Background Guide

Orpheus MUN

UNEP:
Threat to environment & marine life in view of excessive development in deep sea mining activities

2023

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Letter from the Executive Board

Right, hello.

Welcome to the simulation of the Orpheus MUN 2023. As you guys know, this committee is a bit different to other committees simulated at Model United Nations conferences. You will see representation from both: governments of countries and private entities. Hence, the way you research changes quite a bit.

What we expect from every one of you is a good understanding of both parts of the agenda: Environmental Threats and Seabed Mining Activities and think of innovative solutions as to how we can achieve the Sustainable Development Goals using the same, we need not try to solve each and every problem you discover, try to pick a few, as a committee and try to solve them. Socio-

economic and legal arguments are appreciated, but make sure you analyse it well.

We will be following UNA-USA Rules of Procedure (Do not worry if you are new to this, we'll explain this in detail). Make sure you check the bibliography here and the references we used to make this background guide; you'll get a better idea of what we were thinking of when we set the agenda.

Also, just a small note: For the delegates who are "experienced", make sure you don't try to dominate first timers, it's not cool and it will earn you no favours. Diplomacy is appreciated. We hope all of you have fun and enjoy this experience. Make sure you research well and make sure you do not violate your foreign policy / company policy.

Have fun!

- Raunak and Sneha

Introduction of Agenda

Key Terms of the Agenda-

1. Environmental Threats-

   Environmental threats are harmful after-effects of the human activities to the physical environment plaguing the planet with pollution, deforestation, climate change, ozone depletion, and water scarcity. We

need to focus on the three vital parameters such as water, air and climate, to enhance the consciousness among the people. Water scarcity is a severe environmental issue and needs potentially sustainable methods to address the threat. We are addressing the techniques to overcome the water crisis, such as wastewater reclamation methods, desalination, and conservation techniques. A particular emphasis has been put on ocean seabed mining and the harm caused by the same.

2. Deep seabed mining-

Seabed Mining (SBM) is a growing industrial field that involves extracting submerged minerals and deposits from the sea floor. To date, mining for sand, tin and diamonds has been generally limited to shallow coastal waters. Seabed Mining (SBM) should be distinguished from Deep Sea Mining (DSM) that occurs at a depth of 200 meters and greater. DSM is an experimental industrial field which involves extracting mineral deposits from the continental shelf and Area under the high seas. There are interests both for and against seabed mining, however, the science around the environmental impact of DSM is incomplete and unproven. In addition, there is also new interest to explore Deep Sea Mining (DSM), which requires intensive, destructive processes to retrieve deposits laid down over thousands of years around underwater hot springs or hydrothermal vents in the ocean.

3. International Framework of Laws-

Legislation is the genesis of implementation as it is from legislation that all the necessary measures to be taken derive their legitimacy. The provisions must be compatible with constitutional requirements and they

should reconcile with other laws and by- laws should be assured. The international maritime security framework must be implemented nationally in order for its provisions to have any practical effect.

These are some maritime regimes in order to prevent illicit trafficking through maritime routes:

SUA – Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation (1988)

UNCLOS – United Nations Convention on the Law of the Sea (1988/92)

PSI – Proliferation Security Initiative – not so much a regime as a set of principles.

ISPS Code – International Ship and Port Facility Security Code

SARPSCO – The South Asia Regional Port Security Cooperative (2008)

Agreement Concerning Co-operation in Suppressing Illicit Maritime and Air Trafficking in Narcotic Drugs and Psychotropic Substances in the Caribbean Area

Historic Background

Japan was the first country to successfully mine its seabed, tapping into a deposit of mineral resources 1,600 meters on its continental shelf off the coast of Okinawa in 2017. Other areas of current most likely occur off the coast of Papua New Guinea. The general idea is to remove gold and copper from inactive hydrothermal vent zones at depths between 1000 and 1500 meters. The

majority of current exploration contracts allow companies within the 200-mile Exclusive Economic Zone (EEZ) of a nation state. However, most of the marine deposits of minerals prized by world markets are found beyond the EEZs, on the seabeds of the High Seas.

The exploration and exploitation of these High Seas mineral deposits is governed by the International Seabed Authority (ISA) under authority conferred by the United Nations Convention of the Law of the Sea (UNCLOS). The ISA has awarded TK exclusive Exploration Contracts to member nations seeking to inventory mineral deposits and assess their commercial potential within a defined area. In theory, holders of Exploration Contracts would later seek Exploitation Contracts to conduct mining operations. That has not yet happened, largely because world prices have not risen high enough to justify the considerable costs.

Spurred by the Nautilus example and by advances in deep-sea technologies, ISA member-states have directed the ISA Secretariat to hasten the drafting of environmental regulations that would govern Exploitation Contracts

DSM does not yet exist in the Area. To date, however, the International Seabed Authority ("ISA") has issued twenty-nine contracts that authorize them to explore for 15 years. This involves three different types of mineral deposits in areas totalling more than 1.3 million square kilometres.

The drafting of ISA Exploitation Contract regulations is regarded as a crucial exercise, both by would-be exploiters and by marine conservationists. The final regulations will govern all seabed mining in the High Seas. But it will also affect EEZ seabed's, since UNCLOS requires its signatory states to govern their sea beds in accordance with ISA standards. The next half-decade therefore presents a unique opportunity in human affairs: a chance to devise a regulatory regime to govern an important extractive industry before it begins.

Little is known about the habitat and ecosystem of the deep seabed. Thus, before a proper impact assessment can be conducted, there first needs to be a collection of baseline data including a survey and mapping. Even absent this information, the equipment will involve gouging the seabed, causing plumes of sediment in the water column, and then resettling in surrounding area. The scraping of the ocean floor to extract the nodules could destroy deep sea habitats of living marine species and cultural heritage in the area. We do know that deep sea vents contain marine life that may be particularly significant. The plume of sediment from mining could smother marine life that we don't know are plentiful or may be made extinct. Some of these species are uniquely adapted to the lack of sunlight and high pressure of deep water, may be very valuable for research and development of medicines, protective gear, and other important uses. The is simply not enough known about these species, their habitat and related ecosystems to establish an adequate baseline from which there could be a proper environmental assessment much less develop measures to protect them and monitor the impact of mining.

Issues and Challenges

The cumulative effects of extensive mining of the seabed must be considered as each individual project seeks approval. The geographic footprint of each individual seabed mining operation is likely to be large. The interactions between currents, weather and seismic events (associated with volcanically active hot springs) will mean that the spread of pollution and impacts cannot be contained nor readily predicted. The high level of uncertainty and risk associated with individual projects will accumulate and compound in unknown ways as deep sea mining activity increases.

Of particular relevance are the words of Dr. Alex Rogers, co-author of the 2011 State of the Oceans Report, “As we considered the cumulative effect of what humankind does to the ocean, the implications became far worse than we had individually realized. This is a very serious situation demanding unequivocal action at every level. We are looking at consequences for humankind that will impact in our lifetime, and worse, our children’s and generations beyond that.”

Currently no mechanisms exist by which to appropriately regulate and manage the impacts of individual projects let alone multiple deep-sea mines. The ISA, an intergovernmental body based in Jamaica, was established by the UNCLOS to organise and control all mineral-related activities in the international seabed beyond the limits of national jurisdiction, an area comprising 64% the world’s oceans.

The ISA began assigning leases for deep sea mining in international waters in April 2011, requiring EIS and best practices for lease applicants. It has entered into eight 15-year contracts for exploration for polymetallic nodules in international waters. Each area is limited to 150,000 km2 of which half is to be relinquished to the Authority after eight years. Each contractor is required to report once a year on its activities in its assigned area.

However, the ISA has no jurisdiction over biological resources and a gap exists with regard to the conservation of the seabed in international waters. While UNCLOS establishes a comprehensive legal framework to regulate the use and resources of all ocean space, including providing for the protection and preservation of the marine environment, no agency has been charged with overseeing this responsibility.

The development of regulatory frameworks for DSM in national and international waters is a priority before the deep sea meets with the ‘gold rush’

that is set to ensue. The need to strengthen protection of the 64% of the ocean that lies beyond the zones of national jurisdiction is a key finding of the International Earth System Expert Workshop on Ocean Stresses and Impacts.84 Tis workshop recommended the establishment of a global body empowered to ensure compliance with UNCLOS and the precautionary principle – allowing activities to proceed only if they can be proven not to harm the ocean singly or in combination with other activities.

In recognition of the need for regional regulatory frameworks, the SPC has initiated a project entitled “Deep Sea Minerals in the Pacific Islands Region: a Legal and Fiscal framework for Sustainable Resource Management”. A meeting was convened by the SPC in June 2011 to inform stakeholders about the project and to stimulate discussion about DSM and agree on a way forward. No invitations were extended to representatives of PNG civil society – who will experience the first DSM project in the region. This does not auger well in regard to the SPC’s stated concern that DSM should be sustainably managed so as to bring tangible benefits to Pacific Island Countries and their people. It can be hoped that in the future, the SPC will rectify this omission and also align the work of the project with the findings of the International Earth System Expert Workshop on Ocean Stresses and Impacts.

LEGAL ASPECTS

When you are looking into the legal aspects of maritime laws, a detailed understanding of the United Nations Convention on the Laws of Seas (UNCLOS) is extremely important

The United Nations Convention on the Law of the Sea, which is also known as the UNCLOS, puts forward a wide-ranging regime of rules and regulations for the world's seas and oceans establishing a set of laws leading all uses of the oceans and its resources. It enshrines the conception that all inconvenience and issues of ocean space are intimately interconnected and required to be looked upon as a whole. The Convention was initially opened for signature on the 10th December 1982 in Montego Bay, Jamaica. This manifested the conclusion of more than 14 years of effort concerning participation by more than 150 countries signifying all regions of the globe, all political and legal systems and the range of socio/economic development. At the time when it was adopted, the Convention personified in one instrument customary regulations for the uses of the oceans and at the same time came up with new legal regimes and concepts related to contemporary issues. The Convention also provides structure for advanced progress of specific domains of the law of the sea. The Convention came into force with reference to its Article 308 on the 16th November 1994, 12 months subsequent to the date of set down of the 16th instrument of accession or ratification. At present, it is a worldwide documented regime concerning with all issues and affairs which are related to the law of the sea. The UNCLOS consists of 320 articles and 9 annexes, covering all possible aspects of ocean space, such as environmental control, delimitation, economic and commercial activities, the settlement of disputes related to the issues of oceans/seas, marine scientific research and transfer of technology. Some of the most significant aspects or features of the United Nations Convention on the Law of Sea are:

- The coastal states put into effect sovereignty over their territorial sea on which they possess the right to set up its breadth up to a limit of 12 (twelve) nautical miles. However, foreign vessels are sanctioned "innocent passage" through the territorial water bodies.

- Aircraft and Ships of all states are permitted for transit passage via straits used for global steering. Nonetheless, States adjacent the straits can control navigational and other features of the passage.
- The archipelagic states, formed up of a set or sets of intimately connected islands and interconnected waters, possess sovereignty over a sea area covered by straight lines strained between the furthest points of the islands. Nevertheless, the water bodies connecting the islands are acknowledged as archipelagic waters where States may set up sea air and lanes routes in which all other States benefit from the right of archipelagic passage via such elected sea lanes;
- Coastal States get to enjoy sovereignty rights in a 200-nautical mile exclusive economic zone, which is also known as EEZ, with regard to natural resources and definite economic actions, and put into effect jurisdiction over environmental protection and marine science research.
- Rest all States have the liberty of over flight and navigation in the EEZ, as well as lack of restrictions to put down pipelines and submarine cables.
- Geographically underprivileged States or the landlocked states have the right to take part in a reasonable foundation in the utilization of a suitable portion of the excess of the living resources of the EEZ's of coastal States of the similar area or sub-region. As a matter of fact, extremely migratory kinds of marine mammals and fishes are provided with special protection;
- The coastal states also have sovereignty rights over the continental shelf, which is the national region of the seabed, for utilizing and exploring it. The shelf may expand at least 200 nautical miles from the shore, and even more under particular conditions.
- Coastal States contribute with the international neighbourhood a portion of the income gained from exploiting resources from any fraction of their shelf further than 200 miles.

- The Commission on the restrictions of the Continental Shelf could form recommendations to States on the outer boundaries of the shelf when it stretches away from 200 miles.
- All States get to enjoy the customary liberties of scientific research, over flight, navigation and fishing on the high seas. In addition, they are appreciative to take on, or assist with other States in taking on, ways to conserve and manage living resources.
- The confines of the territorial sea, continental shelf and the exclusive economic zone (EEZ) of the islands are strong-minded according to the regulations valid on the land territory, however, rocks which could not maintain human habitat or economic existence of their own would have no continental shelf or economic zone.
- States adjacent to covered or semi-enclosed seas are supposed to assist in overseeing environmental and research policies and activities and the living resources.
- States which are landlocked have the right of way in to and from the sea and have the benefit of lack of restrictions of transportation from side to side the territory of transit countries.

THE PRINCIPLE OF EXCLUSIVITY OF FLAG STATE JURISDICTION AND THE RIGHT OF VISIT

On the high seas, enforcement measures against terrorists or terrorist or piracy related activities on board foreign vessels are restricted by the principle of exclusivity of flag State jurisdiction. Nevertheless, the application of the principle can be derogated from by the right of visit which provides for, under certain conditions, some leeway to States in their fight against maritime terrorism

THE EXCLUSIVITY RULE

As a general rule, vessels on the high seas are subject to the exclusive jurisdiction of the State whose flag they lawfully fly. In other words, pursuant to the principle of exclusivity of flag State jurisdiction, on the high seas States may not interfere with and have no authority on the vessels of other States. This pillar of the international law of the sea has been invoked by the Permanent Court of International Justice in the Lotus case in these terms:

'vessels on the high seas are subject to no authority except that of the State whose flag they fly. In virtue of the principle of the freedom of the seas, that is to say, the absence of any territorial sovereignty upon the high seas, no State may exercise any kind of jurisdiction over foreign vessels upon them. As Reuland observed, "the principle of exclusivity of flag-state jurisdiction is firmly rooted in the axioms of state equality and the freedom of the high seas."13Indeed, in Le Louis case, for example, Lord Stowell clearly stated that: "All nations being equal, all have an equal right to the uninterrupted use of the unappropriated parts of the ocean for their navigation. In places where no local authority exists, where the subjects of all states meet upon a footing of entire equality and independence, no one state, or any of its subjects, has a right to assume or exercise authority over the subjects of another" The principle of exclusivity of flag State jurisdiction is codified in international treaties and notably in Article 92(1) of the UNCLOS, which provides that "ships shall sail under the flag of one State only and, save in exceptional cases expressly provided for in international treaties or in this Convention, shall be subject to its exclusive jurisdiction on the high seas."The exclusivity rule applies to ships with one nationality .According to Article 91(1) of the 1982 Convention, ships have the nationality of the State whose flag they are entitled to fly.

Article 92(2) of the same Convention states also that a ship which sails under the flags of two or more States may be assimilated to a ship without nationality. These ships are assimilated to stateless ships – i.e. ships not sailing under the flag of any State –and as such are not protected under international law

Modus Operandi

With regard to the modus operandi of the right of visit, Article 110(2) of the 1982 UNCLOS:

In the cases provided, the warship may proceed to verify the ship's right to fly its flag. To this end, it may send a boat under the command of an officer to the suspected ship. If suspicion remains after the documents have been checked, it may proceed to a further examination on board the ship, which must be carried out with all possible consideration.

The right of visit is composed of two distinct operations: ledroit d'enquête du pavillon (right of investigation of flag) and the right of search. Taken together, these two distinct phases are encompassed within the umbrella term of maritime interdiction operation.

The purpose of the first phase of the right of visit – ledroit d'enquête du pavillon – is to "verify the ship's right to fly its flag", i.e. to verify the true nationality of a vessel the warship encounters. In concert, the warship verifies the papers of the ship, i.e. the documents issued by the flag State which granted to the ship the right to fly its flag.

The warship is authorized to exercise its right of investigation of flag only in the cases in which the ship is reasonably suspected of being engaged in some proscribed activity. The criterion of 'reasonable ground' for suspicion is difficult to define in abstract. It has to be assessed on a case by case basis. Authors converge, however, on the view that an appropriate reasonable ground standard lies somewhere between mere suspicion and actual knowledge of an

infringement. Nowadays, modern technologies facilitating surveillance, reconnaissance, intelligence gathering and information-sharing, help establish the existence of a reasonable suspicion In order to ascertain whether or not the ship carries the proper papers on board, the ship must stop its journey.

In case of absence of compliant or consensual boarding by the master of the vessel, the warship adopts graduated measures in order to stop the ship.

To effect a stoppage, the warship will hail the suspect vessel or, if this is impossible or ineffectual, fire across her bow. Should the suspect vessel prove obstinate, the warship may use reasonable force. After the stoppage, comes the actual boarding for verification of the papers and documentation of the ship. The warship "may send a boat under the command of an officer to the suspected ship.

The officer may be a warrant officer or senior petty officer. If suspicions are dissipated after examination of the papers, the ship is allowed by the warship to go its way. If, after the documents have been checked, suspicion remains – or a new suspicion has arisen – that the ship is engaged in some proscribed activity, the warship may proceed to a further examination on board the ship. Here, the warship proceeds to the second phase of the right of visit, i.e. the right of search.

This second and more intrusive step aims at discovering evidence that would confirm the suspicions of the warship, and "must be carried out with all possible consideration" The search leads to two different situations: either to the confirmation that the ship is engaged in proscribed activities, or to the dissipation of all suspicions. In the former case, "the warship may arrest the vessel or otherwise bring the vessel to account"

Arrest is effected through the commander of the arresting man of-war appointing one of her officers and a part of her crew to take charge of the

arrested vessel. This officer is responsible for the vessel, and for her cargo, which must be kept safe and intact. The arrested vessel, either accompanied by the arresting vessel or not, must be brought to such harbour as is determined by the cause of the arrest In the latter case, article 110(3) of the 1982 UNCLOS provides that if the suspicions prove to be unfounded, and provided that the ship boarded has not committed any act justifying them, it shall be compensated for any loss or damage that may have been sustained."