

How Denmark Can Make Fisheries Fair and Sustainable



Denmark must commit to enacting the reformed Common Fisheries Policy if it intends to end overfishing

Summary

Denmark is often viewed as an environmental leader when it comes to issues such as transport and energy. But when it comes to the marine environment, Denmark is clearly working to continue overfishing in EU waters and to delay the large environmental, social, and economic benefits that come from having healthy fish stocks. Scientific advice provided to the government - suggesting that it fishes within sustainable limits - is often ignored under the vague defense of 'socio-economic' factors. However, the economic evidence (see Fig 1) shows that ending overfishing in pursuit of sustainable yields should be reached as soon as possible.

This briefing finds that instead of acting as a barrier to ending overfishing, Denmark should:

- Follow scientific advice on sustainable quota limits;
- Allocate its fishing quota to incentivise best environmental practices;
- Use national policy and the quota system to support vulnerable, low-impact fisheries during the transition to sustainable fisheries.

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Background

The reform of the EU's Common Fisheries Policy in 2013 (CFP) was a bold act. At its core, it committed to end overfishing in EU waters and to reverse the sharp decline in fish stocks, landings, earnings, and jobs. To do this, the policy aims to rebuild fish stocks to ecologically healthy levels and set a deadline to achieve fishing in accordance with maximum sustainable yield (MSY) reference points "by 2015 where possible and, on a progressive, incremental basis at the latest by 2020 for all stocks" (Article 2.2 CFP).¹

Despite this policy reform, fishing above MSY is still taking place on 40% of fish stocks in the Northeast Atlantic according to the most recent data.² What is more, this estimate relates only to the fish stocks where data is available and fisheries management is focused, and is therefore considered to be the 'best case' scenario. So while the available data does show some improvement, the 2015 deadline has already passed, and projections for fishing in accordance with MSY across all stocks are not yet in sight.

Denmark's role in setting fishing limits above scientific advice, in violation of the CFP

Despite the strong commitment in the CFP to end overfishing, delays have occurred due to the wiggle-room provided in the CFP in relation to socio-economics. While not official policy text, Recital 7 notes that delays to MSY past 2015 should only be allowed 'if achieving the exploitation rates by 2015 would seriously jeopardise the social and economic sustainability of the fishing fleets involved'.³ Far from the original intention, this wiggle-room has been exploited to allow systemic overfishing through the decisions of the Agrifish Council of Ministers.

Fishing limits, in the form of total allowable catches (TACs), are set by the Council of













Ministers each year after receiving scientific advice from the International Council for the Exploration of the Sea (ICES) and a proposal from the European Commission. It is during the closed-door negotiations of the Council of Ministers, subject to intense industry lobbying, that scientific advice is systematically overridden.⁴

From 2001 to 2017, approximately 7 out of every 10 TACs across the EU were set above scientific advice, exceeding advice by 20% on average.⁵ In many cases, fishing ministers leave negotiations claiming ‘victory’ having agreed higher fishing limits for their national fishing industry, a practice that continues even though the 2015 deadline has passed.⁶

After the 2016 Council negotiation on Baltic TACs, Danish fishing minister, Esben Lunde Larsen commented that: “We have done everything in our power to negotiate some acceptable quotas for the Danish fishermen...I see it as a half-victory, because it ended up better than the miserable start.”⁷ Comparing negotiated quotas to ICES advice, it was Minister Larsen that left the discussions with the largest percentage of quotas in excess of scientific advice, putting Denmark at the top of the ‘Overfishing league table’.⁸

BALTIC OVERFISHING 2017

WHO'S TO BLAME?

	COUNTRY	MINISTER	QUOTA SET ABOVE SCIENTIFIC ADVICE
1 ST	 Denmark	 <i>Esben Lunde Larsen</i>	6% 3,113 TONNES
2 ND	 Latvia	 <i>Jānis Dūklavs</i>	4% 2,613 TONNES
3 RD	 Germany	 <i>Christian Schmidt</i>	4% 1,397 TONNES
4 TH	 Estonia	 <i>Marko Pomerants</i>	3% 1,854 TONNES
5 TH	 Lithuania	 <i>Albinas Zananavičius</i>	2% 427 TONNES

On top of setting fishing limits above scientific advice, Denmark later joined Germany in opening the western Baltic Sea to fishing the vulnerable cod population during the spawning season in February 2017, despite its official closure.⁹ Whilst Germany led this extraordinary exploitation of cod under the auspice of a flatfish fishery, instead of raising this breach with the Commission, the Danes simply followed suit, justifying that “it would be untenable if Danish fishermen were asked to do differently than their German counterparts in the same fishery.”¹⁰

‘Socio-economics’ is not a valid argument for continued overfishing

Little is publicly stated by fisheries ministers to justify the setting of TACs in excess of scientific advice. However, occasionally Ministers point to socio-economics – typically job losses – as an argument for delaying the transition to MSY. Yet simply evoking ‘socio-economics’ is not a valid pretext for allowing overfishing to continue – it must be accompanied by evidence. Despite hundreds of cases of TACs set above scientific advice, no socio-economic impact assessments from national governments have been provided. As the Council negotiations are closed-door, there is no way of assessing whether any socio-economic evidence is used in the negotiations (even through freedom of information requests) or the quality of the arguments employed.

In contrast to the Council negotiations, several fishing countries (e.g. Iceland, United States) require that scientific advice is followed by law. Socio-economic arguments can only be used in such countries to set a level of quota that is lower than scientific advice.^{11,12} These countries, not surprisingly, are much closer to eliminating overfishing from their waters.

In the leadup to the 2017 Council negotiations, the Danish government commissioned the Department of Food and Resource Economics at the University of Copenhagen (IFRO) to produce an economic analysis of the proposed TAC reduction for Western Baltic cod.¹³ Unfortunately, the scope of the research question was extremely narrow. The study simply estimated the short-term cost of a reduction in TAC for Danish fishing fleets while ignoring the potential longer-term benefits. Further, as only one TAC option was considered, the conclusion of the analysis is ambiguous regarding the TAC level that would maximise the economic prospects of Danish fleets.

Worse still, only analysing one side of a question of costs and benefits can be misleading. As it stands, the outcome of the analysis implies that the higher the TAC the better, or suggests that fishing limits should be removed entirely. This is clearly only true if the analysis is constrained to one year. Instead, the important question when analysing the economics of a TAC proposal is to measure the costs and benefits over the stock rebuilding period.

End overfishing sooner rather than later will maximise socio-economic benefits

An implicit assumption when fishing ministers evoke socio-economic arguments for setting fishing quotas above scientific advice is that jobs, wages, and the economic viability of fishing fleets and communities are best supported by a continuation of overfishing. This assumption has little basis beyond a very short time period, which may be more related to the desire for local political victories during four-year political terms. One of the fundamental principles of fisheries economics is that lowering fishing pressure to MSY will have larger socio-economic benefits, as larger fish populations support a larger (sustainable)



harvest and with less effort required.¹⁴ In light of this, the desirability of reaching a state of MSY in EU fisheries is now almost universally accepted by fisheries stakeholders. The faster the transition, the faster these larger benefits can be realized – maximising total benefits across the time-period.

To estimate potential returns of transitioning to MSY, an article in the *Journal of Marine Policy* quantified the economic value of three transition pathways to MSY for the EU Northeast Atlantic fisheries. It found that “the sooner fishing mortality rates are reduced to FMSY, the greater the profits’ net present value from EU fisheries in the Northeast Atlantic”.¹⁵ Studies on fisheries in other countries have reached similar conclusions.¹⁶ All else being equal, the evidence shows that the faster fisheries can get to MSY, the larger the economic benefits across the time-period.

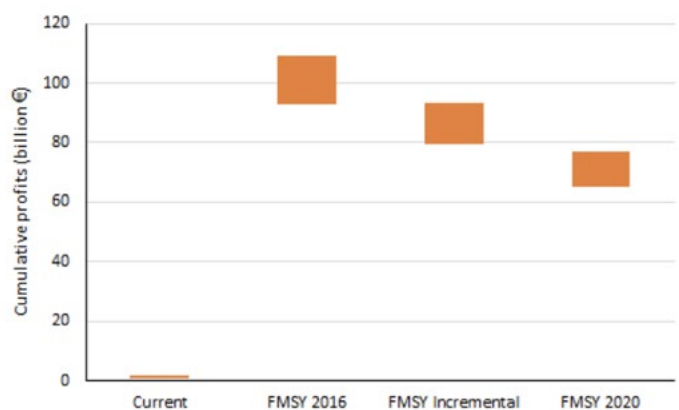


Figure 1: Net present value of three transition pathways to MSY in EU Northeast Atlantic fisheries under a range of cost assumptions.

Source: Adapted from Guillen et al., 2016.

Fuel prices, profits and looming deadlines: All point towards ending overfishing

All else is not always equal, however. There are particularities relating to: certain fish stocks, the state of EU fisheries, and the external

factors that may affect the optimal transition pathway. Still, these factors further support the case for ending overfishing.

Sometimes it is argued that mixed fisheries require deviation from MSY and the use of ranges to allow overfishing for some species. When the use of ranges is analysed, however, it has been shown that fishing in a range above MSY carries risks that outweigh the small additional benefits.^{17,18} This should not be surprising, as economic benefits (the difference between revenues and costs) are typically maximized at a level of fishing below MSY.

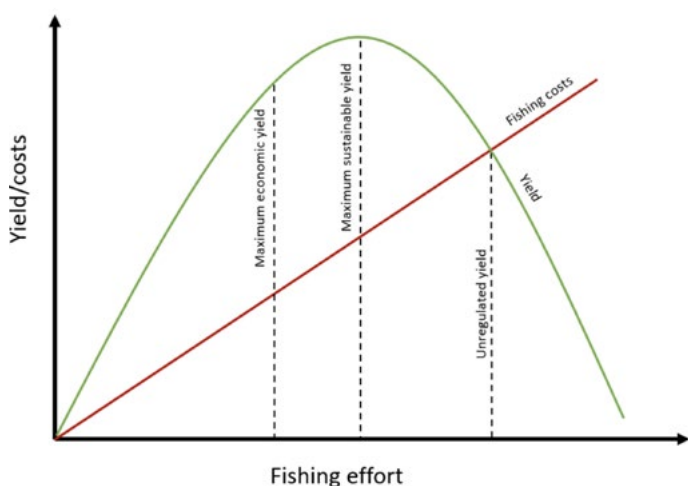


Figure 2: Illustration of maximum sustainable yield and maximum economic yield reference points

There is also the issue that delaying reductions in fishing pressure may only compound a problem in 2019 where fishing across many stocks must be reduced simultaneously. There is a very real risk of approaching the deadline in 2019 and wishing in hindsight that more action was taken earlier.

As for the economic state of the Danish fleet, an overall net profit margin of 23% is very healthy, and above what is found in many other industries.¹⁹ Fuel prices remain low, and as a major input cost, there is an opportunity

at present to use this windfall for “pain-free fish stock recovery”.²⁰



Figure 3: A decline in fuel prices and a rise in profit margins. Source: Calculations from the 2017 STECF Annual Economic Report on the EU Fishing Fleet. 2016 and 2017 are forecasts.

The overall positive health of the Danish fleet should not gloss over the stark contrast between the large-scale and small-scale fleet segments. While the large-scale fleet in Denmark has a net profit margin of 26%, the small-scale fleet is currently operating in the red (-19%).²¹ This division between fleet economic performance has implications for overall quota setting.

Problems for the small-scale fleet: Is it the size of the pie or how it’s divided?

The economic vulnerability of the small-scale fishing fleet, combined with the fleet’s economic and socio-cultural importance in small fishing communities around Denmark has become a common argument during the quota setting process. In press statements, Ministers have evoked the fact that small-scale fishers are under economic strain and thus vulnerable to quota reductions as a reason to not follow scientific advice. Last year this argument was used by Minister Larsen for Western Baltic cod as this stock is targeted by several small-scale fleet segments and a dramatic 88% reduction in quota was proposed by ICES due to the deteriorating state of the stock.²²



This advice for a dramatic reduction followed two years where scientific advice was not followed and the stock failed to recover.²³ By ignoring advice, Ministers created a negative feedback loop of larger reductions required with each passing year, and conversely increased economic strain on small-scale fishers. Instead, if the stock was allowed to recover, the fleets that were most vulnerable to quota reductions during the stock rebuilding phase would also be the greatest beneficiaries when the stock grows to its maximum sustainable yield. However, the low profitability of these small-scale fleets could jeopardise their economic viability during the rebuilding phase - unless changes are made to how Danish fisheries are managed.

Table 1 indicates the share of Western Baltic cod quota held by each Danish fleet segment (estimated by landings), the net profit margin for the fleet, and the dependency of the fleet on Western Baltic cod quota. The small-scale fleet segments (here using the EU definition of vessels under 12m and passive gear) are highlighted in grey. Fleet segments with negative net profit margins and an earnings dependency on Western Baltic cod greater than 10% are highlighted in red text.

Fleet segment	Number of vessels	Number of fishers	Share of Danish Western Baltic cod quota	Net profit margin	Dependency of earnings on Western Baltic cod quota
Demersal trawl/seine 12-18m	124	225	33%	5%	10%
Demersal trawl/seine 18-24m	51	154	18%	15%	4%
Demersal trawl/seine 24-40m	33	130	12%	19%	2%
Passive gear 0-10m	775	218	11%	-28%	12%
Passive gear 10-12m	48	49	8%	-9%	28%
Active & passive gear 12-18m	32	48	6%	2%	8%
Passive gear 12-18m	31	59	3%	-4%	6%
Active & passive gear 0-10m	117	34	3%	-13%	16%
Demersal trawl/seine 10-12m	11	9	2%	0%	23%
Active & passive gear 10-12m	33	26	2%	-1%	10%
Pelagic trawl 12-18m	13	27	1%	32%	1%
Demersal trawl/seine 0-10m	11	9	0%	9%	2%
Dredge 10-12m	15	25	0%	46%	0%
Dredge 12-18m	21	32	0%	42%	0%
Demersal trawl/seine 40m+	12	56	0%	37%	0%
Active & passive gear 18-24m	17	65	0%	19%	0%
Beam trawl 12-18m	12	22	0%	-14%	0%
Beam trawl 18-24m	18	39	0%	2%	0%
Pelagic trawl 40m+	18	103	0%	37%	0%

Table 1: Share of Western Baltic cod quota, net profit margin, and dependency on Western Baltic cod quota by Danish fleet segment.

Source: Calculations from the STECF 2017 Annual Economic Report on the EU Fishing Fleet

There are clearly problems for small-scale fleet segments as they are economically vulnerable (low profit margin) and are dependent on Western Baltic cod.

It is also the case that these fleets receive a small percentage of the overall quota: just 25% despite constituting 70% of the vessels. Quota allocation is a national decision, separate from the annual quota negotiations between the Council of Ministers, but there is potential to divide the pie in a way that better handles these instances where the overall size is being reduced. With only a quarter of the quota, the overall impact of any short-term quota reduction could be greatly moderated if these small-scale fleet segments were prioritised as a way of ensuring the economic viability and ecological sustainability of fishing communities.

The Danish Government can improve prosperity for fishers by improving how quota is allocated

The Danish system of quota allocation should also take greater consideration of fishing practices that contribute to the social, economic, and environmental objectives of fisheries management.

Article 17 of the CFP states that:

When allocating the fishing opportunities available to them, as referred to in Article 16, Member States shall use transparent and objective criteria including those of an environmental, social and economic nature. The criteria to be used may include, inter alia, the impact of fishing on the environment, the history of compliance, the contribution to the local economy and historic catch levels. Within the fishing opportunities allocated to them, Member States shall endeavour to provide incentives to fishing vessels deploying selective fishing gear or using fishing techniques with reduced environmental impact, such as reduced energy consumption or habitat damage.

According to the Seafish Risk Assessment for Sourcing Seafood (RASS) rating system, demersal trawlers for Western Baltic cod have larger negative impacts on both species bycatch and discards, as well the wider marine environment, compared to gillnetters.²⁴

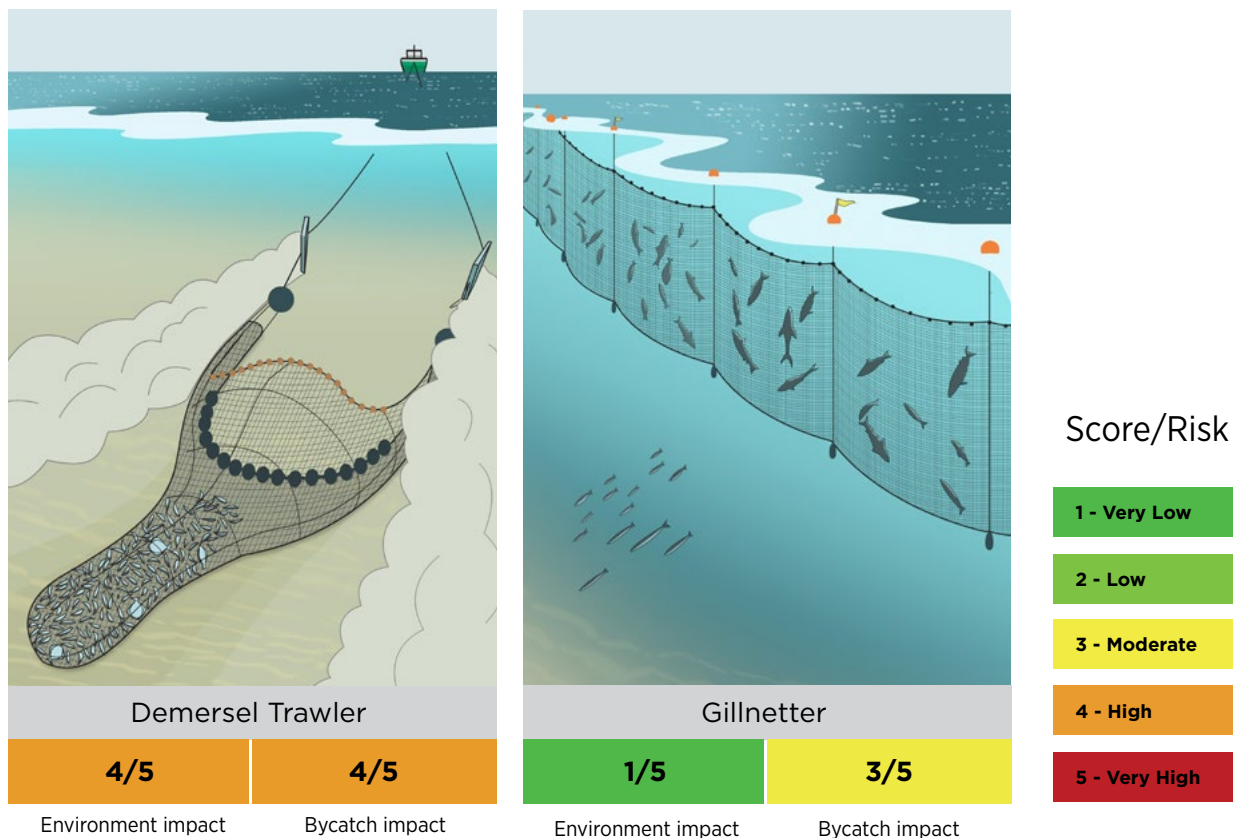


Figure 4: Demersal trawler and Gillnetter environment and bycatch impact **Illustrations:** Goldborough Studio

Source: Seafish Risk Assessment for Sourcing Seafood (RASS) rating system



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Demersal trawlers are trawlers that tow large, heavy cone-shaped nets along the seabed. The mouth of the nets is kept open and dragging along the bottom using various materials such as chains, wooden or metal beams, and large flat boards. Gillnetting is a curtain of fine netting hung in the water, either anchored to the seabed or allowed to drift with the tide, for fish to swim into and become entangled.²²

Given the different levels of impact, more quota in the hands of passive gear fishers would also help decrease unwanted catches and implement the Landing Obligation, and minimise negative impacts on the marine ecosystem and achieve ecosystem-based management. Taking a criteria-based approach to quota allocation was also mentioned by the Baltic Sea Advisory Council specifically in the context of Western Baltic cod as a method of addressing the short-term negative impacts of a quota reduction.²⁵

Improving the quota system to direct fishing quota to those who deserve it most is complicated by the Danish system of quota allocation, which uses individual transferable quotas (ITQs). Under this system, after the initial grandfathering of fishing quotas based on historical track records, the ministry no longer actively allocates quotas on an annual basis. Fishers holding quotas receive a direct share of the national total allowable catch depending on their own quota share holdings. Further, the notice period for these quotas was recently extended from 8 to 16 years.²⁶

This system of ITQs has recently been supplemented by a coastal fishery scheme intended to boost small-scale fisheries.²⁷ The scheme provides a supplementary quota allocation for smaller scale fishers who volunteer to enter the segment for a period of three years at a time. Some cod quota is specifically set aside for this scheme. While positive, the coastal premium is a supplement, not a criterion integrated into the allocation mechanism. Denmark could further improve environmental performance and the transition to a more sustainable industry by expanding the role of its quota reserve for performance-based allocation.

A more fundamental overhaul would be to consider socio-economic and environmental factors in the allocation itself. If the concern regarding a reduction in quota is really about the short-term economic vulnerability of small-scale fleets, a system of quota guarantees (by tonnage) for low-impact but high vulnerability fleets could be used if percentage shares fall below a certain level (similar to the Hague Preferences used for Ireland and the UK).

An appetite for reform

Recent controversies in Denmark have put fishing quotas at the centre of Danish politics. The withholding of information to Parliament on available options to limit the concentration of fishing quotas resulted in Minister Esben Lunde Larsen receiving a reprimand and the fisheries portfolio being moved to a new Ministry in August 2017.²⁵ A recent auditors' report has also confirmed that very little information exists on quota concentration altogether.²⁶ With this new focus on quota management, it appears that a stone is being unturned, and a public discussion is forming around how fishing quota should be managed in the public interest.

First and foremost, fishing quotas should be sustainable. The CFP had a deadline of 2015, with 2020 as an emergency fall back. Fisheries economics supports this legal requirement. Sometimes socio-economics is evoked by Ministers, but without justification, and as this briefing has documented, in contrast to evidence. Ministers are loathe to be seen as returning from Council negotiations with less quota than the year before, regardless of the long-term benefit or even if the current quota is being fully used. It is political perception above economic performance.

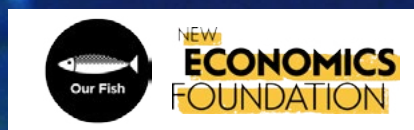
Just as fishing limits should be sustainable, they should also be fair. The Council of Ministers can set sustainable fishing quotas and boost socio-economic performance of their small-scale fleets with a fairer quota allocation system. Denmark's opportunity, and its power to achieve these aims, lies in the hands of the new Danish fisheries minister Karen Ellemann.



Endnotes

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