

JOINT LDAC-PELAC-NWWAC ADVICE DEEPSEA MINING IN INTERNATIONAL WATERS

Ref. R-10-21/GT5
Adopted by the Executive Committee

-Lead coordinator: Long Distance Advisory Council-
Date of adoption: 16 November 2021

1. Background

- 1.1. Since 2018, the EU Long Distance Advisory Council (LDAC) has followed closely the developments and negotiation process of the International Seabed Authority (henceforth, ISA) towards the completion of a comprehensive body of rules, regulations and procedures known as the “Mining Code”. This Code aims to regulate the prospection, exploration and exploitation of marine minerals in the international seabed, allowing a move from the current state of scientific and technical exploration to a near future commercial exploitation of the deep-sea bed mineral resources in the Area¹.
- 1.2. In May 2019, the LDAC produced an opinion seeking a “moratorium” for a period of 10 years regarding deep-sea mining in international waters (aka “*The Area*”) in accordance with the precautionary approach, and in line with other concerned actors issuing statements calling to improve scientific knowledge². In relation to other Advisory Councils, both the South Western Waters and the Pelagic Advisory Councils issued their own advice expressing similar concerns in relation to seismic impacts and deep-sea mining activities³.
- 1.3. At the LDAC WG5 on Horizontal Issues held on 18 March 2021⁴, the DG MARE representative was asked to provide an update on the European Commission’s proposal for an EU common position regarding environmental aspects of the negotiation of the ISA Mining Code in preparation for the meeting of the ISA scheduled after several deferrals due to COVID-19 for early 2022. The EC proposal was issued on 5 January 2021 and is publicly available in the EUR-LEX website:
<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0001>
- 1.4. In view of the growing polarisation of views and relevance in the media of this file, the LDAC wishes to update its previous advice while allowing other interested Advisory Councils to engage in a collaborative and coordinated approach.

¹ <https://www.isa.org.jm/mining-code>

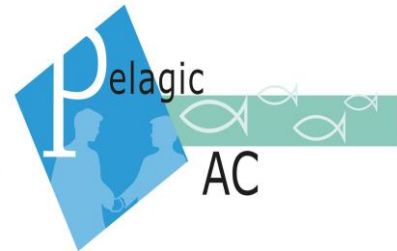
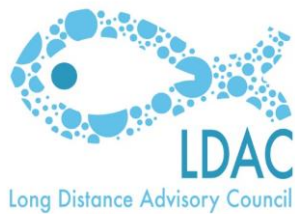
² https://ldac.eu/images/EN_LDAC_Advice_on_Deepsea_Mining_R.04.19.WG5_May2019.pdf

³ [SWWAC advice on impact of oil and mining activities](#) (May 2019):

[Pelagic AC Recommendation on deep sea mining activities](#) (June 2020):

[NWWAC/PELAC advice for non-recurrent request to ICES on seismic impacts](#) (August 2020)

⁴ https://www.ldac.eu/images/EN_Minutes_WG5_LDAC-PELAC-NWWAC-SWWAC_18March_2021.pdf



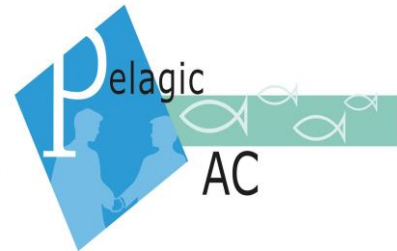
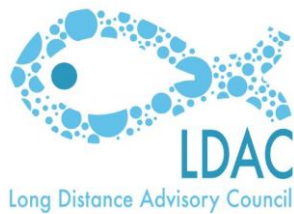
In recent times, public announcements have been made by technology and electronics companies (Google, Philips and Samsung SDI) as well as car and truck manufacturers (BMW, the Volvo Group) on own initiative commitments to build “nickel and cobalt free” batteries for mobile phones and cars, respectively⁵.

- 1.5. Furthermore, Nauru as sponsoring state has submitted a letter to the ISA Secretariat in June 2021 formally requesting to activate a trigger clause to start with exploitation in case the Mining Code is not ready within a period of 2 years (i.e., July 2023). This request is a way of fast tracking the transition to the awarding of an exploitation contract in case there is inaction or no progress in the adoption of the Code.
- 1.6. The IUCN World Conservation Congress in September 2021 overwhelmingly adopted its motion 069 (WCC-2020-Res-122-EN)⁶ calling for a moratorium on deep-sea mining, including by the International Seabed Authority. Altogether, 44 government ministries and/or agencies from 37 countries voted in favour of the motion, including ministries or government agencies from the following EU member States: Austria, Germany, Italy, Portugal, Romania, Spain and Sweden. Amongst EU Member States, only Belgium voted against the motion.
- 1.7. Following several postponements due to COVID-19 pandemic, the ISA plans to hold its next round of meetings of the Council and the Assembly of the ISA in December 2021. Amongst other items on the agenda is a proposal from the Secretary-General to accelerate the negotiations of the exploitation regulations over the coming year and one-half to be able to adopt final regulations by July 2023 so that Nauru can apply for a mining license on behalf of The Metals Company.
- 1.8. Several contractors were awarded exploration licenses sponsored by ISA Member States (MS) looking at features of commercial interest/value in the Area, namely manganese/polymetallic nodules found on deep abyssal plains; polymetallic sulphides formed by hydrothermal vent activity along oceanic ridge systems; and ferromanganese-cobalt crusts associated with seamounts and other underwater topographic features in some ocean areas (e.g., northwest Pacific; southwest Atlantic). Examples of these contractors are DeepGreen that recently merged with a company known as Sustainable Opportunities Acquisition Corp (SOAC) to form The Metals Company⁷; UK Seabed Resources (a subsidiary of US based Lockheed Martin); and GSR (a subsidiary of the Belgium company DEME).

⁵ https://www.bbc.com/news/science-environment-56607700?xtor=AL-72-%5Bpartner%5D-%5Bbbc.news.twitter%5D-%5Bheadline%5D-%5Bnews%5D-%5Bbizdev%5D-%5Bisapi%5D&at_medium=custom7&at_custom1=%5Bpost+type%5D&at_custom4=ABFF22E8-9517-11EB-88A8-7D434D484DA4&at_custom2=twitter&at_campaign=64&at_custom3=%40BBCWorld

⁶ Motion 069 - Protection of deep-ocean ecosystems and biodiversity through a moratorium on seabed mining. <https://www.iucncongress2020.org/motion/069>

⁷ <https://investors.metals.co/news-releases/news-release-details/metals-company-trade-nasdaq-bid-develop-planets-largest>



These companies are all advocating for the quick conclusion and adoption of the Mining Code so that they can apply for mining/exploitation licenses. Glencore, All Seas, and Maersk have partnered with former-DeepGreen.

2. Why do we need to protect the deep-sea floor from mining? Scientific considerations:

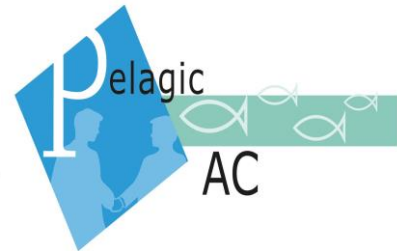
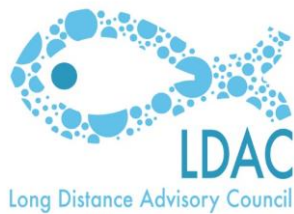
- 2.1. It is estimated that we know less about the deep-sea floor than about outer space. The biology, ecology and connectivity of deep-sea species and ecosystems, as well as the ecosystem services they provide, is still highly unknown and new species are discovered on almost every survey done. Most of these ecosystems have not been altered by human activity so the adverse impacts are also to be determined. It is estimated that some species may take hundreds if not thousands of years to recover.
- 2.2. Many scientific experts in disciplines related to benthic and pelagic ecosystems (many of them represented in the Deep Ocean Stewardship Initiative-DOSI project⁸) have published multidisciplinary studies raising serious concerns on the impacts of deep-sea mining on the loss of biodiversity and ecosystem functioning that might be irreversible on multi-generational timescales. An example can be found in a statement drawn from a scientific report referring to Clarion-Clipperton Fracture Zone: *“Due to the slow growth rates of nodules (ca. 10 mm/My) and overall, very low sedimentation rates, short-term recovery is unlikely; the nodules and nodule dependent fauna may take millions of years to recover, and even the partial recovery of the motile sediment-dwelling fauna may take hundreds to thousands of years”*⁹.
- 2.3. A Marine Expert Statement was recently launched calling for a Pause on Deep-sea Mining, backed by over 600 marine science and policy experts from 44 countries. This statement strongly recommends that *“the transition to the exploitation of mineral resources be paused until sufficient and robust scientific information has been obtained to make informed decisions as to whether deep-sea mining can be authorized without significant damage to the marine environment and, if so, under what conditions”*¹⁰.
- 2.4. A growing number of scientific reports have warned that Earth's biodiversity is increasingly at risk of extinction. The report, in 2019, of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystems Services warned that a million species are at risk of extinction, many within the next several decades, unless the drivers of biodiversity loss are reversed. The loss of habitat was identified as the lead cause of biodiversity loss by the IPBES.¹¹

⁸ DOSI Project: <https://www.dosi-project.org/>

⁹ Kaiser, S., Smith, C.R. & Arbizu, P.M. Editorial: Biodiversity of the Clarion Clipperton Fracture Zone. *Mar Biodiv* 47, 259–264 (2017). <https://doi.org/10.1007/s12526-017-0733-0>

¹⁰ <https://www.seabedminingsciencstatement.org/>

¹¹ IPBES (2019): Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. S. Díaz, J.



2.5. The UN has declared 2021-2030 as the Decade of Ocean Science for Sustainable Development and the Decade of Ecosystem Restoration. The Special Envoy of the UN Secretary-General for the Ocean, at the Ocean Day at the meeting of the World Economic Forum in Davos in January 2019 stated the following: *“why wouldn’t we give that decade its full run before we start even thinking about disturbing the seabed of the high seas, we are talking a moratorium [on deep-sea mining] of 10 years in that case”*^{12 13} UN Sustainable Development Goal 14, Target 14.2 commits States to, “by 2020 sustainably manage, and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience and take action for their restoration, to achieve healthy and productive oceans.”

2.6. The approval of a “lower common denominator” for environmental regulations and standards is likely to lead to irreversible loss of biodiversity as well as significant damage to sensitive habitats and species, vulnerable marine ecosystems (VMEs), etc. However, even with ‘higher’ standards and regulations, scientists involved in researching the potential impacts of deep-sea mining have warned that biodiversity loss will be inevitable and permanent if mining is permitted to occur and biodiversity offset will be ‘scientifically meaningless’¹⁴ This would be particularly the case in the Clarion Clipperton Zone (CCZ) where scientists estimate that to be economically viable, each nodule mining operation would strip mine an area of approximately 400 square kilometres per year and “easily” impact another 400-1,200 square kilometres of seabed per year with sediment plumes generated by the mining operation. By these estimates, the impact would cover an area of some 40,000-50,000 square kilometres over the course of a 30-year exploitation contract from the ISA, an area equivalent to the size of The Netherlands or Denmark.¹⁵ Discharge of sediment, mining fines and wastewater from the nodule collector ship at the surface could generate general plume flows impacting marine life across hundreds of thousands of cubic kilometres or more of water column habitat.¹⁶

Settele, E. S. Brondízio, H. T. Ngo, M. Guèze, J. Agard, A. Arneeth, P. Balvanera, K. A. Brauman, S. H. M. Butchart, K. M. A. Chan, L. A. Garibaldi, K. Ichii, J. Liu, S. M. Subramanian, G. F. Midgley, P. Miloslavich, Z. Molnár, D. Obura, A. Pfaff, S. Polasky, A. Purvis, J. Razzaque, B. Reyers, R. Roy Chowdhury, Y. J. Shin, I. J. Visseren-Hamakers, K. J. Willis, and C. N. Zayas (eds.). IPBES secretariat, Bonn, Germany. 56 pages.
<https://doi.org/10.5281/zenodo.3553579>

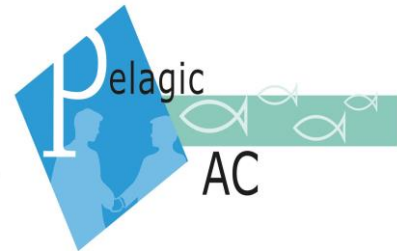
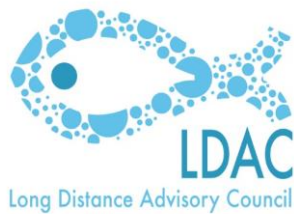
¹² Statement from Peter Thomson, UN Envoy for the Oceans in relation to UN Decade of Ocean Science:
<https://www.unesco.org/archives/multimedia/document-5396>

¹³ Comments by Peter Thomson, UN Secretary General Special Envoy for the Ocean, at the World Economic Forum in January 2019 as quoted in the Statement by Algeria on behalf of the African Group to the 25th Session of the Council of the International Seabed Authority, 25 February 2019.
<https://www.isa.org.jm/document/algeria-obo-african-group>

¹⁴ Van Dover, C. L. et al. Biodiversity loss from deep-sea mining. *Nature Geoscience* 10, 464–465 (2017).

¹⁵ Smith et. al., Deep-Sea Misconceptions Cause Underestimation of Seabed-Mining Impacts. *Trends in Ecology & Evolution*. Volume 35, Issue 10, October 2020. DOI: <https://doi.org/10.1016/j.tree.2020.07.002>

¹⁶ Muñoz-Royo et. al., Extent of impact of deep-sea nodule mining midwater plumes is influenced by sediment loading, turbulence and thresholds. *Nature Communications Earth & Environment* | (2021) 2:148 | <https://doi.org/10.1038/s43247-021-00213-8>

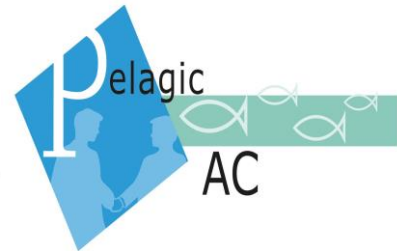
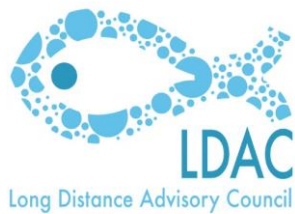


3. Which laws apply?

Policy considerations, transparency and decision-making considerations:

- 3.1. At international level, the legal basis under which the ISA is obligated to regulate seabed mining is contained in Part XI of the UN Convention on the Law of the Sea (UNCLOS), and its 1994 Implementing Agreement. Part XI establishes the procedures under which the authority issues licenses for exploration and exploitation of mineral resources in the Area. It also requires, in UNCLOS Article 145, that the ISA take “*necessary measures ... in accordance with this Convention with respect to activities in the Area to ensure effective protection for the marine environment from harmful effects which may arise from such activities. To this end, the Authority shall adopt appropriate rules, regulations and procedures for inter alia... (b) the protection and conservation of the natural resources of the Area and the prevention of damage to the flora and fauna of the marine environment*”.
- 3.2. Article 154 of UNCLOS also requires the Assembly of the ISA to undertake every 5 years a general and systematic review of the manner in which the international regime of the Area established in this Convention has operated in practice. In the light of this review the Assembly may take, or recommend that other ISA bodies take, measures to improve the operation of the regime in accordance with the provisions and procedures of UNCLOS. The last so-called ‘Article 154 Review’ took place between 2015-2017, thus the Assembly is required to conduct another such review beginning in 2022. Article 155 as amended by the 1994 Agreement provides a mechanism for amending the provisions of Part XI as needed. Amongst others, the European Parliament, Council and Commission, the UK House of Commons Environment Audit Committee and the Deep-Sea Conservation Coalition have highlighted concerns related to operational procedures of the ISA (e.g., transparency) and a number of the bylaws under which the ISA operates.¹⁷
- 3.3. Within the European Union, the European Commission and the European Parliament have adopted resolutions and decisions backing an approach in line with the precautionary principle and calling for, at this juncture, not exploiting marine minerals in the international seabed area and/or a moratorium on such activities with which the LDAC-PELAC-NWWAC agrees.

¹⁷ UK House of Commons Environment Audit Committee: Sustainable Seas Report, paragraphs 70 & 71. January 2019. <https://publications.parliament.uk/pa/cm201719/cmselect/cmenvaud/980/980.pdf> . See DSCC fact sheet: Deep-sea mining: is the International Seabed Authority fit for purpose? http://www.savethehighseas.org/wp-content/uploads/2020/10/DSCC_FactSheet7_DSM_ISA_4pp_web.pdf



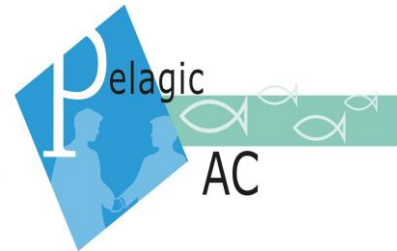
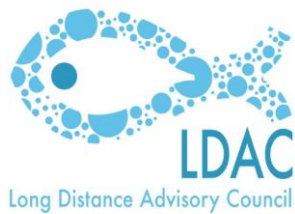
- 3.3.1. The EC recently adopted its EU Biodiversity Strategy for 2030¹⁸ stating under Section 4.2.1. International Ocean Governance:
*“In international negotiations, the EU should advocate that **marine minerals in the international seabed area cannot be exploited before the effects of deep-sea mining on the marine environment, biodiversity and human activities have been sufficiently researched, the risks are understood and the technologies and operational practices are able to demonstrate no serious harm to the environment**, in line with the precautionary principle and taking into account the call of the European Parliament. In parallel, the EU will continue to fund research on the impact of deep-sea mining activities and on environmentally friendly technologies. The EU should also advocate for more transparency in international bodies such as the International Seabed Authority”.*
- 3.3.2. The European Council endorsed this position in October 2020, affirming that:
“marine minerals in the Area as defined by Article 1 of the United Nations Convention on the Law of the Sea cannot be exploited before the effects of deep-sea mining on the marine environment, biodiversity and human activities have been sufficiently researched, the risks are understood and technologies and operational practices are able to demonstrate that the environment is not seriously harmed, in line with the precautionary principle; and REQUESTS that EU and its Member States endorse this position in relevant fora”¹⁹
- 3.3.3. The EU Communication on a new approach for a sustainable blue economy in the EU²⁰ replicates virtually the same text mentioned in the EU Biodiversity Strategy.
- 3.3.4. The European Parliament adopted on 9 of June 2021 a resolution on the EU Biodiversity Strategy for 2030²¹, and in paragraphs 184 and 185 state the following:

¹⁸ EU Biodiversity Strategy for 2030 (“Bringing nature back into our lives”) - COM/2020/380 final: https://eur-lex.europa.eu/resource.html?uri=cellar:a3c806a6-9ab3-11ea-9d2d-01aa75ed71a1.0001.02/DOC_1&format=PDF

¹⁹ Council of the European Union, Brussels, 16 October 2020. Conclusions on Biodiversity - the need for urgent action. Paragraph 46. <https://data.consilium.europa.eu/doc/document/ST-11829-2020-INIT/en/pdf>

²⁰ EC Communication on a new approach for a sustainable blue economy in the EU Transforming the EU's Blue Economy for a Sustainable Future [COM/2021/240 final]
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021DC0240&from=EN>

²¹ European Parliament resolution of 9 June 2021 on the EU Biodiversity Strategy for 2030: Bringing nature back into our lives (2020/2273(INI)).: https://www.europarl.europa.eu/doceo/document/TA-9-2021-0277_EN.html

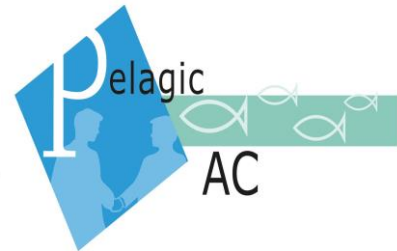
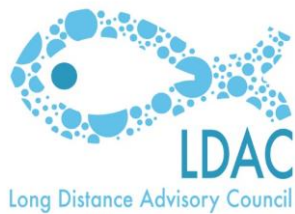


Par. 184. *Highlights that the deep sea is believed to have the highest biodiversity on Earth and provides critical environmental services, including long-term carbon sequestration; points out that deep-seabed mining is highly likely to cause inevitable and permanent biodiversity loss; stresses that the precautionary principle must apply to the emerging deep seabed mining sector; recalls its resolution of 16 January 2018 on international ocean governance⁽⁹⁸⁾ and calls on the Commission and the Member States to promote a moratorium, including at the International Seabed Authority, on deep-seabed mining until such time as the effects of deep-sea mining on the marine environment, biodiversity and human activities at sea have been studied and researched sufficiently and deep seabed mining can be managed to ensure no marine biodiversity loss nor degradation of marine ecosystems; emphasises the need for the Commission to cease funding for the development of seabed mining technology in line with a circular economy based on minimising, reusing and recycling minerals and metals;*

Par. 185. *Reiterates its call⁽⁹⁹⁾ on the Member States and the Commission to work through the International Seabed Authority in order to ensure transparency in its working methods as well as the effective protection of the marine environment from harmful effects and the protection and preservation of the marine environment, as required under Parts XI and XII of the UN Convention on the Law of the Sea, and calls on the Member States to assume a proactive and progressive role within international bodies in order to put forward transparency reforms and increase the overall environmental ambition of actions undertaken;*

- 3.3.5. The EU Recommendations on International Ocean Governance (IOG) published in February 2021 also mention the importance of resilience of ecosystems and the marine environment to tackle future challenges²².

²² More info: https://ec.europa.eu/oceans-and-fisheries/ocean/international-ocean-governance_es



4. Impact of Deep-seabed Mining on Fishing and other Activities

- 4.1. Some of these activities may have direct (proximity of fishing) or indirect (e.g., in terms of anthropogenic noise, sediment plumes and pollution resulting in changes to migratory patterns of fish species) impacts on fishing activities. A specific example of potential direct impacts for fisheries of seabed mining activities in areas beyond national jurisdiction is research estimating the overlap between areas licenced by the ISA for exploration (e.g. located in the eastern and north western Pacific, the western Indian Ocean, and the Mid-Atlantic Ridge) to fishing grounds for pelagic/mesopelagic species; an example of indirect impact could be displacement of fishing effort due to change in migrations of tuna due to anthropogenic noise or pollution by plumes of sediment spread in the water column.

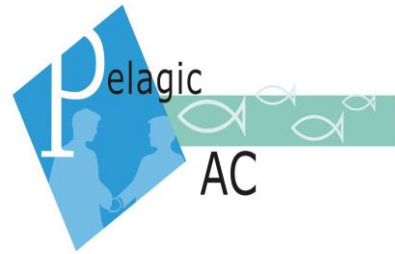
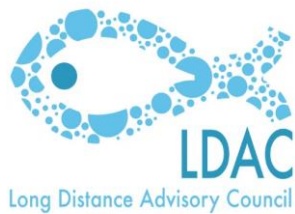
A recent study published in Marine Policy describes potential spatial intersection between high-seas fisheries for three species of tunas and plumes in the water column that would likely be generated by deep-sea mining activities in international waters in the event that exploration licenses would be converted to exploitation licenses by the ISA²³. The study also warns that, *“in any event, it will be particularly important to closely monitor the impacts of mining on the ecology, environment, and fishing industry when the extraction begins and before it reaches the regional scales considered in this study”*.

- 4.2. In the context of UN Intergovernmental Conference on Marine Biodiversity of Areas Beyond National Jurisdiction (BBNJ) together with the knowledge acquired by Regional Fisheries Management Organisations and Regional Seas Conventions over the years, consideration of all human impacts in the deep-sea must be taken into account in any area. The environmental impact assessments must be therefore holistic and include all cumulative human pressures. Interagency cooperation and communications platforms must be developed for such purpose. A good but partial example is the work of NAFO on developing an ecosystem approach to fisheries management through the work of its Working Groups on EAFM and ESA. The setting and review of VMEs through WG ESA includes a rough mapping of overlapping human economic activities other than fishing such as oil and gas extractions and its impacts on VMEs²⁴.
- 4.3. A regional approach has been adopted by the ISA to develop “Regional Environment Management Plans (REMPS)” for deep-sea mining. Ensuring the participation of EU scientists and fishing industry and other relevant stakeholders in the REMP Workshops sponsored by the ISA should be required considering that there are already other economic sectors such as submarine cables and communications providing input.

²³ Van der Grient, J.M.A. and Drazen, J.C. *Potential spatial intersection between high-seas fisheries and deep-sea mining in international waters*. Marine Policy 129 (2021) 104564. Available online 2 May 2021

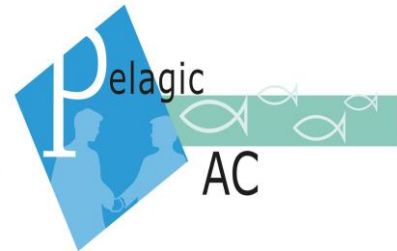
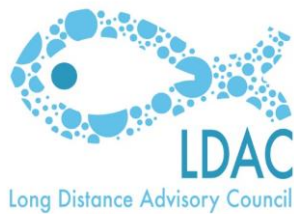
Open access article: <http://creativecommons.org/licenses/by-nc-nd/4.0>

²⁴ More info: <https://www.nafo.int/Science/Ecosystem>
<https://www.nafo.int/Science/Frameworks/Ecosystem-Approach>



5. Feedback to EC proposal for EU common position on the ISA and deep-sea bed mining

- 5.1. The LDAC-PELAC-NWWAC would like to make it clear that this is an advice adopted by stakeholders from the fishing sector and other interest groups and therefore is not bound by views expressed by the Member States. Evidence is drawn from scientific reports, legislative declarations and reports from NGO groups such as the High Seas Alliance and Deep Sea Conservation Coalition (DSCC) – a coalition of almost 100 NGOs worldwide calling for a moratorium on deep-sea mining – a number of whose members are also members of the LDAC-PELAC-NWWAC.
- 5.2. This advice is also taking into account evidence and arguments included in several pieces of advice and recommendations from ACs in fields such as International Ocean Governance (IOG), EU Green Deal, Biodiversity Strategy, etc. A list containing the advice of the ACs on this subject is appended to this advice.
- 5.3. All EU Member States and the EU are members of the ISA. Some of the Member States are more likely to take a strong conservation and precautionary approach based on a scientific approach, including uncertainty. Seven of the 27 EU Member States (BE, BG, CZ, DE, FR, PL, SK) are so-called sponsoring states with exploration contracts, mainly in the CCZ.
- 5.4. We note the efforts made by the EC in the last two years (2020-2021) to become more engaged and attempting to coordinate a common position with the MS with the aim of speaking with “one voice” in relation to issues related to protection of the marine environment from harmful activities of deep-sea mining.
- 5.5. The EC is encouraged to urge fisheries ministers of MS and their cabinets and administrations to participate in environmental discussions with the EU and ISA as they have shared competence on this file with other ministers such as foreign affairs, commerce and industry, science. A good example of inter-agency coordination and inter-ministerial collaboration can be found in Spain, where the main actors are represented and have a say through an articulated mechanism of consults coordinated by the International Legal Authority (AJI) of the Ministry of Foreign Affairs, European Union and Cooperation.
- 5.6. We are supportive of the EC’s intent to ensure consistency of the ISA Mining Code with the provisions of UNCLOS as well as the EU International Ocean Governance agenda, 2030 Biodiversity Strategy and related policy frameworks including the UN BBNJ Treaty.
- 5.7. Regarding the Green Deal, we support the position contained in the 2030 EU Biodiversity Strategy issued by the Commission in May of 2020 and supported by the Council in October 2020 whereby marine minerals in the international seabed area cannot be exploited before the effects of deep-sea mining on the marine environment, biodiversity and human activities have been sufficiently researched, the risks are understood and the technologies and operational practices are able to demonstrate no serious harm to the environment, in line with the precautionary principle and taking into account the call of the European Parliament.



However, the definition of “*serious harm*” currently under negotiation at the ISA in the context of the development of the exploitation regulations is likely to allow for extensive seabed mining and damage to the marine environment before the damage meets an operational threshold of “*serious*” harm. For this reason we call on the Commission and Member States to improve on the Council position by adopting the position of the European Parliament of 9 June 2021 to promote a moratorium at the International Seabed Authority, on deep-seabed mining “until such time as the effects of deep-sea mining on the marine environment, biodiversity and human activities at sea have been studied and researched sufficiently and deep seabed mining can be managed to ensure no marine biodiversity loss nor degradation of marine ecosystems” and for the “Commission to cease funding for the development of seabed mining technology in line with a circular economy based on minimising, reusing and recycling minerals and metals”.

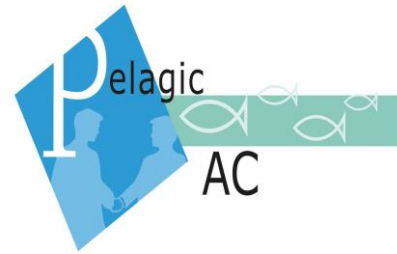
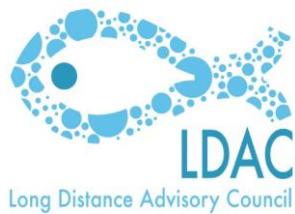
6. Key Recommendations

Science

- 6.1. BETTER DATA - It is necessary to compile, analyse and review available scientific knowledge and develop a common database that is transparent and shared by all relevant parties to support policy shaping and serve as basis for building dedicated advice for policy makers. In this respect, the ISA’s initiative to launch a deep-sea database is welcomed and considered a step in the right direction. However, further work is required in terms of transparency, interoperability, and research efforts for the purposes of better understanding of deep-sea ecosystems, the ecosystem services they provide, and the potential risks of deep-sea mining. Important questions relating to how data are shared, by whom and for what purpose should also be carefully considered.
- 6.2. PEER REVIEW PROCESS - A rigorous peer-review process is needed to evaluate quality, validity and robustness of impact assessments carried out by the contractors and submitted to the Authority, i.e., a peer-reviewed and transparent process driven by independent scientists (deep-sea biologists, geologists, marine toxicologists, etc.) identifying relevant information for improving ecological and environmental knowledge and assessments of potential environmental impacts and risks to fisheries.

Policy, transparency and decision-making: proposals for a reform of the work of the ISA

- 6.3. PROHIBITION OF MINING EXPLOITATION - A prohibition on exploitation by the ISA of marine minerals in the international seabed area before the effects of deep-sea mining on the marine environment, biodiversity and human activities have been sufficiently researched, the risks are understood and the technologies and operational practices are able to demonstrate no serious harm to the environment, no marine biodiversity loss nor degradation of marine ecosystems and for the Commission to cease funding for the development of seabed mining technology in line with a circular economy based on minimising, reusing and recycling minerals and metals in line with the precautionary principle and taking into account the resolution of 9 June 2021 adopted by the European Parliament.

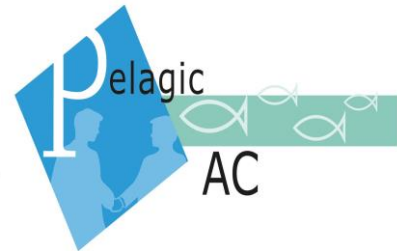
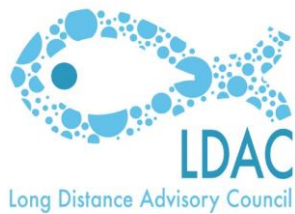


6.4. PERFORMANCE REVIEWS AND TRANSPARENCY - There is an objective need to review the ISA working methods and its decision-making. Despite improvements over the last year (particularly in relation to web-broadcasting of meetings and the participation of observers in meetings of the Council and Assembly of the ISA), there are still major concerns regarding the level of transparency, sharing of data and contractor information, economic interests of sponsoring states (in particular SIDS) and the decision-making structure of the ISA. There is a need for greater transparency, openness, public participation and access by third-party stakeholders (particularly fishing stakeholders and affected communities) to deliberations and publication of decisions made across all ISA bodies (including the Legal and Technical Commission). While transparency needs to be improved, the modalities under which information is disclosed should be carefully detailed according to the agreed goals.

6.5. EVALUATIONS OF CONTRACTORS REPORTS ON COMPLIANCE - In relation to the process of evaluation of whether contractors comply with the exploration regulations, the ISA relies on reports submitted by contractors using different methodologies and presenting varying levels of information. The ISA does not have the capacity to independently verify the accuracy of the reports. Instances of non-compliance by contractors have been reported to occur regularly by the Legal and Technical Commission but details are not publicly reported/disclosed to member countries of the ISA based on confidentiality reasons and apparently, none has been penalized for non-compliance to date.

6.6. INTERPRETATION OF ACTIVATION OF THE TRIGGER CLAUSE FOR EXPLOITATION - The EU should raise at the ISA the concern over the repercussions for the conservation and sustainable use of the marine environment in areas beyond national jurisdiction resulting from the provision of the 1994 Agreement that allows a sponsoring state to unilaterally trigger the clause of the 1994 Agreement that some states believe provides for a contractor to be 'provisionally' awarded an exploitation contract at the conclusion of a period of 2 years if the exploitation regulations have not yet been adopted by the ISA. Nauru has triggered the clause in Section 1, paragraph 15 of the Annex to the 1994 Part XI Agreement. As a result, the company Nauru sponsors – DeepGreen/The Metals Company - which holds three exploration contracts/licenses from the ISA in the CCZ sponsored by Nauru, Kiribati, and Tonga - now expects to obtain an exploitation license (a license to mine nodules) in 2023.

The Commission and Member States should explore interpretation of the implementation of the two-year trigger clause that would ensure no mining take place that would damage the marine environment. Section 1, paragraph 15 (c) allows room for interpretation on a number of issues (approval or not of a plan of work, type of 'provisional' rules and regulations under which a license would be approved and 'provisionally' granted, the decision-making process by the Council regarding the weight of a recommendation by the LTC). In our view, the Council could say "no" to an application for a plan of work under Section 1, paragraph 15 (c) of the 2-year rule if the exploitation regulations have not been adopted by then. States members of the ISA should take control of the interpretation of this clause and decide how it will be operationalized, particularly in light of the obligations contained in UNCLOS Article 145 as indicated above.



In this regard we note the position of the African Group of 47 member countries of the ISA submitted to the Council of the ISA on 13 July²⁵ Amongst other things, The African Group state that the request by Nauru is likely to weaken rather than facilitate the development of an effective ISA regime: that scientific knowledge is critical to effective governance but sound science in the deep ocean is yet not available; and that key priorities for the Group including transparency, inspection, compliance and enforcement, settlement of disputes, and transboundary harm have not yet been adequately addressed in the negotiations to date.

The African Group submission ends with the following: "*To conclude, despite the seemingly insurmountable task ahead of approving regulations within two years, the African Group would like to state its expectations that the priorities listed above will be fully addressed in any regulation(s) to be adopted by the ISA as a prerequisite to the consideration of any exploitation contracts. If sufficient regulations cannot be agreed upon within two years, the African Group Member States will heavily weigh those priorities yet to be addressed when faced with a decision to consider and "provisionally" approve a Plan of Work.*" We urge the EU to consider adopting a similar position. In accordance with UNCLOS Art. 154, working methods and procedures must be reformed first before adopting the Mining Code, including the relevant set of regulations and Standards and Guidelines. In addition, the processes and resolutions for adoption of decisions by the Assembly and Council of the ISA must be amended to ensure adoption by qualified majority without a "de facto" veto from minority groups.

Environmental / ecosystem considerations

6.7. CUMULATIVE IMPACT ASSESSMENTS (CIAs) & STRATEGIC ENVIRONMENTAL ASSESSMENTS (SEAs)
Following discussions held at the UN IGC on BBNJ, the LDAC-PELAC-NWWAC considers CIAs a key element for the successful implementation of the objectives of the treaty and to achieve the objective of conservation and sustainable use of the high seas. In this respect, the LDAC-PELAC-NWWAC believes that all impacts on the same ecosystems (or the repetition of similar activities over time) have to be considered, and further work must be developed on setting criteria to measure effects of different pressures combined over a same habitat or feature to protect. In this sense, existing knowledge must be taken into account when carrying out such exercise, including for example scientific and ecosystem work underpinning closed areas to fishing in RFMOs such as NAFO or VMEs in NEAFC/OSPAR. Deep-sea mining is an activity that has not been assessed by an independent body.

The LDAC-PELAC-NWWAC also support the view that SEAs are key for planning of EIAs system particularly at ecosystem level in those areas where ISA has awarded exploration permits.

²⁵ Submission of members of the Council of the International Seabed Authority from the African Group in relation to the request by the Republic of Nauru pursuant to section 1, paragraph 15 of the 1994 Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea (UNCLOS). ISBA/26/C/40. <https://www.isa.org.jm/node/19327/session/council#block-media-2>



6.8. PROMOTING A CIRCULAR ECONOMY – The LDAC-PELAC-NWWAC promote the implementation of a variety of strategies and measures that allow society in general to move away from a linear, throw-away economic to a circular economy focussed on sufficient, wellbeing and fair and equitable distribution. Examples of such strategies and measures can be found in Seas At Risk’s *Breaking Free From Mining* report²⁶.

In this respect, the LDAC-PELAC-NWWAC urgently call for the fulfilment of reuse of materials and circular economy strategies based on the 4Rs of Sustainable Living, i.e. Refuse, Reduce, Reuse and Recycle. This approach links the overarching and major problem of climate change with sustainable use of the oceans and seeks to ensure a smooth transition towards a carbon-neutral society. This is of paramount importance especially when considering the impacts of climate change on marine biodiversity, including commercially exploited species.

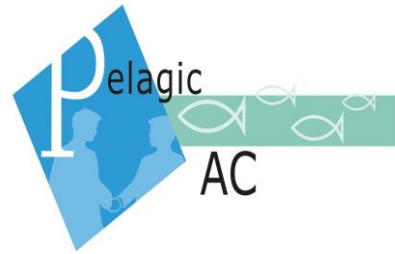
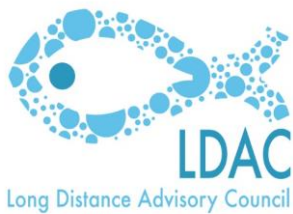
FINAL CONCLUSIONS

We are in a crucial stage in the field of international ocean governance. The mineral resources of the seafloor in the Area are the common heritage of (hu)mankind. This area covers around 54 percent of the total area of the world’s oceans. It is our view that the precautionary approach and public interest for a common good must prevail over individual / oligopolistic commercial interests coming from private companies looking for short-term profits. A rigorous and transparent model of regulations is needed regarding exploration licensing and reporting of environmental impacts put forward by contractors and backed by sponsoring states. If there is not enough evidence to determine the impact of the deep-sea mining on the marine environment, a “moratorium” or prohibition of exploitation should apply in line with the precautionary principle.

The EU has a great opportunity to lead on this subject and to fulfil its objective and ambition of “making a stronger Europe in the world” in the field of IOG process. It should lead by example in promoting scientific research and mobilisation of funds to make the UN Decades of Marine Science and Ecosystems a reality also in relation to deep-sea habitats.

From the LDAC-PELAC-NWWAC, we would like to see further transparency and an integrated multi sectorial database containing data from all ocean activities including fisheries, oil and gas exploitation, seabed mining, etc. in both non-EU exclusive economic zones and the high seas. Work is already in progress in isolation, so integration and compatibility of this information in IT tools would definitely help transparency and contribute to a better understanding of what the different pressures exerted on the oceans are. Extractive mineral activities should be limited in volume and tailored to the new reality: economic sectors and households should take an active role in reutilisation of existing materials to comply with objectives laid out in the EU Strategy on Circular Economy and effectively ensuring the energy transition that is urgently needed to combat the adverse effects of climate change.

²⁶ Seas At Risk (2021). *Breaking free from mining: A 2050 blueprint for a world without mining – on land and in the deep sea*. Brussels <https://seas-at-risk.org/wp-content/uploads/2021/06/Breaking-Free-From-Mining.pdf>



SUMMARY OF BIBLIOGRAPHIC REFERENCES

International legal basis:

1982 United Nations Convention on the Law of the Sea (UNCLOS)

1994 Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea (1994 Agreement).

FAO International Guidelines for the management of Deep-sea Fisheries in the High Sea:

<https://www.fao.org/fishery/topic/166308/en#:~:text=the%20High%20Seas-,The%20FAO%20International%20Guidelines%20for%20the%20Management%20of%20Deep%2Dsea,and%20to%20prevent%20significant%20adverse>

Advice from other ACs (2019-2020)

[LDAC opinion on deep-sea mining in international waters](#) (May 2019)

[SWWAC advice on impact of oil and mining activities](#) (May 2019):

[Pelagic AC Recommendation on deep sea mining activities](#) (June 2020):

[NWWAC/PELAC advice for non-recurrent request to ICES on seismic impacts](#) (August 2020)

[Multi AC advice on the blue economy](#) (December 2020)

Scientific papers and publications

IEA (2021). The role of Critical Minerals in Clean Energy Transitions. World Energy Outlook Special Report.

<https://iea.blob.core.windows.net/assets/278ae0c8-28b8-402b-b9ab-6e45463c273f/TheRoleofCriticalMineralsinCleanEnergyTransitions.pdf>

Page 156 dedicated to seabed mining and its environmental impacts.

IPBES. (2019). Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (V1). Zenodo. <https://doi.org/10.5281/zenodo.5517154>.

IUCN (2021). Issues Brief. Post-2020 global biodiversity framework.

https://www.iucn.org/sites/dev/files/iucn_issues_brief_post2020_final_f.pdf

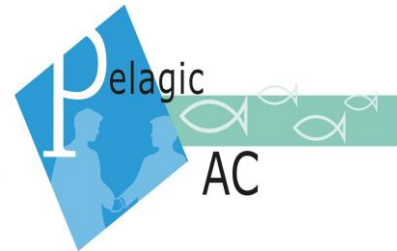
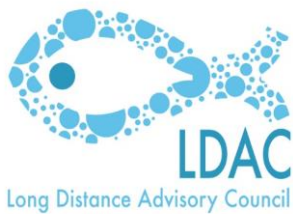
IUCN. Summary statistics. <https://www.iucnredlist.org/resources/summary-statistics>

Levin, L.A., Amon, D.J. & Lily, H. Challenges to the sustainability of deep-seabed mining. *Nat Sustain* **3**, 784–794 (2020). <https://doi.org/10.1038/s41893-020-0558-x>

<https://www.nature.com/articles/s41893-020-0558-x>

Seas At Risk (2021). At a crossroads: Europe's role in deep-sea mining. Brussels.

https://seas-at-risk.org/wp-content/uploads/2021/05/PDF_COMPRESSED_SEA_AT_RISK_2.pdf



Seas At Risk (2021). Breaking free from mining: A 2050 blueprint for a world without mining – on land and in the deep sea. Brussels.

<https://seas-at-risk.org/wp-content/uploads/2021/06/Breaking-Free-From-Mining.pdf>

Press releases and articles (sources: The Guardian and BBC):

- Deep sea mining may be a step closer to reality – 1 July 2021:
<https://www.bbc.com/news/science-environment-57687129>
- “Race to the bottom: the disastrous blindfolded rush to mine the deep sea”
<https://www.theguardian.com/environment/2021/sep/27/race-to-the-bottom-the-disastrous-blindfolded-rush-to-mine-the-deep-sea>
- “‘False choice’: is deep-sea mining required for an electric vehicle revolution?”
<https://www.theguardian.com/environment/2021/sep/28/false-choice-is-deep-sea-mining-required-for-an-electric-vehicle-revolution>
- New Zealand ruling against deep-sea mining sets a global precedent:
<https://www.theguardian.com/world/commentisfree/2021/oct/05/new-zealand-ruling-against-deep-sea-mining-set-a-global-precedent-now-ardern-should-ban-it>
- Is deep-sea mining a cure for climate change or a curse?
<https://www.theguardian.com/world/2021/aug/29/is-deep-sea-mining-a-cure-for-the-climate-crisis-or-a-curse>