COBRENORD
ORGANISATION DE PRODUCTEURS

l'Europe s'engage en France

Mach 2016

Overview of the study

Things to remember ...

- The COBRENORD PO bottom trawlers' discards are mainly composed of **haddock** (46%), **whiting** (24%) and **boarfish** (13%).
  For all three species, the main reasons for discarding them is that they are respectively: **choke species**, **undersized for landing** and **low-value.**
- A **strict application** of the Landing Obligation (closing fisheries when there is a choke species situation) would result in **short-term unsustainable economic consequences** for fishing fleets.
- A **flexible application** (non-payment of any sales outside the sub-quota) would **moderate the commercial losses** of vessels whilst also encouraging them to **improve their selectivity processes.** At the very least, a **by-catch quota** for certain species is needed (boarfish, herring, sprat, horse mackerel, etc.).

Trawl on board a COBRENORD PO vessel.
© COBRENORD PO

Methodological limitations

The "discard" study carried out by the COBRENORD PO has **some limitations**:

- There is a sampling bias: during the self-sampling, some of the smallest fish that could be sold were sometimes confused with undersized fish ;
- The quantitative impact analysis does not take into account the dynamics of stock and the additional work time for sailors associated with unwanted catches;
- The discard data is highly dependent on annual context (resource availability, available sub-quotas, market conditions, etc.).

Ongoing actions ...

In order to minimise unwanted catches and limit the negative impacts caused by the Landing Obligation (LO), the COBRENORD PO and the Basse-Normandie PO (OPBN) have teamed up to create the REJEMCELEC project (Reducing Discards in the Channel and Celtic Sea).

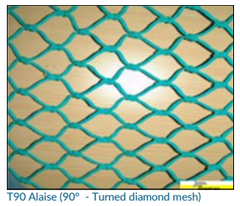
As something that has not really been studied to date in the Channel and Celtic Sea, certain metiers are specifically targeted by this project: the bottom trawl targeting gadoids, the bottom trawl targeting cephalopods and the midwater trawl targeting mackerel.

The aims of this project:

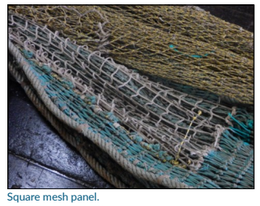
- To identify unwanted and targeted catches by zone and fishing season;
- To design and test the selective devices that have been identified and adapted to the case study, in a real situation;
- To evaluate the devices based on their technical (escapement), economic (commercial losses) and practical criteria.

Technologies used:

These devices are based on existing technologies: T90, semi-rigid grids, etc. Innovative works on mesh colours and the number of faces of the codend and the extension have also been planned.



T90 Alaise (90° - Turned diamond mesh)
© Ifremer



Square mesh panel.
© COBRENORD PO

REJEMCELEC Project

Réduction des rEJEts en Manche et mer Celtique par la sELECtivité des engins de pêche

01/12/2015—30/11/2017

Partners: *COBRENORD (shareholder), OPBN, Ifremer, France Filière Pêche, Région Basse-Normandie, Région Bretagne, Pôle Mer Bretagne Atlantique*

Projet labellisé

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COBRENORD
ORGANISATION DE PRODUCTEURS

March 2016

l'Europe s'engage en France

DISCARD STUDY

Discard evaluation and impact analysis of th Landing Obligation for the COBRENORD P.O's offshore fleet - June 2014 / December 2015 -

A trawl being hauled on board a COBRENORD PO vessel.
© COBRENORD PO

A brief overview of the Landing Obligation

The Common Fisheries Policy (CFP) provides for a gradual ban between 2015 and 2019 of discarding species under a total allowable catch (TAC) in the waters of the European Union (Article 15 of Regulation (EU) No. 1380/2013 of the European Parliament and of the council of 11 December 2013).

Useful information :

- The Landing Obligation came into effect in 2016 for some of the fisheries that target demersal species (whiting and sole in the COBRENORD PO's case).
- The Landing Obligation is accompanied by a series of measures in order to introduce flexibility in its application (*de minimis* exemptions [percentage of permitted discards], full exemption for fish with high survivability rates, a quota uplift, etc.).

Offshore bottom trawling adhering to the COBRENORD PO.
© COBRNEORD PO

Why a discard study ?

The implementation of the Landing Obligation is likely to result in **major changes** in the profession. These changes will be identified through a series of questions which the COBRENORD Producer Organisation whishes to adress in this study (a non-exhaustive list).

In terms of fishing strategies and the economic balance of vessels :

Which species are discarded ? In what quantity ? When and in which areas and for what reasons ?

What are the socio-economic consequences of the Landing Obigation in regards to discards (hold stauration, increased sorting time, shifting in the fishing effort, etc.) ?

Au niveau de la gestion de l'OP :

Will the PO confront the issue of choke species ? If so, which ones and how ?

Sorting the catch on board a COBRENORD PO vessel.
© COBRENORD PO

Study target

Preliminary groundwork has identified **offshore bottom trawlers** as the main PO fleet that discards species under TAC. This is a fleet which targets a wide variety of species in the Western Channel and Celtic Sea.

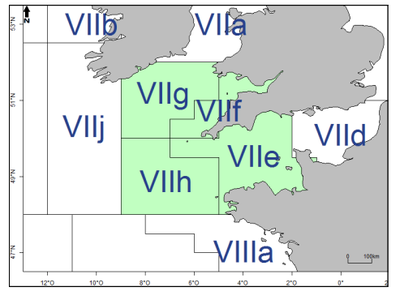

Fig. 1 : The main fishing areas of the COBRENORD PO offshore vessels.

In regards to the COBRNEORD PO's offshors bottom trawlers, **in 2015** :

- There were 11 vessels > 20 metres ;
- They represented 74% of fish and cephalopods which was landed by the PO ;
- 69 species were landed according to the areas and seasons, 18 of which are under TAC ;
- The ships usually work with a codend with a mesh size of 100mm ;
- A regulatory selective device was used in the Celtic Sea for gadoid fish: the 120mm square mesh panel in 2015.

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Results of the study

March 2016

Sampling assessment

Sample of catches when sampling on board a COBRENORD PO vessel.
© COBRENORD PO

In order to obtain quantitative data in a rigorous manner, a sampling of offshore trawler fishing operations (hauls) was carried out. Based on a simplified OBSMER* protocol, it covered the VIIe, VIIh and VIIfg ICES divisions between June 2014 and June 2015.

For offshore bottom trawlers, the collected sample is :

- 38 fishing trips;
- 133 fishing operations (52% of operations self-sampled by skippers) ;
- 1 % of landings during the period study.

The data collected was **statistically processed** based on a scientific literature study. For legibility reasons, the statistical precision indicators have not been reported here.

* OBSMER: Ifremer (French Research Institue for Exploration of the Sea)'s sea observation programm.

Description of species discarded under TAC

Between June 2014 and June 2015, the species under TAC discarded by offshore bottom trawlers represented **on average**:

- A 23% rise of the amount which has to be landed ;
- 98 tonnes were discarded per vessel ;
- 3 tonnes were discarded per fishing trip. A trip is on average 7 days long ;
- A wide variation in height and weight was discarded depending on the fishing areas and seasons (indicators are not reported here).

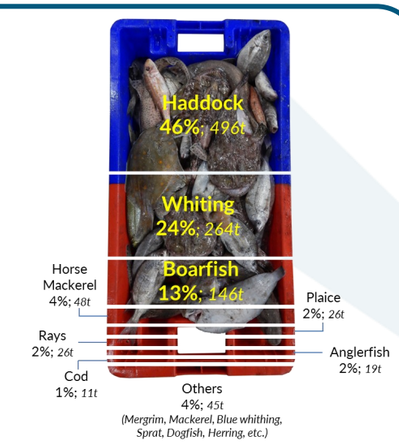

Fig. 2 : Composition of the estimated discards per species under TAC by the COBRENORD PO bottom trawlers (percentage of discard species under TAC and total weight).

On average, boarfish accounts for 13% of the total discarded by bottom trawlers for species under TAC.

Fish desk almost entirely composed of boarfish and haddock on a cobrenord PO vessel.
© COBRENORD PO

Mainly due to choke species quota, bottom trawlers on average discard 45% of the haddock they catch.

The reasons for discarding

The specie under TAC discarded by bottom trawlers fall under three categories, based on the reason for discarding:

- Species whose landings quota is limited for the period of study: haddock and dogfish (occasionnaly plaice and rays) ;
- Low value species who are discarded in their entirety: boarfish, horse mackerel, mackerel, etc. ;
- Species where those discarded are mainly undersized: whiting, anglerfish, rays, megrim and plaice.

*Undersized: individual fish that are smaller than the Minimum Conservation Reference Size (MCRS).

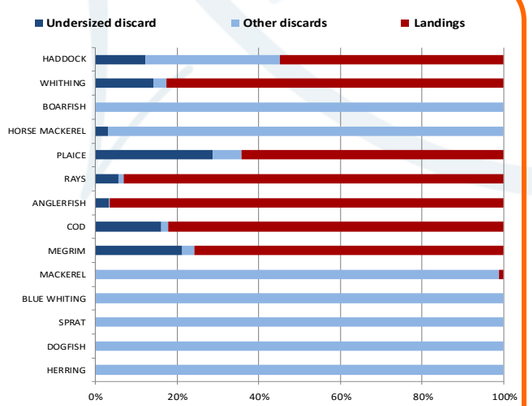

Fig. 3 : discard rate by species under TAC and proportion of undersized fish discarded by the COBRENORD PO bottom trawlers – june 2014 / june 2015

Impacts of the Landing Obligation

March 2016

Presentation and scenarios

Emptying the hold on board a COBRENORD PO vessel.
© COBRENORD PO

The 2014/2015 discard and landing data was used to analyse the impact that the Landing Obligation (LO) could have on the short-term profitability of offshore bottom trawlers and on the PO's consumption of sub-quotas. The simulations take the constraints imposed on ships into account (**hold capacity, available sub-quotas and exemptions**). In order to isolate the effect of the LO in the scenarios presented, we will assume that the fishing strategies or the current state of the resource do not change during the period of study.

Moreover, several LO situations will be considered. In 2016, bottom trawlers must land all of their whiting catches. In 2019, they will have to land all of the species under TAC. However, what will happen when a sub-quota has been exceeded? Will the vessels have to be berthed or will they be able to continue fishing if, for example, their captures outside the quota weren't paid? In order to explore these possibilities, several scenarios have been constructed:

For scenarios 1 and 2, it is assumed that the vessels do not change the number of days at sea for the year and that the catches outside the choke species quota are not paid.

In regards to scenario 3 (strict LO), as soon as the first choke species quota has been exceeded, the vessels must remain at berth.

Tab. 1: Scenarios developed in order to analyse the short-term impacts of the LO

	Landing Obligation (LO) Scenarios	Name	% of permitted discards (*De minimis*)	Full exemption for high survivability
1	Whithing LO in 2016	LO whithing 2016	7%	-
2	Flexible version of the full LO planned for 2019	Flexible LO 2019	Between 3%-5%	Plaice; Rays; Sole
3	Strict version of the full LO planned for 2019	Strict LO 2019	Between 1%-3%	-

Sub-quotas and date exceeded*

Tab. 2: Date exceeded for the final sub-quota and amount of excess fish (with the quantity in tonnes in brackets) for the COBRENORD PO's main choke stocks.

Stock	LO whithing 2016	Flexible LO 2019	Strict LO 2019
Boarfish VII	-	1st Mar. (+ 90 t)	1st Mar. (+ 0 t)
Dogfish VII	-	03rd of Apr. (+ 1,4 t)	-
Haddock VIIb-k	-	19th of Sept. (+ 363 t)	-
Whithing VIIbce-k	20th of Dec. (+ 22 t)	16th of Dec. (+ 29 t)	-

Note : if the LO is flexibly applied (Flexible LO 2019), the boarfish landings quota will be reached by the 1st of March and exceeded by 90 tonnes (unpaid) by the end of the year.

- The boarfish and spinydogfish (TAC 0) are themain choke species. Their catch quota is reached during the first half of the year. Other choke species quotas that are not listed here, also risk being reached: VIIhjk Plaice, VIIde sprat and VIIe-k rays, etc.
- From a Flexible LO perspective (where catches outside of the choke species quota are unpaid), the haddock catch quotawould be reached bySeptember and would result in a considerable amount of excess fish.

* Given the uncertainties that surrounded the quota uplift at the time of thise study, it has not been integrated.

A strict application of the LO could result in an 86% fall in turnover for bottom trawlers.

The profitability of fishing fleet

- **LO whithing 2016 :** Little impact on the vessels because the landings quota for whiting was hardly restricted during the period of study (2014).
- **Flexible LO 2019 :** Small reduction in revenue (per unit of effort). Occasional hold saturation, resulting in an increase in time spent travelling and a decrease in time spent fishing.
- **Strict LO 2019 :** Disastrous situation where the fleet remains at berth from the moment it reaches its first choke species quotas (boarfish, spiny dogfish, haddock, etc.).
- A scenario where vessels would shift their fishing effort to the Western Channel has been studied but the results do not show any reduction in LO consequences.

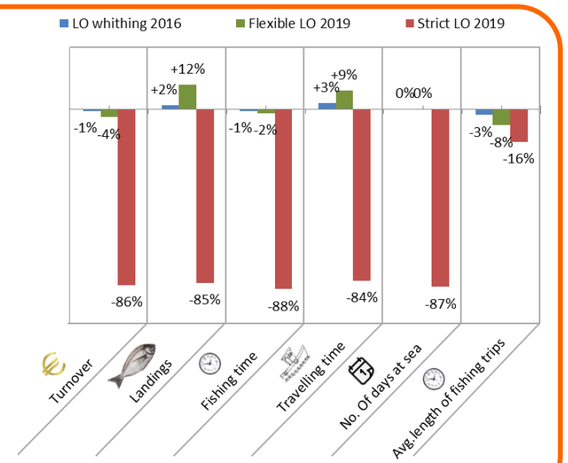

Fig. 4 : Comparison of the economic and technical indicators of offshore bottom trawlers—the situation without the LO (status quo) and one with the proposed scenrios.