

Cross Industry proposal for an adaptive approach to North Sea cod recovery

17 November 2020

1. Summary

Maintaining a pathway for the recovery of North Sea cod remains a priority for fishermen, managers and the wider stakeholder community. Opinion in relation to severity and speed of the measures required to deliver that recovery depends on which stakeholder category is voicing the opinion. The catching sector remain at odds with the managers on the speed of recovery based on the biological restrictions that run counter to what fishermen know about stock biology and their experience of how long management measures take to have effect.

In proposing a network of seasonal closures to protect spawning cod for 2020, the fishing industry demonstrated its commitment to rebuilding North Sea cod. That commitment was further strengthened in their support for the protection of juveniles and improvements to selectivity; this support remains ongoing

This year, the industry has once again adopted a position that, when setting a TAC for NS cod, it must take account of a wide range of factors including the complexities that flow from mixed fisheries, especially with regard to the socio-economic fallout from the landing obligation and the potential for chokes and the possible early closure of fisheries.

Like many industries, fishing has not escaped the impacts of the covid pandemic. Income is significantly reduced across a number of sectors, which is a result of removing less fish from the sea, including cod, as well as a volatile market. Covid has also meant, that the advice for catches in 2021 has been produced in the absence of the “reopening” process that has recently become custom and practice.

2. Introduction

In 2019 representatives of North Sea fishing industries (EU and Norwegian fleets) collaborated in the preparation of a paper on North Sea Cod. That paper set out the industries thoughts with regard to a more gradual and adaptive approach to cod recovery. The paper also included a proposal to protect spawning aggregations and was presented to negotiators in advance of the 2019 Autumn negotiations.

That same group has now collaborated once again to prepare this follow-up paper, which sets out a rationale as to why abiding by the ICES advice on the level of TAC fails to accept the complexity of the mixed fisheries and the implications for the fleets. Operating within the parameters of the landing obligation creates operational pressures, especially with regard to choke species and the resulting premature closure of fisheries.

The group strongly support science-based management decisions. It is important, however, to distinguish between scientific advice, designed and framed to answer specific questions (such as how to rebuild a stock in the shortest possible time), and the wider responsibility of fisheries managers. It is fundamentally important that science is used to frame management measures that take fully into account other implementation factors, such as socio-economic impact and fishing industry support and collaboration. It is important that a timeframe for recovery measures is set in line with both the rebuilding of the stock and the economic viability of the fleets impacted by the measures.

Importantly, we continue to recognise the need for a rebuilding strategy although our preference is still for an approach that takes account of the biological cycles that will be required to deliver a recovery of the stock. We believe this strategy is more likely to deliver better results than a short, sharp, process focussed approach.

Notwithstanding the disruption the covid pandemic has caused, it is clearly disappointing for fishermen that the quarter three IBTS survey results have not been used to confirm fishermen's observations, which are that recruitment of NS cod is far above average. Looking at the results from the survey, it appears that the size of the 2019 year class (1 year old cod

in this survey) after the IBTS1 survey was estimated on the basis of a catch of 5 individuals per hour, whereas the catch in IBTS3 was 12 per hour, indicating a gross underestimate of the recruitment. The group does not have the capacity to document exactly how these results would have improved the perception of the stock status, but is collectively extremely disappointed to discover that ICES have made an agreement with the European Commission not to investigate this. We believe those results would have delivered a further improvement in the prognosis of the stock.

3. External factors

While this paper sets out our views for the coming year, it also incorporates a number of key elements that remain constant and core to our beliefs and understanding of how the cod stock should be managed. For instance, we believe it remains fundamentally important for management decisions to take account of other factors such as the socio-economic impact, discard reduction/choke mitigation and engagement and support of the fishermen. This is where consideration of timescale becomes the key factor for implementing sound management; striking a balance between the recovery of the stocks and allowing the fleets to sustainably exploit other available resources.

The group remain committed to protecting aggregations of spawning cod and the protection of known abundances of juveniles. As such, we would encourage managers to continue the range of seasonal closures agreed for 2020, taking into account the comments under the supplementary measures heading below

We continue to believe that difficulties facing the North Sea cod stocks will not be solved in a single year but that specific, additional measures will be required to aid that recovery. However, there are several additional factors that continue to bear heavily on the successful implementation and delivery of any rebuilding plan, these include:

- Biological changes associated with the northward shift in distribution of cod
- Changing distribution patterns of species like hake, which are a competitor of and predator on cod

- The potential implications of these spatial changes on biological reference points
- The stock assessment's current dependence on understanding incoming recruitment as well as an apparent retrospective bias

4. TAC proposal

ICES' recommendation for a TAC in 2021 of 14,755 tonnes is higher than the recommendation from the previous year, but less than the adopted TAC for 2020. Notwithstanding the interannual downward revision of the biomass we note that the biologists now estimate there are just over 260 million individuals (from year '19) entering the fishery, whereas in recent years they only expected a recruitment of just over 180 million. (from year '18), which we understand is the driver for the improved advice.

5. Industry position

While the EU approach to achieving MSY in the shortest time possible is certainly laudable, it presents a one-dimensional approach to managing fish stocks that focusses purely on the recovery of the stock without taking the wider socio-economic impact of strict management measures into consideration.

We consider that setting a North Sea cod TAC based on the MSY approach detailed in the 2021 ICES advice would be devastating for many of the vessels fishing the North Sea mixed demersal fishery. Such an approach could potentially lead to premature closure of the mixed fishery and economic hardship for many of the vessels.

We firmly believe that in allocating a TAC that delivers a sizeable increase in the stock while, at the same time, adopting appropriate technical and spatial, measures, we can avoid the situation where cod becomes a "choke species" preventing access to sustainable fishing opportunities for key species in the mixed demersal fishery.

ICES provide a range of catch scenarios that allow managers to determine the potential implications of implementing specific TAC levels. While the MSY approach attempts to achieve MSY in the shortest time, alternative options are available that will also provide a route to MSY, albeit over a different timescale.

For example, in the North Sea cod advice for 2020, ICES forecast that the MSY approach (-61%) would result in a predicted increase of 28% in SSB, FMSY (-33%) would deliver a predicted 16% increase in SSB, and FMSY lower (-56%) would deliver a predicted 26% increase in SSB. The 2020 TAC was finally set between FMSY and FMSY lower (-50%). This illustrates that the TAC was not ultimately set according to a specific ICES catch scenario, but rather was set after taking scientific and socio-economic considerations into account.

If a similar approach were adopted in 2021, setting the TAC between FMSY (+51%) and FMSY lower (+0.65%) would deliver a predicted increase in biomass in 2022 of between 28-40%, increasing the SSB by around one third in one year while also delivering a moderate increase in TAC that would help alleviate potential choke issues that may arise with the predicted increase in TAC of other species in the mixed fishery. It should be noted that setting a TAC 15% above that agreed for 2020 (Corresponding to 74% of FMSY and a 49% advice change) would deliver the SSB to B_{lim} in 2022.

6. Supplementary measures

The group remain committed to protecting aggregations of spawning cod and the protection of known abundances of juveniles. We believe the positioning of areas of protection should be assessed routinely with the fishing industry and the size and impact of any such area should take account of available sea space and the impact that any such closure may have on small-scale, artisanal fisheries and/or fisheries that catch relatively little cod. As such, we would encourage managers to continue with the network of seasonal closures to protect spawning aggregations and the protection of juveniles. There are however a number of points we wish to highlight:

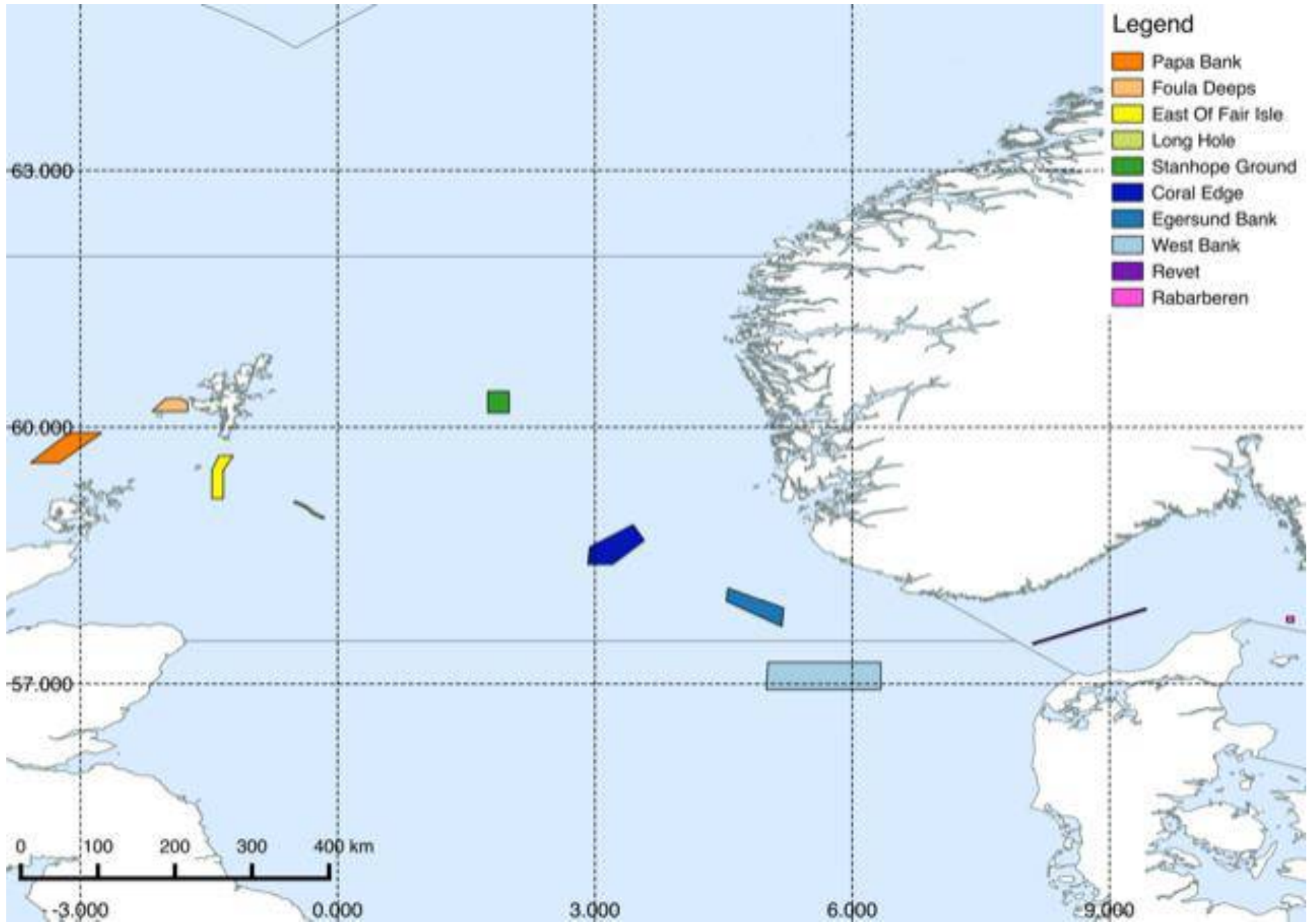
- The current network of seasonal closures to protect spawning cod should continue into 2021 as set out in Appendix 1. The group believe the initiative should continue until such time as the biomass reaches MSY $B_{trigger}$.

- We note that Norway introduced three seasonal areas to protect juveniles from 1st July to 31st December (Appendix 2). In addition, a system for Real Time Closure (RTC) is in place, and the Coast Guard can on short notice also establish so called "Precautionary areas", for areas where the mix of juveniles/small fish is high, and it is likely that the catches will contain juveniles/small fish above the allowed levels. While we fully support such initiatives, the scale of the areas concerned would seem to have little consideration for vessels that catch low levels of cod whilst targeting haddock and saithe or flatfish with seine and trawl and for vessels targeting large cod with gill net. Our group call on Norway to re-evaluate the current seasonal closures to protect juveniles with a view to reducing the areas under restriction in 2021.
- In its publication of Council Regulation(EU) 2020/900 of 25 June 2020 the EU amended Council Regulation (EU) 2020/123 as regards certain fishing opportunities in 2020 in Union and non-Union waters. A new article 14 sets out "Remedial measures for cod in the North Sea". Our group support such an approach in that it provides a wide range of measures and approaches to choose from, including the introduction of national plans.
- Whilst supporting the general approach we nevertheless believe that all supplementary measures other than seasonal closures to protect spawners, which we addressed in the first bullet, should only remain in place until such time as the SSB reaches B_{LIM} , which will hopefully be reached in 2022.

Appendix 1

Proposed Time Limited Closures				
No	Area Name	Coordinates	Time period	Additional Comment
1	Stanhope ground	60° 10N - 01° 45E 60° 10N - 02° 00E 60° 25N - 01° 45E 60° 25N - 02° 00E	01 January to 30 th April	
2	Long Hole	59° 07.35N - 0° 31.04W 59° 03.60N - 0° 22.25W 58° 59.35N - 0° 17.85W 58° 56.00N - 0° 11.01W 58° 56.60N - 0° 08.85W 58° 59.86N - 0° 15.65W 59° 03.50N - 0° 20.00W 59° 08.15N - 0° 29.07W	01 January to 31 March	
3	Coral edge	58° 51.70N - 03° 26.70E 58° 40.66N - 03° 34.60E 58° 24 00N - 03° 12.40E 58° 24 00N - 02° 55.00E 58° 35 65N - 02° 56.30E	01 January to 28 February	
4	Papa Bank	59° 56N - 03° 08W 59° 56N - 02° 45W 59° 35N - 03° 15W 59° 35N - 03° 35W	01 January to 15 March	
5	Foula Deeps	60° 17.5N - 01° 45W 60° 11.0N - 01° 45W 60° 11.0N - 02° 10W 60° 20.0N - 02° 00W 60° 20.0N - 01° 50W	01 November to 31 st December	

6	Egersund Bank	58° 07.40N - 04° 33.0E 57° 53.00N - 05° 12.0.E 57° 40.00N - 05° 10.9E 57° 57.90N - 04° 31.9E	01 January to 31st March	(10 x 25 nm.)
7	East of Fair Isle	59° 40N - 01° 23W 59° 40N - 01° 13W 59° 30N - 01° 28W 59° 30N - 01° 20W 59° 10N - 01° 20W 59° 10N - 01° 28W	01 January to 15 th March	
8	West Bank	57° 15N - 05° 01E 56° 56N - 05° 00E 56° 56N - 06° 20E 57° 15N - 06° 20E	01 February-15 March	(18 x 4 nm)
9	Revet	57° 28.43N - 08° 05.66E 57° 27.44N - 08° 07.20E 57° 51.77N - 09° 26.33E 57° 52.88N - 09° 25.00E	01 February-15. March	(1.5 x 49 nm.)
10	Rabarberen	57° 47.00N - 11° 04.00E 57° 43.00N - 11° 04.00E 57° 43.00N - 11° 09.00E 57° 47.00N - 11° 09.00E	01 February-15. March	East of Skagen (2.7x4 nm)



Appendix 2

Nr.	Area Na`me	Coordinates (Period of closure 1 st July – 31 st December)
1.	Egersundbanken	1. N 58° 19.00'–Ø 004° 00.00'
		2. N 58° 00.00'–Ø 003° 24.00'
		3. N 57° 45.00'–Ø 004° 00.00'
		4. N 57° 51.00'–Ø 005° 30.00'
		5. N 58° 09.00'–Ø 004° 30.00'
2.	Midtbanken	1. N 57° 30.00'–Ø 006° 24.00'
		2. N 57° 08.95'–Ø 006° 51.00' The centre line between Norway and Denmark
		3. N 57° 17.94'–Ø 007° 20.00' The centre line between Norway and Denmark
		4. N 57° 27.00'–Ø 007° 20.00'
		5. N 57° 26.60'–Ø 006° 49.00'
3.	Lille Fiskebank	1. N 57° 15.00'–Ø 005° 00.00'
		2. N 56° 50.00'–Ø 005° 00.00'
		3. N 56° 50.00'–Ø 005° 48.25' The centre line between Norway and Denmark
		4. N 56° 59.73'–Ø 006° 20.00' The centre line between Norway and Denmark
		5. N 57° 15.00'–Ø 006° 20.00' (Then straight line to position 1)

- The ban does not apply to fishing with nets with a minimum mesh size of 160 mm. However, it is not permitted to mix cod in excess of 3% in the individual catches and when landing.