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Zoetermeer, 21 August 2023

Advice Ref. 12-2223
NSAC Advice on Marine Spatial Planning and Stakeholder Engagement

This paper was approved with consensus by the NSAC Executive Committee on 21 August 2023 via the written procedure.

1 Background

A number of activities take place in European seas. At any given time, fishing, aquaculture, shipping, renewable energy, nature conservation, and other uses compete for maritime space. MSP is a management tool for the coherent allocation of marine space and to ensure that human activities take place in an efficient, safe, and sustainable way.

The North Sea is a particularly crowded sea basin. With offshore wind being given a political priority, the space for other users is narrowing, and conflicting uses are arising, creating an unwelcome opportunity for disputes. Being at the receiving end of unfavourable repercussions of spatial planning priorities, fisheries are trying to make their voices heard by continuously pointing out traditional fishing grounds to be taken into account when planning space for new activities.

To explore the state of play in MSP in view of the so-called 'spatial squeeze' in the North Sea, and the role the NSAC can play in these processes, we organised a workshop on MSP and Stakeholder Engagement on 3rd May 2023 in Brussels, with a wide spectrum of experts from national administrations, ICES, OSPAR, environmental NGOs, fisheries, offshore wind, researchers etc. The workshop covered a wide range of topics, such as including transboundary cooperation, research priorities, multiuse and coexistence concepts, and cumulative effects. A full report from the workshop is available here.

The workshop followed the signing of the Ostend Declaration on 24 April 2023 to accelerate the deployment of offshore wind power in the North Sea. The joint goal for the North Sea is to more than quadruple current production to 120 gigawatts (GW) by 2030 and to at least 300

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GW by 2050. The North Sea is set to become increasingly crowded as a result of this agreement alone.

If the NSAC can fulfil its mission and present itself as a forum for wider stakeholder engagement in fisheries and ecosystem management, this could result in management measures that are co-created by the stakeholders and therefore rendered more legitimate. Our recommendations for a more widely accepted and effective MSP are presented in the following section. Further details, underpinning the recommendations, are included in the 'ANNEX' section.

2 NSAC Advice

Considering the findings of the MSP and Stakeholder Engagement workshop, NSAC advises the following:

1. **Innovation is key** for effective MSP and promoting coexistence. Innovative thinking needs to be applied across the board, particularly to fishing methods, wind energy operations, and funding. There are innovative approaches to enhance energy generation and seafood supply without needing to take up more space.
2. The legal **governance framework** for MSP must be strengthened to give fisheries and nature conservation a stronger voice in MSP discussions.
3. Member States must also adopt a **regional approach** to monitoring the cumulative impacts of human activities, including **transboundary cooperation** and **collaborative planning**.
4. **Coherence** with other EU legislation should be improved and the EU needs to work on developing a joined-up approach to spatial management with clear boundaries and targets.
5. Facilitating **improved stakeholder engagement** in national decision-making processes will be essential, as well as sharing of data and information between neighbouring countries.
6. Governments and offshore operators must recognise their responsibility to provide **feedback to stakeholders** regarding how their input has been integrated into the planning process.
7. **Environmental considerations** detailed in wind farm tenders should be shared transparently, and timely and adequate stakeholder engagement in the assessment process should be ensured. **Climate and ecosystem considerations** should be prioritised and mainstreamed into MSP decisions.
8. The **effect of climate change** and associated distributional changes in fish stocks poses a challenge for the future of MSP, which should be adequately recognized in future plans (through levels of uncertainty), while fisheries science with climate considerations develops.
9. In terms of nature conservation, more attention should be placed on ensuring the **effectiveness of existing conservation measures**, while improving management

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plans and implementation of any new nature protection areas. In general, nature's stake in co-existence should be given the necessary consideration.

10. The **NSAC** has scope to be the **voice for the industry and nature conservation in MSP** given its direct channels of communication with the policy-makers. However, the NSAC will remain mindful of its primary remit to advise on the CFP, as well as of its resourcing and capacity.
11. All North Sea Member States should dedicate sufficient space to fulfil all three objectives: **food security, nature conservation and energy security**, mindful of the **trade-offs** that will inevitably take place when designing marine space for different users.
12. While OSPAR does not manage fisheries or deal with MSP directly, it could be a key partner in **promoting ecosystem-based management** through a variety of its products and groups. To this end, the NSAC will explore avenues for further collaboration with OSPAR as well as the Maritime Spatial Expert Group (MSEG).
13. MSP provides an excellent mechanism to promote **long-term ecosystem-based managemen**t supported with high quality data and analysis. OSPAR's Data and Information Management System (ODIMS) should be further explored for cross-sectoral analyses and methods for assessment of cumulative effects in the marine environment building a practical approach for regional scale ecosystem-based management.
14. In relation to the **multi-use**, it is important to create controlled environments to allow activities to develop safely. The so-called 'mariparks' - a nature inclusive maritime business area to facilitate multi-use – should be explored as a viable option in the future.
15. ICES has recognised the need to act urgently on MSP to fill knowledge gaps, develop and use best practices, and synthesise information, given the rapid transformation of ocean space. The policy-makers and the NSAC members should closely follow and feed into the developments of ICES working groups, where relevant.
16. Member States should **avoid ambiguous and subjective designations** and allocations of space without adequate evidence and backing. In addition, MS should set aside **low-impact areas** for the development of offshore wind infrastructure as part of their MSP plan.
17. The fear held by fishers of being driven out of their traditional fishing grounds is legitimate. The **industry's claim for marine space is important** from a food security argument, and further claims could be made under the remit and goals of the Common Fisheries Policy (CFP).
18. **Accurate fisheries data** is key for informing MSP. Making fisheries data accessible to wind farm developers at the start of the planning process gives fisheries a stronger voice in MSP decisions. Fishing industry should consider **mapping out their important fishing grounds** and making this data available to national administrations for effective governance.
19. Fisheries should liaise with their authorities and neighbouring countries where possible, to encourage **data harmonisation and sharing** between parties.

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20. Member States should work to establish a **dialogue** between offshore wind operators and fisheries bodies. A continuous line of communication should also be established with third countries directly affected by the MSP decisions, including on sharing best practices.
21. Member States should consider **sharing data** in order to stimulate MSP discussions at a **regional level**, which can support the identification of cumulative impacts.
22. Following an example from the UK's Marine Spatial Prioritisation Programme, **engagement with a wide range of stakeholders**, working together to **co-develop** a more holistic and inclusive MSP plan could be further explored. Activities may include identification of **co-location opportunities**, as well as mapping biodiversity and human activity.
23. To avoid pre-empted and rash decisions, unjust and unwelcome trade-offs, **increase legitimacy and ensure buy-in** by all users, the NSAC strongly recommends **early and comprehensive engagement of stakeholders** in MSP processes on all governance levels. "Intelligent decision-making" involves whole-of-society approach.
24. BarentsWatch is a resource that supports an online, interactive map of MSP activities in Norwegian waters. A regional project might attempt to develop a similar tool for the North Sea.
25. Member States should take note of the **Dutch North Sea Council - a political platform** that facilitates discussions about the coexistence of nature, fisheries, and energy, while taking other interests into account. The resulting **North Sea Agreement**, containing actions for implementation by 2030, should set a positive example for other Member States.
26. Following the Dutch example of **government-controlled windfarms**, similar approach might be taken in other MS. This would ensure uniform approach to windfarm development and regulated access.
27. In the view of the NSAC, **political priorities should not translate to regulatory breaks** or loosening of existing regulations and rules to allow for accelerated processing (as is often the case with offshore wind proliferation), as this might bring unintended consequences that might only be detected post-festum.
28. **Sufficient baseline data** on people, stocks, and habitats that will be impacted by the vast expansion should be built before any development and assessment processes. Planning decisions should be **transparent** in terms of costs and benefits across stakeholder groups and ensure adequate levels of stakeholder engagement.
29. MS should follow the example of The Netherlands as the only North Sea country that has accounted for **restoration within its MSP plan**.
30. MS might want to follow the example of UK's obligation on offshore developers to ensure biodiversity net gain and the Lyme Bay Fisheries and Conservation Reserve, where **fishing and nature conservation coexist**.
31. **Nature-based MSP design** could offer a way forward and low trophic aquaculture, such as seaweed farming, could be a positive approach to enhancing habitats and contributing to conservation.
32. Space could be made within the NSAC's membership for **additional marine actors**, such as the offshore wind energy sector. This could help to ensure fisher views are

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communicated to operators at an early stage. At the same time external stakeholders, such as energy companies, could be **encouraged to learn about and engage in the NSAC work, which should be further promoted**.

In the Annex, the above recommendations are underpinned with further argumentation and important details. Additional details are relayed in the Workshop report.

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ANNEX: Detailed considerations from the dedicated workshop

1 Drivers of MSP

The main drivers for MSP in the EU are the legal obligation to implement MSP through the MSP Directive, and the EU's aim to extend renewable energy, especially pressing in light of the recently signed Ostend Declaration.

Other drivers include the need to protect natural ecosystems and minimise environmental degradation. Coexistence between traditional marine spatial activities such as fishing, shipping, and nature conservation, with emerging activities such as aquaculture, offshore renewable energy, and interconnectors, are also key drivers for MSP, particularly considering the increasing spatial squeeze.

2 Legislative context: EU MSP Directive

The EU Maritime Spatial Planning Directive (Directive 2014/89/EU) guides the MSP work in the European Member States. The Directive 2014/89/EU aims to ensure the sustainable, economic growth of marine/coastal economies while enabling sustainable use of resources in line with ecosystem-based management.

The Directive stipulated that all EU countries must have developed their own MSP plan by 31 March 2021. The Member States are responsible for the content and the actual planning. The Directive does not determine whether a plan has to be legally binding.

In 2022, the Commission produced a report reviewing progress on the implementation of the MSP Directive, which indicated that five countries already had plans in place, 13 countries succeeded in establishing their plans within the deadline fixed by the Directive or later, while a further five countries had no MSP plans in place – these countries face ongoing infringement procedures.

In addition to the EU MSP Directive, other four work streams dedicated to MSP exist in the EU: MSP Expert Group; MSP cross-border projects funding; EU MSP Platform; and International MSP.

The MSP Expert Group works on exchanges of best practices in the EU. Its mission is to serve as an informal forum of national experts on the implementation of the MSP Directive; to establish cooperation/coordination between the Commission and Member States or stakeholders on questions relating to policies in the field of MSP; and to facilitate the exchange of experience and good practice in the field of MSP.

The work stream on funding MSP cross-border projects supports a wide range of initiatives that produce data, tools, and methodologies to aid MSP and cross-border planning. It is supported through EMFAF, Horizon Europe, Interreg, LIFE, and national funding.

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The EU MSP Platform is an online resource providing technical support, studies, and workshops. It is a service for Member States to share relevant knowledge and experiences on MSP. Similarly, the European Blue Forum launched on 26 May 2023, provides a platform for sea users to coordinate dialogue around marine management.

The International MSP workstream explores best international practices, transboundary pilot projects, and international workshops. A 2022 study demonstrated that Europe represents 30% of countries engaged in MSP across the world. The European Commission is also cooperating with IOC UNESCO on MSPGlobal 2.0 – a project set to run from 2023-2025 on the implementation of cross-border MSP guidance, supported by two pilot projects.

3 Evaluation of EU MSP plans

WWF's evaluation report on MSP in the North Sea reviewed the implementation of the Directive at Member State level. The report was developed in collaboration with the North Sea Foundation.

A core element of WWF's work has been the translation of the Directive's requirements for MSP into 33 indicators[1] that, when all achieved, would successfully deliver an ecosystem-based approach to MSP. These indicators fall under four categories, each assessing a key domain of effective MSP in national maritime spatial plans: 1) inclusion of nature; 2) socio-economic considerations; 3) good ocean governance; 4) comprehensiveness of the complete MSP process.

According to the results of the review, the North Sea region has partly succeeded in applying an ecosystem-based approach to MSP, achieving a 45% regional average. Among the four categories, 'inclusion of nature' and the 'comprehensiveness of the complete MSP process' were the lowest (38%) and highest scoring (54%) categories, respectively.

On stakeholder engagement, all North Sea Member States performed well, but all were, overall, unsuccessful in considering all industries and stakeholders in their final national plans, both in terms of allocating space to different maritime sectors and in preparing a forward-looking vision that steers those sectors towards more sustainable models. The Dutch North Sea Agreement (NSA) where NGOs, industry, and government collaborated on MSP is seen as a positive example of balancing multiple maritime sectors.

In summary, efforts should be made to protect the loss of North Sea biodiversity and promote a sustainable blue economy. This can be achieved by allocating space for nature conservation through effectively managed MPAs covering 30% of national waters. The North Sea Member States must also adopt a regional approach to monitoring the cumulative impacts of human activities, including transboundary cooperation and collaborative planning.

[1] The indicators can be found on pages 12-13: https://wwfeu.awsassets.panda.org/downloads/wwf_north_sea_msp_assessment_2022.pdf

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4 Cross-border cooperation: OSPAR Regional Sea Convention

OSPAR provides a forum for cross-border cooperation in the North Sea across a wide range of human activities, bringing together EU and non-EU Parties. While OSPAR does not work directly on MSP, it contains domains on 'environmental impacts of human activities' and biodiversity, which address marine litter, underwater noise, offshore renewables, MPAs, restoration, and the protection of species and habitats, among other issues.

OSPAR collates spatial data relevant to MSP through the OSPAR Data and Information Management System (ODIMS), such as MPAs, threatened/declining habitats, offshore oil and gas, and presents it in a publicly available online mapping tool. OSPAR also develops thematic and indicator assessments on stocks, habitats, and food webs, as well as status assessments on threatened and declining species. Evidence reports further help to document marine impacts and have led to the publication of OSPAR recommendations on actions and measures. Additionally, the North-East Atlantic Environment Strategy 2023 details many relevant objectives including method development for the analysis of cumulative effects in the marine environment,

Many relevant objectives are detailed within the North-East Atlantic Environment Strategy 2023. These objectives include the development of methods for the analysis of cumulative effects in the marine environment, accounting for ecosystem services and natural capital, and building a practical approach for regional scale ecosystem-based management.

5 Emerging ecosystem-based MSP topics in the North Sea region

The eMSP NBSR project stands for 'Emerging ecosystem-based Maritime Spatial Planning topics in North and Baltic Sea Regions'. eMSP NBSR brings national and regional authorities responsible for MSP together with research organisations and intergovernmental corporations from the North Sea and Baltic Sea regions. It aims to support coherence of maritime policy and MSP plans in these regions and the continued development of MSP to identify and address present and future challenges.

eMSP NBSR works to facilitate the use of MSP to steer changes withing the marine environment through a community of practice approach. Ten partner countries are involved, led by the Netherlands, to build an active network and assist Baltic and North Sea countries with cross-border collaboration and provide practical solutions to the most urgent emerging topics.

In relation to the multi-use, it will be important to create controlled environments to allow activities to develop safely. The term 'maripark' was coined, which translates as a nature inclusive maritime business area to facilitate multi-use, and could be a viable option in the future.

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6 Energy sector: Integration and involvement in MSP processes

A total of 30 267 megawatts (MW) from 126 wind farms are connected to the energy grid, from 5 954 turbines across 13 countries. Offshore wind energy generation is predicted to grow rapidly in the coming years, and significantly more so than onshore wind.

Offshore wind farm development is expected to take approximately 10 years. The process commences with leasing, which lasts two years. During this phase, governments and/or developers scope out wind farm locations and commence environmental and spatial planning. Secondly, the consenting phase, which lasts four years, involves early site survey work such as initial site layout and feasibility studies. The third phase following a successful consenting process, is financial close. This involves detailed site design and supplier selection by the wind farm operator. It lasts two years during which a Final Investment Decision (FID) is acquired. The final phase is wind farm installation and construction, including grid connection and commissioning, typically lasting three years.

7 ICES Roadmap: An ecosystem-based approach towards understanding the effects of offshore renewable energy development on the environment and society

ICES has several expert groups working in relation to offshore renewable energy development, exploring the interactions with other human activities, impacts on marine habitats, and scientific operations. Recently, a number of distinct expert groups have started working on specific aspects related to offshore renewable energy development: Working Group on Marine Benthal and Renewable Energy Developments (WGMBRED); Working Group on Offshore Wind Development and Fisheries (WGOWDF); Working Group on Offshore Renewable Energy (WGORE).

Through the Workshop on a Research Roadmap for Offshore and Marine Renewable Energy (WKOMRE), ICES aims to identify scientific capabilities and services that ICES can provide to meet transboundary science needs.

The WKOMRE intends to address ecosystem challenges and opportunities associated with offshore renewable energy developments, reviewing relevant work to identify synergies and knowledge gaps, and developing recommendations for a research roadmap. Challenges include understanding the effect of offshore developments on marine ecosystems, collating information to inform best practices considering diverse management objectives, and modifying the current advice process to include quickly evolving scientific information. The ICES report 'ICES Roadmap: Integration of Science, Data, and Advice in a New Era of Human

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Use of the Ocean'[2] aims to better coordinate data, science, and advice on offshore renewable energy development in an ecosystem-based management context.

8 MSP case studies: institutional arrangement and allocation of maritime activities

8.1 Sweden

Sweden has three MSP plans covering the Gulf of Bothnia, the Baltic Sea, and the Skagerrak/Kattegat, respectively. The Swedish Agency for Marine and Water Management is responsible for drafting plan proposals. The Government adopts the plans and may also issue regulations on measures, prohibitions, or restrictions on activities in an area covered by a plan. The establishment of offshore wind farms in Sweden has been driven by predominantly private interests. The increasingly large number of private licence applications has become a challenge for authorities, who face a suddenly increased workload.

Sweden possesses designated areas of national interest, both on land and at sea, which protect sensitive features from impairment by other users. If a development is likely to adversely affect an area of national interest, it can be denied. However, the definition of 'impairment' is subjective, and thus far no applications have been denied based on potential impacts on fisheries.

Sweden is working on producing a new draft plan by the end of 2024. A public consultation is underway around the Swedish coast to gather stakeholder feedback on the plan. The authorities are increasingly looking to set aside low-impact areas for the development of offshore wind developments as part of their MSP plan.

8.2 Denmark

The Danish MSP plan is available online. The plan clearly shows that Denmark's sea basin is extensively used. One significant update to the Danish MSP plan is a shift from 15% to 30% seabed designation for offshore wind development.

The MSP plan divides zonal distribution into development zones, special use zones, nature conservation and protection zones, and general use zones. Fishing, shipping, recreational use, and tourism, are not included in these categories, leading to displacement issues. The Danish Ministry for Food, Agriculture and Fisheries is working to protect Denmark's valuable fisheries from detrimental impact caused by the growth in offshore renewables, promoting a dialogue between parties. From a fisheries standpoint, making accurate fisheries data

[2] https://ices-library.figshare.com/articles/report/Workshop_on_a_Research_Roadmap_for_Offshore_and_Marine_Renewable_Energy_WKOMRE_/23097404

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accessible to wind farm developers at the start of the planning process gives fisheries a stronger voice in MSP decisions.

Member States should discuss sharing data in order to stimulate MSP discussions at a regional level, which can support the identification of cumulative impacts.

8.3 The Netherlands

In 2020, the Dutch Ministry of Agriculture, Nature and Food Quality set up the North Sea Council, consisting of an independent chair, prime stakeholders, and national government representatives. It is a political platform that facilitates discussions about the coexistence of nature, fisheries, and energy, while taking other interests into account (e.g. safety of shipping, military interests, and recreation). The Council drew up the North Sea Agreement, which contains a detailed agreement of actions for implementation in the coming years (until 2030) aiming to protect the interests of nature conservation, offshore wind energy generation, and fisheries.

The Netherlands is now in the third cycle of MSP, preparing its latest plan that will run until 2027. Spatial elements of the North Sea Agreement form the basis of the plan, including search areas for offshore wind energy, nature conservation areas, shipping lanes, and sustainable blue economy. MSP is broader than the North Sea Agreement alone, incorporating elements of the Marine Strategy Framework Directive (MSFD), sand extraction, cables, recreation, and cultural heritage. Some early-stage thinking has also been undertaken with CoP Noordzee and eMSP NBSR to explore a code of practice for multi-use within wind farms.

Current sectoral and separate geographical decision-making in the North Sea is insufficient due to cumulative ecosystem pressures and spatial tensions between the different uses. The Greater North Sea Basin Initiative (GNSBI) intends to investigate governance approaches and to foster new ideas and avenues for possible future cooperation on interlinked transitions for the marine environment, energy, food, and towards a sustainable blue economy.

Furthermore, a high-level Director-General meeting on nature, energy, fishery and MSP on 22-23 May 2023 in Paris focused on the possible tensions between the different users of the sea and identified opportunities for cooperation. The meeting was attended by 36 DGs around the North Sea working on briefs like fisheries, energy, the environment, and MSP with the aim to foster cooperation and focus on regulatory and spatial tensions around sea users, the view to develop ‘win-wins’ and gain a better understanding of trade-offs.

The outcomes were as follows:

- Shared problem analysis of the different spatial pressures in the greater North Sea (including energy transition agreed as a key driver, protection of the ecosystem, pressure on fisheries and security)

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- Technical opportunities for cooperation (cumulative impact assessment, multi-use, nature restoration and protection, key fishery areas indication, governance, monitoring, knowledge exchange)
- Strengthen cooperation (e.g. develop common strategy, pro-active optimisation of MSP at NS scale, analyse current organisation of the North Sea, bring forward to the ministerial meeting).
- Collective action (work together as countries, including non-EU countries, and with the Commission).

A clear role for stakeholders is envisioned, and the Initiative is currently investigating a possibility of a pre-day with stakeholders, ahead of the Ministerial meeting in Autumn 2023.

9 MSP established practices in third countries

9.1 United Kingdom: Dogger Bank case study

In England, MSP is split into 11 areas (6 inshore and 5 offshore). The UK's first pilot MSP plan was developed in 2014, named 'England East Marine Plans', followed by the adoption of the East Marine Plans, South Marine Plans in 2018. All of England's MSP plans finalised in 2021, with a review cycle every three years. Scotland and Wales adopted MSP plans in 2015 and 2019 respectively. Northern Ireland is in the process of doing so.

The Dogger Bank Special Area of Conservation (SAC) is covered by an offshore plan that includes significant offshore wind developments. In 2022, the Marine Management Organisation (MMO) implemented a byelaw banning bottom towed fishing gear in the Dogger Bank SAC to protect nature conservation.

The next steps for MSP in England will involve a new Marine Spatial Prioritisation Programme, which will engage a wide range of stakeholders, enabling them to work together to co-develop a more holistic and inclusive MSP plan. More resources will also be applied to explore co-location opportunities, as well as mapping biodiversity and human activity in UK seas, such as the POSEIDON project. The MMO byelaws process is also set to continue with further stages, including an examination of the Special Protection Areas (SPAs) and SACs for highly mobile species.

9.2 Norway

Norwegian fishers have a positive attitude towards other marine industries and interests, with the Norwegian Fishermen's Association working to safeguard national fishermen's interests. and actively participating in fisheries management. The belief is that emerging industries should not harm fishing activities, spawning and breeding grounds, the marine environment, or seafood security.

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Municipalities are required to create legally binding coastal zone plans within 1 nm of the coastline, which is particularly relevant for aquaculture, while further offshore, management plans have been established for specific regions. The purpose of these plans is to 'provide a framework for value creation through sustainable use while maintaining the high environmental value of marine areas'.

Marine protection in Norway is based on identifying 'particularly valuable and vulnerable areas' to inform marine management plans and marine conservation. The government restricts fisheries accordingly with the Marine Resources Act, and new legislation on marine protection beyond the EEZ is being developed. Extractive marine industries such as oil, gas, and marine mining are seen as growing threat leading to the development of industrial plans to control their growth while supporting sustainable development.

Offshore aquaculture and wind farm developments are also gaining momentum in Norway, with the government committing to allocate marine space to develop 30 GW of offshore wind by 2040. This represents a potential challenge for fisheries as offshore wind turbines are typically placed in shallow areas, which usually coincide with important fishing grounds and spawning areas that cannot be relocated.

In late April 2023, Norwegian authorities proposed to investigate 54 000 km^2 of its EEZ for wind power development, however, it has been assumed in the past that 30 GW of offshore wind power could be developed within an area of 500 km^2. This makes the fishing industry particularly concerned about the spatial squeeze in the North Sea, as most wind farm developers have an interest in building offshore wind power plants south of Bergen.

To support MSP, BarentsWatch provides an online, interactive map of MSP activities in Norwegian waters.

10 Multi-use in offshore wind farms

The Dutch Ministry of Agriculture, Nature and Food has commissioned a research project on multi-use by fisheries of offshore wind farms in the Netherlands. The country's ambitious offshore wind plans will result in the loss of traditional fishing grounds and multi-use is being explored to achieve coexistence between passive fishing activities and offshore wind. The current focus in the Netherlands is on passive gears, as active gears will not be allowed in wind farms at the moment, despite most Dutch fishers using active gears.

The research is conducted the Borssele wind farm, which has a government - controlled regulatory framework in place and provides more space between turbines for multi-use to take place. The research involves fishermen, government representatives, researchers, and the WFO, and covers aspects such as safety, ecological impacts, gear type, cost, and political regulations. Pilot experiments trialling selected gear such as handline fishing (sea bass), gillnet fishing (sole), multi-species pots (cod, sole, cuttlefish), and mechanical jigging (mackerel, horse mackerel, squid) have begun in 2023.

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Commercial passive fishing within wind farms requires further work and compromises between fishers, operators and the. Increased levels of communication between fishermen and wind farm operators are necessary and fishermen that use active gear are required to transition to static. Fishing inside wind farms will be different from fishing outside, and flexibility to adapt will be crucial for fruitful fishing within offshore wind farms.

11 NSAC industry experience with MSP and stakeholder engagement

11.1 Sweden

The Swedish government adopted three MSP plans for its territorial waters and EEZ in February 2022. At the same time, they have commissioned further proposals for offshore wind power areas to increase energy generation. SwAM will initiate the next planning round based on these proposals, with new MSP plans expected by the end of 2024. SwAM stipulated that relevant authorities, stakeholders, and the public should be involved in the process at an early stage, and that ecosystem impacts should be considered. However, the fishing industry has raised concerns about the open-doors system for wind farm projects and the lack of consultation prior to site selection.

There are currently 43 ongoing offshore wind farms in Swedish waters, with no prior consultation with the fishing industry considering site selection. Compulsory consultations on coexistence occurred later in the permit process, leading to marginal or no possibilities of coexistence with fishing. The newly proposed wind farm areas overlap with nationally important commercial fishing grounds by 44%. It remains unclear if the current MSP plans and implementation of new offshore wind farm areas will fulfil the principles of the ecosystem approach and stakeholder involvement, which fishers believe should involve industry at an early stage in the planning.

11.2 Denmark

The first offshore wind farm in Danish waters was established in 1991, taking advantage of the shallow waters and high winds in the country's EEZ.

During wind farm site selection, factors such as wind occurrence, water depth, shipping corridors, raw material extraction activities, military zones, nature conservation areas, and electricity infrastructure on land are considered. However, fishing is not formally factored into decision-making. This has led to conflicts, as in the case of the Hesselø farm, located on an important nephrops fishing grounds. The fishing industry objected but was told to relocate, with potentially large scale implications for fleets.

Danish fishers are convinced of the importance of "real stakeholder involvement" in MSP, which should prioritise early consultation with fishermen, ideally at the first screening. They

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also emphasise the importance of scientific documentation, and considering cumulative effects when making planning decisions. The fishing industry considers a 'real' bottom-up approach as key for ensuring coexistence and by extension, intelligent decisions.

12 Further considerations

12.2 Challenges facing MSP

One of the major difficulties facing MSP in the EU is the need to strengthen the legal framework behind EU MSP policies and make MSP measures legally binding. Cooperation between EU countries with different governance structures and policies, and alignment with other EU legislation is also challenging. The EU has to develop a joined-up approach to spatial management with clear boundaries, targets, objectives, and plans in place.

The lack of data for planning decisions, stakeholder engagement and exclusions of the fishing industry from renewable energy consultations are additional challenges. Ensuring equal treatment of all industries, facilitating data sharing and addressing the pace of change in marine development are crucial. Climate change and associated distributional changes in fish stocks further complicates the future of MSP.

12.3 Energy security

Russia's aggression in Ukraine exposed the EU's energy vulnerabilities, making the EU turn to offshore wind in the North Sea. However, the pace and scale of offshore development raises concern as countries have not monitored this growth. Rushed development and assessment processes and lack of sufficient baseline data on the people, stocks, and habitats pose significant challenges, including lack of transparency in ecological considerations and poor stakeholder engagement. Operator-driven licensing processes, creating bias in the impact assessment process, and a limited record of sharing information all stakeholders further pose further issues.

Coexistence between the offshore energy and fisheries sectors is met with mixed views, with some feeling pessimistic about its effectiveness given the restrictions imposed by tight turbine spacing and cabling, exclusion zones, and broader cumulative pressures on fish stocks and ecosystems. Nevertheless, sharing marine space is becoming increasingly important and exploring multi-use should be encouraged. Particularly, it should be possible for aquaculture and mariculture operations to coexist within wind farms. Nature's stake in coexistence is also important, and currently not given the necessary consideration.

12.4 Conservation

The overall assessment of whether MSP considers the preservation and restoration of marine

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ecosystems is negative. Nature conservation in the North Sea is far off 2023 targets for protection and restoration, and designated MPAs often lack effective management and enforcement. The Netherlands is the only North Sea country that has accounted for restoration within its MSP plan. The compatibility of conservation with blue sectors is challenging to achieve, as they currently do not contribute to environmental restoration or conservation. However, though difficult to find, a selection of positive case studies does exist, including the UK's obligation on offshore developers to ensure biodiversity net gain and the Lyme Bay Fisheries and Conservation Reserve, where fishing and nature conservation coexist.

Conservation needs to be both active and passive, with nature-based MSP design and low trophic aquaculture, such as seaweed farming, offering potential contributions to habitat enhancement and conservation.

12.5 Fisheries and food security

To ensure fisheries participation in MSP, fishers should be given more support to engage. The industry could contribute by sharing data to evidence their activities and show their reliance on certain fishing grounds, as well as liaising with their authorities and neighbouring countries where possible to promote data harmonization and sharing.

The fear held by fishers of being displaced from their traditional fishing grounds, is legitimate and their claim for marine space is important for food security, aligning with the goals of the Common Fisheries Policy (CFP).

12.6 Role of the NSAC in MSP

The NSAC has not yet fulfilled its full potential as a stakeholder representation body in MSP. This is largely because the NSAC has insufficient resources and capacity to engage in MSP, given its remit to advise on aspects of the CFP.

Space could be made within the NSAC's membership for additional marine actors i.e. the offshore wind sector. This could help to ensure fisher views are communicated to operators at an early stage. OSPAR and the Maritime Spatial Expert Group (MSEG) were also possible avenues that the NSAC could explore. Finally, external stakeholders, such as energy companies, could make more of an effort to learn about and engage in the NSAC's work, which should be further promoted.

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