**North Sea Advisory Council**

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**Agenda No. 5.0 Paper No. 5.1**

**Landing Obligation Focus Group Meeting Paper for Discussion**

**19th July 2017**

**NSAC Advice in Development**

**This is paper is NOT approved NSAC advice.**

**This draft advice was discussed at the Executive Committee and the Demersal Working Group meetings. The LO Focus Group will meet on 19th June to continue drafting the document.

Landings Obligation Focus Group For Discussion**

**6th June 2017 Version (3)**

**Managing Fisheries within the Landing Obligation**

**1.0 Introduction**

1.1 The NSAC has produced several advice papers on the implementation of the landing obligation (LO). As we move towards the 2019 phasing deadline it is becoming increasingly necessary to consider measures that can supplement those provided in the CFP. In our past advice, we have considered the benefits and drawbacks of each of the measures included in Article 15. In this paper we go further, looking beyond Article 15 at additional measures that can bolster those already in the management ‘toolbox’ and work to address the challenges of the LO. In doing so we aim to take a more holistic look at fisheries management and how it can help resolve issues to ensure successful implementation of the LO.

**2.0 Background Information**

2.1 It is difficult to obtain precise information on the degree to which North Sea demersal fleets have adapted to the requirements of the landing obligation to date. The species and fisheries chosen for introduction during the first two years of the demersal landings obligation have been those with fewer direct problems associated with them. There is an ongoing process of developing selective gear in the member states, and projects have in some cases been accelerated in response to the introduction of the landing obligation.

2.2 There are examples of ways in which fishing businesses have been proactive and adjusted their operations to respond positively to the challenges of the landings obligation. It may be the case that other vessels are waiting for clarification as to what they will need to do to comply with the landing obligation.

2.3 However, it remains the case that there is limited information on the implementation of the LO and its successes and challenges. In this paper, we highlight the need for improved information sharing so that action can be taken at the earliest stage to ensure that challenges such as ‘choking’ can be addressed.

2.4 Whilst there have been successes in the implementation of the LO there remain many challenges. A particular challenge is choke species (for a breakdown of choke ‘categories’ see section 6.1). The NSAC considers that the implementation of the landings obligation in 2018 and 2019 will be much more difficult than 2016 and 2017 because of the inclusion of many additional species with the potential to cause multiple chokes. In its previous advice, the NSAC has considered issues with choke species and various tools that could be used to address these.

2.5 In February 2016 the NSAC provided advice on the application of the exemptions and flexibilities outlined in Article 15 of the CFP basic regulation and outlined mitigation measures to ease phasing of the landing obligation and address the challenges presented by choke species.

The exemptions and flexibilities are:

* Avoidance of unwanted catches and selectivity;
* High survival exemptions;
* De minimis exemptions;
* Interspecies flexibility;
* Adjustments to TACs and quotas, which includes quota swaps and transfers;
* Additional technical measures that focus on meeting the requirements of the landing obligation;
* Inter-annual quota flexibilities

The advice is available on the NSAC website; [02-1516 Implementation of the Landing Obligation](http://www.nsrac.org/wp-content/uploads/2015/12/2-1516-Implementation-of-the-Landing-Obligation1.pdf)

**3.0** **Scope of this paper**

3.1 In this paper we considered additional fisheries management options that may prove useful in addressing the challenges of the implementing the LO by 1 January 2019. To inform this advice, the NSAC hosted a Choke Symposium on 2 November 2016. It provided new ideas that could potentially be utilised within the existing legal framework, either as supplementary or additional approaches to those listed in Article 15. These are listed in Appendix 1.

3.2 This paper presents NSAC’s advice on some of these approaches:

**Predictive analysis**

**Avoidance, selectivity and information sharing**

* Real-time closures
* Precautionary areas
* Move-on policy
* Seasonal closures
* Information sharing

**The application of TACs**

* TAC setting
* Use of F ranges
* Grouping of TACs
* Removing TACs for secondary species
* Zero TAC species and by-catch quota
* Prohibited species

**Quota Options**

* Domestic quota management
* Quota swaps & transfers and relative stability
* Centralisation and formalisation of trading platforms
* Quota transfer facilitation at EU or regional level
* Commission mandates, Member State swaps and transfers
* Adoption of relative stability

**Improving the scientific advice for TAC setting**

3.3 In analysing the above measures, we emphasise the importance of the development of a plan by the Scheveningen Group which incorporates all the possible tools for addressing choke, prioritising selectivity and avoidance measures in line with the landing obligation and then considering the other measures in relation to each choke species. We request that the Scheveningen Group works with the NSAC in the development of these plans.

3.4 We note that there are several additional challenges to implementing the landing obligation. In particular, we note a changing political landscape, recognising that Brexit will have implications not just for the implementation of the landing obligation but for fisheries management as a whole. In addition, it will be important to ensure that other legislation supports the implementation of the landing obligation, a key example being the technical conservation measures framework.

3.5 Added to this is the need to build support, particularly within the fishing industry, in relation to the successful implementation of the landing obligation. This will include support for the increasing use of more selective gears.

**4.0 Predictive Analysis**

4.1 NSAC has undertaken some preliminary predictive analysis to identify where chokes are likely to arise for the nine stocks specifically mentioned in Article 15 of Regulation 1380/2013 and which measures might be relevant to mitigating against each choke. We would like to work with the Scheveningen Group to build upon this analysis as a matter of priority.

4.2 Where possible individual chokes should be identified and predicted before they become a problem. However, chokes may be essentially unpredictable, because of the number of variables involved. We need to begin to think about the implications of this and appropriate contingency measures to be put in place when chokes occur.

4.3 Below we set out a number of potential measures for the mitigation of chokes, looking at the pros and cons of each and using particular species as case studies. In doing so NSAC does not attempt to provide a comprehensive solution, only to provide information to inform decisions on how to address this key challenge.

**5.0 Avoidance, Selectivity and Information Sharing**

5.1 Avoiding unwanted catch is in theory the rational way to address the issue of choke species and successfully implement the landing obligation, but eliminating all unwanted catches in demersal mixed fisheries is not feasible. As detailed in our previous advice, this may involve avoiding fishing in certain areas or at certain times, which we consider in more detail later. It will not be the solution in all cases, but increasing the selectivity of fishing practises can often be seen as the key, with the landing obligation incentivising the use of more selective fishing gear. If chokes are to be avoided trials that foster the development of such gear must continue to be supported.

5.2 Sharing of knowledge among fishermen detailing where high abundances of bycatch species are found is also an effective way to reduce the risk of choke situations occurring. The spur dog avoidance trial in the Bristol Channel allows fishermen to input their knowledge into a predictive map available to all to utilizing the area.

5.3 Selectivity has a role to play in the successful implementation of the landing obligation. However, the necessary support must be in place to support ongoing trials. In this sense, funding available under the EMFF for the development of selective gears must be fully utilised. But there is more that can be done. It is essential that the details of existing selectivity projects and any outcomes are made publicly available to avoid duplication of effort and to foster partnerships that will facilitate quicker progress in moving towards selective gear. For example, the Discardless project has recently published an overview of selectivity projects in different countries and waters. This approach should be used in relation to selectivity measures in other waters

 **Real time closures**

5.5 The EU has introduced Real Time Closures (RTCs) in the North Sea and the Skagerrak for cod, saithe, whiting and haddock in accordance with the EU/Norway agreement (2009).

5.6 The EU/Norway RTCs applying in the North Sea and the Skagerrak are intended to protect juvenile fish. The EU and Norway agreed on the introduction of the RTC for the 4 stocks, however the details for implementing was left to the two parties. In the EU, closures are triggered by a catch of more than 15% by weight of the species concerned below Minimum Landing Size (now the Minimum Conservation Reference Size). The EU regulation applies to the four species; cod, saithe, haddock and whiting – Norway has also introduced RTC for other stocks such as *Pandalus Borealis* in the Skagerrak. EU has the rule that if more than 75% of the fish caught in a haul are cod the trigger level is reduced to 10% by weight of all catch of the 4 stocks in question. The closures are triggered by a single haul. Sampling takes place for all hauls exceeding 300 kg, and the size of sample has to have a minimum weight of 200 kg. Pelagic vessels and those fishing pots, scallop dredges and gill nets are exempt. The closures last for 21 days and are for areas of 50 nm2, defined by 4, 5 or 6 points. Closures enter into force 12 hours after their definition by Member States.

5.7 Such measures prompt a positive response from fishers. This can be evidenced by the year-on-year reduction in number of closures. Vessels naturally deploy more selective nets to avoid further closures although some fishers were critical, arguing that it failed to distinguish between those deploying selective and non-selective gear.

5.8 Scotland developed its own supplementary scheme under Article 13.2c of the Cod Recovery Plan (CRP) where additional days at sea were provided in return for effective conservation measures. That scheme has now come to an end.

5.9 In November 2010 this AC wrote to the EU Commission - *Position Paper on the Implementation of Real Time Closures,* stating:

*The NSRAC recognises that RTCs can play an important role in management. They are a major tool in the fisheries management toolbox. Where there is a need to protect aggregations of fish from over-exploitation RTCs provide an especially useful measure. There are essentially two ways that the closures can contribute; firstly they can avoid discards and increase yields by protecting juveniles; secondly they can protect spawning fish during a vulnerable stage in their lives and perhaps also reduce fishing mortality on adult fish.*

5.10 Whereas this was a response to a situation of the day there is much to be derived from the AC’s position. Implemented wisely a policy of real-time restrictions, not necessarily closures, can have wide ranging benefits to the stocks and to the fleet, especially within the constraints of a landing obligation. Effective real time measures depend heavily on the real time sharing of catch information, or significant at-sea monitoring.

5.11 In the context of the landing obligation, RTCs can assist operators to maximise their potential by supplying key information on small fish or the location of choke species. In the absence of secure monitoring the AC accepts the need to militate against discarding through supporting initiatives.

**Precautionary areas**

5.12 Precautionary areas are an element of fisheries management that features heavily in many fisheries in the world including the Norwegian zone of the North Sea. They are similar to closed areas only in as much as they set a perimeter for a time limited period and defined particular gears. Precautionary areas are set on the basis that vessels can fish within the area having first informed the Norwegian authorities of their intentions. Continued activity by a vessel is heavily dependent on improvements to selectivity.

5.13 Norwegian authorities view the capture of unwanted fish as being at the sole discretion of the skipper and within his competence to resolve. They view the skipper capable of determining the profile of his catch, giving a clear indication of the presence of small fish is a way of informing fishermen so that they can tailor their selectivity. The following is an extract from a recent communication from Norwegian authorities setting in place a precautionary area.

*Example.
“This is a message to fishing vessels, fishing with seine net and trawl for demersal species.*

*Based on inspections in the area west of Eigersundsbanken, showing too much fish under legal size, Coastguard vessel KV Bergen has established a precautionary area limited by straight lines between the following positions:*

*1. 5741.0N-00410.0E*

*2. 5741.0N-00434.0E*

*3. 5731.0N-00434.0E*

*4. 5731.0N-00410.0E*

*Vessels that intend to fish in the area must contact Norwegian Coastguard before start of fishing operations.*

*Area will be valid from the 8th of May at 0000 UTC until 21th of May at 2400 UTC. Questions regarding the precautionary area can be forward to the Norwegian Coastguard. Coastguard vessel KV Bergen is responsible for the area”.*

5.14 Precautionary areas are non-prohibitive, which removes much of the concerns around displacement of effort. Whereas precautionary areas can be very effective, that effectiveness is dependent on at-sea monitoring. Precautionary areas should be viewed as one of a range of measures to mitigate against the perceived weaknesses of the LO. Their introduction would go some way in developing new approaches and improvements in selectivity.

**Move-on policy**

5.15 An example of a move-on policy is the Norwegian obligation to change fishing ground where operations contravene regulations, e.g. catch limits or permitted intermixture. The advantage of this system is that it places responsibility for avoidance and minimising further depletion with the fishers. However, it is recognised that Norwegian waters are very different from EU and the system needs to be monitored to ensure compliance.

**Seasonal Closures**

5.16 Seasonal closures are put in place for a range of reasons relating to the protection of fish stocks and vulnerable marine ecosystems. They have been particularly effective at protecting spawning aggregations of species such as North Sea Cod and area VI blue ling, although that effectiveness is not purely limited to spawning aggregations. Seasonal closures are only as effective as the information underpinning their introduction; fishermen’s knowledge is a key component in their effective placement.

5.17 Seasonal closures need to take account of a range of external factors including the negative impact of displacement, in addition to any short-term economic impacts such measures may deliver. The successful introduction of legislative instruments such as seasonal and other closures relies heavily on co-management. Their introduction should be targeted and time limited and should remain under constant review.

**6.0 The application of TACs**

6.1 Chokes arise in mixed fisheries largely as a result of the application of the landing obligation to a system of annually set TACs and quotas following the advice from ICES based on historically data that are allocated through the principle of relative stability. Whilst ensuring that the CFP objectives are met, it may be beneficial to consider different approaches to setting TACs and quotas - recognising that some approaches will be more useful in addressing different categories of chokes than others. Chokes have been categorised as:

***Category 1***: Sufficient quota at MS level—choke is due to distribution within the Member State such that a region or fleet segment does not have enough and can be resolved by the Member State itself.

***Category 2***: Sufficient quota at EU level, but insufficient quota at MS level—choke is due to a mis-match of catches and the distribution of quotas between Member States and can theoretically be resolved between themselves in a regional context.

***Category 3***: Insufficient quota at EU level—choke is due to insufficient quota within the relevant sea basin to cover present catches or catch levels that can be realistically reduced, resulting in a total stop of fishing for a Member State or Member States.

The NSAC suggests an additional category. This fourth category reflects the impairment of a vessel’s economic activity.

***Category 4***: Economic choking may occur at the vessel level when there is a considerable bycatch of a low value species and the boat is filled with fish that will not deliver a profit.

6.2 By definition, member states have it within their power to alleviate category 1 chokes. NSAC consider that the most intractable chokes will occur when there is insufficient quota within a member state or insufficient quota within the sea basin (category 2 and 3 chokes).

**Categorisation of species**

**Primary commercial species**

6.3 A feature of North Sea mixed demersal fisheries is the domination by a range of ‘primary’ commercial species i.e. those species that contribute the most to a sector or a vessel’s revenue stream. For example, vessels fishing with bottom trawl tend to be heavily dependent on species such as haddock, cod, saithe, anglerfish, hake, plaice, Northern prawn and Nephrops, whereas vessels operating with beam trawl rely heavily on species such as plaice and sole. This is in line with Article 15 of the basic regulation, which applies the landing obligation from 1 January 2016 for the species that define the fisheries and from 1 January 2019 at the latest for all other species in the following fisheries in the North Sea:

* Fisheries for cod, haddock, whiting, saithe;
* Fisheries for Norway lobster;
* Fisheries for common sole and plaice;
* Fisheries for hake;
* Fisheries for Northern prawn;

6.4 With a few important qualifications, the NSAC considers that the use of the ‘tools’ identified in Article 15 (Appendix 1) has the capacity to deal with most potential chokes in the fisheries for the nine primary commercial species by 1 January 2019. The two important exceptions appear to arise with:

* Hake, where the stock development has out-stripped historic allocation arrangements, leading to a generalised shortage across the North Sea sea-basin
* Where scientific stock assessments temporarily underestimate the size of incoming year classes, causing an imbalance between fishing opportunities and quantities of that species encountered on the fishing grounds

In this context, NSAC considers that in the North Sea demersal fisheries, most chokes will be associated with the 27 secondary (generally non-targeted) species.

**Secondary Species**

6.5 A secondary species can be classified by its relatively low ranking in the list of species contributing to a fisheries or vessels revenue stream. The species might be important to the individual vessel but at aggregated level the ranking is relatively low. By default, they are species not appearing on the list set out in Article 15(3)(c)(i) (in relation to the North Sea). Some are common across a range of gears and sea areas and are caught as legitimate by-catch. They are not the economic drivers for the fisheries but appear regularly in reasonably small amounts. Come 2019, they have increased potential to represent choke species within a fishery.

6.6 The complexity of mixed fisheries in the North Sea means that some primary species are seen as secondary species in other fleet sectors. For example, parts of the bottom trawl fleet operating in the northern North Sea view plaice as a secondary species whereas the beam trawl fleet operating in the same management area in the shallow water of the southern North Sea view plaice as a primary commercial species. Similarly, the beam trawl fleet view cod as a secondary species whereas the northern trawl fleet see cod as a primary commercial species. This means that if secondary species were to be separated from primary commercial species in terms of management it would be difficult to find a one size fits all approach.

**TAC setting**

6.7 TAC setting (either on an annual basis or as part of a longer-term strategy or plan) is likely to play the most important role in either mitigating or increasing the likelihood of chokes developing amongst this group of species. Recognising the MSY objective of the CFP applies to ‘harvested’ species, it will be the responsibility of decision-makers to set TACs at sustainable levels, minimise the potential for choking and consider the socio-economic consequences of the decisions taken. In this context, it may be necessary in certain circumstances to consider alternative approaches to TAC setting.

6.8 In this context we consider some options below with the recommendation that the Scheveningen Group continues to work with the Advisory Council to consider the benefits and drawbacks of all alternative approaches to setting TACs and whether these approaches satisfy CFP obligations.

**The use of F ranges**

6.9 In addition to setting constraints on the level of harvesting, the level at which TACs are set annually can alleviate or intensify the likelihood of chokes developing in mixed fisheries.

6.10 The concept of F ranges has been developed by ICES to provide fisheries managers with a degree of flexibility to minimise the scope for chokes by optimising harvesting across a range of stocks. Particularly in relation to the nine primary demersal species in the North Sea, F ranges ought to provide an important tool to mitigate chokes where these are considered likely to arise.

6.11 NSAC believes the applicability of F ranges is likely to be different for secondary species in a number of ways:

* As the sheer number of regulated species and variables involved may make chokes essentially unpredictable;
* If stocks are data limited it will be more difficult to establish F ranges that are in line with the precautionary approach and the CFP’s objectives
* Selectivity and avoidance solutions are often unevenly spread across different species and fisheries.

**Grouping of TACs**

6.12 In some situations one option to address chokes might be to consider the grouping of secondary species currently subject to individual TACs so that they are covered by just one ‘group TAC’. Grouping is already used to some extent under the current rules, for instance for turbot and brill, and to provide a by-catch quota in certain fisheries. The use of a grouping method can also be seen in the Norway fisheries management system, which applies an ‘others’ quota in relation to several stocks not previously covered by quota. In this approach, only the main commercial species are subject to individual TACs.

6.13 The grouping of TACs is an option for addressing choke species because while the stocks involved will remain regulated and subject to the landing obligation, the restrictive individual TACs that often result in chokes will be removed.

6.14 However, there are also risks in using this approach. A problem arises when there are species within the grouped TAC that are data limited. Where data limited stocks display negative trends, the ICES advice is precautionary. As a result, the group TAC is restrictive, which increases the potential for chokes.

6.15 An inherent problem with grouped TACs is that they do not allow for species-specific, targeted management. This is a problem where stocks within the grouped TACs are in different conditions, displaying not only positive trends with on-going improvement but also negative trends in terms of depletion. The grouped TAC is not capable of accounting for these differences. In addition, with a lack of targeted management there is a real risk of localised depletion of a particular species. Calculating mortality for each species, all of which, as harvested species, are subject to the CFP’s MSY objective, is also more problematic when the grouping method is used.

**Grouping of TACs**In some situations one option might be to consider the grouping of secondary species currently subject to individual TACs so that they are covered by just one group TAC. This is an approach that is already used under the current rules. A key example is the group TAC for skates and rays. A perceived positive of this approach is that a reduction in the amount of species subject to TAC will mean a reduction in the potential for chokes.

However, as can be seen with skates and rays, there are a lot of risks in using this approach..

A particular problem arises when there are species within the grouped TAC that are data limited. Where data limited stocks display negative trends, the ICES advice is precautionary. As a result the group TAC is restrictive, which increases the potential for chokes.

An inherent problem with grouped TACs is that they do not allow for species-specific, targeted management. It may be that there are stocks in the grouped TAC displaying not only negative trends but also positive trends and improvements. . The grouping of species in this way does little to prevent localised depletion of a particular species and causes difficulties in calculating mortality. This in turn will jeopardise the achievement of the CFP’s MSY objective, which applies to ‘all harvested species’.

**The pooling of secondary species**

the pooling of species is another possible approach to addressing choke species. As well as being a method employed by Norway, EU Member States currently have the ability to operate an ‘others’ approach for their own fleets, discussed in more detail below. A potential model for quota pooling could be as follows:

With this approach there is potential for some of the same pitfalls outlined in relation to the group TACs. If an ‘others’ approach is to be used at fleet level or on a wider scale, it must still be in line with individual species limit and not jeopardise the achievement of the CFP objectives. However, the NSAC is clear to legislate for the use of their own quota and could arguably operate an ‘others’ system although such a system wouldn’t be able to run free form individual specie limits.

**Removing TACs for secondary species**

6.16 The NSAC considers that it will be important to review whether the *number* of TACs applied by the EU within the North Sea mixed demersal fisheries is compatible with a workable landing obligation. It may be significant that Norway, which operates a functioning discard ban, only applies individual TAC status to the main economic driver species.

6.17 In advocating a review of the TAC status of other species scheduled to come under the landing obligation in 2019, the NSAC is adamant that this should not mean abrogating responsibility of ensuring that the objective to increase selectivity required by Article 15 is achieved and that all stocks are harvested within sustainable limits in line with Article 2.2 of the CFP. In cases where it is decided to remove a TAC a scientifically validated, monitored and enforced management strategy should be in place and should include appropriate safeguards that are responsive to stock biology and catching patterns. This will enable decision-makers to fulfil their responsibility to manage the stock and report on stock status each year.

6.18 It is worth recalling that a number of North Sea TACs were introduced in 2002 not from concern over the conservation status of these stocks but for purely political considerations. These included:

* Dab and Flounder
* Lemon sole and Witch
* Turbot and Brill
* Megrim sole
* Skates and Rays

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6.19 It is notable that, based on ICES advice, the Commission and member states concluded that the TAC for dab and flounder should be removed, mitigating one of the more intractable choke issues in the North Sea.

6.20 There are other options available that require more limited regulatory change, i.e. ‘softer’ options, for instance the exercise of some control over removals, and these should be prioritised where possible.

6.21 However, to inform decision making, we recommend that ICES advice is sought on the removal of remaining stocks from the list of TACS and the alternative management measures that would need to be put in place if the TAC were removed to ensure MSY is achieved for all stocks in line with the CFP.

**Zero TAC species and bycatch quota**

6.22 Where a species is subject to zero-TAC it currently must be discarded. Under the landing obligation, however, the existence of a catch limit means that discarding will no longer be permitted. There would be a very real possibility of choking the fishery in this situation. Whilst this may only apply in a few instances, one approach that may be considered to address this issue is the introduction of a bycatch quota to replace zero-TAC. The use of such quota would mean that landing of the species is allowed to some extent. It means that there is still targeted fisheries management but through a method that affords more flexibility. And, where a species is subject to a bycatch quota, data collection requirements will apply and can continue to inform management of the stock/species.

6.23 The purpose of zero-TAC has historically been to address stocks that are in a poor state, meaning the focus should be on increased selectivity and avoidance measures. However, if a species that was previously subject a zero-TAC restriction is to be subject instead to a bycatch quota this bycatch quota must be based on scientific data regarding the unavoidable bycatch levels. Exceeding these levels in setting any bycatch quota could lead to incentives to increase catches of the species in question, which must be avoided. If a bycatch quota approach is used there is still a chance of choke situations arising when quota is exceeded and avoidance measures, discussed in section 4.0 above, must still be developed and implemented to reduce the risk. This may include real-time data sharing so that areas with particularly concentrated populations can be avoided, for instance where there are spawning aggregations (an issue that has been seen in trials relating to spur dog). However, we expect that there will also be difficulties in ensuring adequate control in relation to this approach.

**Prohibited species**

6.24 Removing species from the TAC management system and adding them to the prohibited species list would mean that there is no longer the requirement to land under the landing obligation. Entry onto this list means that it is prohibited to fish for, retain on board, tranship or land the species and if it is accidentally caught it must not be harmed and must be promptly released. This could be a method that is relatively easy to control, in comparison to other measures outlined in this paper. The prohibited species list does prevent the targeting of a species and so could apply to those bycatch species that are not targeted by the vessels but likely to cause a choke. When a species is on the list, accidental bycatch of that species can be discarded, which would address choke issues for the stocks in question.

6.25 However, to use this measure as a tool to address chokes is not compatible with the intention of this list. The prohibited species list is meant to protect species at risk of extinction or extirpation from being caught in fisheries, which can be seen from the status of the majority of the species on the list. However, in contrast, what is being suggested here is instead to add species to the list where they are expected to choke a fishery when subject to the landing obligation, rather than being threatened.

6.26 As identified in Section 4, a vital approach to deliver the landing obligation is through increased selectivity and avoidance. It follows that one problem with adding a species to the prohibited list and therefore removing it from the landing obligation is that this is likely to reduce the incentive to increase selectivity to avoid the unwanted catch. It is also notable that the prohibited list requires that species are released unharmed, no matter what the basis is for being on the list. However, there may be difficulties with controlling mortality and it is likely that management of the species on the list will differ between Member States. If this approach is to be used then full recording of catches should be employed as well as continued development of selectivity and avoidance measures to ensure that catches of these species can be minimised and, where possible, eliminated.

6.27 Overall, the use of the prohibited species list is unlikely to lead to better management of the stocks. To avoid the scenario of just adding problematic choke species, rather than species under threat, to the list, the NSAC supports the development of criteria so that it is clear under what circumstances a species can be added. Our letter to this effect can be found here.

**7.0 Quota Options**

**Domestic Quota Management (Category 1 chokes)**

7.1 The management of quota at the domestic level is another area where changes could be made to mitigate the problems caused by choke species, most notably for Category 1 chokes. Article 16 of the CFP makes a specific statement in this regard, where “*For the allocation of fishing opportunities pertaining to mixed fisheries, Member States shall take account of the likely catch composition of vessels participating in such fisheries”.*

7.2 This complements the idea of international quota swaps, considered elsewhere in this paper (see the following section). In addressing the challenges of the LO at domestic level, it will be necessary for Member States to look at historic and current quota allocations and map this against the LO and quota uptake, considering the varying risks of choke species.

7.3 The duration of quota allocations is one area that might need to be addressed by some Member States, as weekly or monthly vessel allocations, for example, will not allow for sufficiently long-term planning in the face of the regime change brought about by the LO. In-year flexibility through peer-to-peer transfers may allow for better matching between quotas and actual catches. Quota pooling (where fishermen cooperatively pool their quota) at domestic level may be another approach to consider, as referred to in Recital 29 of the CFP. Here the Member States could facilitate pooling by vessel owners of individual quotas, for example at PO level. It is used to some extent by certain Member States, and has the potential to act as an insurance policy for vessels by enabling access to pooled quota when hitting non-target choke or other bycatch species.

7.4 A good example of domestic quota management is seen in this case study from Sweden. The recent change in the Swedish demersal management system following the footprints of other countries is an example of domestic quota management used to tackle the challenges of LO implementation. In 2014 the Swedish fishing industry initiated a co-management process with the government, designed to produce a new national framework for management of demersal fisheries. This was sparked by concerns that the existing collective quota (weekly rations) management system would not be able to cope with introduction of the LO, and resulting choke issues – which were anticipated to have devastating consequences for large portions of the fleet in terms of fishery shut-downs mid-season.

7.5 A new more flexible management system was introduced in January 2017 and is largely based on the industry recommendations resulting from the comprehensive collaborative process. The new system is based on individually allocated quotas at the vessel level, with limited (in-year only) transferability. It applies to those who have a special permit to catch cod in the North Sea and nephrops, prawn and trawl fishing activity in the Baltic Sea, and is designed to give fishermen sufficient flexibility in fishing activity and quota transfer that they are able to better plan their quota usage throughout the year and avoiding the threat of early closure. In return for this added flexibility, the fishermen are duty-bound within the new system to cover any quota overages through transfers. The coastal fleet was also consulted on plans and contributed to the co-management process. Working together, the fishermen developed mechanisms to protect the interests of small-scale fishers within the new quota allocation system. As a result, a pool of quota is held for the coastal fleet. Monitoring the implementation and impacts of the new system will be critical to assess the success of the new system.

**Quota swaps and transfers and relative stability (Category 2 chokes)**

7.6 Relative stability is regarded as a key cornerstone of the CFP (Recital 35 of the CFP basic regulation) and has provided much-needed security of quota allocations for decades. Underneath this overarching system, quota swaps and transfers, as provided for in the CFP, have been a useful tool for introducing sufficient flexibility to help to meet the regular - or changing - needs of the fishing industries concerned through (limited) adaptation of relative stability quota allocations. However, under the landing obligation, each Member State’s quota allocation will now need to cover all catches, including those in excess of the respective quota share, which could previously be discarded. As a result, the sense of socio-economic security under relative stability, based on a predictable share, is coming under strain, and the need to address mismatch between a Member State’s catches and its respective quota allocation will become more pressing.

7.7 Whilst quota swaps and transfers were expected to be essential tools in addressing the challenges of choke species presented by the landing obligation, there are instead signs that both the extent and the patterns of swaps and transfers have begun to alter. Understandably, there is now a tendency for Member States to keep parts of their quota, which they previously might have swapped, as a reserve to cover unexpected catches. This presents an obstacle to the use of quota transfers to mitigate choke issues. So, while there is certainty in terms of how the current system works, and for many key actors involved the existing system is seen as efficient, overall the current system is ineffective in overcoming quota shortages for Category 2 chokes due to too many quota/catch imbalances across MS.

7.8 Another issue arising from the introduction of the LO is the distribution of quota top-ups. Whilst the absolute amount of the top-ups is calculated based on fleet-specific data, they are set at EU-level and by default distributed amongst Member States according to their respective relative stability shares. This means that the top-ups are not automatically given to those vessels that need them to cover their previous discards. i.e. those whose catch is not subject to the landing obligation. This is also crucial to ensure that quota top-ups do not result in unsustainable fishing levels. Quota swaps and transfers could play a key role in the appropriate distribution of quota top-ups across the relevant fleets,

**Alternative approaches**

7.9 If quota swaps and transfers are to be effective tools in addressing choke species then it may be necessary to look at alternative options for how the system could work. We outline these possibilities below.

**Centralisation and formalisation of trading platforms**

7.10 It may be possible to improve the system of quota swaps and transfers to ensure that the swaps and transfers take place and quota goes to where it is needed. As noted by Environmental Defense Fund (EDF) through its recent research on this topic, a central platform for exchange could improve the availability of information on quota, which may in turn improve transparency in quota holdings and help optimise TAC value. Improved transparency in this process would be very useful. At present, as noted by EDF, public access to data on quota availability and uptake is limited, though certain countries are more transparent than others. Improving transparency within quota transferability, for example through a central bank of information on uptake and availability, would likely improve the overall participation in quota swaps. This could be an element of a more formalised system.

7.11 However, as highlighted by EDF’s research, there are some concerns that improved information flows will need to be offset by the potential for an increase in quota value which might see lease prices increasing. In addition, a centralised platform would be of particular use where there are complex swaps involving multiple parties and species, but in reality these are less frequent than bilateral swaps and typically feature one central contact who facilitates the exchanges with the other parties.

**Quota transfer facilitation at regional level**

7.12 One way a more formalised system could be put in place is through the facilitation of this process by the Scheveningen Group as it is already to some degree the case today. This system could involve incentivising such swaps and transfers, though discussions will need to be had as to what these incentives could be. At present, there is a distinct lack of transparency into how the quota swaps and transfers system is used, in particular where there is quota availability. A more formalised system that provides incentives to swap could address this and make the process more efficient.

7.13 One problem that may arise is that the current system relies largely on the interpersonal relationships between POs and the routine nature of the swaps that take place. A change to the system, for instance through providing a central trading platform, has the potential to risk such relationships. The strength of the system is built on interpersonal relationships between POs and the routine nature of the swaps that take place. EDF notes that any changes to the way of doing business through amendments to the existing system will carry high transition costs – at least in the short term, potentially offsetting any efficiency gains to the major players from having a centralised trading platform driven by data/technology.

**Commission mandates Member State swaps and transfers**7An alternative to the of the swaps and transfers process at a higher level is instead for the Commission to mandate Member State exchanges. The aim of this would be to ensure full utilisation of all quota at EU level and avoid category 2 chokes.

7.15 However, this may be a politically sensitive option and it is questionable whether it isshould be possible, and whether it is appropriate, to make this a mandatory process. Since the introduction of the landing obligation it appears that Member States are more keen to retain their quota. This may be due to uncertainty over the evolution of quota uptake, market impacts and any other changes that could arise impacting the utilisation of quota. And this of course depends on the quota situation of the Member State. Forcing a MS to transfer quota that would have been utilised only passes on the problem, though the transfer of quota surplus could be useful. This highlights the fact that quota uplifts are given according to relative stability, not according to where quota is needed to avoid choke.

**Adaptation of relative stability**

7.16 Relative stability was agreed under the paradigm of catching the fish you were allowed to fish and releasing all fish under MCRS and for which no quota was available. The 2013 CFP reform included a paradigm shift from landings quota to catching quota, To make this work, the relative stability must be adapted to this new reality. If not, TAC’s must be topped up to match the catching capacity of each member-state fleet.

7.17 Even with the above suggestions regarding swaps and transfers, this will only go some way to addressing the constraints of relative stability shares. One possible way to address category 2 chokes is to adapt relative stability, where the science and MS fishing patterns indicate a clear mismatch between quota needs pre- and post-LO. This would allow quota allocation to be updated in light of the landing obligation, easing the transition from TACs enforced as landings towards full accountability of all catches. There are a lot of political elements to this discussion and there must be a strong basis for opening it up. In any event, the emerging political shifts envisaged through Brexit may be a catalyst for these discussions.

7.18 Overall, quota transferability has the potential to be a very effective tool to improve quota management and help meet the challenges of the LO. However, it must be brought into a broader narrative on the challenges facing Europe. Exploring mechanisms to ensure European fisheries effectively cope with the LO, as well as environmental impacts on stock distribution and Brexit, will be core to discussions around future quota allocation and relative stability.

**8.0 Data limited stocks / Data collection and monitoring/documentation of catches**

8.1 Data limitation poses a particular challenge for the successful implementation of the landing obligation. STECF has evaluated stocks and categorised them in line with the available data amongst other factors. The categories are:

* Category 1: stocks have a full assessment; data rich stocks where conventional assessments are routinely used to produce advice
* Category 2: stocks have assessments but because of the absence of reference points, or some uncertainties in the data, can only be treated qualitatively
* Category 3: stocks have an index of abundance such as the results of a time series from a Research Vessel survey. The trends in this index are used to estimate the level of TAC advised for the following year (or two years for a biannual assessment).
* Category 4: stocks where only time series of landing data are available; there are various methods available for making estimates of Maximum Sustainable Yield (MSY) using these data.
* Category 5: stocks have very little available information on catches and stock data; here the method uses risk assessment to decide on priorities.

8.2 ICES analysis and STECF’s categorisation has helped us to move towards a more nuanced approach. Nevertheless, annual TAC reductions for data limited stocks through the application of the precautionary approach have the potential to create the conditions for chokes in these fisheries, most notably with skates and rays. The approach to data deficient stocks could mean that quota is not in line with actual abundance levels. In some situations this may in turn lead to a higher probability of choking, in particular where the actual stock abundance is higher than assumed.

8.3 Collating data in a cost-effective and proportionate way to underpin management decisions will remain a priority but in the meantime it will be necessary to pinpoint:

* Areas for immediate data enhancement through member state work plans under the new DCF
* Contingency measures for chokes that occur in data limited stocks
1. **Building support for the Landing Obligation**

9.1 As well as increasing compliance, a positive industry mindset regarding successful implementation of the landing obligation should lead fishers to develop increasingly more selective gear. Building a positive mind-set will require understanding of the regime change and the need for, and benefits of, more selective gear, including its importance for an economically viable fishing industry. We believe that the Scheveningen Group must recognise the importance of a positive industry mind-set and that we have a collective responsibility to foster understanding and support to successful implementation of the landing obligation.

The non-acceptance

9.2 From the moment the discussion on the reform of the Common Fishery Policy narrowed down to the introduction of a landing obligation to improve selectivity and better fisheries management, fishermen have vociferously communicated their negative feelings about such an obligation/ban. The policy was introduced as a harsh and absolute ban on discards, both technical as well as regulatory. Fisheries representatives, especially Producer Organisations have expressed their concerns relating to the practicalities at grass root level relating to this regulation. These arguments were neglected and were out voiced by the multiplicity of advocates of a landings obligation with as little exemptions as possible. This led to the rigid formulation and implementation schedule as formulated in article 15. This introduction was not accompanied by any form of practical guidelines for the implementation. Nobody knew how to do it. The new CFP was simply announced without any practical guidelines. This framed the landings obligation in the mind of fishermen as totally unjustified and absolutely unworkable. This vison of the landing obligation has not changed since.

9.3 It did not take long to discover the problematic situation and regulatory authorities stretched to their limits to make the best of it. Postponing until 2019 was the adagium, hoping and praying for the best. But with 2019 I sight all concerned are still faced with the implementation of a regulation cast ins tone and a totally unwilling fishing industry.

9.4 From the beginning this the landing was doomed to be a total failure, despite attempts during introduction to make it workable in one form or another. The only possibility to realise implementation seems through harsh enforcement.

9.5 One of the main reasons why fishermen are frantically opposed to the landing obligation is they are absolutely convinced their future will be devastated, because of the obligation to kill baby fish. Although there are plenty of arguments to counter this approach, the ‘false start’ has made a reasonable discussion on the justification of a discards ban or landings obligation impossible. Because of the total unwillingness of the fishers at sea to adhere to this landing obligation, its total failure is imminent. The baby of improving selectivity has been thrown away with the bath water of this landings obligation

9.6 The above is a dramatic conclusion, as all parties involved: European Commission, Member-states, European Parliament, Control agencies, Public prosecutors, Producer Organisations, Fishermen’s representatives, NGO’s, Scientists and many many more are confronted with a piece of legislation which is cast in stone until 2022, but which until now has proven unworkable.

1. **Policy Integration**

9.1 The different legislative requirements under the Common Fisheries Policy are not well aligned with each other. The landings obligation represents a paradigm shift and it is clear that the other components have yet to be adapted to the new realities that follow from the requirement to land all regulated species. TAC setting rules, the MSY timetable, enforcement policy, Relative Stability and not least, the technical conservation regime, all currently provide serious challenges to the full implementation of the landings obligation. Where such challenges exist, there are likely to be problems with the implementation of the landing obligation and therefore these must be addressed at the earliest opportunity, with any legislative conflicts removed.

1. **Brexit**

10.1 The UK has now invoked Article 50 notifying its intention to leave the European Union and the start of negotiations. There is limited information as to what the content and outcome of these negotiations will be but they could have implications for the implementation of the landings obligation in the North Sea in the following areas:

* Where management decisions are made, including decisions on TACs, technical measures and long term fishing strategies
* Access arrangements
* National quota shares
* Policy on monitoring enforcement and control

10.2 We note that the timescale for agreement is just under two years from now, at which time the LO must be fully implemented. However, it will be important for the NSAC and the Scheveningen Group to monitor developments as discussions progress.

**11.0 Conclusions and Recommendations**

To be added

**Appendix 1**

**Areas Discussed at the NSAC Chokes Symposium 2nd Nov 2016**

Improving selectivity

* Innovation in gears and fishing methods
* Further studies on fish behaviour to inform selectivity
* When and where – looking at distribution

Information sharing (gear technology, fishing areas etc)

TACs and quotas

* Grouping of TACs
* Replacing zero-TAC with bycatch quotum
* ‘others’ TAC or quota
* Address domestic quota management deficiencies, including through quota pooling

Survivability

Improving survivability

High survival with best technical constraints

Real time closures

Spatial/temporal closures

Technical measures

Increased flexibility between zones

Prohibited species list

Learning from the Norway approach