According to the German Federal Institute for Geosciences and Natural Resources\textsuperscript{1}, Germany imports over 90 million tonnes of metal annually for the production of machines, electrical equipment or automobiles. In addition, many raw materials are imported in processed and intermediate products. These consumption and production patterns exceed our planetary boundaries and contradict global resource justice. On a global level, the extraction of raw materials is linked to high social and ecological costs. These costs are not reflected in the price of raw materials and finished products and its consequences are mostly borne in the countries of the Global South. In many cases, the extraction is also associated with human rights violations. With the continuously soaring hunger for ever new raw material sources throughout the globe and the low yields from terrestrial deposits, the focus is increasingly shifting towards the marine mineral resources of the oceans and seas. Today, numerous exploration and research projects for deep sea mining\textsuperscript{2} are under way.

The German government supports a number of industry and research initiatives, both politically and financially that massively promote deep sea mining. In the face of these trends, environmental, development and human rights organisations associated in the German NGO Working Group on Deep Sea Mining\textsuperscript{3} are calling for a rethinking and consequently a change in policy-making. The total raw materials consumption in Germany and Europe must be drastically reduced. The deep sea has to be protected as humanity’s common heritage. Deep sea mining is incompatible with the preservation and conservation of this heritage, but is on the contrary linked to severe disturbances of marine ecosystems, biodiversity loss and incalculable consequences for the marine world and the people living in coastal areas. Deep sea mining is the opposite of a sustainable raw materials policy.

\textsuperscript{1} Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)

\textsuperscript{2} In this paper the extraction of minerals and deposits from the sea floor is described as Deep Sea Mining (DSM), knowing that the term Seabed Mining (SBM) is also usable.

\textsuperscript{3} The German NGO Working Group on Deep Sea Mining (AG Tiefseebergbau) comprises member organisations of the Working Group Oceans (AG Meere) in the German NGO Forum on Environment and Development (Forum Umwelt und Entwicklung) and the Working Group on Raw Materials (AK Rohstoffe).
TO THIS END, WE CALL FOR THE GERMAN GOVERNMENT TO UNDERTAKE THE FOLLOWING:

- **Suspend its exploration licences.** Instead, the German government should fulfil its mandate vis-à-vis the International Seabed Authority (ISA) in a way that it disapproves the exploitation of the deep sea raw materials. In so doing, the German government must ensure that the results of any research conducted under its licences do not permit or facilitate deep sea mining by other countries.

- **Exclude deep sea mining as a high-risk sector from future promotion of foreign trade and investment.** This includes untied financial loans in the raw materials sector, investment guarantees and Hermes guarantees for the export of technology and machinery for deep sea raw materials extraction.

- **At European level, take action to ensure that no future research funding programmes for deep sea mining in the Pacific region are supported.** Pacific civil society organisations and the groups representing the affected population in the Pacific reject deep sea mining, with all of its imponderable risks, as an irresponsible undertaking. They do not want to serve as the ‘testing ground’ for high-risk technologies once again, as was already the case with the previous nuclear tests in the Pacific.

- **Take stronger action than in the past for designating marine conservation areas with effective management strategies and zero-use zones based on transparent and participatory methods, rather than promoting deep sea mining.** Furthermore, the German government should drive forward the BBNJ process 4 and make the designation of widespread protected areas with specific targets of 20 per cent by 2030 on the high seas and on the deep sea a component of these negotiations.

- **Promote and expand scientific investigation of the deep sea independent of any commercial exploitation interests.** Knowledge about the biodiversity and ecology of the deep sea is yet incomplete, despite the fact that the deep sea is the largest segment of the biosphere and is extraordinarily significant for our planet’s material cycles. Comprehensive basic research is needed for effective marine protection on the ocean floor. Coupling marine research to deep sea mining contradicts the principle of scientific independence.

- **Enshrine judicially binding human rights due diligence for companies.** In future, companies must be obliged to respect human rights, including in their foreign business transactions, subsidiaries and supply chains. The German government should actively engage in the United Nations’ Human Rights Council negotiations on a UN Binding Treaty on Business and Human Rights. The treaty should be, binding for all contractual parties, set up a clear regulatory framework for companies and open up options for affected parties to make legal claims. In accordance with the precautionary principle, the high and incalculable risks related to human rights and the environment call for disengaging from deep seab mining projects or rather not getting engaged at all.

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4 UN negotiations process on marine biodiversity beyond national jurisdiction (BBNJ).
Deep sea mining – a new burden on people and the environment

DANGER TO MARINE ECOSYSTEMS

Deep sea mining is based on in some cases widespread destruction of the ocean floor. It is undisputed among researchers that its extraction method lead to severe, irreparable damage to the unique habitats and fragile ecosystems found in the deep sea. So far, it is impossible to predict future consequences of such severe, worldwide disruptions including cascading spill-over effects onto other ecosystems. Additionally, due to the fact that scientific understanding of the ecosystems of the deep sea is still only rudimentary, it is nearly impossible to assess the scope, aspects and amount of negative impacts it will have.

The disruptions already brought about by noise, vibrations and light from the machines and supply ships during the extraction phase will be severe. Thus, marine life, including whales and dolphins, will be seriously disturbed in its habitats. Moreover, the use of track vehicles and the pumping back of mining waste will release sediment plumes that are consequently transported by the ocean currents possibly polluting the food chain up to the level of human consumption with its heavy metals and other toxic substances.

The most severe ecological consequences, however, will be caused by the direct destruction of the habitat itself, as the seabed will be removed and broken apart by machines. In order for deep sea raw material extraction to be profitable, much more extensive areas would have to be removed compared to small-scale pilot mining tests conducted to date. Marine scientists consider the survival of the unique biodiversity of these habitats to be seriously threatened. Compensating for the loss of biodiversity through conservation projects in other areas of the sea is not an option in view of the unique nature of the deep sea ecology.

Against this backdrop, deep sea mining is without a doubt a high-risk technology. It contradicts the principles of a precautionary environmental policy. The extraction of marine raw materials would cross the last boundaries of industrial exploitation of the biosphere. This highly sensitive ecoregion decisively influences important global cycles such as the carbon cycle. Subjecting it to an industrial exploitation of such scale is irresponsible considering the lack of scientific basis with regard to long-term, indirect and direct consequences and in view of the untapped potential for reducing the current absolute raw materials consumption.

RESTRICTING AND VIOLATING HUMAN RIGHTS

Interventions in the oceans’ ecosystem will have severe impacts on the lives of coastal inhabitants, as their lives are often closely linked to the oceans. They may even constitute severe human rights violations, as attested to by many examples in land-based mining. Once deep sea mining disturbs the marine environment, causes water pollution, decimates fish stocks and deters and keeps away tourists, the livelihood of the coastal communities will be destroyed. The Pacific region is particularly affected, as extraction is likely to start there. Large parts of their population live in subsistence fisheries and tourism and are dependent on the seas and an intact environment. Many communities see Oceania as a fluid continent with the seas being an important part of their spiritual and cultural identity. People, land and the ocean are all inextricably interlinked.

Local residents, representatives of organised civil society and churches have taken a clear stand against deep sea mining and call against Oceania becoming a testing ground for a new industry with unpredictable consequences. People in the Pacific Island States still recall and live in the aftermath of nuclear testing carried out in the 20th century. Many of them feel that with deep sea mining they are once again being exploited by the Global North. Thus, deep sea mining can be considered a violation of human rights, for all people have the right to an
adequate standard of living, including the right to food and to physical and mental health. Furthermore, the United Nations 1972 Stockholm Declaration for the first time expressed a collective right of all people to a safe, healthy and ecologically-balanced environment. Environmentally-related human rights are now widely recognised. In the fight against deep sea mining, the undersigned organisations stand in solidarity with the Pacific community in demanding and fulfilling these rights.

HIGH RISKS AND COSTS – LITTLE PROFIT FOR AFFECTED COMMUNITIES

Even in economic terms, deep sea mining is not sustainable, as was shown by a study carried out by the German Federal Ministry for Economic Affairs and Energy\(^5\) in 2016. The technical and logistical challenges and risks associated with deep sea mining are high and extraction is extremely cost-intensive. Due to the large-scale use of technology and the requisite scientific expertise, even the job-creation effects for the communities affected by the raw materials extraction are minimal.

The protection of the deep sea as the ‘Common Heritage of Mankind’, as was agreed in the United Nations Convention on the Law of the Sea of 10 December 1982, stands for the exact opposite of deep sea mining. Furthermore, the extraction of deep sea raw materials contradicts the Sustainable Development Goals (SDGs) adopted by the United Nations in 2015, first and foremost SDG 14, ‘Conserve and sustainably use the oceans, seas and marine resources for sustainable development’.

Nonetheless, the German government, the EU and German industry, as well as companies organised in the Deep Sea Mining Alliance, are keenly interested in deep sea raw materials. The German government, both politically and financially, supports a number of industry and research initiatives on deep sea mining and is thus heavily promoting this economic sector. In 2006, Germany acquired an exploration licence in the North East Pacific. In 2014, it secured an additional licence in the Indian Ocean. While to this date no mining licences have been granted, some exploration concessions will run out shortly. For this reason, at the International Seabed Authority (ISA) an inter-governmental process is currently under way to define mining regulations including amongst other things the amount of royalties, environmental regulations, and the organisational structure of the ISA.

Additionally, there are mining interests in the Exclusive Economic Zones (EEZs). In these areas, potential raw materials extraction is subject only to the governments of the coastal states. Marine mineral raw material resources occur in many EEZs, especially in those of the Pacific Island States (e.g. Papua New Guinea, the Salomon Islands, Vanuatu, Fiji, Tonga and the Cook Islands). In recent years, several countries have granted a number of exploration licences to international companies, further advancing deep sea mining in the near future and in immediate coastal proximity. For this reason, it would send an important signal if Germany would take a clear stand against deep sea mining.

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FOR FURTHER READING


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