing a small share of the Spanish fleet, DWF contributed a 56% share in the live weight of landings in 2021. Similarly, landings income is dominated by the LSF (48%) and DWF segments (45%), with SSCF accounting for 7%. This distribution illustrates that the relative value of SSCF catch is higher than in other fleet segments. Overall, the Spanish fisheries sector was economically profitable in 2021, including the SSCF segment.²³³

y In 2021, Spain had 1,385 dredges under 12 meters that use towed gear in coastal shellfish catch in Spanish waters. While falling in the SSCF class when purely looking at length, they are classified in the LSF group due to the use of active gear, in line with the definition used by the STECF. However, this leads to a certain data distortion.

3.5.2 Quota allocation

According to 2021 data, approximately 26% of Spain's catch by weight and 27% by value was regulated through EU and RFMO TACs. Quotas are commonly applied to Atlantic stocks, while Mediterranean stocks typically follow effort-based limits. Non-quota fisheries are managed by setting limits on fishing capacity (licenses), fishing days, and spatial, technical, or seasonal restrictions.²³⁴

Under the new Spanish Sustainable Fishing Regulation (5/2023), several criteria for allocating fishing opportunities are outlined:

- historical fishing activity;
- technical vessel characteristics;
- impact on species, environment, and ecosystems;
- additional fishing opportunities assigned to the vessel;
- employment opportunities and their quality;
- contribution to the local economy.

However, as the regulation only mandates the application of at least one of these criteria, the integration of economic, social, and environmental considerations in allocation decisions may be limited. Moreover, an analysis by the NGO Oceana (2024) found that the implementation of the new law has been limited to date. The three main criteria for quota allocation under the earlier Law 3/2001 on Maritime Fishing of the State were historical fishing activity, vessel technical characteristics, and fleet optimisation. Secondary considerations could also consider employment and working conditions. In some cases, specific allocations were reserved for individual fleet segments or vessel types, such as SSCF vessels. In 2022, historical catches were by far the main criterion (weighted at 70%), while economic and social contributions (20 %) and environmental impacts (10%) as secondary considerations had much less weight.

Under Law 5/2023, fishing quotas are allocated per vessel or vessel group. Up to 10% of fishing rights are reserved for new entrants without historical activity. Fishing opportunities in certain geographies or segments may be distributed to fishing guilds ("cofradías"), POs, shipowner associations, or vessel groups. The comanagement gives them the responsibility to share the pooled opportunities among participating vessels. While some progress has been made, issues remain in the Spanish allocation system, such as insufficient transparency and access to information on how different criteria and weightings are applied at the local, regional, and national levels. Additionally, the weak role of SSCF in decision-making processes and the inadequate assessment of social, environmental, and economic impacts still pose a barrier to fairer quota allocations. This situation raises concerns that the industrial fleets are prioritised over SSCF and artisanal fisheries, especially considering the heavy weighting of historical catches in quota allocation.

3.5.3 Sector developments

With its long coastline, the fisheries sector is highly culturally, economically, and socially important in Spain. More than half of the Spanish fleet operates in national waters in the northwest Bay of Biscay and a quarter in the Mediterranean Sea. Smaller numbers catch in the Gulf of Cadiz (9%), and the Canary Islands (8%).²⁴⁰ In total, around 95% of the active vessels operate in national waters.²⁴¹

In some Spanish regions, the fleet downsizing observed over the years was connected to a progressive loss of access to fishing grounds off the North and West African costs. This led to a stronger focus on short fishing trips with small vessels to nearby grounds, for example in the case of the SSCF segments of the Canary Islands and Andalusia. They underwent a process of commercial specialisation on a smaller number of high-demand species. Meanwhile, the Spanish fleet in the Mediterranean, which is also dominated by SSCF vessels, is engaged in fisheries focusing on a variety of species with high value.²⁴²

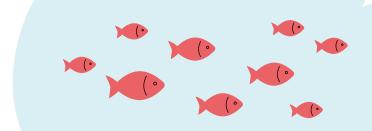
Most SSCF vessels operate in Galicia, Andalusia, and the Canary Islands. LSF vessels are prevalent in the Basque country and Cantabria in the Bay of Biscay, and Catalonia and Valencia in the Mediterranean. Purse seiners play an important role in fishing regions outside of Spanish waters. Of the twelve SFPA agreements valid in 2021, key ones included Mauritania for shellfish and demersal species, Morocco for the artisanal fleets of the Canary Islands and the Gulf of Cádiz, the Seychelles for tropical tuna, and Mauritius and the Cook Islands for landings. Northern Agreements were relevant for demersal species fisheries.

Moreover, Spain has a large presence in tuna and demersal RFMOs, in addition to demersal vessels operating in international waters outside of RFMOs. With its large DWF fleet, Spain is a major actor in global tuna fisheries, owing its important role also to substantial EU subsidies over the years (see section 3.2.1). A total of 124 Spanish vessels reported tuna fishing in the Eastern Pacific (IATTC), the Western and Central Pacific (WCPFC), and the Indian Ocean (IOTC) in 2021. Just looking at the yellowfin tuna quota under the IOTC in 2024, 15 Spanish tuna vessels were allocated a quota of 42,500 tonnes of yellowfin tuna, or 60% of the TAC assigned to the EU for this year. In the Atlantic (ICCAT), 1,305 Spanish vessels were active in 2021, many of them falling into the SSCF category.

In line with broader EU trends, the Spanish SSCF often face challenges in obtaining an equitable share of fishing opportunities. Within *cofradías*, the influence of small-scale fishers in decision-making can be undermined where SSCF representation within the *cofradías* membership is limited. The political influence of SSCF at local, regional, and national levels is marginalised when purse seine or trawl fishers become members of these associations. Therefore, small-scale fishers increasingly seek to establish their own associations in regions dominated by more powerful fleet segments to ensure their interests are better represented.²⁴⁸

An example of an SSCF being at a disadvantage in the allocation of fishing opportunities is Spain's tuna fishery in national waters. For bluefin tuna, large-scale purse seine fleets and *almadrabas* (traditional coastal fisheries using tuna traps) received most fishing opportunities over the past three decades. Meanwhile, SSCF with hook-and-line fleets, particularly in the Canary Islands, the Mediterranean, and the Strait of Gibraltar, have been sidelined. Despite their historically larger contribution, the Canary Island SSCF fleet received just 2.5% of the national TAC on average between 2008 and 2015. This inequity is due to these fishers having reduced activity during periods of stock collapse and, therefore, not being recognised as significant historical users in the allocation of fishing opportunities.²⁴⁹ Following protests, modest increases have been made to 8% of the national allocation in 2024 but remain far below historical levels and fail to address the structural inequalities.²⁵⁰ For bigeye tuna, Spain highlighted the allocation of 2.9% of the 2020 national quota to the Canary Islands artisanal fleet as an example of applying social criteria. However, in the same year, the large pole and line tuna fleet of the Canary Islands received around ten times higher quota. The main criteria applied were historical catches and dependency on the fishery; however, dependency favours LSF, as they are specialised in this fishery, can travel wider areas and achieve stable catches, criteria that SSCF can hardly achieve.²⁵¹

The Spanish fisheries sector has shown strong vertical integration processes over the years, with upstream fishing companies investing downstream to diversify and gain direct market access, and downstream companies investing upstream to gain access to quota.²⁵² Examples of such integrated companies include Nueva Pescanova, with 54 vessels, as well as aquaculture, processing and commercialisation activities,²⁵³ or Grupo Pereira, which is active in fish catching with 18 vessels,²⁵⁴ and the processing, marketing, and distribution of fishery products.²⁵⁵ Horizontal integration has been more commonly observed at the processing level owing to over-capacities that marked the fisheries sector for many years.²⁵⁶



4 Conclusions and recommendations

Despite the lack of comprehensive transparency limiting the analysis of some aspects of this study, the findings allow some conclusions on the main barriers to transitioning to a fisheries sector that is fully aligned with the CFP and the EU's broader sustainability goals, as well as the steps that could be taken to overcome them.

4.1 Improve SSCF policy support

Fisheries play a significant economic and social role. Economically, the sector contributes to thousands of livelihoods in the EU, especially in coastal communities. The EU fishing sector directly employs more than 100,000 people, particularly in small-scale fisheries, and generates billions of euros in revenue. Moreover, fisheries play a crucial role in the broader food supply chain, contributing to food availability and the highly valued seafood market.

Socially, fisheries are fundamental for maintaining the cultural heritage and traditions of coastal communities, particularly in regions where fishing has been ingrained in the way of life for many generations. Therefore, fisheries not only provide an economic contribution but also foster community identity and maintain local culture. Small-scale fisheries, in particular, provide employment and maintain social cohesion in areas that might otherwise be confronted with depopulation or economic decline.²⁵⁷

However, the sector faces a range of challenges, from overfishing to marine environment degradation and climate change, from competition from medium and large-scale operators to international market pressures. As environmentally and socially sustainable management of fisheries is vital for balancing economic needs with environmental and community impacts, it is crucial that the sector operates in an enabling policy environment that supports fair and long-term sustainable access to this public resource. Social and environmental goals are deeply entwined, as a fair distribution of profits is dependent on the long-term health of fish populations and the broader marine ecosystems.

In this context, small-scale fisheries using low-impact methods deserve particular attention as they support many livelihoods while utilising comparatively few financial and technical resources. In contrast, large-scale industrialised fleets account for the bulk of landings but are highly subsidised, provide relatively little employment, and tend to use more destructive fishing methods.²⁵⁸

The poor wage performance in the SSCF fleet and the importance of small vessels as employers suggests a need to revise policies to increase job quality and ensure a living income, particularly in light of the critical role that smaller vessels play in the economies of coastal communities. The diversity within the SSCF sector, where fishing may be a full-time occupation for some, while providing supplementary income for others, demands a nuanced understanding of the economic performance of fleets, the influence of human, social and economic capitals, and the role of gender to guide policy decisions. The supplementary income for others are considered as a nuanced understanding of the economic performance of fleets.

4.2 Implement Article 17 to quota allocation and tailor management

The improved management of EU fisheries during the last decade had some positive socio-economic impacts. The fleet saw high net profits as some fish populations recovered and operational costs decreased. However, at the same time employment decreased significantly and a closer look shows that profitability varied across different segments, with lower outcomes for the SSCF fleet. Despite being one of the most regulated sectors in the EU and the introduction of important reforms, the increasing number of regulations has not tackled overfishing or succeeded in fulfilling their socio-economic goals, namely the protection of the livelihoods of coastal communities dependent upon marine resources. Commonly quoted reasons include the reluctance of decision-makers to comprehensively consider social objectives and the contradicting and incompatible objectives of the EU fisheries policy in the form of conservation, sustainability, and economic exploitation.

Balancing environmental protection with social and economic stability in allocating fishing opportunities, as foreseen in Article 17, is crucial to facilitating a shift away from intensive high-impact fishing to more sustainable, low-intensity, low-impact fishing that supports more livelihoods. Improved social and economic criteria are needed to support the SSCF in the EU, along with the facilitation of increased participation of all fishery types in decision-making processes, which can improve compliance and local resource management. Article 17 has the potential to be a powerful tool in this regard but suffers from an unclear definition and a lack of mandatory reporting of detailed data by MS.

The range of criteria used by MS to assign fishing opportunities has changed little since the implementation of the 2013 reform, even though principles like historical track records and vessel size have long been criticised as unsuitable for solving the sector's challenges and not being inclusive towards small fishers. Meanwhile, the analysis of market developments across MS suggests growing trends of horizontal and vertical integration, leading to market concentration among less, but bigger players operating across multiple countries. Examples, where the introduction of ITQs helped to reduce overcapacity and improved economic fleet performance but led to unemployment among SSCF fishers and loss of community resources due to ownership concentration, illustrate the need for specific safeguards to prevent such repercussions.²⁶⁴

Fisheries management could be improved through a more holistic approach to quota reallocation, which should consider the socio-economic impacts, providing additional quotas to small-scale fishers where needed. Shifting quotas towards sustainable, low-impact fishing practices could enhance employment and environmental sustainability. Importantly, reallocation strategies should be tailored to specific regions and fisheries to ensure effectiveness. ²⁶⁵ Important supportive measures called for by small-scale fishers include preferential coastal access, support for young people and women in the sector, long-term fish population rebuilding, and support for improving the energy efficiency of vessels and gear. ²⁶⁶ Traditional fishing practices should be integrated to preserve regional fishing communities and promote sustainability. ²⁶⁷

There are, in fact, examples of more balanced and transparent allocation approaches applied by some MS that seem to have the potential to deliver positive outcomes for the SSCF fleet in EU fisheries, which could serve as reference points when aiming to identify best practices that MS could build on. The discussed input-output models offer opportunities to fine-adjust and optimise EU quota reallocation to decrease environmental impacts and maximise socio-economic benefits. Social and environmental impacts linked with different fishing techniques and vessels are key indicators to consider in quota allocation. More accurate data on environmental impacts could provide important input for addressing them and aligning quota distribution with environmental goals. Importantly, more socio-economic data should be collected and shared to better evaluate the impacts of quota reallocation on the socio-economic characteristics of the fishery industry.²⁶⁸

4.3 Review funding support and subsidies

To ensure the future of SSCF, it is recommended that sufficient funds are ringfenced to support generational renewal, provide better access to markets, develop and implement co-management regimes that reserve coastal fishing areas for small-scale, low-impact fisheries. In addition to alignment with the EU Green Deal, the EMFAF should prioritize projects that integrate social, environmental, and economic goals, promoting sustainable coastal communities and ensuring fair access to resources. The concept of regionalisation may need to be extended to localisation, as the contribution of the SSCF across multiple municipalities or a province may at times be low but importance in a smaller area may still be high in economic and social terms.

Considering indications that a part of the EMFAF may still be directed towards harmful or ambiguous uses, the distribution of these fishing subsidies should be critically assessed to ensure fairness between business and society and fulfil the EU's commitments on the international level to end harmful subsidies.

Considering the hurdles in accessing funds, the provision of administrative support could help to increase the access of SSCF fishers. The outcomes of the mid-term evaluation of the fund should be critically analysed for such shortcomings. If a lack of transparency again hampers a meaningful analysis of the fund's implementation at the level of investment and fisheries type, this should lead to a swift change in reporting requirements. More granular information can be used to redirect funds in line with the goals of achieving strong social and environmental outcomes.

Importantly, fisheries subsidies in the form of fuel tax exemptions under the ETD should be abolished. They benefit largely the industrial large-scale part of the fisheries fleet that is marked by high rates of by-catch, ecosystem damage and high $\rm CO_2$ emissions, allowing them to privatise gains while socialising environmental damage costs ²⁶⁹ Phasing out these subsidies would incentivise greater fuel efficiency, cut carbon emissions and stimulate less impactful fishing practices. The EU should take an ambitious and leading role along the same line in finalising the WTO negotiations on ending harmful subsidies. Public subsidies could be redirected to support sustainable practices and low-impact fisheries under careful consideration of the local situation to avoid problem-shifting. As no one size fits all, finding balanced solutions should be the subject of further research.

4.4 Improve data granularity and transparency

An analysis that can inform policies ensuring the fair distribution of fishing opportunities benefits from disaggregated data at the species or fisheries level. Transparency is the basis of good governance, and granular data is indispensable in analysing the social and economic conditions in EU fisheries while identifying opportunities and stumbling blocks to achieving socio-economic objectives. The need for better and more granular data and more socio-economic indicators in the data collection of the STECF has been recognised and efforts have been strengthened to tackle data gaps to allow meaningful monitoring and analysis of progress. A critical tool could be the announced *vademecum* of the EC, which aims to improve transparency, objectivity and integration of environmental and socio-economic criteria in the allocation of fishing allocation, support lowimpact fishing practices and support SSCF fisheries.²⁷⁰

Where private actors access and profit from common goods, the public interest for transparency should override business confidentiality concerns. Improving transparency through the creation of public registers for quota ownership and allocation processes is necessary to ensure fairness and accountability in quota management. The public should be able to access data on quota quantities assigned to companies and vessels, allowing, for example, to identify quota concentration. Therefore, in line with the transparency and objectivity requirements under Article 17, public MS reporting of quota registers and the linked allocation rules should be mandatory. Moreover, POs, which often manage fishing opportunities on behalf of their members, should be obliged to publish their quota allocation rules to obtain a better understanding of the distribution of fishing opportunities after initial distribution by governments. Greater transparency could also facilitate the sharing of best practices among different MS.

Outside of the EU CFP, the fight for fishery resources also leads to vessels from EU origin fishing under foreign flags in jurisdictions with weaker standards and enforcement, driving overfishing of local fish populations, especially in Africa. ²⁷¹ The EU has a responsibility to stop the overexploitation of fishery resources, aside from banning boats from EU companies to register in red-card countries that do not cooperate in tackling illegal fishing. Transparency on beneficial ownership is required to investigate such controversial activities.

Transparency should also relate to lobbying and influence. Public and private actors need to be able to voice legitimate interests, but the bigger financial resources and networks of industry lobby raise concerns over uneven influence. To obtain clarity on the different influences that shape policy, lobbying activities and expenditures should be fully disclosed, including public logs of all meetings with officials. Moreover, structured and balanced formal consultation processes should be the main source of input for all stakeholders, including representatives from SSCF, civil society, and independent experts.

4.5 Conclusion

There are ample indications that the political economy of the fisheries sector in Europe is favouring industrialisation and concentration to the detriment of more environmentally friendly practices and a fairer distribution of benefits. The adoption of market-based management principles and the effective granting of free fishing rights have been more beneficial for a privileged group of large-scale fishers who generated significant returns. The available data may not allow to conclusively answer the question of the degree to which the industrial fisheries sector is favoured in the current EU fisheries political economy. However, it is clear that small-scale fisheries and their communities did not reap the same benefits due to unequal opportunities to advocate for their interests and access resources. While closely interweaved with environmental and economic objectives, the social aspects need much stronger consideration to achieve the stated aim of the CFP to transition to a fairer fisheries economy that can be sustained in the long term.



Appendix 1 Sector characteristics of EU fisheries sector

Table 3 EU vessel numbers, employment and catch, 2021 vs. 2013

	SSCF	LSF	DWF	Total
2021				
Total active vessels	41,237	12,738	238	54,213
Share in total fleet (%)	76.1%	23.5%	0.4%	
Total engaged crew	59,948	55,217	6,752	121,917
Share in total crew (%)	49.2%	45.3%	5.5%	
Full-time equivalent crew (FTE)*	33,052	41,903	6,792	81,747
Total catch (tons)	244,112	2,635,471	686,265	3,565,848
Share in total catch (%)	6.8%	74.0%	19.2%	
Gross profit margin (%)	21.6%	19.0%	16.6%	
Net profit margin (%)	11.8%	8.3%	9.4%	
2013**				
Total active vessels	45,240	15,363	294	60,897
Share in total fleet (%)	74.3%	25.2%	0.5%	
Total engaged crew	68,246	62,958	5,947	137,151
Share in total crew (%)	49.8%	45.9%	4.3%	
Full-time equivalent crew (FTE)	44,716	51,520	6,496	102,732
Total catch (tons)	236,500	3,092,900	696,700	4,026,100
Share in total catch (%)	5.9%	76.8%	17.3%	

Note: *Full-time equivalent (FTE) > total crew in the DWF due to long trips and / or extra shifts.

Source: Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), pp., 26-27 and Data Annex; Paulrud, A., N. Carvalho, A. Borrello and A. Motova (eds.) (2015), The 2015 Annual Economic Report on the EU Fishing Fleet (STECF 15-07), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), pp. 46-47, 49, 75, 80.

^{**}The UK was removed from 2013 data to allow comparison with 2021. Data on profit margins in 2013 is incomplete.

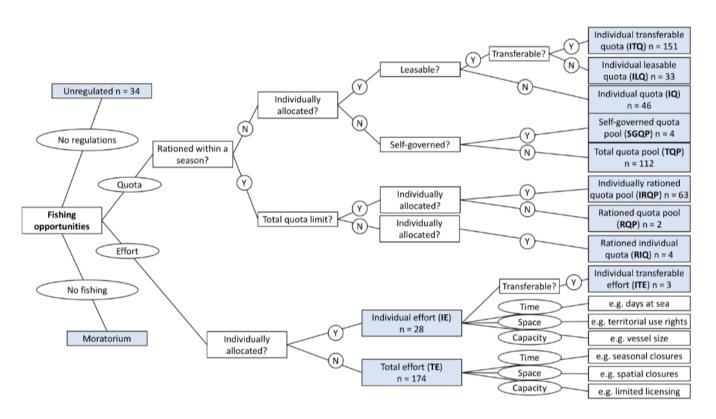
Table 4 Development of active SSCF fleets per MS, 2013 to 2021

MS	Number of SSCF vessels			Engaged crew in SSCF fleet		
	2013	2021	% change	2013	2021	% change
Greece	13,671	9,324	-32%	19,263	12,521	-35%
Italy	7,643	6,963	-9%	13,275	9,870	-26%
Croatia	1,712	5,361	213%	2,163	5,607	159%
Spain	4,222	3,996	-5%	9,484	8,406	-11%
France	4,345	3,727	-14%	7,286	6,085	-16%
Portugal	3,185	2,760	-13%	9,857	6,946	-30%
Estonia	1,300	1,276	-2%	1,865	1,046	-44%
Finland	1,668	1,183	-29%	1,273	1,002	-21%
Bulgaria	1,099	1,082	-2%	1,143	1,282	12%
Ireland	862	898	4%	1,282	1,273	-1%
Denmark	1,025	833	-19%	313	234	-25%
Cyprus	907	746	-18%	1,246	1,055	-15%
Poland	553	652	18%	1,389	1,404	1%
Germany	832	650	-22%	777	489	-37%
Sweden	728	603	-17%	1,066	840	-21%
Malta	707	568	-20%	911	748	-18%
Latvia	202	210	4%	325	338	4%
Netherlands	191	181	-5%	383	329	-14%
Romania	106	108	2%	278	288	4%
Slovenia	66	60	-9%	71	64	-10%
Lithuania	64	55	-14%	141	119	-16%
Belgium	-	1		-	-	-

Source: Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) – Data Annex, Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF).

Appendix 2 Fishery management systems

Figure 12 Classification decision tree for fisheries management systems



Source: Oostdijk, M. and G. Carpenter (2022, August 18), "Which attributes of fishing opportunities are linked to sustainable fishing?", Fish and Fisheries, 23: 1469-1484, p. 1472.

References

- Official Journal (2013, January 1), "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", L 354: 22-61.
- 2 Clayton, A. (2021, March), Lessons From Implementation of the EU's Common Fisheries Policy, Brussels, Belgium: The Pew Charitable Trusts, p. 4.
- Díaz, S., J. Settele, E. S. Brondízio et al. (eds.) (2019), Summary for Policymakers of the Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), Bonn, Germany: IPBES Secretariat
- Official Journal (2013, January 1), "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", L 354: 22-61.
- 5 Carpenter, G., J. Innes, S. Mardle, A.F. Johnson, A. Leroy and L. Milo-Dale (2021), Socio-Economic Impacts of the EU Common Fisheries Policy, Brussels, Belgium: WWF European Policy Office and MarFishEco Fisheries Consultants, p. 34.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) Data Annex, Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF).
- 7 Scholaert, F. (2021, October 15), "Women in fisheries", European Parliament Research Service, online: https://epthinktank.eu/2021/10/15/women-in-fisheries/, viewed in October 2024.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) Data Annex, Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF).
- 9 Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), p. 33.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), pp. 11-12, 26-27, 73.
- Carpenter, G., J. Innes, S. Mardle, A.F. Johnson, A. Leroy and L. Milo-Dale (2021), Socio-Economic Impacts of the EU Common Fisheries Policy, Brussels, Belgium: WWF European Policy Office and MarFishEco Fisheries Consultants.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), pp. 11-12, 26-27, 73.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) Data Annex, Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF).
- Malvarosa, L., M.Tardy Martorell, J. Virtanen and J. Guillen (2023), Economic Report on the EU Fish Processing Industry (STECF 23-14), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), pp. 6, 39.
- European Commission (n.d.), "Small-scale fisheries", online: https://oceans-and-fisheries.ec.europa.eu/fisheries/rules/small-scale-fisheries_en, viewed in October 2024.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), p. 142.
- 17 Carpenter, G., J. Innes, S. Mardle, A.F. Johnson, A. Leroy and L. Milo-Dale (2021), Socio-Economic Impacts of the EU Common Fisheries Policy, Brussels, Belgium: WWF European Policy Office and MarFishEco Fisheries Consultants, pp. 33-34.
- Carpenter, G., J. Innes, S. Mardle, A.F. Johnson, A. Leroy and L. Milo-Dale (2021), Socio-Economic Impacts of the EU Common Fisheries Policy, Brussels, Belgium: WWF European Policy Office and MarFishEco Fisheries Consultants, p. 34.
- Guillen, J., J. Boncoeur, N. Carvalho, K. Frangoudes, O. Guyader, C. Macher and F. Maynou (2017), "Remuneration systems used in the fishing sector and their consequences on crew wages and labor rent creation", Maritime Studies, 16(3).
- Carpenter, G., J. Innes, S. Mardle, A.F. Johnson, A. Leroy and L. Milo-Dale (2021), Socio-Economic Impacts of the EU Common Fisheries Policy, Brussels, Belgium: WWF European Policy Office and MarFishEco Fisheries Consultants, p. 34.
- Villasante, S., C. Pita, G.J. Pierce et al. (2016), "To land or not to land: How do stakeholders perceive the zero discard policy in European small-scale fisheries?", Marine Policy, 71: 166-174.
- Doering, R., M. Fitzpatrick and J. Guillen Garcia (eds.) (2020), Social Dimension of the CFP (STECF-20-14), Scientific, Technical and Economic Committee for Fisheries (STECF), Luxembourg: Publications Office of the European Union, pp. 9-10.
- Natale, F., N. Carvalho, M. Harrop, J. Guillen, K. Frangoudes (2013, November), "Identifying fisheries dependent communities in EU coastal areas", Marine Policy, 42: 245-252.
- 24 Pascual-Fernandez, J.J., C. Pita and M. Bavinck, "Small-scale fisheries take centre-stage in Europe (once again)", in: Pascual-

- Fernandez, J.J., C. Pita and M. Bavinck (eds.) (2020), Small-Scale Fisheries in Europe: Status, Resilience and Governance, New York, United States: Springer: 1-22, pp. 4-6.
- 25 EU Fisheries Control Coalition (n.d.), "Small-scale fisheries", online: https://www.transparentfisheries.org/our-work/small-scale-fisheries/, viewed in October 2024.
- Lo, C.W., S. Deniz, J. Hardt, R. Pérez López, J. Pleyer and S.M. Babich (2023, April), "Sustainable Reform of European Union (EU): Common Fisheries Policy", SEEJPH: 95-112.
- 27 Kindt-Larsen, L., G. Glemarec, C.W. Berg, S. Königson, A.-M. Kroner, M. Søgaard and D. Lusseau (2023, July), "Knowing the fishery to know the bycatch: bias-corrected estimates of harbour porpoise bycatch in gillnet fisheries", Proceedings of the Royal Society B Biological Sciences, Vol. 290(2002).
- 28 Lo, C.W., S. Deniz, J. Hardt, R. Pérez López, J. Pleyer and S.M. Babich (2023, April), "Sustainable Reform of European Union (EU): Common Fisheries Policy", SEEJPH: 95-112.
- 29 Löfgren, P. (2023), They Emptied Our Seas, Deep Sea Productions.
- Europêche (2023, February 21), "Missed opportunity to overhaul Common Fisheries Policy", Press release, Brussels, Belgium: Association of National Organisations of Fishing Enterprises in the EU.
- 31 InfluenceMap (2022, October), Industry Influence on Biodiversity Policy, p. 15.
- Corporate Europe Observatory and Seas At Risk (2017, May 4), "Fishing for influence", online: https://corporateeurope.org/en/power-lobbies/2017/05/fishing-influence, viewed in October 2024.
- European Ombudsman (2020, April), "Recommendation of the European Ombudsman in case 640/2019/FP on the transparency of the Council of the EU's decision-making process leading to the adoption of annual regulations setting fishing quotas (total allowable catches)", online: https://www.ombudsman.europa.eu/en/recommendation/en/120761, viewed in October 2024.
- BLOOM (2023, January 12), "The pillaging of African waters: Ground-breaking revelations on European tuna lobbies", online: https://www.bloomassociation.org/en/the-pillaging-of-african-waters-ground-breaking-revelations-on-tuna-lobbies/, viewed in September 2024.
- McVeigh, K. (2023, April 2023), "Revealed: most of EU delegation to crucial fishing talks made up of fishery lobbyists", The Guardian, online: https://www.theguardian.com/global/2023/apr/26/revealed-most-of-eu-delegation-to-crucial-fishing-talks-made-up-of-fishery-lobbyists, viewed in September 2024.
- Heidrich, K.N., J.J. Meeuwig, M.J. Juan-Jordá et al. (2023, December 1), "Multiple lines of evidence highlight the dire straits of yellowfin tuna in the Indian Ocean", Ocean and Coastal Management, Vol. 245: 106902.
- 37 BLOOM (2023, April 27), "Tuna fishing lobbies caught red-handed", online: https://www.bloomassociation.org/en/tuna-fishing-lobbies-caught-red-handed/, viewed in September 2024.
- McVeigh, K. (2023, April 2023), "Revealed: most of EU delegation to crucial fishing talks made up of fishery lobbyists", The Guardian, online: https://www.theguardian.com/global/2023/apr/26/revealed-most-of-eu-delegation-to-crucial-fishing-talks-made-up-of-fishery-lobbyists, viewed in September 2024.
- McBride, O. (2022, November 16), "BLOOM and CEO file a complaint against lobbies Orthongel and Europêche", The Fishing Daily, online: https://thefishingdaily.com/latest-news/bloom-and-ceo-file-a-complaint-against-tuna-lobbies-orthongel-and-europeche/, viewed in September 2024.
- 40 Carpenter, G. and C. Williams (2021), Who Gets to Fish in the European Union? A 2021 Update of How EU Member States Allocate Fishing Opportunities, London, UK: New Economics Foundation.
- 41 European Commission (n.d.), "Common fisheries policy (CFP)", online: https://oceans-and-fisheries.ec.europa.eu/policy/common-fisheries-policy-cfp_en, viewed in September 2024.
- 42 VertigoLab (2023, April), Empowering EU Fisheries Policy to Restore Marine Health, Tackle Climate Change and Create Jobs, Brussels, Belgium: Our Fish.
- European Council (n.d.), "Management of the EU's fish stocks", online: https://www.consilium.europa.eu/en/policies/eu-fish-stocks/#system, viewed in September 2024.
- Official Journal (2023, January 1), "Regulation (EU) No 1380/2013 of 13 December 2013 on the Common Fisheries Policy, Article 17", OJ L 354, p. 22.
- European Commission (2024, June 20), "Commission launches consultation on the common fisheries policy", online: https://oceans-and-fisheries.ec.europa.eu/news/commission-launches-consultation-common-fisheries-policy-2024-06-20_en, viewed in September 2024.
- European Parliament (2024, April), "Common market organisation in fishery and aquaculture products", online: Fact Sheets on the European Union, online: https://www.europarl.europa.eu/factsheets/en/sheet/118/common-market-organisation-in-fishery-and-aquaculture-products, viewed in September 2024.
- 47 LIFE Platform (n.d.), "Fisheries Producer Organisations for Small-scale Fishers: a vital step to take", online: https://lifeplatform.eu/fisheries-producer-organisations-for-small-scale-fishers-a-vital-step-to-take/, viewed in October 2024.

- European Parliament (2024, April), "Common market organisation in fishery and aquaculture products", online: Fact Sheets on the European Union, online: https://www.europarl.europa.eu/factsheets/en/sheet/118/common-market-organisation-in-fishery-and-aquaculture-products, viewed in September 2024.
- EUR-Lex (2020), "Regulation (EU) No 1379/2013 of the European Parliament and of the Council of 11 December 2013 on the common organisation of the markets in fishery and aquaculture products, amending Council Regulations (EC) No 1184/2006 and (EC) No 1224/2009 and repealing Council Regulation (EC) No 104/2000", online: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02013R1379-20200425, viewed in September 2024.
- European Climate, Infrastructure and Environment Executive Agency (CINEA) (n.d.), "About EMFAF", online: https://cinea.ec.europa.eu/programmes/european-maritime-fisheries-and-aquaculture-fund/about-emfaf_en, viewed in September 2024.
- European Commission (n.d.), "European Maritime, Fisheries and Aquaculture Fund Performance", online: https://commission.europa.eu/strategy-and-policy/eu-budget/performance-and-reporting/programme-performance-statements/european-maritime-fisheries-and-aquaculture-fund-performance_en, viewed in September 2024.
- European Climate, Infrastructure and Environment Executive Agency (CINEA) (n.d.), "About EMFAF", online: https://cinea.ec.europa.eu/programmes/european-maritime-fisheries-and-aquaculture-fund/about-emfaf_en, viewed in September 2024.
- European Climate, Infrastructure and Environment Executive Agency (CINEA) (n.d.), "About EMFAF", online: https://cinea.ec.europa.eu/programmes/european-maritime-fisheries-and-aquaculture-fund/about-emfaf_en, viewed in September 2024.
- European Commission (n.d.), "EU F&T portal", online: https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/programmes/emfaf, viewed in September 2024.
- European Commission (n.d.), "Small-scale fisheries", online: https://oceans-and-fisheries.ec.europa.eu/fisheries/rules/small-scale-fisheries_en, viewed in October 2024.
- EUR-Lex (2023, January 1), "Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity", online: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02003L0096-20230110, viewed in September 2024.
- 57 Scholaert, F. (2022, November), WTO Agreement on Fisheries Subsidies, European Parliamentary Research Service, pp. 3-4.
- 58 Scholaert, F. (2022, November), WTO Agreement on Fisheries Subsidies, European Parliamentary Research Service, pp. 3-4.
- 59 Oceana (2023, February), "Oceana defends EU Common Fisheries Policy from attack", online: https://europe.oceana.org/our-campaigns/defending-the-eus-common-fisheries-policy/, viewed in September 2024.
- 60 Clayton, A. (2021, March), Lessons From Implementation of the EU's Common Fisheries Policy, Brussels, Belgium: The Pew Charitable Trusts, p. 4.
- Kirkpatrick, A. (2019, September 10), "Examining the impact of institutions on common pool resource problems: the EU's Common Fisheries Policy", Journal of European Integration, Vol. 42(2): 247-262.
- European Environment Agency (2024, August 28), "Healthy seas, thriving fisheries: transitioning to an environmentally sustainable sector", online: https://www.eea.europa.eu/en/analysis/publications/healthy-seas-thriving-fisheries, viewed in September 2024.
- 63 Clayton, A. (2021, March), Lessons From Implementation of the EU's Common Fisheries Policy, Brussels, Belgium: The Pew Charitable Trusts.
- 64 European Environment Agency (2024, August 28), "Healthy seas, thriving fisheries: transitioning to an environmentally sustainable sector", online: https://www.eea.europa.eu/en/analysis/publications/healthy-seas-thriving-fisheries, viewed in September 2024.
- European Court of Auditors (2022), EU Action to Combat Illegal Fishing Control Systems in Place but Weakened by Uneven Checks and Sanctions by Member States, Special Report 20, Luxembourg: ECA, pp. 31-33, 44.
- Roos Diesel Analysis (2019, June), Study on Engine Power Verification by Member States, Brussels, Belgium: European Commission, p. 17.
- European Commission (2023, February 21), Commission Staff Working Document: Common Fisheries Policy State of Play, COM(2023) 103 final, pp. 23-24.
- Doering, R., M. Fitzpatrick and J. Guillen Garcia (eds.) (2020), Social Dimension of the CFP (STECF-20-14), Scientific, Technical and Economic Committee for Fisheries (STECF), Luxembourg: Publications Office of the European Union, pp. 33-34.
- European Parliament (2023, September 26), "Answer given by Mr Sinkevičius on behalf of the European Commission Parliamentary question E-002359/2023(ASW)", online: https://www.europarl.europa.eu/doceo/document/E-9-2023-002359-ASW_EN.html, viewed in September 2023.
- Doering, R., M. Fitzpatrick and J. Guillen Garcia (eds.) (2020), Social Dimension of the CFP (STECF-20-14), Scientific, Technical and Economic Committee for Fisheries (STECF), Luxembourg: Publications Office of the European Union, pp. 33-34.
- Carpenter, G., J. Innes, S. Mardle, A.F. Johnson, A. Leroy and L. Milo-Dale (2021), Socio-Economic Impacts of the EU Common Fisheries Policy, Brussels, Belgium: WWF European Policy Office and MarFishEco Fisheries Consultants.
- 72 Doering, R., M. Fitzpatrick and J. Guillen Garcia (eds.) (2020), Social Dimension of the CFP (STECF-20-14), Scientific, Technical and

- Economic Committee for Fisheries (STECF), Luxembourg: Publications Office of the European Union, pp. 33-34.
- Van Hoof, L., L. Goti, M. Tardy Martorell and J. Guillen (eds.) (2023), Social Data in Fisheries (STECF 23-17), Scientific, Technical and Economic Committee for Fisheries (STECF), Luxembourg: Publications Office of the European Union, pp. 68-84.
- Doering, R., M. Fitzpatrick and J. Guillen Garcia (eds.) (2020), Social Dimension of the CFP (STECF-20-14), Scientific, Technical and Economic Committee for Fisheries (STECF), Luxembourg: Publications Office of the European Union, pp. 33-35
- 75 EUR-Lex (2009, December 22), "Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy", Official Journal, L 343.
- Carpenter, G. and C. Williams (2021), Who Gets to Fish in the European Union? A 2021 Update of How EU Member States Allocate Fishing Opportunities, London, UK: New Economics Foundation, p.5.
- Furopean Parliament (2023, September 26), "Answer given by Mr Sinkevičius on behalf of the European Commission Parliamentary question E-002359/2023(ASW)", online: https://www.europarl.europa.eu/doceo/document/E-9-2023-002359-ASW_EN.htmlviewed in September 2023.
- Van Hoof, L., L. Goti, M. Tardy Martorell and J. Guillen (eds.) (2023), Social Data in Fisheries (STECF 23-17), Scientific Technical and Economic Committee for Fisheries (STECF), Luxembourg: Publications Office of the European Union.
- 79 Williams, C. (2021, October 4), "Who gets to fish in the EU?, New Economics Foundation, online: https://neweconomics.org/2021/10/who-gets-to-fish-in-the-eu, viewed in September 2024.
- Kirkpatrick, A. (2019, September 10), "Examining the impact of institutions on common pool resource problems: the EU's Common Fisheries Policy", Journal of European Integration, Vol. 42(2): 247-262.
- Carpenter, G. and C. Williams (2021), Who Gets to Fish in the European Union? A 2021 Update of How EU Member States Allocate Fishing Opportunities, London, UK: New Economics Foundation, p. 31.
- 82 Blomeyer, R., F. Nieto, A. Sanz et al. (2015), Criteria for Allocating Access to Fishing in the EU, Brussels, Belgium: Directorate General for Internal Affairs;
 - Carpenter, G. and C. Williams (2021), Who Gets to Fish in the European Union? A 2021 Update of How EU Member States Allocate Fishing Opportunities, London, UK: New Economics Foundation;
 - Gray, T. (2023, April), "Fishing for principles: The fairness of fishing quota allocation", Sustainability, 16, 5064
- 83 Gray, T. (2023, April), "Fishing for principles: The fairness of fishing quota allocation", Sustainability, 16, 5064.
- Van Hoof, L., L. Goti, M. Tardy Martorell and J. Guillen (eds.) (2023), Social Data in Fisheries (STECF 23-17), Scientific Technical and Economic Committee for Fisheries (STECF), Luxembourg: Publications Office of the European Union, p. 113.
- 85 Carpenter, G. and C. Williams (2021), Who Gets to Fish in the European Union? A 2021 Update of How EU Member States Allocate Fishing Opportunities, London, UK: New Economics Foundation, pp. 32-35.
- Oostdijk, M. and L. Elsler (2024, February), Allocating Fishing Opportunities with Environmental, Social, and Economic Criteria in Mind: Examples from EU Member States, Brussels, Belgium: Seas At Risk.
- 87 BLOOM (2023, May 30), "Fishing quotas: Associations enter the fray", online: https://www.bloomassociation.org/en/fishing-quotas-associations-enter-the-fray/, viewed in October 2024.
- Life Platform (n.d.), "Bluefin tuna in the dock: French small scale fishers take collective action to challenge unfair, non-transparent allocation system", online: https://lifeplatform.eu/bluefin-tuna-dock/, viewed in September 2024;
 - Tribunal Administratif de Montpellier (2021, July 15), Syndicat Professionnel des Pêcheurs Petits Métiers D'Occitanie (SPMLR), Decision N° 1801790:
 - Carpenter, G. and C. Williams (2021), Who Gets to Fish in the European Union? A 2021 Update of How EU Member States Allocate Fishing Opportunities, London, UK: New Economics Foundation, pp. 34.
- 89 BLOOM (2023, May 30), "Fishing quotas: Associations enter the fray", online: https://www.bloomassociation.org/en/fishing-quotas-associations-enter-the-fray/, viewed in October 2024.
- 90 European Commission (2024, May), List of Recognised Producer Organisations and Associations.
- European Commission (2023, February 21), "Question and answers on the report on the Common Market Organisation for fishery and aquaculture products", online: https://ec.europa.eu/commission/presscorner/detail/en/ganda_23_831, viewed in September 2024.
- 92 European Court of Auditors (2017), EU Fisheries Controls: More Efforts Needed, Luxembourg: ECA, p.8.
- 93 BLOOM (2023, December 11), "BLOOM takes legal action to obtain transparency on fishing quotas", online: https://www.bloomassociation.org/en/bloom-takes-legal-action-to-obtain-transparency-on-fishing-quotas/, viewed in October 2024.
- Gazalet, B. and B. O'Riordan (2020), The Pros and Cons of Creating Producer Organisations (PO) for Mediterranean Small-Scale Fishers, Low Impact Fishers of Europe, pp. 10-17.

- 95 Cazalet, B. and B. O'Riordan (2020), The Pros and Cons of Creating Producer Organisations (PO) for Mediterranean Small-Scale Fishers, Low Impact Fishers of Europe, p. 17.
- 96 European Commission (2023, February 21), Report to the Parliament and the Council on Implementation of Regulation (EU) No 1379/2013 on the Common Regulation of the Markets in Fishery and Aquaculture Products, pp. 4-5.
- 97 Organización de Productores Pesqueros Artenasales de la Lonja de Conil (n.d.), "¿Quiénes somos?", online: https://pescadodeconil.com/quienes-somos/, viewed in November 2024; Asociación Organización De Productores Pesqueros De Motril (n.d.), "Quiénes somos", online: https://oppmotril.org/quienes-somos/, viewed in November 2024.
- 98 Orbis (2024).
- Evans, J. (2023, February 16), "Disgraced former CEO of Pescanova argues down prison sentence for role in collapse of \$3 billion giant", IntraFish, online: https://www.intrafish.com/processing/disgraced-former-ceo-of-pescanova-argues-down-prison-sentence-for-role-in-collapse-of-3-billion-giant/2-1-1405519?zephr_sso_ott=DFxcv8, viewed in October 2024; Grupo Nueva Pescanova (n.d.), "About us", online: https://www.nuevapescanova.com/en/company/, viewed in October 2024.
- Warmerdam, W., B. Kuepper, J. Walstra, D. Skerritt, R. Davies et al. (2018), Research for PECH Committee Seafood Industry Integration In All EU Member States With A Coastline, Brussels, Belgium: European Parliament, Policy Department for Structural and Cohesion Policies.
- 101 Carpenter, G. and C. Williams (2021), Who Gets to Fish in the European Union? A 2021 Update of How EU Member States Allocate Fishing Opportunities, London, UK: New Economics Foundation.
- Warmerdam, W., B. Kuepper, J. Walstra, D. Skerritt, R. Davies et al. (2018), Research for PECH Committee Seafood Industry Integration In All EU Member States With A Coastline, Brussels, Belgium: European Parliament, Policy Department for Structural and Cohesion Policies, pp. 284-287.
- Tjoeng, M. and R. Winter Poulsen (2023, December 1), "Competing for fish: How one Dutch company is slowly taking over much of Europe's fishing sector", Follow the Money, online: https://www.ftm.eu/articles/dutch-familiy-company-lords-over-fishing-rights, viewed in September 2024.
- Parlevliet & Van der Plas (n.d.), "Who are we?", online: https://pp-group.nl/en-us/about-parlevliet-van-der-plas, viewed in October 2024.
- 105 Orbis (2024).
- Logger, B. and P. Weijnen (2020, October 21), "Vissen in troebel water", De Groene Amsterdammer, online: https://www.groene.nl/artikel/vissen-in-troebel-water, viewed in October 2024.
- Tjoeng, M. and R. Winther Poulsen (2023, December 1), "Competing for fish: How one Dutch company is slowly taking over much of Europe's fishing sector", Follow the Money, online: https://www.ftm.eu/articles/dutch-familiy-company-lords-over-fishing-rights, viewed in October 2024.
- 108 Orbis (2024).
- Tjoeng, M. and R. Winter Poulsen (2023, December 1), "Competing for fish: How one Dutch company is slowly taking over much of Europe's fishing sector", Follow the Money, online: https://www.ftm.eu/articles/dutch-familiy-company-lords-over-fishing-rights, viewed in September 2024.
- Hubbard, R., "Ein fahler Beigeschmack: wie die Fischindustrie von der deutschen Regierung bevorzugt behandelt wird", in: LobbyControl and Corporate Europe Observatory (2020, June), Die deutsche Ratspräsidentschaft – Industrie in der Hauptrolle?, p. 53.
- MRAG, AZTI & NEF (2019, February), Study on Ownership and Exclusive Rights of Fisheries Means of Production, Executive Agency for Small and Medium-sized Enterprises (EASME) of the European Commission, p. xii.
- MRAG, AZTI & NEF (2019, February), Study on Ownership and Exclusive Rights of Fisheries Means of Production, Executive Agency for Small and Medium-sized Enterprises (EASME) of the European Commission, pp. 111-113.
- MRAG, AZTI & NEF (2019, February), Study on Ownership and Exclusive Rights of Fisheries Means of Production, Executive Agency for Small and Medium-sized Enterprises (EASME) of the European Commission, pp. 157-159.
- Warmerdam, W., B. Kuepper, J. Walstra, D. Skerritt, R. Davies et al. (2018), Research for PECH Committee Seafood Industry Integration In All EU Member States With A Coastline, Brussels, Belgium: European Parliament, Policy Department for Structural and Cohesion Policies, pp. 16-17, 74, 163.
- Oostdijk, M. and L. Elsler (2024, February), Allocating Fishing Opportunities with Environmental, Social, and Economic Criteria in Mind: Examples from EU Member States, Brussels, Belgium: Seas At Risk, p. 6.
- Noirot, C., C. Jacob, M. Raffray and J.-C. Martin (2022, January), Study on Article 17 of the Common Fisheries Policy, VertigoLab.
- Skerritt, D.J., R. Arthur, N. Ebrahim et al. (2020, September 7), "A 20-year retrospective on the provision of fisheries subsidies in the European Union", ICES Journal of Marine Science, Vol. 77(7-8): 2741-2752.
- Schuhbauer, A., D.J. Skerritt, N. Ebrahim, F. Le Manach and U.R. Sumaila (2020, September 29) "The global fisheries subsidies divide between small- and large-scale fisheries", Frontiers in Marine Science, Vol. 7: 539214, p. 7.

- Skerritt, D.J., R. Arthur, N. Ebrahim et al. (2020, September 7), "A 20-year retrospective on the provision of fisheries subsidies in the European Union", ICES Journal of Marine Science, Vol. 77(7-8): 2741-2752.
- Skerritt, D. (2022, June 17), "The WTO agreement saves face, but does it save fish?", Oceana, online: https://oceana.org/blog/the-wto-agreement-saves-face-but-does-it-save-fish/, viewed in September 2024.
- Skerritt, D.J., A. Schuhbauer, S. Villasante et al. (2023, June), "Mapping the unjust global distribution of harmful fisheries subsidies", Marine Policy, Vol. 152: 105611.
- 122 Scholaert, F. (2022, November), WTO Agreement on Fisheries Subsidies, European Parliamentary Research Service, pp. 3-4.
- Tacconi, F. (2021, November), Splash Out (the Right Way): 15 Recommendations for Spending the European Maritime Fisheries and Aquaculture Fund (EMFAF), ClientEarth, BirdLife International, LIFE, Seas At Risk and WWF, pp. 2-3.
- European Commission (n.d.), "EMFAF programmes 2021-2027", online: https://oceans-and-fisheries.ec.europa.eu/funding/emfaf_env, viewed in October 2024.
- 125 European Court of Auditors (2020), Marine Environment: EU Protection is Wide But Not Deep, Luxembourg: ECA, pp. 48-50.
- Tacconi, F. (2021, November), Splash Out (the Right Way): 15 Recommendations for Spending the European Maritime Fisheries and Aquaculture Fund (EMFAF), ClientEarth, BirdLife International, LIFE and WWF, pp. 2-3.
- Trinomics (2024, May), Can Your Money Do Better? Redirecting Harmful Subsidies to Foster Nature & Climate Reliience, Brussels, Belgium: WWF European Office, p. 30.
- Gomei M. and Costantini M., Gambino M., Accadia P., Malvarosa L., Sabatella E.C, Sabatella R.F. (2024), Rethinking Fisheries Subsidies An Analysis of Mediterranean Public Fisheries Funds, WWF Mediterranean, pp. 8-10.
- Andreoli, V., J.J. Meeuwig, D.J. Skerritt et al. (2023, December 8), "Fisheries subsidies exacerbate inequities in accessing seafood nutrients in the Indian Ocean", NPJ Ocean Sustainability, Vol. 2(23).
- Gomei M. and Costantini M., Gambino M., Accadia P., Malvarosa L., Sabatella E.C, Sabatella R.F. (2024), Rethinking Fisheries Subsidies An Analysis of Mediterranean Public Fisheries Funds, WWF Mediterranean, pp. 8-10.
- Tacconi, F. (2021, November), Splash Out (the Right Way): 15 Recommendations for Spending the European Maritime Fisheries and Aquaculture Fund (EMFAF), ClientEarth, BirdLife International, LIFE and WWF, pp. 2-3.
- 132 Tacconi, F. (2023, March), Small-scale Fishers Revealed As Least Supported Recipients of EU Funds, Brussels, Belgium: ClientEarth.
- Villasante, S., U. Rashid Sumaila, J.M. Da-Rocha et al. (2022, February), "Strengthening European Union fisheries by removing harmful subsidies", Marine Policy, Vol. 136: 104884.
- Villasante, S., U. Rashid Sumaila, J.M. Da-Rocha et al. (2022, February), "Strengthening European Union fisheries by removing harmful subsidies", Marine Policy, Vol. 136: 104884.
- 135 Scholaert, F. (2022, November), WTO Agreement on Fisheries Subsidies, European Parliamentary Research Service, pp. 3-4.
- Sinan, H., C. Willis, W. Swartz et al. (2022, December 6), "Subsidies and allocation: A legacy of distortion and intergenerational loss", Frontiers in Human Dynamics, 4:1044321.
- Sinan, H., C. Willis, W. Swartz et al. (2022, December 6), "Subsidies and allocation: A legacy of distortion and intergenerational loss", Frontiers in Human Dynamics, 4:1044321.
- Sinan, H., C. Willis, W. Swartz et al. (2022, December 6), "Subsidies and allocation: A legacy of distortion and intergenerational loss", Frontiers in Human Dynamics, 4:1044321.
- European Parliament (2024, April), "International fisheries relations", online: https://www.europarl.europa.eu/factsheets/en/sheet/119/international-fisheries-relations_viewed in October 2024.
- European Commission (n.d.), "Sustainable fisheries partnerships agreements (SFPAs)", online: https://oceans-and-fisheries.ec.europa. eu/fisheries/international-agreements/sustainable-fisheries-partnership-agreements-sfpas_en, viewed in October 2024.
- Caillard, B., R. Cappell, V. Defauz and G. MacFayden (2023, April), Evaluation and Analysis of the Sustainable Fisheries Partnership Agreements (SFPAs) Between the EU and Third Countries Including an In-depth Analysis of the Sectoral Support Component of the SFPAs, Brussels, Belgium: F&S Fisheries, Poseidon Resource Management and Megapesca on behalf of the Directorate-General for Maritime Affairs and Fisheries of the European Commission, p. 16.
- Villasante, S., U. Rashid Sumaila, J.M. Da-Rocha et al. (2022, February), "Strengthening European Union fisheries by removing harmful subsidies", Marine Policy, Vol. 136(104884).
- Tacconi, F. (2021, November), Splash Out (the Right Way): 15 Recommendations for Spending the European Maritime Fisheries and Aquaculture Fund (EMFAF), ClientEarth, BirdLife International, LIFE and WWF, pp. 2-3.
- BLOOM (2024, September), Contribution à la Consultation Publique Sur l'Évaluation Ex Post du FEAMP et l'Évaluation à Mi-Parcours du FEAMPA, pp. 1-2.

- 145 Institut Rousseau and BLOOM (2024, January), À Contre-Courant, p. 14.
- BLOOM (2024, September), Contribution à la Consultation Publique Sur l'Évaluation Ex Post du FEAMP et l'Évaluation à Mi-Parcours du FEAMPA, pp. 1-2.
- Fiorilli, L. (2024, July 10), "In perspective: Tackling the EU's unproductive fishery sector subsidies", Decarbonise Now, online: https://decarbonisenow.eu/2024/07/10/in-perspective-tackling-the-eus-unproductive-fishery-sector-subsidies/, viewed in September 2024.
- Carpenter, G., J. Innes, S. Mardle, A.F. Johnson, A. Leroy and L. Milo-Dale (2021), Socio-Economic Impacts of the EU Common Fisheries Policy, Brussels, Belgium: WWF European Policy Office and MarFishEco Fisheries Consultants, p. 21.
- Carpenter, G. and D. Skerritt (2021, Why Eliminating Fuel Subsidies From EU Fisheries is Good for Public Finances, the Marine Environment, and the Climate, Brussels, Belgium: Our Fish.
- Environmental Justice Foundation (2024, July 26), "Dropped illegal fish dumping cases risk undermining the EU's commitment to the ocean, say Environmental Justice Foundation and ClientEarth", online: https://ejfoundation.org/news-media/dropped-illegal-fish-dumping-cases-risk-undermining-the-eus-commitment-to-the-ocean-say-environmental-justice-foundation-and-clientearth, viewed in October 2024.
- 151 European Court of Auditors (2022), EU Action to Combat Illegal Fishing, Special Report, Luxembourg: ECA, pp. 33-34.
- Directorate-General for Maritime Affairs and Fisheries (2024, January 9), "The EU fisheries control system gets a major revamp", European Commission, online: https://oceans-and-fisheries.ec.europa.eu/news/eu-fisheries-control-system-gets-major-revamp-2024-01-09_en, viewed in October 2024.
- European Commission (2024, July 25), "Infringement decisions", online: https://ec.europa.eu/atwork/applying-eu-law/infringements-proceedings/infringement_decisions/?langCode=EN&version=v1&typeOfSearch=byDecision&title=landing%20 obligation&page=1&size=10&order=descending&sortColumns=decisionDate, viewed in October 2024.
- 0ECD (2022), OECD Review of Fisheries, Paris, France: OECD Publishing, p. 81.
- Elsler, L.G. and M. Oostdijk (2023, April), Better Use of Public Money: The End of Fuel Subsidies for the EU Fishing Industry, Our Fish and ClientEarth.
- Carvalho, N. and J. Guillen (2021, March), "Economic impact of eliminating the fuel tax exemption in the EU fishing fleet", Sustainability, Vol. 13(2719).
- 157 Carvalho, N. and J. Guillen (2021), "Economic impact of eliminating the fuel tax exemption in the EU fishing fleet", Sustainability, Vol. 13(2719).
- 158 Carvalho, N. and J. Guillen (2021), "Economic impact of eliminating the fuel tax exemption in the EU fishing fleet", Sustainability, Vol. 13(2719).
- Martini, R. and J. Innes (2018, December), Relative Effects of Fisheries Support Policies, OECD Food, Agriculture, and Fisheries Papers, No. 115, Pars, France: OECD Publishing, pp. 20, 29
- 160 Carpenter, G., J. Innes, S. Mardle, A.F. Johnson, A. Leroy and L. Milo-Dale (2021), Socio-Economic Impacts of the EU Common Fisheries Policy, Brussels, Belgium: WWF European Policy Office and MarFishEco Fisheries Consultants, p. 21.
- 161 Carpenter, G. and D.J. Skerritt (2021, November), Why Eliminating Fuel Subsidies From EU Fisheries Is Good for Public Finances, the Marine Environment, and the Climate, Our Fish, p. 4.
- European Parliament (2024, August 20), "Legislative train schedule: Revision of the energy taxation directive (ETD)", online: https://www.europarl.europa.eu/legislative-train/spotlight-JD22/file-revision-of-the-energy-taxation-directive, viewed in September 2024.
- Fisker Forum (2024, April 17), "European fishing seeks fuel tax scheme exemption", online: https://fiskerforum.com/european-fishing-seeks-fuel-tax-scheme-exemption/, viewed in September 2024.
- Scholaert, F. (2022, November), WTO Agreement on Fisheries Subsidies, European Parliamentary Research Service, pp. 3-4.
- Gavin, G. (2024, April 24), "EU countries dilute fuel tax hike as gren anger mounts", Politico, online: https://www.politico.eu/article/european-union-fuel-tax-energy-taxation-directive/, viewed in September 2024.
- Carvalho, N. and J. Guillen (2021), "Economic impact of eliminating the fuel tax exemption in the EU fishing fleet", Sustainability, Vol. 13(2719).
- Sumaila, U.R., D. Skerritt, A. Schuhbauer et al. (2021, October 29), "WTO must ban harmful fisheries subsidies", Science, 374(6567).
- Elsler, L.G. and M. Oostdijk (2023, April), Better Use of Public Money: The End of Fuel Subsidies for the EU Fishing Industry, Our Fish and ClientEarth.
- WTO (n.d.), "Agreement on fisheries subsidies", online: https://wto.org/fishhttps://www.wto.org/english/tratop_e/rulesneg_e/fish_e/fish_e.htm, viewed in September 2024.
- WTO (2024, October), "Members submitting acceptance of Agreement on Fisheries Subsidies", online: https://www.wto.org/english/tratop_e/rulesneg_e/fish_e/fish_acceptances_e.htm, viewed in October 2024.

- European Commission (2023, June 8), "EU among first to accept WTO agreement on fisheries subsidies", online: https://ec.europa.eu/commission/presscorner/detail/en/IP_23_3108,viewed in September 2024.
- Roberts, C., C. Béné, N. Bennett et al. (2024, September 23), "Rethinking sustainability of marine fisheries for a fast-changing planet", NPJ Ocean Sustainability, 3(41).
- Skerritt, D. (2022, June 17), "The WTO agreement saves face, but does it save fish?", Oceana, online: https://oceana.org/blog/the-wto-agreement-saves-face-but-does-it-save-fish/, viewed in September 2024.
- WTO (2024, September), "Fisheries subsidies", online: https://www.wto.org/english/thewto_e/minist_e/mc13_e/briefing_notes_e/fisheries_subsidies_e.htm, viewed in October 2024.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) Data Annex, Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF).
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) Data Annex, Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF).
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) Data Annex, Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF).
- Malvarosa, L., M.Tardy Martorell, J. Virtanen and J. Guillen (2023), Economic Report on the EU Fish Processing Industry (STECF 23-14), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), p. 112.
- Döring, R., J. Berkenhagen, S. Hentsch and G. Kraus, "Small-scale fisheries in Germany: A disappearing profession?", in: Pascual-Fernández, J.J., C. Pita and M. Bavinck (2020), Small-Scale Fisheries in Europe: Status, Resilience and Governance, New York, United States: Springer: 483-502, p. 494.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), pp. 308-318.
- Malvarosa, L., M.Tardy Martorell, J. Virtanen and J. Guillen (2023), Economic Report on the EU Fish Processing Industry (STECF 23-14), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), p. 112.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), pp. 308-318.
- Döring, R., J. Berkenhagen, S. Hentsch and G. Kraus, "Small-scale fisheries in Germany: A disappearing profession?", in: Pascual-Fernández, J.J., C. Pita and M. Bavinck (2020), Small-Scale Fisheries in Europe: Status, Resilience and Governance, New York, United States: Springer: 483-502, p. 494.
- Carpenter, G. and C. Williams (2021), Who Gets to Fish in the European Union? A 2021 Update of How EU Member States Allocate Fishing Opportunities, London, UK: New Economics Foundation, pp. 16-17.
- Lewin, W.-C., F. Barz, M.S. Weltersbach and H.V. Strehlow (2023, June), "Trends in a European coastal fishery with a special focus on small-scale fishers Implications for fisheries policies and management", Marine Policy, 155: 105680.
- Döring, R., J. Berkenhagen, S. Hentsch and G. Kraus, "Small-scale fisheries in Germany: A disappearing profession?", in: Pascual-Fernández, J.J., C. Pita and M. Bavinck (2020), Small-Scale Fisheries in Europe: Status, Resilience and Governance, New York, United States: Springer: 483-502, p. 501.
- Carpenter, G. and C. Williams (2021), Who Gets to Fish in the European Union? A 2021 Update of How EU Member States Allocate Fishing Opportunities, London, UK: New Economics Foundation, pp. 16-17.
- Döring, R., J. Berkenhagen, S. Hentsch and G. Kraus, "Small-scale fisheries in Germany: A disappearing profession?", in: Pascual-Fernández, J.J., C. Pita and M. Bavinck (2020), Small-Scale Fisheries in Europe: Status, Resilience and Governance, New York, United States: Springer: 483-502, p. 484.
- Lewin, W.-C., F. Barz, M.S. Weltersbach and H.V. Strehlow (2023, June), "Trends in a European coastal fishery with a special focus on small-scale fishers Implications for fisheries policies and management", Marine Policy, 155: 105680.
- Lewin, W.-C., F. Barz, M.S. Weltersbach and H.V. Strehlow (2023, June), "Trends in a European coastal fishery with a special focus on small-scale fishers Implications for fisheries policies and management", Marine Policy, 155: 105680.
- European Commission (2023, February 21), "Action plan: Protecting and restoring marine ecosystems for sustainable and resilient fisheries", online: https://oceans-and-fisheries.ec.europa.eu/policy/common-fisheries-policy-cfp/action-plan-protecting-and-restoring-marine-ecosystems-sustainable-and-resilient-fisheries_en, viewed in October 2024.
- Nevermann, N. (2023, April 30), "Netze streicheln Meeresboden bloß", Taz, online: https://taz.de/Krabbenfischerei-in-der-Nordsee/!5930767/, viewed in October 2024.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) Data Annex, Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF).
- Döring, R., J. Berkenhagen, S. Hentsch and G. Kraus, "Small-scale fisheries in Germany: A disappearing profession?", in: Pascual-Fernández, J.J., C. Pita and M. Bavinck (2020), Small-Scale Fisheries in Europe: Status, Resilience and Governance, New York, United States: Springer: 483-502, pp. 497-498.

- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) Data Annex, Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF).
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), pp. 308-318.
- 197 Warmerdam, W., B. Kuepper, J. Walstra, D. Skerritt, R. Davies et al. (2018), Research for PECH Committee Seafood Industry Integration In All EU Member States With A Coastline, Brussels, Belgium: European Parliament, Policy Department for Structural and Cohesion Policies, p. 134.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), p. 312.
- DHV (n.d.), "Schiffsflotte", online: https://www.deutscher-fischerei-verband.de/schiffsflotte_dhv.html, viewed in October 2024; Alda Holding (2024), Sustainability Report 2023, pp. 13-14, 18.
- Hubbard, R., "Ein fahler Beigeschmack: wie die Fischindustrie von der deutschen Regierung bevorzugt behandelt wird", in: LobbyControl and Corporate Europe Observatory (2020, June), Die deutsche Ratspräsidentschaft – Industrie in der Hauptrolle?, p. 53.
- DHV (n.d.), "Schiffsflotte", online: https://www.deutscher-fischerei-verband.de/schiffsflotte_dhv.html, viewed in October 2024; Alda Holding (2024), Sustainability Report 2023, pp. 13-14, 18.
- 202 Orbis (2024).
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), p. 386.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) Data Annex, Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF).
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) Data Annex, Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF).
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), p. 386.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) Data Annex, Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF).
- Malvarosa, L., M.Tardy Martorell, J. Virtanen and J. Guillen (2023), Economic Report on the EU Fish Processing Industry (STECF 23-14), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), p. 170.
- Carpenter, G. and C. Williams (2021), Who Gets to Fish in the European Union? A 2021 Update of How EU Member States Allocate Fishing Opportunities, London, UK: New Economics Foundation, p. 12.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) Data Annex, Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF).
- Malvarosa, L., M.Tardy Martorell, J. Virtanen and J. Guillen (2023), Economic Report on the EU Fish Processing Industry (STECF 23-14), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), p. 170.
- Puckett, L. (2022, July 13), "In Portugal, taking a dive into sardines", New York Times, online: https://www.nytimes.com/2022/07/13/travel/portugal-sardine-factory-tour.html, viewed in October 2024;
 - Pita, C. and M. Gaspar, "Small-scale fisheries in Portugal: Current situation, challenges and opportunities for the future", in: Pascual-Fernández, J.J., C. Pita and M. Bavinck (eds.) (2020), Small-Scale Fisheries in Europe: Status, Resilience and Governance, New York, United States: Springer: 283-305, pp. 292-293.
- Carpenter, G. and C. Williams (2021), Who Gets to Fish in the European Union? A 2021 Update of How EU Member States Allocate Fishing Opportunities, London, UK: New Economics Foundation, p. 25.
- Direção-Geral de Recursos Naturais, Segurança e Serviços Marítimos (2024), 2024 Distribuição de quotas NAFO, NEAFC, Noruega e Svalbard;
 Tjoeng, M. and R. Winther Poulsen (2023, December 1), "Competing for fish: How one Dutch company is slowly taking over much of Europe's fishing sector", Follow the Money, online: https://www.ftm.eu/articles/dutch-familiy-company-lords-over-fishing-rights, viewed in October 2024.
- Tjoeng, M. and R. Winther Poulsen (2023, December 1), "Competing for fish: How one Dutch company is slowly taking over much of Europe's fishing sector", Follow the Money, online: https://www.ftm.eu/articles/dutch-familiy-company-lords-over-fishing-rights, viewed in October 2024.
- 216 Orbis (2024).
- 217 Pedro França (n.d.), "Empresa", online: https://www.pedrofranca.pt/, viewed in October 2024.
- Warmerdam, W., B. Kuepper, J. Walstra, D. Skerritt, R. Davies et al. (2018), Research for PECH Committee Seafood Industry Integration In All EU Member States With A Coastline, Brussels, Belgium: European Parliament, Policy Department for Structural and

- Cohesion Policies, pp. 218-223.
- Apresentação, S., M. Rangel and A. Cristas (2024, April 10), "Towards Sustainability: A Framework for Evaluating Portuguese Small-Scale Fisheries", Sustainability, 16(8): 3174.
- Pita, C., "Portugal", In: Too Big to Ignore (TBTI Global) et al. (2023, June), "Towards a new era of support for small-scale fisheries and aquaculture in Europe", Workshop Report, p. 9.
- Pita, C. and M. Gaspar, "Small-scale fisheries in Portugal: Current situation, challenges and opportunities for the future", in: Pascual-Fernández, J.J., C. Pita and M. Bavinck (eds.) (2020), Small-Scale Fisheries in Europe: Status, Resilience and Governance, New York, United States: Springer.
- Pita, C., "Portugal", In: Too Big to Ignore (TBTI Global) et al. (2023, June), "Towards a new era of support for small-scale fisheries and aquaculture in Europe", Workshop Report, p. 9.
- Carpenter, G. and C. Williams (2021), Who Gets to Fish in the European Union? A 2021 Update of How EU Member States Allocate Fishing Opportunities, London, UK: New Economics Foundation, p. 27.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) Data Annex, Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF).
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) Data Annex, Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF).
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), pp. 417-418.
- 227 Consejo Económico y Social España (2023, March), Fisheries, Aquaculture and the Processing Industry in Spain Challenges for Their Sustainability, pp.12-13.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07) Data Annex, Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF).
- Malvarosa, L., M.Tardy Martorell, J. Virtanen and J. Guillen (2023), Economic Report on the EU Fish Processing Industry (STECF 23-14), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), p. 192.
- 230 McBride, O. (2024, October 16), "Spanish fishing hopes for new direction from EU under incoming leadership", The Fishing Daily, online: https://thefishingdaily.com/european-fishing-industry-news/spanish-fishing-hopes-for-new-direction-from-eu-under-incoming-leadership, viewed in October 2024.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), p. 415.
- Malvarosa, L., M.Tardy Martorell, J. Virtanen and J. Guillen (2023), Economic Report on the EU Fish Processing Industry (STECF 23-14), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), p. 192.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), pp. 416-418.
- Carpenter, G. and C. Williams (2021), Who Gets to Fish in the European Union? A 2021 Update of How EU Member States Allocate Fishing Opportunities, London, UK: New Economics Foundation, p. 28.
- Oceana (2024), How Spain Allocates Fishing Opportunities to its Fishers, Briefing, p. 2.
- Carpenter, G. and C. Williams (2021), Who Gets to Fish in the European Union? A 2021 Update of How EU Member States Allocate Fishing Opportunities, London, UK: New Economics Foundation, p. 28.
- Van Hoof, L., L. Goti, M. Tardy Martorell and J. Guillen (eds.) (2023), Scientific Technical and Economic Committee for Fisheries (STECF) Social Data in Fisheries (STECF 23-17), Luxembourg: Publications Office of the European Union, p. 112.
- Oceana (2024), How Spain Allocates Fishing Opportunities to its Fishers, Briefing, pp. 3-5.
- Van Hoof, L., L. Goti, M. Tardy Martorell and J. Guillen (eds.) (2023), Scientific Technical and Economic Committee for Fisheries (STECF) Social Data in Fisheries (STECF 23-17), Luxembourg: Publications Office of the European Union, p. 113.
- Spanish Presidency of the Council of the European Union, in: Oceana (2024), How Spain Allocates Fishing Opportunities to its Fishers, Briefing, p. 1.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), p. 416.
- Pascual-Fernández, J.J., D. Florido-del-Corral, R. de la Cruz-Modino and S. Villasante, "Small-scale fisheries in Spain: Diversity and challenges", Pascual-Fernández, J.J., C. Pita and M. Bavinck (eds.) (2020), Small-Scale Fisheries in Europe: Status, Resilience and Governance, New York, United States: Springer: 253-280, p. 258.
- 243 Pascual-Fernández, J.J., D. Florido-del-Corral, R. de la Cruz-Modino and S. Villasante, "Small-scale fisheries in Spain: Diversity and

- challenges", Pascual-Fernández, J.J., C. Pita and M. Bavinck (eds.) (2020), Small-Scale Fisheries in Europe: Status, Resilience and Governance, New York, United States: Springer: 253-280, p. 257.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), p. 419.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), p. 419.
- McBride, O. (2024, April 9), "Spanish Indian Ocean Yellowfin tuna fleet fishing quota 2024 announced", The Fishing Daily, online: https://thefishingdaily.com/european-fishing-industry-news/spanish-indian-ocean-yellowfin-tuna-fleet-fishing-quota-2024-announced/, viewed in October 2024.
- Prellezo, R., E. Sabatella, J. Virtanen, M. Tardy Martorell and J. Guillen (eds.) (2023), The 2023 Annual Economic Report on the EU Fishing Fleet (STECF 23-07), Ispra, Italy: Scientific Technical and Economic Committee for Fisheries (STECF), p. 419.
- Oceana (2024), How Spain Allocates Fishing Opportunities to its Fishers, Briefing, p. 4.
- Said, A., J. Pascual-Fernández, V. Iglésias Amorim, M. Højrup Autzen, T.J. Hegland, C. Pita, J. Ferretti and J. Penca (2020, August), "Small-scale fisheries access to fishing opportunities in the European Union: Is the Common Fisheries Policy the right step to SDG14b?", Marine Policy, Vol.118(104009).
- 250 Oceana (2024), How Spain Allocates Fishing Opportunities to its Fishers, Briefing, p. 5.
- Van Hoof, L., L. Goti, M. Tardy Martorell and J. Guillen (eds.) (2023), Scientific Technical and Economic Committee for Fisheries (STECF) Social Data in Fisheries (STECF 23-17), Luxembourg: Publications Office of the European Union, p. 113.
- Warmerdam, W., B. Kuepper, J. Walstra, D. Skerritt, R. Davies et al. (2018), Research for PECH Committee Seafood Industry Integration In All EU Member States With A Coastline, Brussels, Belgium: European Parliament, Policy Department for Structural and Cohesion Policies, p. 249.
- 253 Grupo Nueva Pescanova (n.d.). "What we do". online: https://www.nuevapescanova.com/en/what-we-do-2/, viewed in October 2024.
- Armadora Pereira (n.d.), "Nuestra flota", online: https://www.armadorapereira.com/en/empresa/nuestra-flota, viewed in October 2024.
- 255 Periera (n.d.), "Empresa instalaciones", online: https://www.pereira.es/empresa-instalaciones/, viewed in October 2024.
- Warmerdam, W., B. Kuepper, J. Walstra, D. Skerritt, R. Davies et al. (2018), Research for PECH Committee Seafood Industry Integration In All EU Member States With A Coastline, Brussels, Belgium: European Parliament, Policy Department for Structural and Cohesion Policies, p. 250.
- Carcía-Lorenzo, I., M. Varela-Lafuente, M.D. Garza-Gil and U.R. Sumaila (2024, July 1), "Social and solidarity economy in small-scale fisheries: An international analysis", Ocean & Coastal Management, Vol. 253: 107166.
- Hadjimichael, M. (2018), "A call for a blue degrowth: Unravelling the European Union's fisheries and maritime policies", Marine Policy, 94: 158-164.
- Carpenter, G., J. Innes, S. Mardle, A.F. Johnson, A. Leroy and L. Milo-Dale (2021), Socio-Economic Impacts of the EU Common Fisheries Policy, Brussels, Belgium: WWF European Policy Office and MarFishEco Fisheries Consultants, p. 34.
- Cavallé, M., A. Said, I. Peri and M. Molina (2020, December), Social and Economic Aspects of Mediterranean Small-scale Fisheries: A Snapshot of Three Fishing Communities, Low Impact Fishers of Europe (LIFE), p. 10
- Clayton, A. (2021, March), Lessons From Implementation of the EU's Common Fisheries Policy, Brussels, Belgium: The Pew Charitable Trusts, p. 6.
- 262 Carpenter, G., J. Innes, S. Mardle, A.F. Johnson, A. Leroy and L. Milo-Dale (2021), Socio-Economic Impacts of the EU Common Fisheries Policy, Brussels, Belgium: WWF European Policy Office and MarFishEco Fisheries Consultants.
- Hadjimichael, M. (2018), "A call for a blue degrowth: Unravelling the European Union's fisheries and maritime policies", Marine Policy, 94: 158-164.
- Grau, M. (2021, March), Is the Common Fisheries Policy Delivering on an Equitable Management of Small-scale Fisheries?, AgroParisTech and University of Washington, pp. 19-26.
- VertigoLab (2023, April), Empowering EU Fisheries Policy to Restore Marine Health, Tackle Climate Change and Create Jobs, Brussels, Belgium: Our Fish, p. 33.
- European Commission (2023, February 21), Commission Staff Working Document: Common Fisheries Policy State of Play, COM(2023) 103 final, pp. 23-24.
- Grau, M. (2021, March), Is the Common Fisheries Policy Delivering on an Equitable Management of Small-scale Fisheries?, AgroParisTech and University of Washington, pp. 19-26.
- Noirot, C., C. Jacob, M. Raffray and J.-C. Martin (2022, January), Study on Article 17 of the Common Fisheries Policy, VertigoLab, pp. 5, 40.

- Fiorilli, L. (2024, July 10), "In perspective: Tackling the EU's unproductive fishery sector subsidies", Decarbonise Now, online: https://decarbonisenow.eu/2024/07/10/in-perspective-tackling-the-eus-unproductive-fishery-sector-subsidies/, viewed in September 2024.
- European Commission (2023, February 21), "The common fisheries policy today and tomorrow: a Fisheries and Oceans Pact towards sustainable, science-based, innovative and inclusive management", Communication from the Commission to the European Parliament and the Council, COM(2023) 103 final, online: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX%3A52023DC0103, viewed in October 2024.
- Heal, A., A. Adeoye and A. Jawo (2024, August 15), "The European boats fishing under a veil of secrecy", Financial Times, online: https://ig.ft.com/eu-fishing/, viewed in October 2024.





Report design: Iris Maertens Infographic design: Joana Coelho







Seas At Risk gratefully acknowledges EU funding support. The content of this reflecting the position of the funder.

Contact

secretariat@seas-at-risk.org



@SeasAtRisk



Seas At Risk



© @seasatrisk_ngo



f Seas At Risk



😭 @seasatrisk.bsky.social

Transparency Register: 625261439488-38.







