

Too many vessels chase too few fish

Briefing & German case study



On 1 January 2019 it is five years ago the European Common Fisheries Policy (CFP) was reformed and new measures introduced to help eliminate a persistent issue of overfishing and depletion of European fish stocks. Article 22 of the CFP's Basic Regulation establishes mechanisms by which Member States are to seek to identify overcapacity and continually to adjust the size and nature of their fishing fleets to their fishing opportunities.

In other words: If there are too many vessels fishing for too few fish, it is an obligation for EU Member states to identify this and “put in place measures to adjust the fishing capacity”¹.

Reporting under Article 22 should provide national authorities of Member States, and indirectly the European Commission and Parliament, as well as other interested stakeholders, with the information they need to identify and act on fleet overcapacity and help realise one of the main goals of the CFP. But is this currently happening? Is EU fishing capacity really being reduced and the intentions of the CFP followed through?

Undermining a key pillar of the Common Fisheries Policy

The new FishSec study², “Too many vessels chase too few fish - is EU fishing capacity really being reduced?”, takes a closer look at article 22 of the CFP, recent annual capacity balance reports submitted by EU Member States with Baltic Sea coasts, and the reporting guidelines for national reporting by the European Commission.

Every year, EU Member States are to submit reports to the Commission on the balance between how much their fishing fleets are able to catch compared to the amount of fish they are allowed to catch (capacity balance reports). The more technical description would be that EU Member States need to evaluate the capacity of their fleets and their fishing opportunities based on guidelines developed by the Commission. If an overcapacity is identified by a Member State in its report, the Member State is to prepare and submit an action plan to the Commission to achieve balance.

Capacity balance reporting relating to the **Western Baltic cod** fishery, a fishery showing clear symptoms of overcapacity and overfishing, is used as a running case study in the FishSec report. National reports which do not identify and address this overcapacity clearly do not fulfill the intentions of the CFP.

The conclusions are alarming. **EU Member States as well as the European Commission fail to comply with article 22**, thereby undermining a key pillar of the European Common Fisheries Policy - the adaption of the size of the fleet to the amount of fish that can be caught sustainably.

Decision-makers and stakeholders do not currently receive adequate information from Member States and the Commission about fishing overcapacity. As a consequence, **the CFP's system designed to reduce overcapacity is not delivering the intended reductions** where it is needed.

¹ Official Journal of the European Union, REGULATION (EU) No 1380/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 on the Common Fisheries Policy. <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2014:0545:FIN:EN:PDF> (henceforth referred to as the Basic Regulation). “Fishing opportunities” refers to permitted levels of catches or of effort spent trying to catch fish.

² http://www.fishsec.org/app/uploads/2018/10/Fishsec_capacity_report_2018_final.pdf

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Today, there is no way for decision makers to get the full picture when reading just one national fleet balance report. For this you need to dig through all national reports, make your own calculations and analysis and finally put together all these pieces of the puzzle. Only then is it possible to get a better overview of the fishing capacity targeting Western Baltic Cod, and identify possible overcapacity. Our analysis show, that across the four national fleets catching Western Baltic Cod (Denmark, Poland, Germany and Sweden) 399 bottom trawlers and seiners longer than 12 meters are part of fleet segments with vessel utilisation indicating overcapacity. **Failure to identify and reduce overcapacity in relation to specific fish stocks on a regional basis is a threat to the sustainability in the Western Baltic cod fishery**, both biologically and economically. Instead of reducing the fishing capacity some member states continue to request quotas higher than scientific advice, which undermines the recovery of the stock and long term profitability. An accurate regional assessment would clarify the need to reduce capacity to achieve a better balance.

Overcapacity still a threat to fleet profitability – and it may be growing

From a regional perspective, neither of the two national reports³ analysed most closely in this study - the Danish and the German ones - reflect the actual extent of overcapacity in the western Baltic cod fishery. Fleet segments⁴ are identified and grouped together in such a way that an overcapacity is identified for small vessels, but not for larger vessels - even if the latter fish more from the same depleted stock.⁵ Also, it is not possible to obtain a good regional overview either from the national reports of any of the Member States in the Baltic Sea region or from the reviewed capacity reports produced by The European Commission's Scientific, Technical and Economic Committee for Fisheries, STECF. Thus, reporting does not currently provide fisheries managers and stakeholders at the regional level with the information needed to reduce regional overcapacity and to pressure decision-makers to prevent overfishing.

In the context of identifying overcapacity, it is relevant to notice, that it is still common for Member States, like for instance Denmark, and some stakeholders to argue for the right to catch more fish for so-called socio-economic reasons.⁶ However, for a Member State to plead socio-economic reasons for higher fishing quotas could indicate that it has an overcapacity in its fleet. Claims regarding socio-economic impacts should trigger the Commission (and where relevant, the Member State) to take a closer look at the capacity balance of fleet segments potentially fishing the relevant stock. This has not been done, even though it is clear that overcapacity still is a concrete threat to fleet profitability.

³ Those produced in 2016 and 2015 respectively by Denmark and Germany, who together dominate the western Baltic cod fishery. Links to these and the other national reports reviewed may be found in the References section at the end of this study.

⁴ A fleet segment is a subdivision of a country's overall fishing fleet. A segment is normally defined as a combination of a particular fishing technique category and a vessel length category. See for example <https://datacollection.jrc.ec.europa.eu/wordef/fleet-segment-dcf>

⁵ A stock is defined in the Basic Regulation as "a marine biological resource that occurs in a given management area" (Art. 4(14)), that is, the population of a particular species of fish in a particular area. ICES defines a fish stock thus: "A part of a fish population usually with a particular migration pattern, specific spawning grounds, and subject to a distinct fishery. In theory, a Unit Stock comprises all the individuals of fish in an area, which are part of the same reproductive process. It is self-contained, with no emigration or immigration of individuals from or to the stock. On practical grounds, a fraction of the unit stock is considered a 'stock' for management purposes (or a management unit), as long as the results of the assessments and management remain close enough to what they would be on the unit stock." ICES, Acronyms and terminology, http://www.ices.dk/community/Documents/Advice/Acronyms_and_terminology.pdf

⁶ See for example the 'bible' with comments from national delegations prepared by the General Secretariat of the Council in advance of the Agriculture and Fisheries Council meeting in October 2016 to determine fishing quotas for the Baltic Sea for 2017: Note from the General Secretariat of the Council to Delegations, 11813/16 PECHÉ 296 + ADD 1 - COM(2016) 545 final + Annex, 22 September 2016 <http://data.consilium.europa.eu/doc/document/ST-12395-2016-REV-1/en/pdf>

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Apart from EU Member States, the Commission itself also fails to comply with key provisions of Article 22 in a number of ways. For example, its Guidelines do not indicate relevant enough parameters and indicators for national capacity balance reporting. Moreover, there is overall **poor compliance** with the Basic Regulation and the Commission's Guidelines among EU Member States in the Baltic Sea region.

STECF has repeatedly criticised the Commission's Guidelines and proposed improvements ⁷. However, **STECF's criticisms and recommendations have not been reflected in the Commission's reports to the European Parliament and Council**, and the Commission have taken no visible follow-up actions in response to STECF's findings. Furthermore, there is a **serious weakness in the CFP's indicators for measuring fishing capacity**. They do not take account of 'technological creep', the immense increase in fishing capacity resulting from any technical innovation such as sonar, underwater cameras, improved more efficient fishing gear, better propellers, etc, etc. As a result a Member State's ability to catch fish may increase despite indicators showing a decrease.

The German example: Letting the "big fish" off the hook

Clear cases of non compliance with Article 22 were found in Denmark and Germany, who dominate the Western Baltic cod fishery. Neither of their analysed national reports⁸ reflect the actual extent of overcapacity in the western baltic cod fishery.

In Germany's 2015 capacity balance report, it is the smaller vessel segments, with a lower share of the catch, that are classed as being out of balance with fishing opportunities while the larger vessel segments are classed as being in balance despite indicator values suggesting otherwise (for more explanation of the different indicators, please see the glossary). As can be seen from the table below, four out of the six segments landing western baltic cod in significant quantities are assessed as out of balance. However, the remaining two have red levels for SHI (Sustainable Harvest Indicator) and Vessel Utilisation, raising the question of why they too are not assessed similarly.

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⁷ Technological creep' refers to technological advances that increase the ability to catch fish but are not captured by the conventional method of measuring fishing capacity. See for example Marchal, Paul & Bo, Andersen & B, Caillart & Eigaard, Ole & Guyader, Olivier & Holger, Hovgaard & Iriondo, Ane & Fur Fanny, Le & Sacchi, Jacques & Santurtún, Marina. (2007). Impact of technological creep on fishing effort and fishing mortality, for a selection of European fleets. ICES Journal of Marine Science (1054-3139) (Oxford university press), 2007, Vol. 64, N. 1, P. 192-209. 64. https://www.researchgate.net/publication/29491769_Impact_of_technological_creep_on_fishing_effort_and_fishing_mortality_for_a_selection_of_European_fleets

⁸ Those produced in 2016 and 2015 respectively by Denmark and Germany, who together dominate the western Baltic cod fishery. Links to these and the other national reports reviewed may be found in the References section in the FishSec study "Too many vessels chase too few fish – is EU fishing capacity really being reduced?, 2018"

Indicator values, landings and assessments for segments of the German fleet with significant landings of western Baltic cod in 2015

Length	Gear code	ROI	Current/ break-even	SHI 3 years	SAR	Utilisation	Landings of western Baltic cod, tonnes	Assessment
VL0010	PG	18,9	1.37	2.37, 2.32, 2.28	1	0.36	643	Imbalance
VL1012	PG	-42.8	0.12	2.23, 2.02, 1.83	0	0.44	483	Imbalance
VL1012	DTS	-47.6	0.39	2.48, 2.67, 2.52	0	0.45	133	Imbalance
VL1218	DTS	-8.1	0.8	2.49, 2.45, 2.44	0	0.52	835	Imbalance
VL1824	DTS	37.6	2.25	1.84, 1.64, 1.45	0	0.60	698	In balance
VL2440	DTS	8.8	1.31	1.13, 1.06, 1.17	1	0.66	339	In balance
COM	Green	>0	>1	<1	0	>0.9		
Guide-	Yellow		>0<1		>0			
lines	Red	<0	<0	>1	>10%	<0.7		

Indicators:

ROI Return on Investment Indicator

SHI Sustainable Harvest Indicator

SAR Stocks at Risk Indicator

VL indicates vessel length range in metres.

Gear codes:

DTS Demersal trawlers and/or demersal seiners

PG Vessels under 12 metres using passive gears only⁹

Source: German national report for 2015, pp. 13, 15, 24, 25, 26, 27, 38, 40. More detailed information on the indicators may be found in Annex III of the present report.

Even though Germany's capacity balance report provides analyses to support its balance assessments for each fleet segment, these analyses are not entirely convincing. For example, for the three segments covering vessels under 12 metres assessed as being out of balance (i.e. vessels between 00-10 meters in length and using passive gear only, PG VL0010, vessels between 10-12 meters and using passive gear only, PG VL1012, and vessels between 10-12 meters fishing with bottom trawls and seines, DTS VL1012), the report argues that the indicators are not particularly meaningful, due to the indicator methodology overestimating the monetary value of vessels and of their depreciation, as well as to the part-time and non-profit-driven nature of much of the country's small vessel fishing.¹⁰ Still, it is important to emphasise that although the catch percentages for fishing as a side business are generally very low, they are nevertheless to be deliberately retained.¹¹ As can be seen from the table above, the three segments assessed as being out of balance and comprising vessels of 12 metres or less do in fact account for more than 40% of the total catch of Western Baltic cod by the German fleet.

A similar selective approach to the indicators characterises the analysis of the two segments with the largest vessels fishing for Western Baltic cod (and accounting for roughly one-third of the German catch of that stock). These are assessed as being in balance, despite reported indicator values for both segments suggesting imbalance.

Thus, the SHI for the segment of vessels between 18-24 meters in length that are fishing with bottom trawls and seines (DTS VL1824) was 1.45 for 2014, and had been at 1.6 or above in every previous year as far back as 2008. This is far above the threshold

⁹ European Commission, Joint Research Centre, DCF – Data Collection Framework, Fleet segment DCR

¹⁰ German Report to the European Commission under Article 22 of Regulation (EU) No 1380/2013 on the balance between the fishing capacity and the fishing opportunities of the German fishing fleet in 2015, http://ec.europa.eu/fisheries/fleet/software/FleetManagement/FM_Reporting/AnnualReportDocs/2015_DEU_MSAR_EN.PDF (pp. 14, 16, 24, 35-37)

¹¹ German report, p. 11

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for a ‘red light’, for which the value needs to exceed 1 for just three consecutive years. Furthermore, the vessel use indicator value was below the overcapacity threshold of 0.70 every year between 2008 and 2015.¹² However, while the economic indicator values may not point to any overcapacity, according to the Guidelines by the European Commission “ (...) fleet segments that are not in balance with the fishing opportunities they are exploiting would normally be considered as being in imbalance, even if economic indicators show short and long term profitability.”¹³

Nevertheless, this fleet segment is classed as being in balance in the German capacity balance report. The fact that the number of vessels has dropped is mentioned as part of an explanation to the overall assessment, implying the view that as long as some reduction has been achieved it is unimportant – or perhaps politically unviable – to reduce capacity further, even if there is still overcapacity. Moreover, the imbalance in the vessel use indicator is blamed on “the fishing effort rules of Regulation (EU) No 1348/2008”,¹⁴ which seems to be another way of saying that the imbalance is due to the lack of fishing opportunities rather than capacity being too high.

For the segment of vessels between 24-40 meters in length that are fishing with bottom trawls and seines (DTS VL2440) the SHI was 1.17 in 2014 and had been above the threshold value for each of the previous six years, while the vessel use indicator was 0.66 – both suggesting overcapacity. Surprisingly, the analysis describes the 2014 SHI value as “low” even though it is above the threshold set in the European Commission’s Guidelines.

Thus, while Article 22 says that “the report shall seek to identify structural overcapacity by segment”, the German report seems rather to sometimes hide overcapacity and to explain away measures to deal with the overcapacity that is identified.

A prime driver behind overfishing and depletion of fish stocks

Excessive fishing capacity has long been recognised by the UN Food and Agriculture Organization (FAO) as the primary cause to overfishing and depletion of fish stocks¹⁵, and globally the issue has been addressed at a number of occasions. At the World Summit on Sustainable Development in Johannesburg in 2002, governments from all around the world, including the EU Member States, agreed urgently to address the issue of managing fleet capacity.¹⁶ They made a commitment to;

maintain or restore stocks to levels that can produce the maximum sustainable yield with the aim of achieving these goals for depleted stocks on an urgent basis and where possible not later than 2015.^{17 18}

¹² German report, p. 26

¹³ Guidelines, p. 4

¹⁴ German report, p. 26. We have not managed to find this regulation. Perhaps it is a misprint and Regulation (EC) No. 1342/2008 (a long term plan for cod in the North Sea etc.) is meant. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008R1342&from=EN>

¹⁵ FAO Fisheries technical paper 445, 2003, Measuring capacity in fisheries, <http://www.fao.org/3/a-y4849e.pdf>

¹⁶ Plan of Implementation of the World Summit on Sustainable Development, Article 31(d), http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/WSSD_PlanImpl.pdf

¹⁷ United Nations: Plan of Implementation of the World Summit on Sustainable Development http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/WSSD_PlanImpl.pdf Article 31(a), and FAO, World Summit on Sustainable Development 2002 and its implications for fisheries <http://www.fao.org/docrep/meeting/005/y8294E.htm>

¹⁸ EU Commission: Questions and Answers on Maximum Sustainable Yield (MSY) http://europa.eu/rapid/press-release_MEMO-06-268_en.htm

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Also, In the run-up to the 2013 reform of the European Common Fisheries Policy (CFP), a 2009 European Commission Green Paper summed up the problem for European Union (EU) fisheries as being that “too many vessels chase too few fish.”¹⁹ The Green Paper stated, this was the fundamental problem to be solved by the CFP,²⁰ and accordingly a number of provisions that seek to address overcapacity were introduced with the CFP reform in 2013. One of the primary provisions was article 22.

However, up until the time of the 2013 reform of the CFP, the EU Member States’ progress towards the goal of maintaining or restoring stocks to MSY levels (maximum sustainable yield) was insufficient.²¹ Accordingly, the reform stipulating that by 2020 at the latest (and where possible by 2015) fishing pressure is to be set at FMSY (the level of catches of a given stock that produces the MSY).²² This deadline is fast approaching with less than 2 years left to end overfishing, and overcapacity as the main driver still not sufficiently addressed.

Main recommendations

- Member States more actively seek to identify and address imbalances in their fleets;
- The European Commission revises its Guidelines to ensure that national reports reflect the total pressure on a fish stock;
- Member States and the European Commission act to ensure that a regional report is prepared showing the total capacity from all countries targeting a specific fish stock.

Glossary: Descriptions of the indicators

Biological indicators

The Sustainable Harvest Indicator (SHI)

The sustainable harvest indicator is a measure of how much a fleet segment relies on stocks that are overfished. Here, “overfished” is assessed with reference to F_{msy} values over time, and reliance is calculated in economic terms. Where F_{msy} is defined as a range, exceeding the upper end of the range is interpreted as “overfishing”.

Threshold: Values of the indicator above 1 indicate that a fleet segment is, on average, relying for its income on fishing opportunities which are structurally set above levels corresponding to exploitation at levels corresponding to MSY. This could be an indication of imbalance if it has occurred for three consecutive years. Shorter time period should be considered in the case of small pelagic species.

The Stocks at Risk Indicator (SAR)

¹⁹ European Commission: GREEN PAPER Reform of the Common Fisheries Policy, COM(2009)163 final, Brussels, 22.4.2009 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0163:FIN:EN:PDF> (henceforth referred to as the Green Paper). Note that in the present study, “fishers” refers to individuals and companies that fish commercially. Green Paper, p. 5

²⁰ Green Paper, p. 8

²¹ See for example Ending overfishing: much to celebrate, much to do, https://ec.europa.eu/dgs/maritimeaffairs_fisheries/magazine/en/policy/ending-overfishing-much-celebrate-much-do

²² European Parliament, Fact Sheets on the European Union, The Common Fisheries Policy: origins and development http://www.europarl.europa.eu/atyourservice/en/displayFtu.html?ftuld=FTU_5.3.1.html “F” refers to fishing pressure. A more technical definition of F in this context is: “F, Fishing mortality: Instantaneous Rate of Fishing Mortality. When fishing and natural mortality act concurrently, F is equal to the instantaneous total mortality rate (Z), multiplied by the ratio of fishing deaths to all deaths.” ICES, Acronyms and terminology, http://www.ices.dk/community/Documents/Advice/Acronyms_and_terminology.pdf

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The stocks-at-risk indicator is a measure of how many stocks are being affected by the activities of the fleet segment that are biologically vulnerable – in other words, stocks which are at low levels and are at risk of not being able to replenish themselves ...

Threshold: if a fleet segment takes more than 10% of its catches taken from a stock which is at risk, this could be treated as an indication of imbalance.²³

Economic indicators

The Return on Investment Indicator (RoI)

The first indicator (Return on Investment) compares the long-term profitability of the fishing fleet segment to other available investments. If this value is smaller than the low-risk long term interest rates available elsewhere, then this suggests that the fleet segment may be overcapitalised.

Threshold: If the return on investment (RoI) is less than zero and less than the best available long-term risk-free interest rate, this is an indication of long-term economic inefficiency that could indicate the existence of an imbalance.

The Current Revenue/Break-Even Revenue Indicator (CR/BER)

The second indicator is the ratio between current revenue and break-even revenue. This measures the economic capability of the fleet segment to keep fishing on a day-by-day basis: does income cover the pay for the crew and the fuel and running costs for the vessel? If not, there may be an imbalance.

Threshold: If the ratio between current revenue and break-even revenue is less than one, this is an indication of short-term economic inefficiency that could indicate the existence of an imbalance.

Technical/vessel use indicators

Inactive Fleet Indicator/ Vessel Utilization Indicator

The first indicator describes the proportion of vessels that are not actually active at all (i.e. that did not fish at any time in the year).

The second indicator concerns the average activity levels of vessels that did fish least once in the year, taking account of the seasonality of the fishery and other restrictions. Under normal conditions, it can be expected that 10% or less of the vessels in a fleet segment should be inactive, which could be due to major repairs, refits, conversions or pending sales and transfers.

Threshold: if more than 20% of the fleet segment is recurrently inactive or if the average activity level of vessels in a fleet segment is recurrently less than 70% of the potential, workable activity of comparable vessels, this could indicate technical inefficiency, that may reveal the existence of an imbalance, unless it can be explained by other reasons, such as unexpected climatic or man-made events or emergency measures as foreseen in the CFP.

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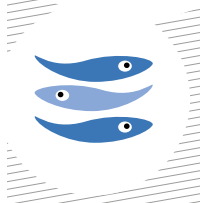


²³ It is not clear from the Guidelines whether the share of catches is to be calculated in terms of value or of landed weight.

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CONTACTS:

The Fisheries Secretariat

Jan Isakson, Director

Phone: +46 70608 74 83