



# The Plaice Box: Stakeholder consultation

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## Introduction

Stakeholders were consulted to identify research gaps and current views on the Plaice Box as well as issues that need to be addressed before a balanced decision can be made about the restrictions in the Plaice Box.

Individual interviews and two focus group meetings were conducted in January and February 2022. Individual interviews were held with government representatives from the EC, Germany and Denmark, environmental NGOs (North Sea Foundation and WWF-NL) and focus group interviews were held with the following stakeholders:

- Fishers currently fishing in the Plaice Box.
- Beam trawl fishers who formerly fished in the Plaice Box.
- North Sea Advisory Council.
- Scientists that have been involved in the Plaice Box inception and/or evaluations.

The consultations focussed on the following aspects:

- What are the stakeholders' current views on the Plaice Box, e.g. effectiveness in relation to its initial goals?
- What are, according to the stakeholders, the mechanisms driving the performance of the Plaice Box?
- What are the main knowledge gaps and research questions relevant for a (potential) next evaluation of the Plaice Box?
- How should this knowledge, including opinions and input on different options of field experiments, be streamlined?
- What are stakeholder's concerns in relation to a potential Plaice Box evaluation and its outcomes?
- What should the process of stakeholder involvement in a potential evaluation of the Plaice Box and the subsequent policy decision-making look like?
- What is the preferred time-scale at which an evaluation of the Plaice Box should take place?

## Interview setup

The first focus group was held with five beam-trawl fishers that formerly fished in the Plaice Box and a shrimp fisher (vessel <300HP) that currently fishes in the Plaice Box. The respondents volunteered to meet in response to a call in *Visserijnieuws* (the journal for fishing industry) and twitter. The meeting was organised by the Producers Organisation in Urk. After a presentation of the research approach, those present were asked to reflect on the research questions.

The second focus group interview was with representatives from the Demersal Working group of the North Sea Advisory Council (NSAC). This platform was chosen as this body contains the main international stakeholders in North Sea Fisheries Management. A meeting was arranged in concordance with the NSAC Secretariat who also wrote a report for the members that was later discussed in a meeting of the NSAC demersal Working Group.

Individual stakeholder interviews were held with the North Sea Foundation (SDN) and WWF-NL as these are the two main NGOs actively working on the North Sea and as such were also part of the North Sea Agreement negotiations. Their view therefore is deemed representative for the environmental NGOs.

Individual stakeholder interviews were also conducted with representatives of Fishing Organisations (VisNed and the Dutch Fishermen's Federation – Nederlandse Vissersbond, and with scientists that have been involved during the inception phase of the Plaice Box or evaluations.

The approach of the research project was presented to the Scheveningen Working Group in order to inform them about the upcoming process and obtain their initial views. In addition, government representatives from Germany and Denmark were interviewed as these countries share the Plaice Box and thus are directly affected by the process.

A total of 29 respondents were interviewed. The number is limited due to financial and time constraints, but the broad spectrum represents the main stakeholder groups. The views within the stakeholder groups were consistent and the data presents a comprehensive perspective on the research questions. An overview of the (anonymised) respondents is presented in Annex 2.

The interviews were clustered in groups and transcripts of the interviews were analysed using social science methods for qualitative research (Bernard 2017). Answers were categorised according to recurrent themes (e.g. status of the regulation, benthic situation, fishing opportunities, ecosystem approach, role of marine protected areas) and in relation to the underlying research questions. The findings were integrated to gain a coherent understanding of the issues that the respondents have in relation to the research subject and the questions that need to be answered to fill the knowledge gaps. The analysis of the various stakeholder groups presents a representative reflection of their perception regarding a potential lifting of the management restrictions in the Dutch part of the Plaice Box.

## Results from the stakeholder interviews

### **Fishing sector**

For the fishers that participated in the focus group (and who had formerly fished in the Plaice Box with large beam trawls (>300HP)), the Plaice Box was said to have lost its relevance as a fishing area because catches of plaice (and sole) in the box have declined. The reason for this in their view is a reduction of nutrients because the sea bottom is no longer 'ploughed' i.e. whirled up by the chains of the heavy beam trawls. From their observations soon after the closure of the Plaice Box (and admitted occasional illegal hauls) the sea bottom deteriorated and is now considered 'dead'. The white sand that covered the sea bottom in the past now appears to consist of black slime and mud. The low catches make trespassing the Plaice Box boundaries, as happened up to 10 years ago, not worth the risk. Neither makes it commercial fishing on plaice economically viable. To increase the productivity of the Plaice Box, the beam trawlers would first need to 'plough' the sea bottom with their gear and this would require an investment in time and initial reduced catches. In fact, the lifting of the restrictions in the Plaice Box in the view of the large beam trawlers is foremost interesting for those who fish on other species, such as crab, gurnard, mullet and squid.

The large beam trawlers are primarily interested in the area between the 12m zone and the outer Plaice Box boundary. Within this area they do not foresee conflicts with other métiers and in particular shrimp fishers. The shrimp fishers use beam trawls as well, but lighter versions, and with the exclusion of large beam trawlers, their numbers increased significantly. Shrimp fishers primarily fish close to the coast,

within the 3nm zone, and they do not fish outside the 12nm zone. If the restrictions would be lifted, the large trawlers would not be permitted within the 12nm zone. In the communally used areas, it was said, agreements could be made with other fishers (e.g. the gill net and crab fishers). WhatsApp has significantly improved communication so that conflicts can be avoided.

The fishers in the focus group expressed disappointment that, despite the absence of the predicted results, the regulations in the Plaice Box were never lifted. "They did not do anything with the results of the evaluations" and "What is closed remains closed." The resistance this amongst fishers has had a negative impact on the later processes that were set up to establish Marine Protected Areas (MPAs) in the North Sea under N2000 and the MSFD. The loss of fishing grounds due to the energy transition and Brexit in combination with other restrictive measures such as the landing obligation, in combination with the debacle around the pulse fishery, renders support for protective measures in the North Sea very low.

Fishers would in principle be interested in an experimental approach similar to what was suggested in the 2010 evaluation (Beare et al. 2010). Imperative to this would be a set up that would result in scientific valid measurements on the basis of a proper baseline to allow for comparison and measurement of impacts. However, the design should also contain a provision that if - after a given time period of, for example 5 years, the evaluation results would indicate a particular result, the measures would need to be revised accordingly.

In fact, the fishers felt, for all MPAs a baseline and reference areas would need to be established, including the Witte Bank, Borkum Reef, and VIBEG areas so that measures could be revisited. In the view of the fishers, the Plaice Box is a marine protected area just like the more recently established protected areas under N2000 and the MSFD. They felt it would make sense to have a phased implementation for all these areas: "Why not close 10% and see what happens instead of closing a whole area at once?" The process around the establishment of other MPAs, however, is outside the scope of this research.

A final interesting point made during the focus group meeting is that fishers are in dire need of a future perspective - a point on the horizon - to deal with the insecurity that current fisheries management measures engender. Fishers expressed the wish to have a seat at the table in decision-making processes and that they are taken seriously - both by the government as by their own organisations. Their current perception is rather pessimistic and the fishers felt that if it was felt by the government that they are redundant, they would prefer a buy-out over a situation that is economically unviable and insecure.

*Research questions posed by the fishing industry:*

- What is the actual state of the plaice stock (SSB)? (Resolve divergence between views fishers and scientific data.)
- Would the Plaice Box still be an interesting fishing area for flatfish fishers (if there is no plaice)?
- What is the current state of the Plaice Box benthic system, e.g. quality of the sea bottom, benthic communities, characteristic species, species diversity?
- What is the state of the sea bottom in the softer and firmer parts of the Plaice Box? Is it black sand and slime ("dead")?
- Does seabed disturbance ('ploughing' by large beam trawlers) lead to increased fish production? (Test of the hypothesis stated by fishers).
- The fishermen suggested to:
- Take samples of the sea bottom in the Plaice Box using the Wageningen University research vessel (on RVS Tridens using the *bodemhapper*).
- Identify an area where beam trawlers will start 'ploughing' and carry out scientific research to assess changes (fishermen).
- Set a benchmark for plaice and then open up the Plaice Box for 5 years and evaluate the changes. A fixed term for the experiment would be a prerequisite.

## **Fishing sector representatives**

The representatives from VisNed and the Dutch Fishermen's Federation (Vissersbond) confirmed their initial support for the establishment of the Plaice Box even though the area had been an important fishing area for generations. The expectations were high – a 25% increase in catch quota, which would allow the fishers to stay away from the grey market as catches often surpassed the quota. However, this increase never materialised and neither was there a plan with provisions or indicators on the basis of which the measures could be adapted or terminated in case the objectives would not be achieved. In hindsight, this is regarded as a big mistake.

The fishing sector which they represented during the North Sea Agreement negotiations has argued for the lifting of the measures in the Dutch part of the Plaice Box as a compensation for the loss of fishing opportunities due to Brexit, the creation of marine protected areas, and the establishment of offshore wind farms, and more recently, a prohibition for large beam trawlers in Norwegian waters. The Plaice Box thus represents a potential 'new' fishing area for the large beam trawlers. It was reiterated that the opening of the Plaice Box only concerns the area between the 12nm line and the outer boundaries of the Plaice Box - the area most relevant to the Dutch large beam trawlers.

If this area would be open again, the fishing representatives interviewed did not foresee conflicts with other fisheries currently operating in the Plaice Box. They explained that beam trawlers and shrimp fishers do generally not use the same area. The area that would be shared is where the gillnetters fish and where crab fishers put their pots of which the connected lines can get entangled with other fishing gear. Currently there are about 10 crab fishers active in the area (also from Ireland, England, and Poland). With these fishers activities would need to be aligned.

The German and Danish parts of the Plaice Box are more interesting to the fishers than the Dutch part as fish productivity in the other areas is higher. It is therefore expected that Germany and Denmark will oppose a lifting of the measures and that they wish to keep the large Dutch beam trawlers out of their waters. This view was later confirmed by the German and Danish government representatives.

As they had no access to the Plaice Box, in 2019 the Dutch the fishing industry put an idea forward to place offshore wind farms in the Plaice Box (VisNed, 2019)(VisNed 2019). However, would the measures in the Scholbox be eased, then the idea will probably be withdrawn. One of the sector representatives suggested that an experimental approach could be interesting where the Plaice Box would be opened for beam trawling, for example part of the year, to see if the sea bottom will become fertile again. The effects would need to be monitored.

It was reiterated by the representative of the Vissersbond that the Dutch fishing sector consists of various métiers that do not necessarily share the same interest in increased access of large beam trawlers in the Dutch part of the Plaice Box. It was therefore suggested to inventory fishing activities and interests of the 'in-between' fleet, which consists of all métiers except the large beam trawlers and the shrimp fishers. This would help to decide whether the process of adapting the regulation is worth the effort, as the opening at the moment is merely a matter of principle.

### *Research questions posed by the fishing sector representatives:*

- What are the patterns of change in the Plaice Box and is the Plaice Box useful or necessary?
- Compare the benthic situation in the Plaice Box with an area that is still fished (by large beam trawlers) to see what is 'wrong' with the sea bottom.
- Define the positive effects of fishing (by large beam trawls) in ecological terms, i.e. the 'ploughing theory' by implementing some sort of experimental design such as the 'chess board' proposed by van Rijnsdorp and Beare et al. (2010).
- Identify the fisheries in the Plaice Box operating in the 'in between' zone between the coastal area and the area of interest to large beam trawlers (12nm zone) and assess overlap and

interests, e.g. small beam trawlers, eurocutters, flyshoot, twinrig and static gear (gillnets and pots).

- What are the effects of increased access of large beam trawlers (>300HP) on other métiers fishing in the Plaice Box on other métiers in terms of space, fishing effort, species composition and catches?
- What part (métiers) of the fishing fleet supports an opening?
- Can science deliver the data to support the opening of the Plaice Box in Brussels?
- Is it worthwhile all the effort to open the Plaice Box?

The sector representative from the Dutch Fishermen's Federation (Vissersbond) suggested to divide the Plaice Box up in zones showing the different métiers over the seasons and use this map to identify conflicting interests and help the discussion.

### **North Sea Advisory Council (NSAC)**

The North Sea Advisory Council (NSAC) members participating in the meeting consisted of representatives of the producer organisations from the EU countries bordering the North Sea. The discussion opened with a clear statement that: "If the closure of the Plaice Box has not reached its objective, then the measures should be lifted." It was said that the fishers do not observe the increase in plaice that is predicted by the stock assessments. Fishers are able to only catch about 30% of the available quota. Various causes for the decline of plaice in the Plaice Box were mentioned, such as temperature changes, predation by seals, and pollution. Therefore, the Plaice Box has no positive effect on the SSB and hence should be abolished.

A dissonant view was voiced by the German representative who felt that after 30 years, the role of the Plaice Box has changed and that the area now presents a habitat not only for plaice, but for multiple species. It represents a protected area with natural values that need to be maintained. A decision on lifting the measures therefore should be based on the ecosystem characteristics of the Plaice Box at this point in time. It was advised to proceed with caution, particularly since the large beam trawlers are currently under discussion in the EU context.

It was noted that it was merely a matter of principle, namely that if the objective of a measure is not achieved, the measure should be abolished. To this, others replied that this poses the risk in that if this principle is followed through it would effectively mean that the whole of the Plaice Box would be opened up, including the German and Danish part, and with that most probably all the other boxes in EU waters, such as the Shetland Box (UK), the Sprat Box (Denmark) and the Pout Box (Norway). It could even imply that all MPAs would need to be terminated or at least reassessed.

This was a strong view that was not shared by the German representative who reiterated that the Plaice Box currently may serve other, wider purposes in terms of protection of the ecosystem and that new objective would need to be formulated on the basis of the current situation. However, this view surged the discussion towards the question whether it was appropriate to formulate new objectives with the sole purpose of keeping the protective measures in place. "Don't try and find a reason to keep it."

It was argued that if it was felt appropriate to formulate new objectives for the Plaice Box this ought to be part of a separate process. Now at hand was the question whether the measures should be lifted on the basis of scientific evidence showing that the Plaice Box is ineffective for the protection of plaice. If desired, these two processes could run simultaneously. Either way, it was stressed, the basis of the decision should be scientific evidence and 'logic.'

In 2019, the NSAC already requested the European Commission to carry out a new evaluation to inventory the current ecological state of the Plaice Box (NSAC, 2019 #276). This proposal included an evaluation of the benthic communities, production and a comparison with similar areas outside the Plaice Box. So not necessarily a time series, but a comparison at this point in time.

The NSAC representatives said that a unanimous position on the Plaice Box will be difficult, but that, if requested at a later stage in the process, they will endeavour to draft a joint position if requested.

*Research questions posed by the NSAC:*

- Which measures exactly will be lifted: specific measures concerning specific fisheries (large beam trawlers) or all measures?
- What is the state of the plaice stock? Perhaps carry out a stock assessment that combines fishers' knowledge and scientific findings.
- What would be the socio-economic impacts of an opening of the Plaice Box, both in terms of new fishing opportunities of the heavy beam trawl fleet, but also in reduced fishing opportunities for other sectors?
- Will the socio-economic or broader ecological dimensions be taken into account (because that would make it a more political decision)?
- Can any conflicts be expected, i.e. between gillnet or shrimp fishers and large beam trawlers, or perhaps between the bordering countries?
- What other values in terms of protection (area/stocks/ecosystem) can be attached to the Plaice Box.
- Should and could new objectives be defined on the basis of the current situation, and would this be a valid approach to assess if the measures in the Plaice Box should be lifted?

## **Environmental NGOs**

The issue that the environmental NGOs brought forward is that the proposed revision of the technical measures in the Plaice Box would be taking place in a different context to when the Plaice Box was established in the late 1980s. The priorities in marine governance have shifted from protective measures for single species to an ecosystem approach based on the precautionary principle. The NGOs stress the relevance of the Plaice Box as important spawning- and nursery grounds for various marine species, as well as its relevance for migratory fish. In combination with the current poor state of the ecosystem and overall lack of protection, the admission of heavy beam trawls (>300HP) needs thorough consideration.

For the NGOs, it is therefore imperative to obtain an in-depth understanding of the effects of increased bottom trawling in the Plaice Box both in terms of the wider ecosystem as well as cumulative impacts before a decision is made. The inventory of the benthic system, it was suggested, could be made by linking the results of the IBTS survey data to data on the impacts of bottom trawling elsewhere. Indicators can be derived from the habitat descriptions on Good Environmental Status of the Marine Strategy Framework Directive (MSDF).

The NGOs are also concerned that the current protection of marine habitats in the North Sea is below what is required to form an effective network of MPAs that has a positive effect on the ecosystem. Enforcement of fisheries regulations is weak. Contrary to what is envisaged in the North Sea Agreement, the NGOs do not expect that the granting of the Plaice Box to the fishing industry will increase support for effective implementation of the MPAs currently implemented, such as the Borkum Reef and North Sea Coastal Zone.

An additional point of relevance for the NGOs is that if the area is opened up, aside from increased access of large Dutch beam trawlers, vessels from neighbouring countries can also enter the Plaice Box. This has additional impacts in terms of increased fishing pressure and impact on the ecosystem. The effect of bottom trawling in the Plaice Box by large vessels, however, is hard to measure as bottom trawling by smaller vessels (<300HP) has never been terminated, in fact, it has increased. Bottom trawling is currently a point for discussion within the larger EU context as stated in the EU Biodiversity strategy 2030 (EC, 2020)(EC 2020). Under the influence of campaigns by NGOs such as Seas At Risk the societal view on bottom disturbing fisheries is changing. So, despite the fact that environmental NGOs have signed the North Sea Agreement, there is still concern to open up an area that is now protected, to

heavy beam trawlers when the effects of this type of fishery on the benthic system is not completely clear and the technique itself controversial.

Notwithstanding their signature of the North Sea Agreement with which they have committed themselves to consider the lifting of the technical measures in the Plaice Box, the NGOs reiterate that a well-founded decision needs to be made guided by the available scientific data and based on the precautionary principle, rather than solely based on political willingness. The NGOs acknowledge the wish from the fishing sector to open up the area, but it remains important to establish what the exact benefit would be for the sector given that the large beam trawlers (>300HP) have not used it for 30 years, that there may be competition with other fishers that currently use the area, and that the Plaice Box may fulfil a role as a protected area in the North Sea. Insight in what the fishing sector (and large beam trawlers in particular) and the Dutch government hope to achieve by opening up the Plaice Box would help in defining a shared objective and formulating next steps in the decision-making process.

*Research questions posed by the environmental NGOs:*

- What does the Dutch Government (Ministry of LNV) want to achieve with the lifting the restrictions of the Plaice Box?
- How does the opening of the Plaice Box support the long term vision of the North Sea?
- What would the European Commission think of the suggestion to lift the measures in the Plaice Box, also in the light of the critique of the Commission on the Netherlands' inadequate implementation of conservation measures in the North Sea?
- Is increased access of bottom-trawling (in what is currently a protected area) in line with EU regulations such as the MSFD and Bird- and Habitat Directives?
- What is needed to reach a Good Environmental Status for the habitats in the Plaice Box?
- What is the future vision for the Netherlands in terms of sustainable fisheries and how does the opening of the Plaice Box fit into this vision?
- Is the Plaice Box area really required for a healthy fishery?
- What would be the positive effect on nature (*natuurwinst*) if the Plaice Box remains closed versus an opening?
- Would the Plaice Box be completely opened or partially? What level of fishing pressure would be allowed?
- What does the fisheries sector want to achieve with an opening of the Plaice Box, also as it would allow access by foreign vessels and thus intensify overall fishing pressure?
- What is the expected change in fishing pressure if the Plaice Box measures are lifted?
- How does intensified bottom disturbing fisheries impact the role of the Plaice Box as spawning area and nursing ground for plaice and other marine species?
- What will be the potential cumulative effects of fishing by large beam trawls in the Plaice Box?
- Can the benthos of the Plaice Box be assessed and compared with an area outside of the Plaice Box where no fishing takes place?
- What can scientists say about the possibility to measure effects of bottom trawling when the shrimp fishery is ongoing?
- What is the minimum level of scientific information that could be obtained in the current situation?
- What indicators would need to be established for a founded decision and what would be the benchmark (objective)? Scientists would need to come up with a proposal.
- Would it be an option to swap the Plaice Box for another area, for example to protect pelagic fish such as herring?
- How will the lifting of the measures process of the Plaice Box affect the measures in the other protected areas, particularly those (partly) situated in the Plaice Box, i.e. the Frisian Front, North Sea Coastal Zone, and Borkum Reef.

The North Sea Foundation would also support an experimental design with a phased or partly opening of the Plaice Box. Indicators would have to be defined with the help of the STECF and/or Wageningen

Marine Research for the specific habitat characteristics. An inventory would help to assess the benthic composition (baseline) and in setting up a benchmark (objectives). Indicators would have to be formulated on the basis of which the measures could be evaluated, with the option to terminate measures if proven ineffective. A sound research protocol could also be applied to evaluate the effectiveness of other MPAs.

### **Scheveningen group (working group)**

The research project was presented to the Scheveningen Working Group where the representative from the Netherlands Ministry of Agriculture, Nature and Food Quality (LNV) was also present. The objective was to inform those present of the process, to get first reactions, and to identify Member State representatives that could be interviewed separately. Those present stated that this was the first time they were informed about the provision in the North Sea Agreement (OFL, 2020)(OFL 2020) and that this was both a 'surprise' and very interesting. They commented that the Plaice Box regulation was 'old' and that a reassessment would seem appropriate.

Concerns from the side of the Scheveningen Group (working group) were about the scope of the process and whether it concerned only the Dutch part of the Plaice Box or the overall Plaice Box, as the latter would have major implications for Germany and Denmark. Another issue that needs further consideration concerns the potential socio-economic impacts of the opening of the Plaice Box.

Finally it was brought forward that there are issues in opening up the Plaice Box for large beam trawlers, particularly in the light of recent insights on the effects of bottom trawling on the marine benthos and in the EU context where the ecosystem approach has been adopted.

The participants were pleased to be informed as it allows them to consider the right approach to be taken.

*Research questions posed by the Scheveningen Group WG:*

- Which area would the decision concern: the entire Plaice Box including the Danish and German part or only the Dutch part?
- What would be the implications of the opening of the Dutch part of the Plaice Box for the German and Danish parts of the Plaice Box, including socio-economic implications?
- Discuss the ecosystem implications amongst research institutes bordering the Plaice Box, i.e. Wageningen Marine Research, DTU in Denmark, and the Thünen institute in Germany.

### **Government representatives**

#### Germany

The German representatives at the NSAC meeting had already stated that over the past 30 years the fishery had adapted to the new situation and are in balance with the carrying capacity of the system, and that this situation would be disturbed if bottom trawling would be allowed. A warning was uttered for 'caution' in the decision to lift the ban.

The government representative reiterated that for Germany the Plaice Box is functional and mainly used for the shrimp fishery. The German government supports the Plaice Box and it has never been under discussion. The German part of the Plaice Box has not been evaluated.

The German government would be interested to see the results from an evaluation of the Dutch part and the proposal of the Dutch government concerning the potential lifting of the measures. They would base their position on the basis of this information.

In the light of the current ecosystem approach to fisheries, the government representative stated that it will be a challenge to get meaningful results that would support an amendment of the technical



measures, particularly since the Plaice stock is in good health. "It is difficult to attributed this to the Plaice Box, but it is also difficult to prove it is not working."

The German government would like to be notified once this research report is available and be informed about the next steps.

*Research questions posed by the German government:*

- If there is an evaluation, would the Netherlands look only at the ecological effects or broader, i.e. including sustainability and social-economic impacts?
- To what extent can additional findings be expected on the functioning of the Plaice Box?
- Would it be possible to isolate the effects of lifting the measures to the state of the plaice stock?
- Would the Netherlands be able to deliver the evidence required by the Technical measures (15.4.d) referring to the fact that changes and/or new measures need to lead to an equal level of protection of the marine biological resources (EU 2019).

### Denmark

The Danish government was informed about the Plaice Box and the potential lifting of the measures during the Scheveningen Working Group Focus Group meeting. During an interview that was conducted later, the representative of the Danish government stated that Denmark holds the view that as long as it concerns the Dutch part of the Plaice Box, it is up to the Dutch government to decide. Having said that, the Danish government does not support the lifting of the measures in the Danish part of the Plaice box. The fishery in the Plaice Box is small scale and 'environmental friendly', which is a clear aspiration of the FSK PO that promotes the use of non-intrusive fishing gear, i.e. gear that has no impact on the sea bottom. The current Danish political climate is also working towards sustainable fisheries and the large Dutch beam trawlers are seen as detrimental to the marine environment. Therefore they do not wish for them to gain access to the Danish part of the Plaice Box.

The Danish government earlier has attempted to open the Sprat Box which is situated at the West coast of Denmark. Similar to the Plaice Box, this box did not diminish the bycatch of young herring in the sprat fishery, as there was no juvenile herring to be found. The process however, to terminate the Sprat Box has been intensive, with rigorous scientific research laying at the basis of the argument. And even though the Scheveningen Group has presented a joint decision, the STEFC did not support the termination of the Sprat Box. It was only suspended pending further data collection, a situation that has been the status quo for the past six years. This to indicate the 'uphill battle' that the Dutch process would face taking into account that the STEFC abides to criteria that support a healthy ecosystem. With the current move within Europe towards 'greener' less intrusive fisheries, every move in the opposite direction would require strong scientific evidence. In other words, the Netherlands would have to prove that lifting the measures has no negative impact on marine species and the ecosystem.

The Danish government will not directly oppose the lifting of the measures in the Dutch part of the Plaice Box - "If you want the large vessels fishing closer to your shore, that is your business " – but they definitely do not want large beam trawlers in their waters. They do wish to protect the small scale fishermen in the Danish part that fish sustainably. They also have concerns that the process around the Dutch Plaice Box could lead to groups from the northern fisheries to start an argument to open the Danish part of the Plaice Box too.

The Danish government representative stressed the need to start a thorough consultation process and present strong scientific data to underpin the proposal towards abolishing the Dutch Plaice Box. The proposal would have to go through advisory groups such as the NSAC that would need to produce a joint recommendation – a feat that may be difficult as international NGOs and segments of the fishing fleet are likely to have opposing views. Subsequently, the proposal would have to pass the Scheveningen Group and EU scrutiny (STEFC). In the meantime, the Danish government would very much like to be

kept informed during this preparatory process and the state of play, and they request the Dutch government to share the results of this research when it is completed.

*Research questions posed by the Danish government:*

- Will the Netherlands plea for an overall opening of the Plaice Box, including the German and Danish parts? How does the Ministry of LNV think to achieve this?

It was advised by the Danish government to start a thorough consultation and have discussions on the basis of rigorous science.

## Recurring themes

### **Effects of bottom trawling**

The fishers interviewed regularly mentioned that a possible cause for the decline of plaice in the Plaice Box is the lack of fisheries: "Where you fish there is fish." They argue that a fisherman needs to 'plough' the sea bottom as a farmer does to increase productivity and this is what the heavy chains of the beam trawls effectuate. Now that the top layer of the seabed is no longer whirled up, production of nutrients for bottom dwelling marine species including as flatfish has dwindled.

This view is in contrast to those of the environmental NGOs and Danish and German government representatives who referred to the current discussion in Europe on large beam trawls because of their alleged negative effect on the sea bottom. In fact, there is the possibility of a complete ban of large beam trawlers in EU waters as formulated in the EU Biodiversity strategy (EC, 2020).

The effects of sea bottom disturbance on fish production and ecosystem health has been a subject for discussion for many years. Until recently scientific research has been inconclusive. However, results from the BENTHIS Project and a study by van Denderen et al. (2013) (Denderen et al., 2013) indicate that in certain benthic systems the effect that the fishermen claim can occur whilst the opposite is also true for benthic systems with other characteristics.

### **Status of the regulation and the ecosystem approach**

The respondents from the fisheries sector, NSAC, Scheveningen group, and scientists agreed that the regulation on the Plaice Box is generally perceived as unsuccessful and outdated, and therefore should be revisited. One of the points of discussion was whether a next assessment should focus on the original purpose or on the wider ecosystem services the Plaice Box provides now. The regulation was issued over 25 years ago when resource management was merely focused on single species protection. The ecosystem approach that currently provides guidance for resource management includes a wider range of ecosystem attributes and is geared towards achieving Good Environmental Status as formulated under the MSFD. A point of discussion therefore is whether an evaluation of the Plaice Box should focus on its original objective or on the ecosystem functions it might have now.

Taking an ecosystem approach as the point of departure would change the basis on which the decisions would be made about the Plaice Box. This will lead to resistance by those who want the Plaice Box to be assessed on the basis of its original purpose, but will be in line with the precautionary principle that is suggested by others.

### **The role of MPAs**

The ineffectiveness of the Plaice Box has shed a negative light on the establishment of MPAs under N2000 and the MSFD. Particularly the fishing sector still questions the use of MPAs for increased fish production. Therefore it would be of interest to study the effectiveness and impact of MPAs.

The Plaice Box itself is an MPA, but also contains areas with fisheries restrictions such as the Borkum Reef, the North Sea Coastal Zone and part of the Frisian Front. It was felt of interest to assess the effects

of these particular areas on fish production and ecosystem health. One suggestion was to compare the Plaice Box ecosystem with similar areas such as the Borkum Reef or VIBEG areas, and use these as reference areas and to allow for a measurement at one point in time. It is not clear though if this would provide conclusive insights as, the NGOs argue, the level of effective protection in these 'protected' areas is perceived to be very low.

### **Socio-economic issues**

For the Dutch large beam trawlers renewed access to the Plaice Box would mean more fishing opportunities and a compensation for the fishing grounds they have lost due to the establishment of MPAs, Brexit, the establishment of offshore wind farms, and more recently a ban in Norwegian waters. Particularly the large beam trawlers from Urk are keen to regain their lost fishing areas. Fishers are frustrated because they feel they have adapted themselves to changing circumstances, but with an insecure economic situation exacerbated by rising fuel prices, they feel their flexibility has come to a halt.

Access to the Plaice Box for large beam trawlers, however, affects the fishing opportunities of other metiers and although fishing industry representatives state that improved communication would allow fishers to make arrangements over fishing grounds, it was acknowledged that other fishers' would be affected. An extension of the opening of the German and Danish parts of the Plaice Box would mean a loss of fishing opportunities for the local fleets. This is, however, not an issue as the current discussion is on an opening of the Dutch part alone.

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# Annex 1 Questionnaire

## **Semi structured interview Plaice Box**

## **key informants**

Name:

Place:

Profession:

Organisation:

Date interview:

Interviewer:

Live/Teams/Zoom (circle)

### **Introduction:**

My name is (researcher) and I am conducting this interview for Wageningen Marine Research (WMR). We have been asked to provide input to the Ministry of LNV concerning the Plaice Box. As part of the negotiations of the North Sea Agreement, the possibility to lift the restrictions for fishing have been put forward. This decision, however, is not entirely up to the Dutch government as the area covers German and Danish waters too and it was based on a Council Regulation under the Common Fisheries Policy. Hence, to advise the Dutch government on what issues need to be resolved or what type of questions need to be asked in order to provide a balanced view about whether to lift the restrictions or not, we ask you for your input. Your input will be treated anonymously and used as aggregated results in the report. Interview summaries will be stored on a secure location, and will be pseudonomised.

### **Questions:**

#### ***Plaice Box***

1. Were you involved in the establishment of the Plaice Box (1989 – 1995)?
2. What was your position at the time?
3. What, in your view, was the objective of the Plaice Box?
4. Have you observed changes in and outside the Plaice Box?
5. What time span are we talking about? (since when and for how long).
6. What in your view has caused these changes? (mechanism)
7. Do you feel the Plaice Box has met its objective?
8. Do you feel the restrictions in Plaice Box should be lifted or not? (or should the Plaice Box be opened?)

#### ***Process***

9. Are you aware of the fact that the management measures in the Dutch part of the Plaice Box may be lifted as a result of the negotiations of the North Sea Agreement?
10. What are your thoughts on this? Any concerns?
11. What aspects do you feel need to be clarified/studied/evaluated before a final decision on the Plaice Box can be made?
12. Do you have any other comments/suggestions concerning the potential lifting of the restrictions in the Plaice Box?
13. What process would you envisage, also with regards to stakeholder involvement? An evaluation, other?
14. What time scale do you feel this process should take place?
15. Any other comments?

## Annex 2 Respondents Plaice Box Interviews 2022

Organisation	Position	Date	Type of interview
Fisherman	Beam trawler	5-feb	Focusgroep meeting
Fisherman	Beam trawler	5-feb	Focusgroep meeting
Fisherman	Shrimp trawler (<300HP)	5-feb	Focusgroep meeting
Fisherman	Beam trawler	5-feb	Focusgroep meeting
Fisherman	Beam trawler	5-feb	Focusgroep meeting
Fisherman	Beam trawler	5-feb	Focusgroep meeting
Shipowners association	Manager trawlers	8-feb	Interview
VisNed	Secretary	8-feb	Interview
Dutch Fishermen's Federation	Manager projects	17-feb	Interview
Swedish Fishermen PO	Chair	21-feb	Focus Group meeting NSAC
Landwirtschaftskammer Niedersachsen	NSAC member	14-feb	Focus Group meeting NSAC
Danish Fishermen PO	NSAC member	14-feb	Focus Group meeting NSAC
French Fisheries Association (CNPMEM)	NSAC member	14-feb	Focus Group meeting NSAC
Artisanal Fisheries Association (CNPMEM)	NSAC member	14-feb	Focus Group meeting NSAC
Belgian Fisheries Association	NSAC member	14-feb	Focus Group meeting NSAC
Wageningen Marine Research	Research scientist	24-jan	Interview
Wageningen Marine Research	Research scientist, seal predation	25-jan	Interview
Wageningen Marine Research	Research scientist	25-jan	Interview
Wageningen Marine Research	Research scientist, ecosystem impact	25-jan	Interview
Wageningen Marine Research	Research scientist	25-jan	Interview
Wageningen Marine Research	Research scientist, cumulative effects	23-mrt	Interview
Wageningen Marine Research	Research scientist, sea birds	25 mrt	Ad-hoc interview
Researcher (retired)	Initiator Plaice Box	25-jan	Interview
WNF-NL	Sr Advisor Oceanen	26-jan	Interview
North Sea Foundation (SDN)	Project Leader	14-feb	Interview
Scheveningen Group	Working Group	15 feb	Presentation, short discussion
Ministry of Food, Agriculture and Fisheries, Denmark	Special Advisor Sustainable Fisheries Policy.	29 mar	Interview
Federal Ministry of Food and Agriculture (BMEL), Germany	Sea fisheries management and fisheries control.	1-apr	Interview
Dutch Ministry of Agriculture, Nature, and Food Quality (LNV)	Policy Officer European Fisheries	18-jan	Information exchange, briefing
Dutch Ministry of Agriculture, Nature, and Food Quality (LNV)	Sr Policy Advisor European Fisheries	18-jan	Information exchange, briefing

