Norway formally opens the Norwegian continental shelf to seabed mining exploration activities: Rowing against the tide?

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Matter commented on: Norwegian Government's plans for seabed mining and the Norwegian Parliament's decision to open the Norwegian continental shelf to seabed mining.

1. Introduction

On the 12th of April 2024, the Council of State (Kongen i Statsråd) formally decided to open parts of the Norwegian Continental Shelf (NCS) in the Norwegian Sea and Greenland Sea to seabed mining activities. This decision follows the Norwegian Parliament's controversial approval, of 9th of December 2023, to open parts of the NCS to seabed mining activities (by 80 votes in favour to 20 against, on the main points of the recommendation of the Standing Committee on Energy and the Environment to the Parliament - Innst. 162S (2023-2024)). The opening of the NCS is, for the moment, only for exploration activities, not exploitation. According to Section 1-5 of the Act relating to mineral activities on the Continental Shelf (Seabed Minerals Act), exploration (survey) encompasses exploration for and mapping of mineral deposits for commercial purposes (which includes activities used for survey such as geological, geochemical, geotechnical activities and use of facilities), whereas exploitation (extraction) refers to the actual extraction of minerals for commercial purposes. The Ministry of Energy (previously Ministry of Petroleum and Energy) is currently preparing the first round of licensing, which is expected to start in 2024, with the first licenses projected to be granted in the first half of 2025.

The decision of the Norwegian Parliament endorsed the Norwegian Government's strategy for the development of seabed minerals on the NCS, as espoused in the White Paper Meld. St. 25 (2022-2023). prepared by the Ministry of Energy in June 2023, albeit with some specific requests (further explained in section 2 hereunder). The main arguments put forth in the Government's White Paper to justify opening the NCS include: i) the increase in the demand for critical minerals/metals due to the growth of population and energy transition efforts (critical minerals/metals are essential components in clean energy technology); ii) the important role that Norwegian resources can play in ensuring global security of supply of critical minerals/metals by countering the current concentration of production and processing of minerals/metals in a small group of States (particularly China); iii) the potential of seabed mining to become an important new economic sector in Norway for value creation; and iv) Norway's capability to conduct seabed mining activities in a responsible and precautionary-based approach given its experience with offshore extractive industry and sustainable management of marine resources.

The decision by the Parliament, the process leading up to it, as well as the Government's arguments in favour of seabed mining, have been the object of extensive criticism, *inter alia*, by environmental organizations, research institutions, fishing industry organizations, members of the European Parliament, and private citizens. Key criticisms relate to the way the Ministry of Energy led the opening process, to the strength (or rather lack thereof) of the Government's justification for seabed mining, and to the existence of formal shortcomings in the impact assessment (these aspects are further discussed in section 2 hereunder). Other main aspects that have been criticized are the apparent disregard of decision-making principles prescribed by domestic law (this is further discussed in section 3 hereunder) and the potential for Norway to breach its obligations under international law to protect and preserve the marine environment (this is discussed in section 4 hereunder).

The areas of the NCS encompassed by this decision cover 281.200 square kilometres (fig. 1 on the left hereunder, with areas to be opened depicted in pink), parts of which are also considered particularly vulnerable and valuable areas (fig. 2 hereunder on the right, with particularly vulnerable and valuable areas depicted in green).

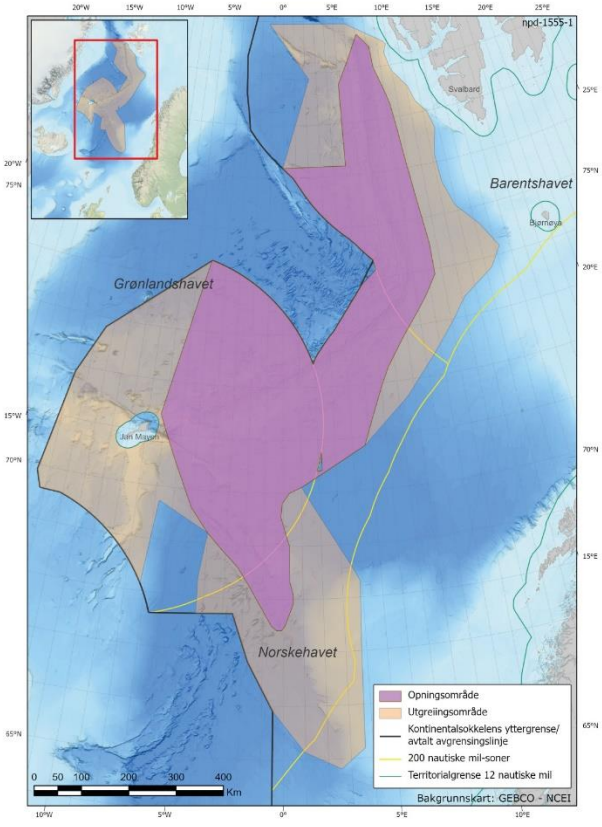

Fig. 1 Source: Norwegian Petroleum Directorate

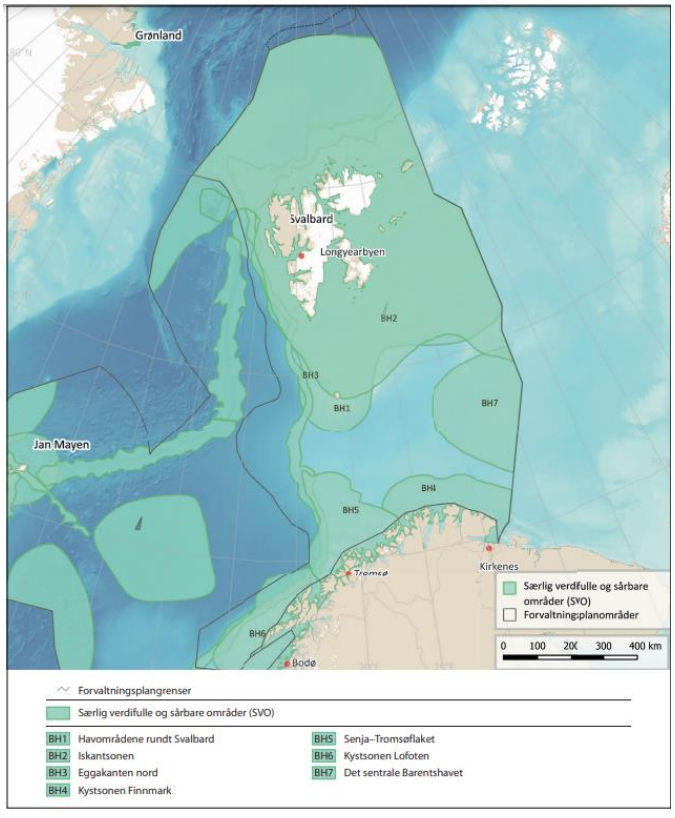

Fig. 2 Source: Meld. St. 21 (2023–2024) Helhetlige forvaltningsplaner for de norske havområdene

According to the Norwegian Offshore Directorate (NOD - previously the Norwegian Petroleum Directorate), these areas have substantial resources (manganese crusts and sulphides containing, for example, copper, zinc, gold, cobalt, lithium, magnesium, manganese, titanium, and rare earth minerals). Furthermore, the areas opened for seabed mining are located on the Norwegian continental shelf and extended continental shelf, with the northernmost area laying close to the Svalbard archipelago.

For the most part, the water column above the NCS in these areas corresponds to Norway's Jan Mayen's and Svalbard's Fisheries Protection Zones (areas within Norway's jurisdiction). But there is also an area where the overlapping water column above the NCS is the high seas, namely in the Banana Hole which is an area beyond Norway's jurisdiction. While Norway has sovereign rights to conduct seabed mining activities on its continental shelf, by virtue of Article 77 of the United Nations Convention on the Law of the Sea (LOSC), questions still arise in relation to how Norway conducts these activities therein. Three sets of questions in particular stand out: i) regarding Norway's obligations to protect and preserve the marine environment; ii) regarding the payments/contributions that Norway must make through the International Seabed Authority (ISA) when exploiting the mineral resources of its extended continental shelf (Article 82 of the LOSC); and iii) regarding the relationship with the new Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction (BBNJ Agreement) once it comes into force, in the event that mining activities take place on the NCS with suprajacent high seas, and regarding the obligation to have due regard for the rights of other States on the high seas. In addition, the proximity to Svalbard can also prompt a new round of discussions on the application of the Svalbard Treaty (these issues are also discussed in section 4 hereunder).

2. The process leading to the decision and conditions set by the Parliament for seabed mining

2.1 The opening of the process and proposed programme for the impact assessment

The main legal basis for the development of seabed mining activities in Norway – the Seabed Minerals Act– entered into force on the 1st of July 2019. Following that, and in line with Sections 2-1 and 2-2 of that Act, the Ministry of Energy initiated the process for opening the NCS to seabed mining in 2020. This process comprehended an impact assessment process, and a resource assessment conducted by the NOD. At the same time, the Ministry of Energy also commissioned basic studies on fisheries, future possibilities, deep sea landscape features, pelagic ecosystems, seabirds, shipping, technology, natural conditions, and economic and social impacts.

The Ministry of Energy submitted the proposed programme for the impact assessment to public hearing on the 12th of January 2021. Over the course of the three-month consultation period (the minimum time period

for public consultation prescribed by Section 2-1 of the Seabed Minerals Act), the Ministry received a total of 53 responses from, *inter alia*, other Ministries, Governmental agencies, environmental organizations, and companies in different marine sectors (petroleum, fisheries, mining, etc.). Already at this early stage there were, in general, strong concerns about Norway's justifications for seabed mining and the hastiness of the process. There were also more specific concerns about the content of the programme for the impact assessment. Apart from the expected opposition from the environmental organizations such as Framtiden i våre hender, Greenpeace, Natur og Ungdom, Naturvernforbundet, Sabima and WWF, it is noteworthy that one of the most assertive criticisms came from the Norwegian Environment Agency, an agency under the purview of the Ministry for Climate and Environment. After considering the comments received during the public consultation period, the Ministry of Energy approved the programme for impact assessment on the 10th of September 2021. The extent to which the Ministry of Energy took those comments into consideration and implemented them in the programme for impact assessment can also be questioned.

2.2 *The result of the impact assessment and the Government's White Paper on the opening of the NCS*

On the 27th of October 2022, the results of the impact assessment and the draft of the decision to open the NCS for seabed mining were submitted for public consultation with a deadline for responses on the 27th of January 2023. The response during this stage was significantly higher, with over 1100 responses, the majority of which come from private citizens, and about 70 from other ministries, Governmental agencies, environmental organizations, and companies in different marine sectors.

The content and results of the impact assessment were once again highly criticized. In this author's view, there are shortcomings in the impact assessment that warrant such criticism. Without being exhaustive or too detailed, it can be argued that the impact assessment includes the following shortcomings: i) is not concrete enough (even for a strategic environmental assessment); ii) has significant knowledge gaps; iii) in describing the likely significant effects, it does not adequately describe the secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects; iv) does not adequately document impacts for all stages in the seabed mining life cycle; v) does not seem to provide a balanced/unbiased assessment of economic and social impacts; vi) contains an overly general and insufficient list of measures proposed for preventing, reducing and offset significant adverse impacts; vii) does not adequately identify and compare different areas within the overall area under scrutiny for determining where mining activity can occur I conflicting activities or for determining areas that must be protected from mining activities; and viii) offers little to no direction as to how seabed mining can be conducted in a responsible and sustainable maIner.

It is also noteworthy that the Norwegian Environment Agency stated that the impact assessment showed a 'bias in how uncertainty is presented' since 'possible, but uncertain, positive effects are highlighted, while uncertain negative effects are discussed to a small extent or not at all'. The Agency also concluded that the impact assessment 'does not provide a basis for opening up [the NCS]'; and that the impact assessment 'does not meet the requirements of Section 2-2 of the Seabed Minerals Act' (author's translation from the original in Norwegian).

In spite of the number of critical comments it received on the impact assessment, the Ministry of Energy did not request additional assessments or further documentation of certain aspects (this possibility is foreseen, for example, in relation to impact assessments for the opening of petroleum areas under Section 6c of the Petroleum Regulations). Hence, following this second public hearing, the Government submitted to the Parliament, on the 20th of June 2023, the White Paper Meld. St. 25 (2022-2023) containing the Government's plan and strategy for opening the NCS. This author considers that some of the arguments outlined by the Norwegian Government in this document, supporting opening the NCS to seabed mining, are not entirely convincing.

First, several reports indeed show, as the White Paper also notes, that there will be an increase in the demand for critical minerals during the next decade to support energy transition (e.g., IEA, The Role of Critical Minerals in Clean Energy Transitions, 2021; SINTEF, 'The Future is Circular: Circular Economy and Critical Minerals for the Green Transition', 2022; Energy Transitions Commission, 'Material and Resource Requirements for the Energy Transition', 2023; IRENA, Geopolitics of the energy transition: Critical materials, 2023). However, projections on the demand and supply of critical minerals differ across these reports and other academic publications, meaning there is uncertainty as to the urgency and necessity for embarking on extensive extraction of critical minerals, particularly seabed minerals. Moreover, these reports also underline that increasing the recycling of materials, deploying different circular economy strategies, improving the recoverability of critical minerals/metals on land, and investing in the development of new technologies (such as those linked to new battery technology) can reduce the demand for critical minerals/metals in the medium to long term. Other reports inclusively underline that seabed mining is not necessary to ensure energy transition (e.g., EASAC, 'Deep-Sea Mining: Assessing Evidence on Future Needs and Environmental Impacts', 2023; EJF, 'Critical Minerals and the Green Transition: Do We Need to Mine the Deep Seas?', 2024). This would entail that critical mineral/metals reserves on land combined with circular economy strategies would suffice to meet increasing demand. The Government's White Paper focuses predominantly on projections from the IEA, with other reports available at the time being mentioned but not presented or discussed at the same length.

Second, the argument that Norwegian seabed minerals are important for global security of supply needs further discussion. Norway is not the only country to highlight the need to secure critical minerals. If we look, for example, at other Arctic States, they also have critical minerals strategies outlining similar concerns (see, for example, Canada's Critical Mineral Strategy, Sweden's Minerals Strategy, US's Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals, Finland's Minerals Strategy). Like Norway, these States have expressed concerns about the hegemonism of a small group of countries, and China in particular, in the production and processing of critical minerals/metals. While legitimate, this concern does not justify the urgent need for Norway to hasten seabed mining activities on the NCS. Norway has critical mineral resources on land that can also contribute towards green transition and other main societal needs. The Government's White Paper also does not convincingly show if the combined production and processing of critical minerals by Western 'allied' countries, and the partnerships that are being created between the European Union and other States (which could also include Norway), would not be sufficient to ensure stability of supply chains vis-à-vis China's hegemony without having to resort to seabed mining. This can lead to speculations as to whether there are other pressing reasons behind such urgency, for example, reasons linked to military concerns. Although this was not mentioned in the Government's White Paper, critical minerals are also used in several military applications. The US, for example, openly underscores the need for strengthening critical mineral stockpiling under the National Defense Stockpile for war times or national emergencies. One could question if the urgency of speeding up the exploration and exploitation of critical minerals on all fronts (onshore and offshore) is being pushed by the aggravation of geopolitical risks and concerns with future conflicts (consider, for example, NATO's warnings of a future conflict with Russia within the next 20 years, tensions between the US and China, and tensions resulting from the conflict between Israel and Palestine). If this is also a concern of the Norwegian Government and a reason behind its desire to engage in seabed mining, it should have been presented in a clear manner to the Norwegian people.

The argument that seabed mining can become an Important new economic sector for value creation In Norway is also open to criticism. Noticeably, the Geological Survey of Norway (an Agency under the Ministry of Trade, Industry and Fisheries) criticized the Ministry of Energy's assessment, *inter alia*, for not being 'sufficiently fact-oriented when it comes to the probability of finding mineable deposits'; for the fact that 'the scenarios are out of step with known reality'; for the fact that samples taken to form the basis of the resource assessment 'cannot in any way, as is claimed, be used to provide a resource assessment by extrapolation'; and, for the fact that the whole resource description 'appears unserious and the perspective for crusts as mineral resources is unconvincing' (author's translation from the original in Norwegian). The Geological Survey of Norway also criticized some of the observations included in the report by Ernst & Young on future possibilities for value creation from seabed mining on the NCS commissioned by the NOD.

Moreover, there are doubts whether seabed mining on the NCS can generate long-term profits (either for mining companies or for Norway). Seabed mining is increasingly being met with public opposition and with a growing number of key companies that use critical minerals in their products promising not to use critical minerals sourced from seabed mining/ supporting a moratorium on seabed mining (see for, example, the companies that have signed WWF's statement). Seabed mining will also require a considerable upfront investment. Still, a growing number of banks do not support investments in seabed mining (European Investment Bank, Credit Suisse, Triodos Bank, Lloyds, Dutch Bank, ABN Amro, NatWest, Banco Bilbao Vizcaya Argentaria are cases in point). Noticeably, the United Nations Environment Programme Finance Initiative has underscored, in its briefing paper on Harmful Marine Extractives: Deep-Sea Mining, that 'in their current form, there is no foreseeable way in which the financing of deep-sea mining activities can be viewed as consistent with the Sustainable Blue Economy Finance Principles'.

In view of the above, the Government's arguments regarding the demand for critical minerals from seabed mining, imperatives of security of supply, and potential for value creation, as well as information provided in the impact assessment, come across as selective to fit the Government's purposes or not convincingly argued.

2.3 The Parliament's decision

On the 26th of October 2023, the Norwegian Parliament held a session in which it requested the Standing Committee on Energy and the Environment to the Parliament to issue a recommendation on the matter by the 19th of December 2023. In this period, Wikborg Rein published a legal assessment of a potential decision to open the NCS for seabed mining at the behest of WWF Norway, which concluded that the impact assessment did not meet the necessary legal requirements under domestic law and also alerted to potential challenges under international law (an assessment this author generally adheres to). The work of the Standing Committee also referred to that legal assessment.

But, on the 5th of December 2023, two weeks before the deadline was reached, the Government (the Labour and the Centre Parties) reached an agreement with two opposition parties (the Conservative and the Progress Party), securing a majority in Parliament in favour of opening the NCS to seabed mining activities.

The Parliament finally approved opening the NCS to seabed mining (exploration) in its session on the 9th of January 2024. At the same time, and perhaps on the back of the increasing criticism Norway has been subjected to both internally and externally, the Parliament imposed two requirements to assuage some of the concerns relating to the protection and preservation of the marine environment. For one, the Government must submit the first plans for extraction of seabed minerals for the Parliament's approval before the Ministry of Energy approves an extraction plan in accordance with Section 4-4 of the Seabed Minerals Act.

For another, the Government must ensure that the NOD obtains input from other state agencies, such as the Norwegian Environment Agency and the Institute of Marine Research when the proposals for a work program are prepared for submission to the Ministry of Energy. In tandem, these requirements are expected to ensure that environmental concerns are taken into account and that the process is imbued with added legitimacy.

While these requirements are welcomed, this author still considers that the approach is not ideal, considering the potentially devastating or irreversible impacts of seabed mining and the way in which opposing arguments/reports were dismissed. The requirements posed by the Parliament are not particularly strong either. This majority agreement has shown how easy it is to approve an activity in Parliament, even against overwhelming recommendations against seabed mining. Furthermore, the obligation to 'obtain input' from other State agencies, such as the Norwegian Environment Agency and the Institute of Marine Research does not equate to the obligation of accepting that input. As seen in the process so far, the Ministry of Energy has generally disregarded the input given by those entities.

Furthermore, the Parliament's majority decision seems to have generally dismissed the observations against seabed mining included in the various reports published after the Government's White Paper was submitted (e.g. IRENA's report, EJF report, Energy Transitions Commission report mentioned above) as well as the observations of key Governmental agencies. One thing is for Parliament to decide without having proper information, like in the case of the opening of new areas in the Barents Sea for oil activities, in which the Ministry of Energy actively withheld relevant information from Parliament (see more about this here), and which also raised at the time concerns with the legality of the actions of the Ministry of Energy. Another is for the majority in Parliament to consciously approve the opening of the NCS for seabed activities even despite all the warnings of key Governmental agencies (and other entities) noting that the information provided by the Ministry of Energy is incomplete, erroneous, or misleading.

3. Key issues regarding Norway's domestic law

3.1 Seabed Minerals Act and Impact Assessment

Section 2-2 of the Seabed Minerals Act states that the impact assessment (which must be conducted prior to the opening of areas of the NCS) shall:

> contribute to shed light on the various interests that apply to the area in question, so that this can form a basis when decisions are made regarding whether, and on which terms, the area can be opened for mineral activities. The impact assessment shall highlight which effects a potential opening could have for the environment, as well as the expected impact on business, economic and social factors.

Section 2-2 further informs that further regulations relating to impact assessments can be issued. However, to date, such regulations have not been created. This means that Section 2-2 is currently the only provision on impact assessments specifically applicable to seabed mining. As a stand-alone provision, it offers little guidance on the impact assessment's content and level of detail.

In Norway, the general framework for environmental and strategic impact assessments is laid out in the Planning and Building Act, and the more detailed Regulation on Environmental Impact Assessment. Noticeably, these two instruments do not apply to seabed mining or petroleum activities on account of their limited geographical scope of application (up to 1 nautical mile from the baseline). While these instruments allow the possibility for the Government to make their provisions applicable to other maritime zones, it does not seem, from the preparatory works (Prop. 106L (2017-2018)) to the Seabed Minerals Act, that this has been done. For petroleum activities, environmental and strategic impact assessments are specifically regulated by Section 3-1 of the Petroleum Act and in more detail in Chapters 2a, 4, and 6 of the Petroleum Regulations. These acts and regulations mentioned above implement Directive 2001/42/EC on strategic environmental assessment (SEA Directive) and Directive 2014/52/EU on environmental impact assessment (EIA Directive). Even if not directly applicable to the impact assessment conducted to open the NCS for seabed mining, they offer relevant guidance/ interpretational aid as to the content of the assessment required by Section 2-2 of the Seabed Minerals Act. In addition, the rules on environmental impact assessment and strategic environmental assessment contained in the Convention on Environmental Impact Assessment in a transboundary Context (Espoo Convention) and the Protocol on Strategic Environmental Assessment (SEA Protocol), which bind Norway, also offer a relevant basis for assessing the content of the impact assessment carried out by the Ministry of Energy. This is because of the principle of presumption in Norwegian law, which implies that Norwegian domestic law is to be interpreted and applied in accordance with relevant international law to which Norway is bound.

Arguably, taking into consideration the contents for impact assessments described in the above mentioned instruments, this author's observations in section 2.2 above and the observations of the Norwegian Environment Agency, it seems that the impact assessment conducted by the Ministry of Energy is not concrete enough nor meets all the requirements of an impact assessment that would allow forming a sufficient basis for deciding whether, and on which terms, the NCS can be opened for seabed mining as requested by Section 2-2 of the Seabed Minerals Act.

3.2 Norway's Supreme Court decisions on impact assessments and procedural errors

Issues relating to the content of impact assessments, the validity of decisions based on (in)correct impact assessments, and annulment of said decisions have been the object of a number of decisions of Norwegian Courts, and most noticeably the Norwegian Supreme Court, in the case *Natur og Ungdom and others vs Norway* (HR-2020-2472-P). This case, which is related to the decision to award petroleum licences in certain blocks in the Barents Sea in the 23rd licensing round, offers important insights particularly since it also focuses on another extractive activity taking place offshore. Interestingly, following this case, the EFTA Surveillance Authority (ESA) also questioned the Norwegian Ministry of Climate and Environment on requirements to conduct impact assessments in line with the SEA and EIA Directives (implemented into Norwegian law), and the validity of decisions based on impact assessments (see ESA's request for information here, and Norway's response here).

According to the Norwegian Supreme Court, the decision to open the NCS to petroleum activities (which in our case would be the decision to open NCS for seabed mining exploration) is not an administrative decision within the meaning of the Public Administration Act as it is not decisive for rights and duties of private persons (para. 180). However, since such a decision is an important procedural step in the process leading to the award of future licenses, any procedural errors committed in relation to such opening decision may affect the validity of those licenses (para. 180). This means that errors committed in relation to the impact assessment leading up to the opening decision are thus relevant.

The Supreme Court also offered some reflections on the content and level of concreteness of an impact assessment for the decision to open the NCS that can be of guidance. The Supreme Court stated that 'the larger effects an administrative decision has, the stricter the requirements for clarification of the consequences'; that 'the assessment […] must be more thorough the larger the impact of the measures' (para. 183); and that the procedure for opening the NCS, in which the impact assessment is key, 'must thoroughly clarify the upsides and downsides of the opening' (para. 184). The Supreme Court also noted that because the opening of the NCS to petroleum activities has wide implications and the purpose of an impact assessment for the opening of the NCS is to provide both the Government and the Parliament with 'a solid basis for decision making', the impact assessment 'tends to be more extensive than what is the case for other decisions' (para. 187). Furthermore, the Supreme Court also clarified that the impact assessment must 'include all stages of the petroleum production' even if it is primarily the effects from the exploration phase that are linked to the decision to open the NCS (para. 186). This is because the 'impact assessment made before the opening decision must also address the natural consequence of that decision – that production licenses are awarded' (para. 190). In their dissenting opinion, the minority of Judges also noted that, because the impact assessment is the basis for public participation in the decision-making process,

'assessments must therefore be objective and so comprehensive and complete that they are suitable for providing the public with real insight into the effects of the planned interventions' (para. 255).

These observations are also valid in relation to the decision to open the NCS for seabed mining given its controversial nature and potential environmental impacts, meaning that the assessment cannot be superficial. On the contrary, it must rather be 'thorough' and provide a 'solid basis for decision making'. Arguably, the impact assessment conducted by the Ministry of Energy is neither. The Government's argument that it is employing a precautionary and phased approach, whereby knowledge of the impacts is gradually obtained with exploration and via the impact assessment conducted prior to the approval of a plan of extraction of mineral deposits, is not persuasive. It defeats the purpose of requiring a thorough impact assessment before the decision to open the NCS. As Justice Webster noted in the dissenting opinion in the case *Natur og Ungdom and others vs Norway*, postponing the assessment to after an area has been opened/stage of PDO would be contrary to the provisions of the SEA Directive (paras. 283 and 285).

Notwithstanding, some obstacles could arise when arguing for the invalidity of any future exploration or extraction licenses awarded following the opening of the NCS to seabed mining premised on an incorrect impact assessment. For one, the Supreme Court has made abundantly clear its reluctance to review Governmental action and particularly acts of Parliament that can potentially breach Article 112 of the Norwegian Constitution unless there is gross negligence involved. For another, as the Supreme Court noted in *Natur og Ungdom and others vs Norway*, in Norwegian law, a 'decision is valid unless there is a reason to assume that a procedural error may have had a decisive effect on the contents of the decision', i.e., 'the decision will be invalid if there is a fair possibility that the error has affected the decision' (para. 276). This was also noted by the Ministry of Climate and Environment in its response to ESA. Considering that the decision to open the NCS to seabed mining was highly politicised and based on a political agreement where all the parties were aware of the potential shortcomings of the impact assessment, it is possible that the outcome (opening NCS and issuing licenses) would have been the same even in the face of a more thorough/correct impact assessment. But, as Justice Webster pointed out, this would be an overly narrow approach to the issue of ascertaining the consequences of a procedural error (see paras. 276-288). The compliance with the SEA Directive requires, as the European Court of Justice has clarified, that national authorities, including courts, 'take all the necessary measures […] to remedy the failure to carry out an environmental assessment' (Case C-24/19 para. 83). The result of an inadequate assessment would thus be invalidity and the necessity to reconsider the opening of the NCS based on a new impact assessment. The outcome would likely still be the same – opening the NCS to seabed mining – if the same political parties were to still have a majority in Parliament by the time a new impact assessment was concluded.

Finally, the Supreme Court also noted that '[i]f the situation at the extraction stage has become such that allowing the extraction would be incompatible with Article 112, the authorities will have both a right and a duty not to approve the project' (para. 222). This could be used by the Government as an argument to support its phased approach to seabed mining activities, i.e. that opening for exploration activities is not problematic because the Government can deny exploitation licenses if the potential environmental impacts of exploitation are unacceptable. Still, this does not exempt the Government from conducting a proper strategic environmental impact assessment for the opening stage and from testing whether approving exploration would be contrary to Article 112.

3.3 Decision-making principles under the Nature Diversity Act

The purpose of the Nature Diversity Act, is to maintain diversity of habitats, species diversity, ecological processes, and reasonable maintenance of ecosystem structure, functioning and productivity (Section 4). The Act enshrines a set of principles for official decision-making in Sections 8-12. These are the guidelines for the exercise of public authority and official decisions must inform how such principles are applied (Section 7). However, according to Section 2 on the geographical scope of application, only limited provisions of the Act apply in relation to the continental shelf and 'to the extent that they are appropriate'. Noticeably, according to Section 2, only the decision-making principles of Sections 8-10 relating to knowledge-based decision-making, precautionary principle, ecosystem approach and cumulative effects are potentially relevant. While the formulation 'to the extent that they are appropriate' can open for questioning whether Norwegian authorities could disregard the application of the decision-making principles indicated above to the continental shelf, this would be unthinkable and could also imply breaching at least due diligence obligations under international law. Moreover, from the practice of the petroleum sector, Norwegian authorities do take these decision-making principles into account in relation to activities on the continental shelf.

What can be questioned, particularly in the case of seabed mining, is whether those principles are adequately considered, especially those concerning knowledge and precaution. Knowledge-based and precautionary-based decision-making is even more important in relation to seabed mining, given the considerable knowledge gaps concerning the impacts of seabed mining, and the fact that some areas of the NCS under consideration correspond to already identified particularly vulnerable and valuable areas. According to Section 7 of the Nature Diversity Act, the level of knowledge required must be in reasonable proportion to the nature of the case and the risk of damage to biological, geological and landscape diversity. In the context of seabed mining activities, the level of knowledge required to authorize activities, particularly exploitation will have to be considerably higher than what is currently available.

This also entails that the precautionary principle referred to in Section 9 becomes paramount. It is true that the purpose of the precautionary principle is not, from the outset, to prohibit activities with unknown effects from taking place altogether. The precautionary principle aims to ensure that lack of knowledge regarding potential effects is not used as a reason for postponing or not introducing adequate management measures to protect the (marine) environment. In simple terms, the precautionary principle indicates that Norway must adopt measures but not the specific type of measures per se. The prohibition of an activity can indeed be an outcome of the application of the precautionary principle if a State wants to err on the side of caution but not necessarily an automatic outcome. In this case, it means that Norway is not precluded from opening its continental shelf to seabed mining, but it needs to approach the opening of the NCS with caution and implement, from an early-stage, precautionary measures (on substantive, procedural and institutional levels) that can effectively protect the marine environment from seabed mining exploration and exploitation activities. It also means that Norway could have relied on the precautionary principle to prohibit seabed mining or at least impose a moratorium until the impacts of seabed mining are better understood and documented. Other countries have relied on this principle to prohibit or impose a moratorium on seabed mining (the Portuguese Parliament, for example, approved in 2023 a bill proposal for imposing a moratorium on seabed mining until at least 2050).

4. Key issues regarding international law

4.1 Obligations under international legal instruments for the protection of the marine environment

Under Articles 77 and 193 of the LOSC Norway (as a State Party to the LOSC) has the sovereign right to explore and exploit the resources of its continental shelf, which includes the sovereign right to conduct seabed mining. This is also acknowledged in Article 3 of the Convention on Biodiversity (CBD – to which Norway is also a State Party). Norway must nonetheless conform to several obligations concerning the protection and preservation of the marine environment outlined in Part XII of the LOSC as well as by customary international law and other international and regional treaties relevant in the context of the protection and preservation of the marine environment and biodiversity - the CBD and the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention, to which Norway is also a Party) being key cases in point. Article 192 of the LOSC enshrines a general obligation to protect and preserve the marine environment which is further informed by the remaining provisions of Part XII and other applicable rules of international law (*South China Sea Arbitration*, para. 941). It encapsulates both a positive and a negative obligation for Norway, specifically the obligation to adopt measures to protect and preserve the marine environment and the obligation not to degrade the marine environment (*South China Sea Arbitration,* para. 941). This provision can also be seen as a catch-all net also covering impacts of physical disturbance to the marine environment and biodiversity that could be construed as not falling

squarely under the LOSC's definition of pollution. Article 194 of the LOSC prescribes that Norway must, as appropriate, adopt all measures necessary to prevent, reduce and control pollution of the marine environment from seabed mining (see especially Article 194(3)©), and to ensure that seabed mining activities on the NCS do not cause damage by pollution to other States or areas beyond Norway's national jurisdiction (*Legality of the Threat or Use of Nuclear Weapons*, para. 29). Article 194(4) further informs that Norway must take measures to protect and preserve rare or fragile ecosystems, the habitat of depleted, threatened species, as well as other forms of marine life. This obligation is pertinent given that some of the areas of the NCS now opened for seabed mining exploration can be considered as especially vulnerable and valuable areas and that further research might reveal other rare or fragile ecosystems on the NCS.

In view of the obligations of conduct of the above-mentioned provisions, Norway must, at least, exercise due diligence with regard to seabed mining activities on the NCS (*South China Sea Arbitration,* para. 944). More specifically, Norway must adopt appropriate rules and measures as well as maintain a certain level of vigilance over those activities. While the precautionary principle is not expressly referred to in the LOSC it can, notwithstanding, be considered an element of the general obligation of the due diligence obligation (*Responsibility of States*, paras. 131-132). It is also noteworthy that the standard of due diligence changes pursuant to the risks of activities. For riskier activities, that standard has to be more severe (*Responsibility of States*, para. 117). This entails that survey/exploration activities regarding seabed mining on the NCS will imply a lower standard of due diligence from Norway compared to exploitation activities which, being riskier, will require a more severe standard of due diligence from Norway.

Article 206 of the LOSC dictates that Norway must, as far as practicable, assess the potential effects of mining activities planned to place on the NCS if Norway has reasons to believe that mining activities may cause substantial pollution or significant and harmful changes to the marine environment. This is also an obligation under customary international law (*Responsibility of States*, paras. 145-147). While the terms 'as far as practical' indicate some flexibility in relation to the comprehensiveness of the assessment, this doesn't mean that Norway is exempted from conducting an assessment or that Norway can rely on a manifestly flawed assessment. The impact assessment is an important element for Norway's fulfilment of its obligation to exercise due diligence in protecting and preserving the marine environment. In addition, it is also important to remember that Article 206 is supplemented by other relevant instruments. Whilst Article 14 of the CBD also grants States a degree of discretion in relation to environmental impact assessments (the use of "as far as possible and as appropriate" is indicative of this), the Espoo Convention and the SEA Protocol provide clearer guidance as to the obligation to conduct impact assessments and their content. The obligation to conduct an impact assessment, together with the obligation not to cause transboundary harm, interlinks with Norway's obligation to notify and consult potentially affected States.

Article 208 of the LOSC compels Norway to adopt laws, regulations, and measures to prevent, reduce and control pollution of the marine environment arising from or in connection with seabed mining. Moreover, it indicates that said laws, regulations, and measures must be no less effective than international rules, standards and recommended practices and procedures. This seems to entail that Norway must at least take head of the minimal standards being developed by the International Seabed Authority, also including those on environmental impact assessments if we consider these to be tools instrumental to the prevention of pollution of the marine environment.

Given that exploration and exploitation activities have not yet taken place on the NCS, and to date the only thing Norway has done is to decide to open its NCS for future exploration activities, it is premature to generally argue that Norway is breaching its obligations to protect and preserve the marine environment under the LOSC. Much will also depend on what measures Norway adopts to prevent, reduce, and control pollution of the marine environment and to protect vulnerable ecosystems. Norway has also generally complied with its obligation to inform the States that could be directly affected in the event of a seabed mining incident causing transboundary harm, i.e. Iceland and Denmark.

However, there are some aspects that will need further consideration. There is a possibility that, in the future, the controversial process leading to the decision to open the NCS to seabed mining could be used to demonstrate that Norway has, from the outset, not acted with appropriate due diligence or in line with the precautionary principle when it comes to seabed mining. It can be said that Norway has essentially opened the doors to seabed mining based on inaccurate and insufficient information/knowledge, and improper due process. As noted above, many Governmental and research institutions have criticized the content of the impact assessment conducted by the Ministry of Energy for the opening of the NCS and challenged its legality vis-à-vis the requirements of the Seabed Minerals Act and the Nature Diversity Act.

Furthermore, Norway needs to develop comprehensive and robust regulations to supplement the Seabed Minerals Act. In drafting these Norway, should pay closer attention to the regulations, standards, and guidelines developed by the ISA in the context of the Mining Code rather than simply modelling them on the Norwegian petroleum legislation as predominantly done thus far. As alluded to above, Article 208 of the LOSC entails that Norway must ensure that any laws, regulations, and measures it adopts in relation to the prevention, reduction and control of pollution from the seabed are not less effective that those developed by the ISA. The ISA has already developed regulations concerning the exploration phase. Norway needs to take these into consideration, and optimally, Norway could also take the opportunity to develop regulations that are more stringent than those of the ISA (which have also been the object of much criticism). It is interesting to note that in its exploration regulations the ISA does not require an impact assessment for prospecting activities but does require it for exploration activities. As for regulations for exploitation, it

would be wise to wait for ISA's exploitation regulations to be finalized to avoid any inconsistencies. Since these should be finalized before any exploitation activities are authorized in Norway, it should not, in principle, be a problem.

In addition to obligations under the LOSC, another matter that is relevant to ponder, and which the Government's White Paper has not really considered, is the potential implications of the BBNJ Agreement for seabed mining activities in the extended continental shelf directly below the Banana Hole high sea area (if/once it comes into effect). It is important to keep in mind that seabed mining takes place primarily on the seabed but in connection with support vessels and equipment on the surface and in the water column. Seabed mining's impacts also affect the water column and not just the seabed. It is also noteworthy that the regime of the continental shelf concerns only non-living resources and sedentary species, but also other living resources will be affected by seabed mining. The scenario is thus set for friction between the regimes applicable to the NCS and the high seas above it, particularly when it comes to the protection of biodiversity.

While the BBNJ Agreement clearly states in Article 5 that 'Nothing in this Agreement shall prejudice the rights, jurisdiction and duties of States […], including in respect of […] the continental shelf within and beyond 200 nautical miles', issues may still arise in relation to, *inter alia,* the use of area-based management tools (ABMTs), including marine protected areas (MPAs), and the environmental impact assessment process foreseen in the BBNJ Agreement.

In accordance with Article 22(5) of the BBNJ Agreement, should ABMTs be proposed for the Banana Hole, they 'shall have due regard' to Norway's sovereign rights over the underlying extended continental shelf. Article 5 seen in tandem with Article 22(5) seems to entail that implementing ABMTs or MPAs in the Banana Hole High seas will not preclude seabed mining activities from taking place on the Norwegian extended continental shelf. Still, Norway will have to engage in consultations should ABMTs/MPAs be proposed. Moreover, because the Banana Hole area falls within the geographical scope of the OSPAR and the competence of the OSPAR Commission, the BBNJ Agreement defers the establishment of ABMTS/MPAs to OSPAR. In this case, the Conference of the Parties (COP) under the BBNJ Agreement could take decisions/recommendations compatible with those adopted by OSPAR or make recommendations to OSPAR but, it must respect the competences of OSPAR and not undermine it (see Article 22(1)(2) of the BBNJ Agreement). This is relevant since Norway, as party to the OSPAR Convention has, in the past, opposed (together with Denmark and Iceland) OSPAR's efforts for the creation of the 'Arctic Ice High Seas MPA'. It will be interesting to see how Norway will navigate eventual pressures for creating MPAs in the Banana Hole and how consultations in this respect under the OSPAR and the COP will be conducted.

As for environmental impact assessments, Article 28(2) of the BBNJ Agreement entails that if Norway determines that seabed mining on the NCS (an activity conducted in a marine area within national jurisdiction) may 'cause substantial pollution or significant and harmful changes to the marine environment in areas beyond national jurisdiction', Norway shall have to ensure that an impact assessment is conducted either in accordance with the provisions of Part IV of the BBNJ Agreement or in accordance with Norway's national process for environmental impact assessments. Likely, Norway will opt for following its national process rather than the EIA process of the BBNJ Agreement. Still, in accordance with Article 28(2) of the BBNJ Agreement, Norway will have to make environmental impact assessment reports and monitoring available through the Clearing-House Mechanism set under the BBNJ Agreement. This will place Norway under even closer scrutiny by the international community. Controversies regarding the content of future impact assessments, like those with the impact assessment conducted by the Ministry of Energy for the opening of the NCS, would not portray Norway in a good light.

4.2 Discussions regarding the geographical scope of application of the Svalbard Treaty

The fact that part of the area of the NCS opened for seabed mining activities lies within the proximity of Svalbard could reignite discussions concerning the geographical scope of application of the Svalbard Treaty. This risk seems to have been dismissed both by the Norwegian Government and the Parliament, no doubt emboldened by the recent decision of the Supreme Court of Norway that concluded that the Svalbard Treaty does not apply beyond 12 nautical miles (territorial sea) of Svalbard. Yet it is important to underline that other States and academics still object to this interpretation of the Svalbard Treaty. Notably, this is made abundantly clear in the Motion for a Resolution on Norway's recent decision to advance seabed mining in the Arctic, within the European Parliament, which expressly states that the continental shelf close to Svalbard 'is subject to the 1920 Svalbard Treaty'.

If the Svalbard Treaty were to apply beyond 12 nautical miles, to the maritime zones generated by Svalbard (fisheries protection zone and continental shelf), it could mean that all the States Party to the Svalbard Treaty would have equal rights concerning seabed mining (in accordance with Article 3 of the Treaty), and that discrimination based on nationality would be prohibited. This could be problematic in view of the Parliament's request that the Government makes national security concerns a criterion when awarding seabed mining extraction licenses. What the Parliament wanted to safeguard is that Norway has control over which companies can become licensees to conduct mining on the NCS. However, to exclude a company from a State party to the Svalbard Treaty, say a Chinese or Russian company, merely based on its nationality, would then be in breach of the Treaty. There is thus a possibility that States could try to disrupt the Norwegian seabed mining licensing process based on the Svalbard Treaty.

5. Conclusions

The process for opening the NCS to seabed mining exploration activities has been enveloped in controversy with Norway's reputation as a country committed to environmental protection of the marine environment and biodiversity being put into question. The process has also raised concerns about cross-departmental cohesion within the Government and soundness of decision-making both within the Government and the Parliament. Norway has a desire to be a pioneer in sustainable seabed mining but, given growing national and international opposition to seabed mining, it seems that Norway is indeed rowing against the tide. While Norway is not necessarily precluded from opening its NCS to seabed mining activities – that is primarily a political decision - the process leading up to that decision needed to be transparent, based on convincing arguments, based on careful consideration of the results of the public hearings, and based on an adequate strategic environmental impact assessment. In this author's opinion both the Government and Parliament have fallen short in this respect.

WWF Norway has recently vowed to bring a judicial case against the Norwegian Government if the latter does not reverse its decision on seabed mining. As the Norwegian Government is unlikely to abandon its seabed mining plans, a case is indeed imminent. Still, even if WWF were to be successful in its claim, the overall outcome will still likely be a mere delay in the start of exploration activities – until a proper strategic environmental impact assessment is re-done – rather than the full abandonment of seabed mining plans. The same conclusion is plausible in the event that a complaint is brought against Norway before Espoo's Implementation Committee. This is because the political parties that approved seabed mining in the first place seem, for now, entrenched in their positions.

In view of this, and assuming that Norway will not reverse its decision to engage in seabed mining, it becomes important to focus on the domestic legal framework that needs to be in place to ensure that these activities can be conducted with the least possible impact on the marine ecosystems. It will also be important to understand how different regimes under international law will affect Norway's seabed mining activities, in particular the regulatory developments at the ISA and OSPAR, and the future implications of the BBNJ Agreement once it enters into force. Reflections on these aspects will be offered in a future continuation of this post.

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