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The International Seabed – the Common Heritage of Mankind

Recommendations for future governance by the International Seabed Authority

IASS POTSDAM

Umwelt Bundesamt

This policy brief was written by Sabine Christiansen (IASS), Harald Ginzky (German Environment Agency), Pradeep Singh (University of Bremen) and Torsten Thiele (IASS), with further comments by Hans-Peter Damian (German Environment Agency), Erik van Doorn (Kiel University), Katherine Houghton (IASS), Aline Jaeckel (Macquarie University), and Sebastian Unger (IASS).

German Environment Agency (UBA)

As Germany's main environmental protection agency, UBA covers an extremely broad spectrum of issues, including waste avoidance, climate protection, and pesticide approvals. UBA gathers data on the state of the environment, investigates the relevant interrelationships, makes projections – and then, based on these findings, provides federal bodies such as the Ministry of the Environment with policy advice. UBA also provides information to the general public and answers questions on all of the issues it addresses. UBA conducts research in its own labs as well as commissioning research from scientific institutions in Germany and abroad.

Current efforts at the International Seabed Authority to develop regulations pertaining to the exploitation of deep seabed minerals would benefit from a moment of reflection on the future governance of these resources. As the Area and its resources have been declared a common heritage of mankind, this principle must be taken into account when designing the future governance of activities in the Area.

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Current discussions of exploitation regulations to be adopted by the International Seabed Authority (ISA) present a window of opportunity to establish a model of governance for the resources of the seabed and subsoil beyond the limits of national jurisdiction (the Area) that balances the economic, social and environmental dimensions of sustainable ocean development.

The 1982 United Nations Convention on the Law of the Sea (UNCLOS) declares the Area and its resources the common heritage of mankind (CHM) and vests all rights therein in "mankind as a whole". However, a consensus on the practical application of this principle has not been achieved thus far.

Adopted by the United Nations General Assembly in 2015, the 2030 Agenda for Sustainable Development with its 17 sustainable development goals (SDGs) provides a framework of objectives, measures, and instruments to achieve sustainable development by 2030. Future governance by the ISA needs to reflect the common heritage principle in a manner that contributes to the sustainable use of the oceans, taking into account all available knowledge and reflecting the spirit of the 2030 Agenda for Sustainable Development.

The following recommendations offer food for thought on the implementation of the common heritage principle with a view to achieving sustainable governance of deep seabed mining.

Message 1:
Interpret common heritage in the light of new knowledge and the SDGs

The ISA must ensure that the conduct of activities in the Area adheres to the common heritage principle. The principle should be interpreted in accordance with contemporary knowledge and up-to-date information, and in the spirit of the 2030 Agenda for Sustainable Development.

Message 2:
Ensure that activities deliver positive net benefits to humankind

A comprehensive cost-benefit analysis, including an assessment of the impact of any mining activities on the natural capital of the Area and on other potential uses of the deep sea is required. This analysis and a broad discussion of its findings should take place before activities commence. As deep seabed mining will inevitably degrade ecosystems of the seafloor and water column, all potential options, including alternatives to marine mineral mining, need to be fully considered.

Message 3:
Take a precautionary approach to protect the common heritage of mankind

Given the potential harms arising from seabed mining and our limited knowledge of the deep sea and open ocean, a precautionary approach is crucial to protect the marine environment. The regulatory system has to be based on the best available scientific evidence, techniques and environmental practices and should integrate regional management objectives, adaptive approaches, strengthened interfaces with science, and strong enforcement mechanisms.

Message 4:
Consider the concerns of civil society and the interests of future generations

Broad public participation, transparency, and consideration of the social and cultural impacts of activities are necessary to ensure that due regard is given to the interests of civil society, in particular in developing countries, and of future generations.

The common heritage of mankind principle: its origins and current challenges

In a landmark speech delivered to the First Committee of the United Nations General Assembly in 1967, Maltese Ambassador Arvid Pardo called for the deep seabed beyond national jurisdiction and the resources contained therein to be declared the common heritage of mankind. Pardo proposed that a comprehensive treaty be negotiated to safeguard their status as a global commons. An international agency, he argued, should be established to ensure that activities undertaken in the deep sea and on the ocean floor conform to its principles.

The Maltese proposal led to the adoption in 1982 of the United Nations Convention on the Law of the Sea (UNCLOS), which declared the Area and its resources to be the "common heritage of mankind" (Article 136) and provided the basis for the establishment of the International Seabed Authority.

At the time of the treaty's adoption, it was widely believed that the deep seabed contained an all but limitless wealth of minerals and that its exploitation offered a chance to end world poverty. Lacking the technology to exploit this mineral wealth themselves, developing countries accordingly backed the declaration of the Area and its resources as the common heritage of mankind.

The international seabed – our common heritage

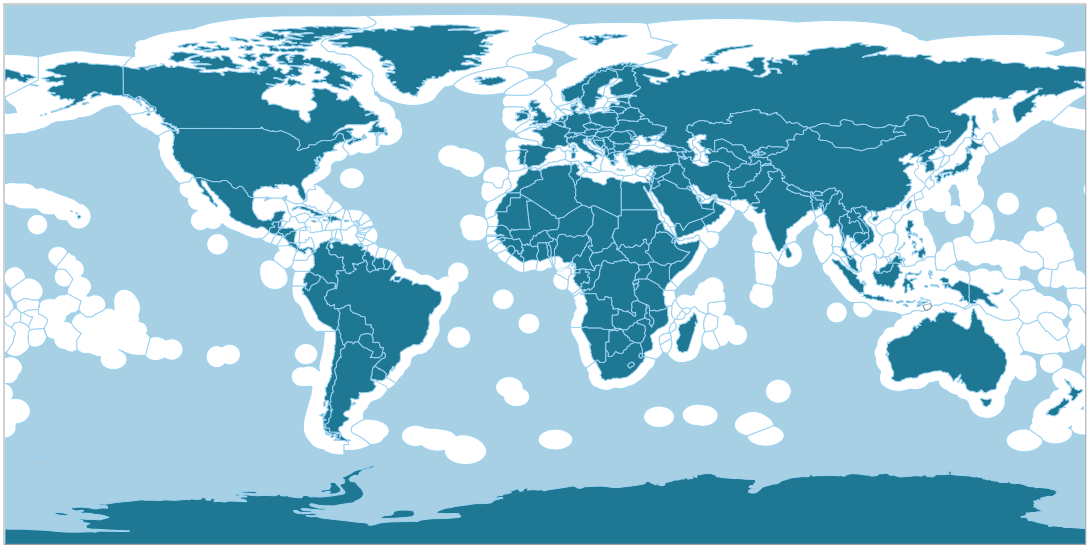


Figure 1: Global map showing the extent of EEZs and the Area

Source:
Sumaila et al. In prep./ Global Ocean Commission/ The High Seas and Us: Understanding the Value of High-Seas Ecosystems

The principle and its implementation

The principle of the common heritage of mankind is based on notions of stewardship and trusteeship and was created to realise a vision of solidarity and distributive justice. Critical elements of the common heritage regime outlined in UNCLOS include the preservation of the deep seabed for exclusively peaceful purposes; the principle of non-appropriation; the reservation of mineable areas for developing states in the Area; the equitable sharing of any financial or other economic benefits as well as knowledge generated through mining activities; and the protection and preservation of the marine environment.

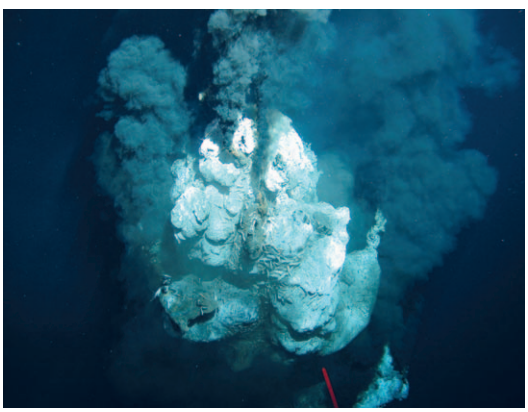
The International Seabed Authority is mandated, under UNCLOS Article 136, to give full effect to the common heritage principle in the governance of "activities in the Area". Instruments essential for effective implementation of the principle include the Mining Code (the sum total of the regulatory regime) and an equitable benefit-sharing system. Organs essential for the Authority's own mineral exploitation activities on behalf of mankind – such as the Enterprise and the Economic Planning Commission foreseen in UNCLOS – are yet to be established.

Current challenges

It has become clear that deep seabed mining presents major challenges. In particular, the knowledge about the status of the marine environment, its vulnerability and its resilience is so limited that the scale of the effects of mining activities on the marine environment is difficult to predict. Significant technological developments are needed in order to make environmentally responsible mining operations possible. Furthermore, it is still unclear whether mining operations would indeed be economically viable.

The implementation of the common heritage principle should, moreover, be viewed in the context of both the 2030 Agenda for Sustainable Development and the Paris Agreement. With its 17 interlinking sustainable development goals and 169 targets, the ambitious 2030 Agenda for Sustainable Development seeks to end poverty by 2030 and promote shared economic prosperity, social development, and environmental protection. At its core, the 2030 Agenda expresses the conviction that the world's most pressing challenges can only be tackled through concerted efforts and fair cooperation between developed and developing nations. Likewise, delivering on the commitments made under the Paris Agreement requires the elaboration and implementation of future-oriented development pathways to build sustainable, circular, and low-carbon economies.

These challenges need to be taken into account in decision-making related to the future governance of the Area by the ISA and the implementation of the common heritage of mankind principle.



The tip of a black smoker

Interpret common heritage in the light of new knowledge and the SDGs

The ISA must ensure that the conduct of activities in the Area adheres to the common heritage principle. This should be interpreted in accordance with contemporary knowledge and up-to-date information, and in the spirit of the 2030 Agenda for Sustainable Development.

Article 136 of UNCLOS declares that the "Area and its resources are the common heritage of mankind". The common heritage principle encompasses the responsibility to take "[n]ecessary measures [...] to ensure effective protection for the marine environment from harmful effects which may arise from such activities", as specified in Article 145 of UNCLOS.

The goal of affording effective protection to the marine environment within the context of deep seabed mining has been a pivotal aspect of the common heritage of mankind principle since Ambassador Pardo's speech. Yet our knowledge and understanding of the deep ocean grows and evolves over time. For instance, the scientific knowledge base relating to the role of the deep ocean in climate regulation is growing and this should be reflected in the interpretation of the common heritage of mankind principle. At the same time, other norms, concepts and notions that have grown around the principle, such as sustainable development and good governance (e.g. participation and transparency), should be taken into account.

Linking the common heritage principle to the SDGs

Steps should therefore be taken at the ISA to ensure that the latest knowledge (especially relating to sustainability and environmental impacts) is fed into all decision-making processes at critical stages. Furthermore, both the ISA and the global community should affirm their commitment within this context to the 2030 Agenda for Sustainable Development and the sustainable development goals (SDGs). The ISA should accordingly adopt measures to ensure that all decisions pertaining to activities in the Area effectively adhere to and reflect the Agenda's spirit of transformation and contribute to achieving the goal for the oceans (SDG 14) and other cross-cutting goals (such as SDGs 9, 12, and 16), while not undermining the achievement of SDG 13 by reducing the buffering capacity of the ocean for greenhouse gases. To this end, the ISA should urgently identify governance priorities for the implementation of the common heritage of mankind principle and develop indicators that make progress towards these societal goals measurable.

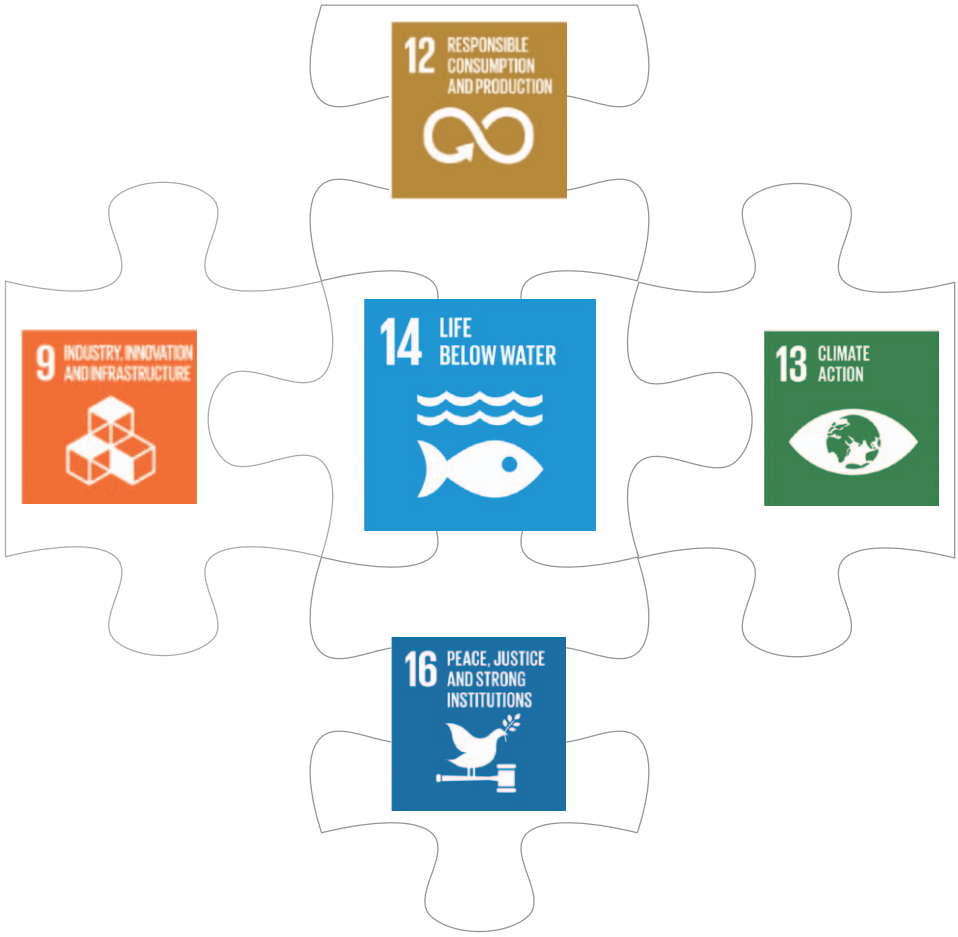


Figure 2: The achievement of Goal 14 depends on progress towards other SDGs.

Source:
United Nations Department of Public Information

Recommendations for action:

- Ensure that the latest knowledge (especially relating to sustainability and environmental impacts) is fed into all decision-making processes at critical stages;
- Affirm commitment to the sustainable development agenda and adopt measures to ensure that all decisions pertaining to activities in the Area effectively adhere to its spirit of transformation and contribute to achieving SDG 14 and other cross-cutting goals;
- Identify governance priorities for the implementation of the common heritage of mankind principle in the long term (e.g. within an ISA strategic plan) by determining a set of desired indicators (e.g. specific environmental objectives or targets).

Ensure that activities deliver positive net benefits to humankind

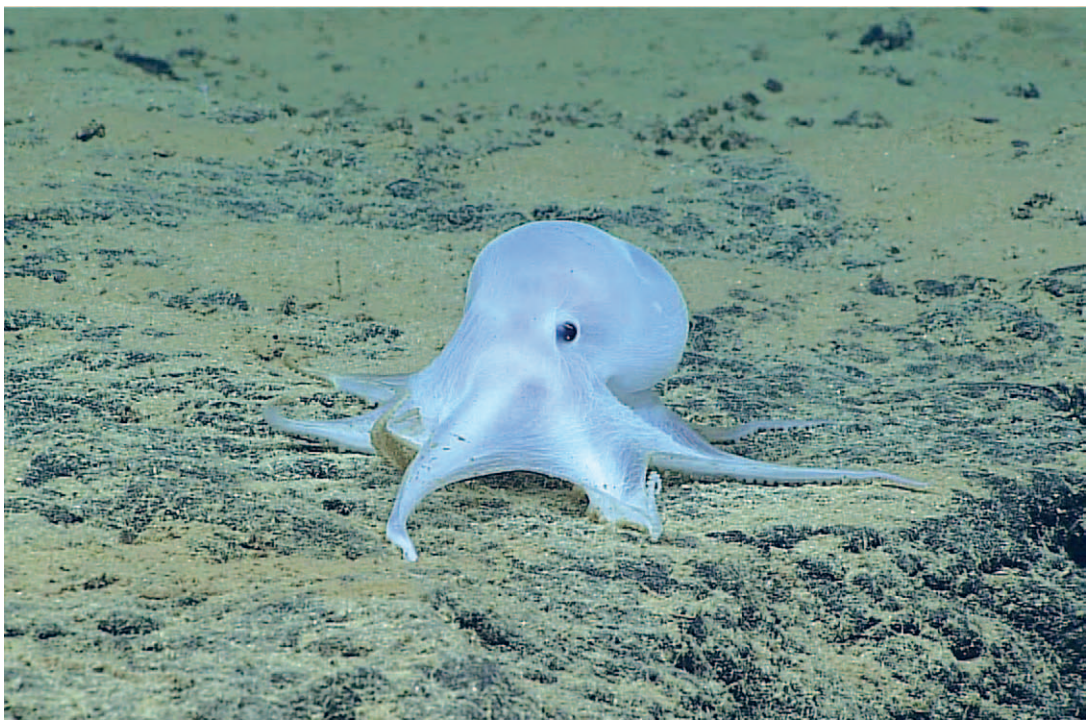
A comprehensive cost-benefit analysis, including an assessment of the impact of any mining activities on the natural capital of the Area and on other potential uses of the deep sea is required. This analysis and a broad discussion of its findings should take place before activities commence. As deep seabed mining will inevitably degrade ecosystems of the seafloor and water column, all potential options, including alternatives to marine mineral mining, need to be fully considered.

The Area delivers significant and valuable ecosystem services to all humankind. Deep-ocean biodiversity supports key ecosystem functions, including nutrient regeneration and carbon sequestration, and acts as a living library of genetic resources that may hold benefits to humans and the key to future adaptation. This natural capital of the deep ocean needs to be considered before proceeding with activities that will degrade it. Economics provides a number of techniques for deciding on whether or not an activity should be undertaken and offers a way of quantifying economic gain and natural resource degradation. Such prior assessment is consistent with the precautionary approach that should be taken to the exploration and exploitation of marine minerals in order to minimise the risks of harmful, cumulative and synergistic environmental impacts (see Message 3).

Alternatives to deep seabed mining

States, in line with their commitments to the SDGs, should take the lead and consider alternative means of meeting human needs, including greater resource efficiency, circular economies, mineral substitution, and other technological innovations. The potential benefits and costs of deep seabed mining need to be clearly ascertained and compared with these alternatives to help decide which efforts public policy should prioritise. Another contribution to safeguarding the interests of future generations can be made by the designation and management of further large-scale no-mining reserves.

More research, in both the natural and social sciences, including natural capital economics, and comprehensive engagement within the ISA and with all stakeholders are required before mining activities can be undertaken. Given the Area's designation as the common heritage of mankind, the global community is entitled to an assurance that any activities in the Area bring net-positive outcomes.



Is deep seabed mining compatible with protecting biodiversity and habitats in the deep sea? This photo shows Casper, the deep-sea octopus discovered on Necker Ridge, Hawaii. © NOAA

Recommendations for action:

- Conduct a comprehensive cost-benefit analysis of deep seabed mining that integrates externalities and fully considers the value of the natural capital as well as other potential uses of the deep sea;
- Ensure that the Mining Code reflects natural capital considerations;
- Establish an equitable benefit-assessment and benefit-sharing regime prior to licensing exploitation.

Take a precautionary approach to protect the common heritage of mankind

Given the potential harms arising from seabed mining and our limited knowledge of the deep sea and open ocean, a precautionary approach is crucial to protect the marine environment. The regulatory system has to be based on the best available scientific evidence, techniques and environmental practices and should integrate regional management objectives, adaptive approaches, strengthened interfaces with science, and strong enforcement mechanisms.

Our knowledge of the marine environment of the deep sea, the seabed, and its subsoil — in other words, our knowledge of the physical, chemical and biological foundations of the global ocean system — is very limited. The ecosystems at the bottom of the ocean are unique and very diverse, and the ocean processes they support are complex. The consequences of anthropogenic disturbances to these ecosystems are likely to be irreversible. Given our limited knowledge concerning the vulnerability and the resilience of these ecosystems, the scale of mining impacts will be difficult to predict.

Against this background, a precautionary approach should be adopted towards the exploration and exploitation of marine minerals in order to minimise the risks of harmful environmental impacts. The precautionary approach is crucial as it necessitates the implementation of measures to prevent and reduce harmful effects on the marine environment, particularly when scientific evidence about the impacts of activities is not conclusive.

Putting the precautionary approach into action

Translating the precautionary approach into practice requires that the regulatory regime be based on the best available scientific knowledge as well as the best available techniques and environmental practices. Environmental thresholds to define what level of environmental impacts could be considered acceptable are crucial and must be determined on the basis of the best available scientific knowledge.

Regional governance frameworks aligned with environmental objectives (e.g. regional environmental management plans) can support the implementation of the precautionary approach and address cumulative effects and usage conflicts. Other competent management authorities, for example fisheries organisations, should also be consulted.

The need for adaptive governance

Strengthening independent scientific research and providing access to contractor data will be important to reduce the knowledge gap and determine environmental thresholds. The development and implementation of an adaptive model of governance would facilitate the consideration and application of new knowledge in the management of the resources of the Area. All these measures would contribute to the broader mission of ensuring that the interests of future generations are adequately considered.

Deep-sea shrimp, probably Pandalus borealis © Jan Steffen, GEOMAR (CC BY 4.0)

Recommendations for action:

- Ensure that the precautionary approach is strictly integrated into the exploitation regulations of the Mining Code;
- Determine the relevant knowledge base for designing a regulatory regime for the Area;
- Develop regional and strategic management tools, including cooperative interfaces with other competent authorities, to deal with cumulative effects and usage conflicts;
- Implement an adaptive governance system for activities in the Area, incorporating the best available techniques and environmental practices, improved interfaces with science, access to environmental data, and strong enforcement mechanisms.

Consider the concerns of civil society and the interests of future generations

Broad public participation, transparency, and consideration of the social and cultural impacts of activities are necessary to ensure that due regard is given to the interests of civil society, in particular in developing countries, and of future generations.

The recognition under UNCLOS of the Area and its resources as the common heritage of mankind raises the question of whether states alone can fully represent the diverse interests and cultural values of their populations. Who, in fact, represents 'mankind'?

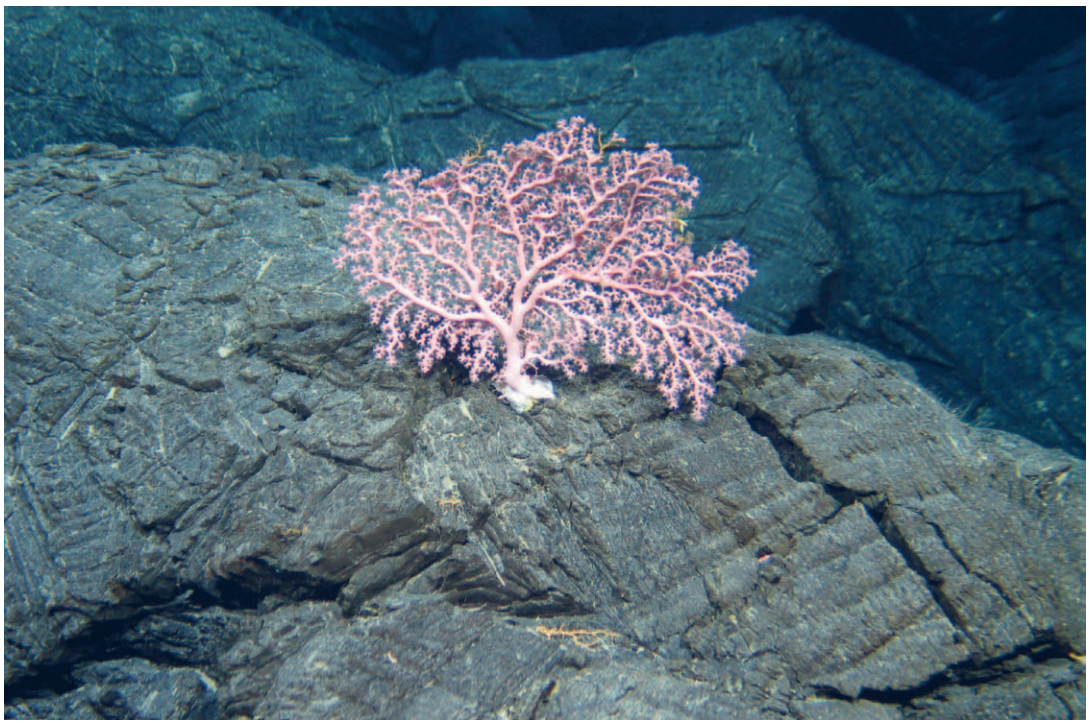
Several states have entered into agreements to serve as sponsoring states for the exploration and eventual exploitation of minerals in the Area by private entities. In the light of the social, environmental, and economic risks associated with deep seabed mining, civil society organisations, together with regional and international non-governmental organisations, are now demanding a greater role in the governance of the common heritage of mankind. Indigenous communities in particular need to be consulted, since their livelihoods and way of life are especially vulnerable to competing mining operations and a deterioration in ocean health.

Towards a relationship of stewardship

Whereas in the Global North, decisions in this area tend to be informed by an abstract vision of preserving and restoring ocean health, in some cultures and coastal communities, for example in Pacific island states, a personal and deep-rooted cultural bond with the wider ocean prevails. This perspective, together with the need for long-term sustainable livelihoods, resonates with the aims of the global sustainability agenda (see also Message 1) and fosters a relationship of stewardship towards the sea and the resources it provides. In a shift to a more integrated and sustainable vision for our oceans, stewardship needs to be understood as an important aspect of the common heritage principle.

Concrete steps to broader public participation

To ensure that the concerns of civil society are taken into account, the ISA and sponsoring states should establish effective procedures for public participation and stakeholder engagement. Mechanisms for transparency, including public access to all environmental data and information, are also crucial. Long-term strategies for equitable and future-sensitive governance are required to protect the livelihoods of local communities – especially indigenous people. And assessments of the likely social and cultural impacts should be an integral part of a robust, transparent, and inclusive Mining Code.



Pink cold-water coral © ROV-Team, GEOMAR (CC BY 4.0)

Recommendations for action:

- Create mechanisms for active stakeholder engagement and public participation at all levels of decision-making within the ISA and ensure that the potential short-, medium-, and long-term social and marine environmental impacts are considered;
- Develop and implement culturally appropriate long-term strategies that protect livelihoods, particularly in developing countries, and uphold collective values in relation to the ocean;
- Ensure that “activities in the Area” do not prejudice the rights of future generations and their interests in the deep sea.

Towards the future governance of the common heritage of mankind

Current efforts at the International Seabed Authority to develop and finalise regulations pertaining to the exploitation of deep seabed minerals would benefit from a moment of reflection on the future governance of these resources. As the Area and its resources have been declared a common heritage of mankind, this principle must be taken into account when designing the future governance of activities in the Area.

This policy brief recommends that, in order to put the common heritage of mankind principle into action, a future governance framework for deep seabed mining should:

- Contribute to the conservation and sustainable use of the oceans and marine resources, taking into account all available knowledge and reflecting the spirit of the 2030 Agenda for Sustainable Development;
- Ensure that activities in the Area deliver positive net benefits to humankind by requiring the ISA to conduct a comprehensive cost-benefit analysis, including an assessment of the likely impacts of mining activities on the natural capital of the Area and on other potential uses of the deep sea;
- Take a precautionary approach to protect the common heritage of mankind, based on the best available scientific evidence, techniques and environmental practices, and integrating regional management objectives, adaptive approaches, strengthened interfaces with science, and strong enforcement mechanisms;
- Consider the concerns of civil society, particularly in developing countries, and the interests of future generations by ensuring broad public participation, transparency, and consideration of the social and cultural impacts of activities.

As noted in the introduction, these recommendations are intended as food for thought on the future direction of ocean governance under the auspices of the International Seabed Authority. It is the authors' shared conviction that, by following these recommendations, the Authority will align itself with the prudent and responsible intentions that characterised Ambassador Arvid Pardo's remarkable speech more than fifty years ago.

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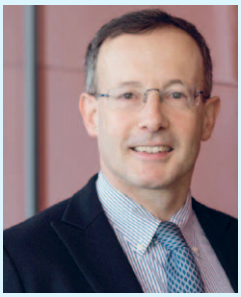

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Institute for Advanced Sustainability Studies (IASS) e. V.

Funded by the ministries of research of the Federal Republic of Germany and the State of Brandenburg, the Institute for Advanced Sustainability Studies (IASS) aims to identify and promote development pathways for a global transformation towards a sustainable society. The IASS employs a transdisciplinary approach that encourages dialogue to understand sustainability issues and generate potential solutions in cooperation with partners from academia, civil society, policymaking, and the business sector. A strong network of national and international partners supports the work of the institute. Its central research topics include the energy transition, emerging technologies, climate change, air quality, systemic risks, governance and participation, and cultures of transformation.

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