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NWWAC Advice on the implementation of the Landing Obligation

29th February 2016

Background

The Landing Obligation for demersal fisheries in North Western Waters came into force on 1st January 2016. The North Western Waters Member States Group is preparing a Joint Recommendation for a discard plan for 2017 and may also consider recommendations for 2018. The North Western Waters Advisory Council was invited to contribute to this process and specifically requested to provide advice on the following issues:

1. Phasing;
2. *De minimis* exemptions, for species included in the Landing Obligation in 2017;
3. High survivability exemptions;
4. Documentation of catches;
5. Minimum conservation reference sizes (MCRS); Adjusting, removing or introducing MCRS for certain species;
6. Choke species; The identification of those species, which are expected to have an immediate choking effect on fisheries and possible solutions to avoid this occurrence;
7. Technical measures; that focus on meeting the requirements of the Landing Obligation and aim to increase selectivity and reduce unwanted catches.

Consideration of the request

The request for advice from the Member States group was discussed in detail at the NWWAC Horizontal Working Group held in Paris on 2nd February, 2016. Members provided constructive and practical feedback on all the points requiring the advice of the NWWAC. In all cases, the intention of the NWWAC was to provide advice, which contained a balance between the implementation of the Article 15 of the Common Fisheries Policy, whilst limiting the potential for adverse socio-economic impact on the fishing sector and coastal communities.

During the NWWAC's meeting in February, members of the NWWAC representing the demersal, mixed-fishery industry interests shared their experiences with the Landing Obligation thus far, but



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concluded that, given the short amount of lead-in time and the poor weather in January, it was too early to be able to discern impacts on the vessels in the majority of fleets affected. The industry members highlighted the difficulties they expected to experience later in the year with the implementation of the Landing Obligation and strongly advised that the phased addition of species and fisheries into the Landing Obligation be postponed until a means of adequately dealing with the problem of chokes had been addressed, the status of the Cod Recovery Plan had been clarified and there was agreement over the use of exemptions.

The 'other interest group' (OIG) members of the NWWAC understand and acknowledge these concerns, but note the need to make progressive steps in the implementation of phasing, given that there are only two years remaining, within which phasing can continue (2017 and 2018). The OIG members therefore advocate that the scope of the Landing Obligation be expanded in 2017 through the addition of more species and/or *métiers*.

In this context, the NWWAC takes this opportunity to communicate the fundamental issues that were raised during the February meeting.

Response

Introduction

The NWWAC acknowledges that the fundamental objective of the Landing Obligation provides incentive for fishermen to avoid unwanted catch. Whereas scientists and the fishing sector have worked to improve selectivity and the reporting of total catches, it is the opinion of the NWWAC that the Landing Obligation will entail additional workload and associated costs of landing all catches of quota species, which will carry significant economic consequences for many vessels and crews.

It is the opinion of the industry members of the NWWAC that the implementation of the Landing Obligation will create unwanted economic impacts, which need to be addressed at an early stage.

The NWWAC considers that this can be achieved through:

- Ensuring that the best possible knowledge base is available for improving the selectivity of fishing gears, and developing avoidance strategies;
- Applying mitigation measures allowed for in legislation associated with the Landing Obligation;
- Developing effective forecasting techniques to identify potential chokes in advance and plans to act proactively;

- The NWWAC advocates for engagement and collaboration with European and National control agencies and the NWW Control Expert Group to deal with unforeseen issues in a rapid, adaptive manner.

Specific Advice

Addressing the request for advice from the Member States Group, the NWWAC has structured its advice to reflect a practical and operational hierarchy.

The NWWAC emphasises that technical measures and assistance to enable fishermen to reduce unwanted catch, as much as possible, should be addressed in the first instance. Once the potential for selective measures/avoidance have been exhausted, additional exemption and mitigation measures could then be employed to prevent fisheries from closure, e.g. high survivability, ISF, and *de minimis*. Swaps and transfers of quota, which currently take place largely for commercial reasons, may have to be reconsidered in the light of the Landing Obligation.

The NWWAC agrees that the accurate documentation of catches is essential. It is important, however, that a proportionate approach to the additional costs and burden for those working in the wheelhouse or on deck are taken into account.

The NWWAC acknowledges that although there is limited data available on experiences with the implementation of the Landing Obligation, it can assist the Member State group by providing its opinion on how to address the practical implementation of the Landing Obligation and the issues that have arisen or are impending.

1. Technical measures (Q7)

The NWWAC considers that the development and application of new, more selective fishing gears and avoidance strategies is fundamental to the implementation of the Landing Obligation. There are a number of gear trials on-going or completed in different member states that focus on specific fisheries and the selectivity of target and non-target species (Table 1). The NWWAC notes that this information is extremely valuable and is looking forward to providing advice on how the results of these trials can best be utilised.

The NWWAC notes that in some cases problems will arise not because of poor selectivity but due to the misalignment of abundance, species mix and quota availability between Member States. This is an issue that sits beyond selectivity and relates to the capture of large, mature fish. The NWWAC, therefore, asks that the NWW MS groups communicate and cooperate to resolve these issues.



Table 1. List of example projects (non-exhaustive) by fisheries and area.

Fishery	Selective device	Unwanted species	Project (if relevant)
French Bottom trawlers	T90, grids and mesh size adjustment	Haddock (Below Minimum Size), whiting (BMS), boarfish, horse mackerel, mackerel, monkfish (BMS)	REJEMCELEC, CELSELEC
Beam trawl Belgian vessels	Flemish panel (15 cm mesh panel, 3m length in front of the codend)	Small flat fish	ILVO analysis. Belgian TCM regulation based on industry advice.
Beam trawl Belgian vessels	Large mesh panel (36cm in back of the net)	Small gadoids	ILVO analysis requested. Belgian TCM regulation based on industry advice.
West of Scotland Nephrops Trawl	Improved selectivity curve using Low standing nets - letterbox – low flier – large square mesh panels	Haddock, whiting, cod (Below minimum conservation reference size)	Various initiatives planned via Government industry Initiative group (GITAG)
Megrim and monkfish demersal trawling (OTB)	selective codend (size and opening angle)	undersized and rounded section species like horse-mackerel and hake	

Avoiding catches by choosing different fishing grounds and seasons could make a contribution to the reduction of unwanted catches. Real time reporting and various remote sensing technologies can all be used to transfer knowledge in real time and support spatial approaches to discard reduction. Trust and confidence needs to be further established between fishermen, scientists and administrators to develop these initiatives into practical tools.

The NWWAC is eager to work with the NWW MS Group to ensure that the revised technical conservation measures support the implementation of the Landing Obligation.

2. Choke species (Q6)

Once the limits of increasing selectivity and maximising avoidance are reached, choke species may still occur and are expected to have a significant negative effect on many fisheries. The NWWAC considers this to be of the utmost importance and has identified potential choke species in each fishery, fleet and area (Table 2) although it is also recognised that in mixed fisheries chokes may occur in any stock, depending on circumstances.



Table 2. Overview of the potential choke species (not exhaustive) by fisheries and area.
 Note: Any species subject to the Landing Obligation has the potential to become a choke.

Fisheries	Area	Species
Nephrops and Whitefish Trawl	Irish Sea	Haddock
Nephrops	Irish Sea	Whiting
Whitefish Trawl	West of Scotland	Cod, Whiting, Saithe, Hake
Nephrops	West of Scotland	Haddock, Cod, whiting, Hake, Saithe
	West of Scotland	Skates and rays, Pollack, Ling, Tusk
	Celtic Sea	Whiting, Cod, Haddock
Beam trawl	All areas	All demersal species under the LO
Gill nets	Celtic Sea	Hake, red Seabream, Greater Forkbeard
French Bottom trawlers (TR1)	Celtic sea/Western Channel (VIIfg/VIIe)	Haddock, Boarfish, Rays (if no survival)
	VIIIhjk/VIIIfg	Plaice (if no survival)/sole
	VIIef	Herring, Mackerel, Horse Mackerel
	Channel (VIIde)	Sprat
French Bottom trawlers (TR2)	Western Channel (VIIe)	Sole
	Western Channel (VIIe)	Rays and Undulate ray (if no survival)
	Eastern Channel (VIIId)	Rays, Plaice, Whiting, horse mackerel
Spanish pair trawlers	Celtic Seas (VI & VII)	Cod, Saithe, Haddock, Whiting, Sole, Boarfish, Plaice, Mackerel
Spanish longline	Celtic Seas (VI & VII)	Cod, Saithe, Haddock, Whiting

To reduce the potential for chokes, it will be extremely important to use all the mitigation measures available within the Landing Obligation and the wider CFP. Recognising the requirements of the legislation and the sustainability of the stocks, the NWWAC recommends that, where possible, suitable policy instruments should be sensibly utilised such as: technical measures, quota flexibilities, and exemptions (high survivability and *de minimis*). The precise mix of these mitigation measures in any given fishery are likely to vary and therefore a *toolbox* approach should be considered.

The NWWAC emphasises that quota uplift to cover previously discarded catches of regulated species will be an important factor in determining the scale of the problem of chokes in mixed demersal fisheries in North Western Waters.



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Four issues that may hamper the efficiency of quota uplifts at this stage are:

- The accuracy of discard estimates in the context of fisheries, in which there is a recognised data deficiency decision (The ratio between estimates based on firm data and more speculative “fill-ins” or estimates in the discard atlas for North Western Waters was in the region of 55/45);
- The allocation of quota uplift on the basis of relative stability keys will mean that quota uplift may not necessarily be available to those fisheries, which generated those discards;
- The allocation decisions within individual member states will potentially be a significant factor in directing quota to potential pinch points;
- Finally, the degree to which International Swaps and Transfers will be able to mitigate chokes by moving uplift to where it is needed is a significant and open question.

Following the discussion that took place at the High Level Member States meeting (25th November 2015) a list of possible solutions with their advantages and disadvantages was suggested to prevent the unavoidable bycatch of species, which could act to choke fisheries if required to be landed (Table 3).

The NWWAC recognizes that each solution has a potential to help resolve choke species, however at this point, the NWWAC cannot quantify the extent of their contribution, without knowing what the next step in the implementation of the Landing Obligation will look like (for example the extension of the obligation to include new stocks or *métiers*).



Table 3 Possible solutions to prevent a fishery from closure due to low TAC or quota choke species (non exhaustive).

Solution	Advantage	Disadvantage
De minimis exemption	<ul style="list-style-type: none"> - Legal provision is already in place; - Considering the very small catches of these species, a <i>de minimis</i> could be available for a very limited percentage of the total annual catch. 	<ul style="list-style-type: none"> - Difficult to scientifically substantiate due to limited data availability on discards of Zero-TAC species; - Would not reduce fishing mortality for the Zero-TAC species - As 5% of the total annual catch of vessels could lead to a very high amount of fish to be discarded under <i>de minimis</i>, Member States have chosen to limit the use of <i>de minimis</i> to a limited percentage of the catch of the relevant species.
Creation of an “Other quota” to account for accidental catches of low and Zero-TAC species (if needed to be landed).	<ul style="list-style-type: none"> - An “others quota” is a familiar tool in fisheries management; Norway has run such a system very successfully. 	<ul style="list-style-type: none"> - Difficult to establish an “others quota” requires the agreement of all member states quota; - Group TAC for skates and rays shows that a group TAC for data limited stock is highly restrictive; - Potentially increases the fishing mortality for Zero-TAC and low-TAC stocks (Possibility for targeting of specific species within the grouped quota).
Consider Zero-TAC species as prohibited species	<ul style="list-style-type: none"> - Legal provision is already in place; - Allows fisheries to continue. 	<ul style="list-style-type: none"> - Does not reduce fishing mortality for Zero-TAC stocks; - Likely to impede data gathering on Zero-TAC stocks.
Quota swaps and transfers	<ul style="list-style-type: none"> - Known practice, networks are already in place. 	<ul style="list-style-type: none"> - Only works for non-zero-TAC stocks; - Low TAC and quota species will be ‘expensive’ to swap; - Countries without a quota for a species will have difficulty obtaining quota.

3. Minimum Conservation Reference Sizes MCRS (Q5)

The NWWAC recommends that in situations where bycatch of a stock cannot be avoided, optimum economic usage of previously discarded fish should be considered, whilst safeguarding the protection of juveniles. MCRS will, in future, mark the boundary between the sale of fish for human consumption and its sale for reduction to fishmeal, pet food or other non-human consumption products (Article 15.11 of the Common Fisheries Policy).

MCRS may be established with the aim of ensuring the protection of juvenile marine organisms. The OIG members of the NWWAC believe that the MCRS should be set as close as possible to the length at maturity to de-incentivise profiting from the landings of immature fish and to prevent markets being developed for these fish.

The industry members of the NWWAC question whether there is a need to apply the MCRS for marketing purposes, whilst avoiding the creation of targeted fisheries. As an example; in the Irish Sea *Nephrops* fishery, the most critical choke species will be unavoidable bycatches of whiting. Apart from approaches to maximise gear selectivity to avoid whiting catches (see priority 1), the industry members of the NWWAC suggest that the optimal economic yield of the quota may be obtained by decreasing the MCRS of whiting in the Irish Sea. Increasing the volume of whiting available for human consumption will not increase fishing mortality, considering that all bycatch of whiting from the *Nephrops* fisheries will be landed under the Landing Obligation.

4. High survivability (Q3)

Research¹ has shown that depending on the species and the circumstances of capture and release, a proportion of discarded fish may survive. The NWWAC considers that without adequate survival exemptions, the Landing Obligation could increase the fishing mortality for some stocks in North Western Waters if fish, that would otherwise have survived the discarding process, are landed.

The NWWAC recognises that a decision to exempt a particular species based on high-survival, is a trade-off between the benefit to the stock from the return of high survivors on the one hand and the removal of potentially strong incentives to reduce unwanted catches, by allowing discarding to continue, on the other hand.

The NWWAC notes that there are a number of scientific programmes examining the survivability rates of target species. A list of ongoing studies in different Member States is provided and data from completed projects has been collated by ICES² and STECF². Although these reports do not provide conclusive evidence on whether or not the subjects of individual studies demonstrate “high survival” as contained in legislation, the NWWAC notes that such decisions are the responsibility of fishery managers.

Guidelines have been developed by STECF to help managers draw conclusions between the various types of studies, as well as the trade-offs that may be considered³. The NWWAC identifies these studies as being of importance as they offer evidenced-based information towards the most appropriate species for consideration in the phasing process (Question 1).

¹ Latest information on survival studies reviewed by STECF ([STECF 14-19, part 4](#)) and references therein.

² ICES literature overview on survival experiments with an emphasis on *Nephrops*, sole and plaice ([WKMEDS 2015](#))

³ STECF report on trade off and guide lines to survival studies ([STECF 2013-11 part 1](#))



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Studies⁴ have identified that elasmobranch species (i.e. sharks, skates and rays) have a higher probability of surviving the process of discarding than other fish, although this varies depending on fishery conditions and on-board handling. Studies on flatfish show variable results between species, with survival rates between 40% and 80%³. Zero survival was observed in some experiments and the survival of sole and dab were lower than plaice in some cases. Survival of plaice has also been shown to be length and seasonally dependent. Several studies on *Nephrops* have shown interesting results on survival rates, and survival rates have been part of the ICES stock assessments for a number of years. Studies continue on this species.

Under Article 15(4)(b) of the CFP basic regulation there is a requirement for scientific evidence demonstrating high survival rates for the species in question before this type of exemption is granted. As survival experiments are both time consuming and economically demanding, the NWWAC recommends that future scientific research should be encouraged to develop generic, evidence-based models that can predict the survivability of a species, based on their physiological characteristics. The OIG members of the NWWAC note that this may be useful in focusing *in situ* studies under 'real fishing conditions' on strong candidate species, although such modelling cannot be a replacement for these studies. The OIG representatives stress the importance of having scientific evidence that demonstrates high survival rates before such an exemption can be granted, in line with the provisions for use of this exemption in CFP Article 15. Considering that experiments will take time, however, the industry representatives of the NWWAC believe that Member States should consider applying the derogation for high survival in a pragmatic way for elasmobranchs, flatfish and *Nephrops*.

Furthermore, the NWWAC recommends that in cases where exemptions from the Landing Obligation are considered on the grounds of high survival, the potential implications of granting that exemption should be compared to the current assumptions on the survival of discarded organisms in ICES stock assessments. If high survival exemptions are granted, then the 'residual mortality' of discarded organisms should be accounted for in ICES stock assessments.

⁴ Ellis, J.R., McCully, S.R., Silva, J.F., Catchpole, T.L., Goldsmith, D., Bendall, V., Burt, G., 2012. Assessing discard mortality of commercially caught skates (Rajidae) – validation of experimental results. Final Report 2012, Cefas.
Mandelman, J.W., Cicia, A.M., Ingram Jr., G.W., Driggers III, W.B., Coutre, K.M., Sulikowski, J.A., 2012. Short-term post-release mortality of skates (family Rajidae) discarded in a western North Atlantic commercial otter trawl fishery. Fisheries Research, 139: 76-84.



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5. *De minimis* (Q2)

Under the Common Fisheries Policy (Article 15.5 (c)) a *de minimis* exemption of up to 7% of total annual catches of all species subject to the Landing Obligation can be applied where scientific evidence indicates that increases in selectivity are very difficult to achieve, or when there are disproportionate costs of handling unwanted catches.

The *de minimis* exemptions provide a tool for unavoidable, relatively low bycatches. In the case of relative high bycatches of species subject to the Landing Obligation, that may arise due to spatial or temporal variations in availability, or due to quota restrictions, however, the *de minimis* exemptions may offer only small and relatively short term relief. Additionally, there is still a need to clarify the way the exemption will be applied by different Member States, specifically regarding monitoring and control. The NWWAC advises that there is a common understanding and harmonised implementation across Member States.

The NWWAC is not yet in a position to advise on additional fisheries and species to be subject to *de minimis* provisions. Advice on adding new fisheries and species depends on further decisions on the phasing of species into the Landing Obligation, on the use of other flexibilities and exemptions, and to some extent on TAC levels. The NWWAC notes that the use of the *de minimis* exemption must be considered in the wider context of these.

6. Documentation of catches (Q4)

Even though data collection has greatly improved, there are still many uncertainties about the real magnitude of unwanted catch in various fisheries. This adds to the uncertainty of scientific stock assessments. All other things being equal, the obligation to accurately record total catches (subject to the 50 kg per species threshold provided for in the EU Control Regulation) should help to reduce the differences and perceived discrepancies between the assessed stock abundance and the real abundance on the fishing grounds. There is a risk, however, that the shift to monitoring and control at sea implied by the Landing Obligation, and given the economic incentives involved, may potentially increase misreporting, which would in turn contribute to increased uncertainty of stock assessments. The Landing Obligation creates a perverse incentive to discard and not to record such catches, as this would be counted against quota and would incur additional costs relating to disposal and labour required to handle the discards.

Lessons learned from the implementation of the Pelagic Landing Obligation⁵ illustrate that one of the largest problems is the lack of communication between the Control Expert Group and relevant managers and stakeholders on how the Landing Obligation will be monitored in the various sea basins by different Member States. Much of the control and enforcement policy is a matter for individual Member States and this being the case, good avenues of communication will be required to discuss possible technical considerations and exemptions for different fisheries, in detail. Even in the early stages of the demersal Landing Obligation, industry members of the NWWAC have come across problems where control agencies were not aware of national exemptions allocated to vessels applying certain selectivity measures. This has caused confusion between different control agencies and has resulted in loss of fishing time.

A dialogue with the Control Expert Group would facilitate the exchange of necessary, detailed information, which would help to homogenise the application of rules across areas. Adaptability and flexibility is advised in the initial phases of the Landing Obligation and where needed, the Delegated Act might have to be adjusted to accommodate refinement in aspects of control and enforcement.

7. Phasing (Q1)

The NWWAC replied to the request to suggest further stocks to be phased-in to the Landing Obligation on the 18th of December 2015⁶. The NWWAC considered suggestions put forward by the High Level Group of NWW Member States to adapt the Delegated Act for 2016 by either:

- 1) Reducing or removing thresholds or mesh sizes or adding new fishing gear;
- 2) Adding stocks to the list;
- 3) Adding new métiers.

The NWWAC concluded that the discussions in 2016 have not altered the opinion of the different members. Although the industry members of the NWWAC recognise that the purpose of phasing is to avoid a 'Big Bang' in 2019 when the Landing Obligation is fully implemented, adding more stocks or métiers to the list for further years, without the benefit of experience with the results of the regulation, is not the best course of action. The Industry members advise against additional phase-in of species and fisheries into the Landing Obligation until the problem of chokes has been addressed, the status of the Cod Recovery Plan has been clarified and there is agreement over the use of exemptions. Industry members stress that any further phase-in should be preceded by thorough analysis of the first phases of implementation.

⁵ [Recommendations by the Pelagic Advisory Council on control of the landing obligation](#) (23 November 2015)

⁶ [NWWAC Answer to NWW Member State request for Advice on the Landing Obligation](#) (18 December 2015)



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The OIG members of the NWWAC understand and acknowledge the concerns of the NWWAC industry members, but stress that there are only two remaining opportunities to phase the Landing Obligation before the obligation will apply to all quota species in 2019. The OIG members therefore advocate that the scope of the Landing Obligation be expanded in 2017 through the addition of more species and/or *métiers*.

The NWWAC realises that the combination of phasing options, exemptions and flexibilities provides a huge variety of potential options, and that the development of a model that can reliably assess all of these options may be unlikely in the timeframe needed. Reducing the number of management options to be included in the impact assessment through dialogue between the NWW Member State group and the NWWAC may be the best option to ensure that future management decisions minimise negative impacts as much as possible within the scope and spirit of the legal requirements.