
LEGAL REGULATIONS: SEABED AND DEEP SEABED MINING

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The curiosity of human mankind has led to technological development and this has also increased the greed level as it is evident that demands are increasing day by day. The Rising demand for minerals and precious metals has led to a resurgence of interest in the exploration of mineral resources, especially the sources located on the deep seabed. But this has become a major issue as it will create an imbalance on Earth and the outcome of the overuse of natural resources can be dangerous and all living beings are not prepared. To get a grip on such issues, all states need to critically think about them and take necessary urgent actions to develop sustainability without harming the other species. This article is an attempt to highlight fundamental issues and provide suggestions to address the serious problem currently in the world that is seabed and deep seabed mining.

Keywords: Exploration, International law, Mining activities, Protection.

INTRODUCTION

It is indeed a fact that humans are consistently curious to know about everything and from here the exploration of water bodies starts. To quench this thirst for curiosity humans have spent and given the high degree of struggle or difficulty and value in exploring the ocean, by making sophisticated equipment such as underwater vehicles, Ocean satellites, deep-sea submarines, and advanced sonar technology have achieved victory historically in the mission of exploration, still, the ocean is a mystery because the majority of variety life on Earth is aquatic which is around 94 percent. Despite, 70 percent of the Earth being taken up by the ocean, less than five percent of life including plants in the ocean and the sea are explored shockingly all because exploring the depths of oceans is so difficult and precarious. The remaining percentage is still to be explored as technology is improving.

It has been found that the deep ocean is difficult to access because the seafloor is just like the territorial having mountain ranges, plateaus, volcanic peaks, and vast plains that means, same

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as land have mineral resources, the seafloor can also possess or have abundance form of precious metals and minerals such as ferromanganese crusts and polymetallic nodules most famously. But now the question arises, how to protect the mineral resources of the seabed and what changes in existing regulations are required in the world to protect the marine mammals' environment from the seabed and deep seabed mining. This article will focus on the same, additionally, the article will also focus on elaborating the UN Convention on the Law of the Sea by covering all legal aspects and then finally provides certain suggestions to strengthen the laws related to the seabed and deep seabed mining.

HISTORY - HOW ALL IT STARTS

Navigational disquisition is as old as humans. There were mariners and ocean merchandisers mentioned in the Bible, and maritime trips and commerce were common during the ancient period, as the Romans and Greeks both took to the swells to explore. Between 1967 to 1982 the United Nations brought ocean governance into actuality, which means before that there was no regulation. In 1970, the General Assembly, in resolution 2749 (XXV), adopted the Declaration of Principles Governing the Sea-Bed and the Ocean Floor, and the Subsoil. Thus, beyond the Limits of National Jurisdiction, which reserved the seabed exclusively for peaceful uses. ¹Also, the Assembly has also declared the mineral coffers of the seabed is a "common heritage of mankind", that is used for the development and the benefit of humanity as a whole, and in 1982 United Nations Convention on the law of the ocean has come into actuality with International seabed authority. This authority aims to ensure the effective protection of the marine terrain from dangerous effects that may arise from deep-seabed affiliated activities. Therefore, Under UNCLOS, for disquisition and exploitation of seabed minerals in the Area can only be carried out through an agreement enforceable by law with the International Seabed Authority and subject to its rules, regulations, and procedures. Further, this composition endeavours to punctuate the legal frame with regulations and operations.

MANAGEMENT AND REGULATIONS

“The deep-sea lies beyond the national jurisdiction and from here the ISA comes in.”

¹ Declaration <<https://digitallibrary.un.org/record/201718?ln=en>> accessed on 3rd march, 2022

Coastal states have exclusive rights of any scale mining activity in this seabed area but within the 200 nautical miles (EEZ) only. Beyond that, the states necessitate the authorisation of international seabed authority. UNCLOS, United Nations Convention on the Law has created the International Seabed Authority (which is also known as custodian of deep-sea) is entrusted to oversee and administer the system of deep seabed mining and is accountable for regulating the Area along with granting contracts to explore deep seabed mineral resources. The UNCLOS deep seabed mining has mainly two regimes, the first one is that deep seabed resources are the 'common heritage of mankind' and mining activities must be carried out in a sustainable way with the aim of the benefit of mankind as a whole, that means no entity can claim over the resources of deepsea and another element is to protect the marine environment all these regulations prohibit the states or any other entity from conducting mining activities in the deepsea. Even though the deep seabed mining activities are still at the exploration phase for the seabed minerals called rare earth elements (REEs) that includes polymetallic nodules, polymetallic sulphides, and cobalt-rich crusts famously used for green energy technology, such as solar panels, wind turbines, and hybrid cars, and in the pharma industry. It's indeed the fact that exploration of the deep sea will solve our major problems but not at the cost of water pollution and exploitation of marine lives. Mining causes direct destruction by creating underwater noise, light, and vibration pollution that eventually create disturbance in marine life.

On the part of regulations, there are three sections in UNCLOS that are applicable to deep seabed mining. Article 136 states that "The Area and its resources are the common heritage of mankind"², second Article 137 states that "All rights in the resources of the Area are vested in mankind as a whole, on whose behalf the Authority shall act. These resources are not subject to alienation. The minerals recovered from the Area, however, may only be alienated in accordance with this Part and the rules, regulations, and procedures of the Authority."³ and the last one but one of the most important laws, Article 145. This article states that "Necessary measures shall be taken 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.

² Article 136 <https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf> accessed on 4th March 2022

³ Article 137 <https://www.un.org/depts/los/convention_agreements/texts/unclos/UNCLOS-TOC.html> accessed on 4th March 2022

To this end, the Authority shall adopt appropriate rules, regulations, and procedures for *inter alia*: The prevention, reduction, and control of pollution and other hazards to the marine environment, including the coastline, and of interference with the ecological balance of the marine environment, particular attention being paid to the need for protection from harmful effects of such activities as drilling, dredging, excavation, disposal of waste, construction and operation or maintenance of installations, pipelines and other devices related to such activities; 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.”⁴

PROJECTS ON DEEP SEABED MINING

The ISA holds exploration contracts with all the States, State enterprises, State institutions, State-controlled corporations, and several private corporations and the nations which are most active China, Russia, the USA, France, and Japan which have technology with expertise to conduct such missions. Fifteen-year exploration contracts of polymetallic nodules such as to Ocean Mineral Singapore Pte Ltd on 22 January 2015 and China Minmetals Corporation on 12 May 2017, seven contracts for exploration of polymetallic sulphides, and five contracts for the exploration of cobalt-rich ferromanganese crusts⁵. Additionally, India will be the sixth country to start the exploration of the ocean and the first developing country as India has potential as well as a unique maritime position. To initiate the mission called deep ocean mission to support its blue economy initiative. Under this mission, there will be the development of manned submersible, technological innovation for exploring the biodiversity and the world of the ocean which will help to gain the energy, minerals, medicines, modulator of weather.

Humans need to work in the judiciary by making a balance between development and destruction, as on the one hand where there is development in various fields such as medicines and mineral resources whereas on the other hand, major issues like fisheries, marine plants. That means, ocean mining will have a bad impact on global fisheries and it is well known that many communities with economies are reliant on the sector of fish as mining will directly intoxicate fish that come in contact with harmful substances due to mining and eventually reduce the population of fish. If that happened, then the balance of marine life would disbalance

⁴ Article 145 <https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf> accessed on 4th March 2022

⁵ Projects of ISA <<https://www.isa.org.jm/news>> accessed on 3rd March 2022

and cause a direct impact on humans. This shows the exploitation of the deep ocean will create major destruction on Earth.

SUGGESTION

From this view, it is explicitly visible that In the upcoming years, extraction of deep seabed minerals may become feasible with exploitation. Now, there are some suggestions from the side of the author:

- All deep seabed mining activities in the area are under the control of the UNCLOS regime. But for the future success of achieving the goal of development, there is a need of expanding ISA regulations including all its financial terms and environmental protections. Therefore, the ISA's current endeavour to draft exploitation regulations is a crucial movement and also a need of an hour towards the long-term realisation of viable deep-seabed mining industry in the area.
- A mandatory rule is required over states to overcome water pollution.
- There is also a need to clean the junk from water bodies, especially plastics. Hence, in order to protect water living lives, it's a high alert to the UN to authorise some authority to clean and make legal regulation that includes rigorous punishment.
- The duty to clean the junk or pollutants must be imposed on the state or private state who is currently engaged in the exploration of the ocean.
- Need to create sophisticated equipment that does not create noise, vibration, and harmful gases. This will ease the process of ocean mining with the goal of safe Earth and development.

These suggestions will explicitly highlight some solutions and with the ambit of law, there is a high need for another body to vigilantly handle the pollution and also a need to develop legal rules and regulations on the seabed and deep seabed mining.

CONCLUSION

"We are using resources as if we had two planets, not one..."

There can be no plan B because there is no planet B... ”⁶

- Ban Ki-Moon

God has made every species on Earth with some motive, to maintain a balance and humans are destabilizing that balance to quench its thirst for curiosity. It is well said, we don't have any other planet or plan B to survive, we have to use our resources substantially otherwise the disruption of marine ecosystems could affect climate change. Further, The Gordian knot lies in the statement “we don't know what we don't know” and researchers are actively working to explore but the way in is challenging considering that seabed mining disbalance and destruct the environment and coastal regions. This article revolves around the problems of deep ocean mining. Further, emphasised current legal international law for the same and lastly has presented some suggestions.



⁶ Ban ki moon quote <https://www.brainyquote.com/quotes/ban_kimoon_643761> accessed on 4th March 2022