Developing the Common Heritage of Mankind: Whither The Developing Countries?

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Abstract

The United Nations Convention on the Law of the Sea, 1982 declared the international seabed and its enormous mineral resources as common heritage of mankind. This declaration, which was championed by developing countries, raised the hopes of these countries of more revenue to accrue from the bottom of the oceans, and their participation in the recovery of this wealth. Over forty years since the adoption of that historic Convention, all arrangements for the exploration and exploitation of the resources of the deep seabed has excluded the participation of developing nations. This paper critically examines the place of developing countries in on-going efforts to explore and exploit the resources of the international seabed area. It shows that due to subsequent changes to the UNCLOS and poor capital accumulation on the part of developing nations, the chances of developing countries participating directly in seabed mining alongside developed countries has become remote. The paper makes prescriptions on the way forward for developing countries.

Keywords: Common Heritage, Mankind, UNCLOS, Developing Countries, Seabed Mining.

Introduction

The Global Commons are areas of the globe designated by the international community as falling outside national jurisdiction and the resources of which, therefore, are not amenable to the exclusive appropriation of any

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State. At present, these areas include Antarctica,[3] the outer space,[4] and the international seabed.[5] Such areas and their resources are agreed by States to be Common Heritages of Mankind (CHM). This means that whatever resources available in these common areas are the common property of all mankind. The CHM concept was thus conceived for the purpose of internationalising common spaces beyond the limits of national jurisdiction.[6] Though the concept has been discussed by nations with regard to Antarctica, and the outer space, it is with respect to the international seabed that it has found its fullest exposition so far.[7] This common property area of the oceans is estimated to equal 50 percent of the earth.[8]

With respect to the oceans, therefore, the Commons are those submarine areas beyond the limits of national jurisdiction. They are the submarine land areas extending beyond the outer limits of the continental shelf of coastal States into the abyssal plains of the world's oceans.[9] This area

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[3] There have been recommendations that the common heritage approach be considered in a future international design for Antarctica. See for example U.N. Doc. A/C/1/38PV.2 (1983), 38th Sess., 1st Comm., Summary Record of the 42nd Mtg. (particularly the comments of Mr. Abidin of Malaysia).

[4] Article 11 of the 1979 Agreement Governing the Activities of States on the Moon and other Celestial Bodies, Dec. 5 1979, 1363 U.N.T.S. 3 explicitly incorporates the principle of common heritage.

[5] Article 136 of UNCLOS provides that the international seabed and its resources are the common heritage of mankind. See J. Frakes, 'The Common Heritage of Mankind Principle and the Deep Seabed, Outer Space and Antarctica: Will Developed and Developing Countries Reach a Compromise?' (2003) Wisconsin International Law Journal, 409-434.

[6] E. Franckx, 'The International Seabed Authority and the Common Heritage of Mankind: The Need for States to Establish the Limits of their Continental Shelf' (2010) 25 International Journal of Marine and Coastal Law, 544-567, 544.

[7] Ibid. at 545.

[8] Christiana Ochoa, 'Contracts on the Seabed' 46 Yale J. Int'l L. 103, 108.

[9] Under article 76(1) of UNCLOS, the continental shelf of a coastal State comprises the seabed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance. A state may, however, under article 76(4) and (5) establish a continental shelf in excess of 200 nautical miles where its shelf naturally extends beyond the 200-mile limit, but it must not exceed 350 nautical miles measured from the baselines from which the breadth of the territorial sea is measured.

constitutes the international seabed, which, under the United Nations Convention on the Law of the Sea, 1982 (UNCLOS),[10] is designated the 'Area'.[11] Under UNCLOS, '[t]he Area and its resources are the common heritage of mankind.'[12] The Convention provides that '[n]o state shall claim or exercise sovereignty or sovereign rights over any part of the Area or its resources, nor shall any state or natural or juridical person appropriate any part thereof.'[13]

The importance attached to the international seabed area and its designation as CHM by the international community derives from the discovery in the 19th century that the seabed and ocean floor hold enormous quantities of various mineral resources.[14] These mineral resources, it was then believed, would play a vital role in world economy in the future, especially when land-based, non-renewable minerals begin to decline. Considering the enormity of wealth anticipated to limp from the international seabed, the developed nations of the world which had the technology to exploit this wealth could not wait to commence exploitation.

Developing nations handicapped by lacked of requisite technology to explore and mine the deep seabed considered that, unless there was an international system that assured fairness in the exploitation of these riches, they would only watch from the side-lines as they are carted away by their developed counterparts. The developing nations therefore desired the international seabed, the ocean floor and the resources thereof to be recognised as the common property of all humankind.

At the Third United Nations Conference on the Law of the Sea,[15] the developing countries working together as the Group of 77 countries

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[10] The Convention was adopted on 10 December 1982 at Montego Bay, Jamaica by 130 votes to 4 with 17 abstentions, and entered into force on 16 November 1994, a year after Guyana became the 60th signatory: M. N. Shaw, International Law, 5th edn. (Cambridge: University Press, 2003) 492.

[11] Under art. 1(1) of UNCLOS the 'Area' is defined as 'the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction.'

[12] Ibid art. 136.

[13] Ibid art. 137(1).

[14] The discovery was made by the Challenger Expedition of 1872-1876.

[15] The Third UN Conference on the Law of the Sea was convened in 1973 pursuant to UN General Assembly Resolution 3067 (XXVIII) of 16 November 1973. It held 11 Sessions from 1973 to 1982 with 160 states participating. See United Nations, 'Third

(G-77)[16] pressed hard their position. Like many other positions they took at the Conference,[17] they succeeded in pushing through the argument that the international seabed and the resources thereof are CHM. Since the adoption of UNCLOS in 1982, more advanced technologies have been developed for deep seabed mining by the developed countries. Capital has been accumulated by the developed nations and their corporations preparatory to the eventual commencement of mining in the oceans' commons. Marine scientific research necessary for deep seabed mining has also reached advanced stage among the developed States. Exploration contracts have been awarded for exploration activities in various zones of the international seabed. In all of these strides, the developing countries of Africa, Asia and Latin America behind the CHM concept have been conspicuously absent.

This paper critically examines the place of the developing countries which championed the declaration of the oceanic commons as CHM in the on-going effort to develop and exploit the humongous wealth of the deepest parts of the oceans. The paper proceeds in six Sections. Section 2 traces the history behind the recognition and declaration of the deep seabed as CHM by the international community of States. Section 3 examines the economic significance of the international seabed to the world economy. Section 4 discusses the exclusivist developed-States development of the supposed CHM. In section 5, the paper critically examines the major factors that constrain developing countries regarding participation in deep seabed development. Section 6 prescribes the way forward for developing countries; while Section 7 is the concluding part of the paper.

United Nations Conference on the Law of the Sea, 1973-1982' available at <http://www.legal.un.org/diplomaticconferences/lawofthesea-1982/lawofthesea-1982.html> accessed 10 August 2016.

[16] The G-77 was established on 15 June 1964 by 77 developing states. It is a loose coalition of developing states designed to promote its members' collective interests and create an enhanced joint negotiating capacity at the U.N. See Vincent Iwunze, A Critical Examination of the Benefits Accruing to Third World Countries under the United Nations Convention on the Law of the Sea, 1982 (Ph. D thesis, University of Uyo, 2018) 81.

[17] Such positions include the enlargement of the territorial sea from the customary 3 nautical miles to the present 12 nautical miles, the establishment of the Exclusive Economic Zone Concept, and the mandatory transfer of marine technology from the developed to the developing countries.

The CHM Concept: Historical Background

The appropriation of vast areas of the sea by States for their exclusive use and the disputes that arose from such acts are as old as the origins of States. As one author figuratively put it, 'ever since the Biblical Jonah and the whale, nations have been arguing over fishing rights.'[18]

Claims and disputes over the territorial sea and exclusive fishing zones were common between nations before 1945.[19] Later, claims began to be made for exclusive control over vast areas of the seabed and the mineral and energy resources they harbour.[20] The first of such claims was the Truman Proclamation of 28 September 1945 in which the U.S. claimed exclusive right to explore the resources of the seabed and subsoil of the submarine area beyond its territorial sea.[21] As would be expected, many other nations followed suit and made similar proclamations.[22]

It therefore became imperative for States to lay down rules of international law that would guide nations in the use of the sea for the avoidance of international maritime rows. Action was taken in this direction in 1949 when the International Law Commission began to prepare Draft Articles for a regime of the high seas.[23] The Commission's draft became the basis of for the First and Second Law of the Sea Conferences held in Geneva and New York respectively. Realising that at both Conferences many developing States which were still under colonial rule (and were therefore not members of the UN) did not participate, the UN declared the necessity of convening a Third United Nations Conference on the Law of the Sea

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[18] E. E. Essien, Essays in International Law of the Sea (Uyo: Golden Educational Publishers, 1994) 108; E Holmina, 'Common Heritage of Mankind in the Law of the Sea' (2005) 1 Acta Societas Tis Martensis, 187.

[19] See, for example, UK v Iceland (1974) ICJ Rep 1974 3; FRG v Iceland (1973) ICJ Rep 175.

[20] A. O. Adede, 'Law of the Sea – Developing Countries Contribution to the Development of the Institutional Arrangements for the International Seabed' (1974) Brooklyn J. Int'l L., 2.

[21] Ibid at 3.

[22] T. M. Kennedy and C. V. Trinko, 'An Equitable Regime for Seabed and Ocean' (1974) Denver J. Int'l L. and Policy, 4, 162; Hope-Thompson (n 8) 42.

[23] A. O. Agbede, 'Law of the Sea – Developing Countries' Contribution to the Development of the Institutional Arrangements for the International Seabed Authority' (1974) 4 Brooklyn Journal of International Law, 3.

(UNCLOS III) that would have the input of the newly emerging States on matters of the sea.[24]

One of the areas in which the developing countries that participated in UNCLOS III made remarkable impact was the development of the CHM with respect to the oceans. Although the existence of seabed mineral resources was no secret to States, it was, indeed, a developing country ambassador that actually drew global attention to the vastness of these resources and their importance to mankind.

In a universally applauded speech delivered by the Maltese Ambassador, Arvid Pardo before the UN General Assembly in 1967,[25] he reminded the world of the resource potential of the international seabed and proposed that the international seabed and the resources thereof be recognised as Common Heritage of ankind. Pardo realised that if technological capability would determine the nations that would exploit the resources of the deep seabed, then only the developed States would be able to do so. In that event, Pardo reasoned, developing States would only watch from the sidelines while their developed counterparts helped themselves with the enormous wealth of the oceans. The Maltese Ambassador expressed fears that if the exploitation of the wealth of the international seabed was left unregulated to the technological capabilities of States, then the rich States would get richer while the poor ones would get poorer.[26]

The idea of CHM for the international seabed was collectively pursued by developing countries at UNCLOS III. Beyond this, these countries also pursued the establishment of an supranational body, an authority that would supervise and control activities in those zones of the oceans and ensure resource justice for all States. At the end of the Conference, both objectives were realised. The international seabed was, under article 136 of UNCLOS, declared CHM while the International Seabed Authority (ISA) was created under section 156 thereof. By virtue of article 137(1), no

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[24] R. P. Anand, Legal Regime of the Seabed and the Developing Countries (New Delhi: Thompson Press, 1980) 189.

[25] Agenda Item 2, 'Examination of the Question of the Reservation Exclusively for Peaceful Purposes of the Sea-bed and the Ocean Floor, and Subsoil Thereof Underlying the High Seas Beyond the Limits of Present National Jurisdiction, and the use of their Resources in the Interest of Mankind' (A/6695; A/C. 1/9).

[26] Ibid.

State shall claim or exercise sovereignty or sovereign rights over any part of the international seabed area or its resources, nor shall any State or natural or juristic person appropriate any part thereof.

At the time negotiations commenced in UNCLOS III, private entities in a couple of developed countries had already developed technologies for mining the minerals of the deep seabed, technologies that were closed books for developing countries. Had prospecting and mining activities commenced that time in the international seabed, the developing countries would have stood no chance of participating in those ventures. The developed nations would also have had total control of production in the international seabed through the free market economic model. It was consequent upon these that developing countries demanded the establishment of the ISA that would have extensive powers to regulate seabed mining. They also emphasised the need to plan production centrally under the ISA and to modify the free market distribution of income for the purpose of the international seabed and its resources.[27]

Aside from their demands for a supranational body to regulate and control production activities in the international seabed area, and the use of the central planning economic model in the economics of the deep seabed, developing countries also wanted the transfer of seabed mining technology from their developed counterparts to them. They realised that if they must participate directly in the development of the international seabed, they needed to be brought up to the technology and marine scientific knowledge of the developed world. These countries conceived the issue of marine technology as a key ingredient of the New International Economic Order (NIEO).[28] For them, if the international seabed was the CHM, then the technology for exploiting it should also be CHM.[29] They regarded the mandatory transfer of marine technology to them as 'part of their opportunity to share in the wealth, prosperity, and property that

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[27] P. M. Wijkman, 'UNCLOS and Redistribution of Ocean Wealth' (1982) 16(1) Journal of World Trade Law, 39-41; J. Gamble, 'The Third United Nations Conference on the Law of the Sea and the New International Economic Order' (1983) 6 Loy. L. A. Int'l & Comp. L. Rev., 73.

[28] J. Starvridis, 'Marine Technology and the Law of the Sea' (1978-1984) Naval War College Review, 151-152.

[29] Ibid.

has accrued to the West.'[30] These nations took the view that, being victims of exploitation by the Western powers throughout the period of colonialism, they were entitled to their share in global mineral wealth and advanced technology in return for decades of exploitation.[31]

The Authority is, generally, saddled with the responsibility of organising and controlling activities in the international seabed area, with a view, particularly, to administer the resources of the area in the interest of all mankind.[32] With particular regard to developing countries, the ISA has a mandate to provide opportunities for these countries to participate in marine scientific training and research in the international seabed.[33] The ISA was set up in 1994 and pursuant to its mandate it established an Endowment Fund[34] through which to support the technical personnel of developing countries in marine research programmes and to provide them opportunities to participate in international technical and scientific cooperation.[35]

As with the declaration of the international seabed as CHM and the establishment of the ISA, the developing countries also realised their wish for mandatory transfer of marine technology from the developed nations to them under UNCLOS. The Convention requires the ISA to take measures to acquire technology and scientific knowledge relating to activities in the international seabed and promote and encourage the transfer of such technology and knowledge to developing countries.[36] This was aimed at ensuring that developing countries could directly participate in the exploitation of the resources of the seabed and ocean floor, their lack of requisite seabed mining technology and scientific knowledge notwithstanding.

Both the developed and developing States at UNCLOS III unanimously welcomed Pardo's view that the deep seabed and ocean floor together

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30 Ibid.
31 Ibid.
32 UNCLOS, art. 160(2)(g).
33 Ibid., art. 144(2)(b).
34 Section 2 Terms of Reference, Guidelines and Procedures for the International Seabed Authority Endowment Fund, Annex to Decision of the Assembly of the International Seabed Authority Relating to the Terms of Reference, Guidelines and Procedures of the International Seabed Authority Endowment Fund, ISA Document ISBA/13/A/6.
35 UNCLOS, article 143.
36 Ibid art. 144.

with their resources was CHM. The two groups of countries, differed, however, in their conception and interpretation of the concept of CHM. The developed nations conceived and interpreted the concept of CHM to mean that the seabed and ocean floor and the resources thereof could be explored and exploited freely by any State that could do so, as part of the lawful exercise of the freedom of the high seas.[37] The developed nations and their multinational corporations did not accept the concept as implying collective benefit from the resources of the seabed regardless of whichever State that exploited them. They considered any collectivist benefit conceptualisation of the concept as a barrier and disincentive to the development of the deep seabed.[38]

The developing States, for their part, understood the CHM concept to mean that any State that 'exploited the resources of the seabed and ocean floor must bring the profits thereof to the hotchpotch for the benefit of all states.'[39] They saw it as one of those vehicles for the realisation of the NIEO that would conduce to improved revenues for them. They wanted to be participants in decision-making in the exploitation of the resources of the seabed and ocean floor. They aspired to be more than silent observers to the acquisition of new knowledge of the oceans. These countries wanted marine science and technology to be put at the service of all and not only of a limited number of very wealthy and developed States.[40]

An underlying policy of UNCLOS, therefore, is 'the enhancement of opportunities for all states, irrespective of their social and economic systems or geographical location, to participate in the development of the resources of the Area and the prevention of monopolisation of activities in the Area.'[41] The Convention aspires to realise a just and equitable economic order 'which will take into account the interests and needs of

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[37] M Hope-Thompson, 'The Third World and the Law of the Sea: The Attitude of the Group of 77 Towards the Continental Shelf' (1980) 1 British Columbia Third World Law Journal, 47.

[38] A. O. Adede, 'The System of Exploration of the 'Common Heritage of Mankind' at the Caracas Conference (1975). *American Journal of International Law,* 1.

39 Essien (n 16) 111.

[40] J. Timbergen, 'Reshaping the International Order', a Report of the Club of Rome (1976) 305-317.

[41] Ibid. art. 150(g).

mankind as whole and, in particular, the special interests and needs of all countries, especially the developing countries.'[42]

Economic Significance of the International Seabed Area

The deepest parts of the oceans were not of much interest to States until the late 19th century. The Challenger Expedition[43] of 1872-1876 made the earliest discovery that the deep seabed and ocean floor was laden with enormous mineral resources. That expedition made the important discovery that, just like on land, nature also deposited enormous quantities of minerals on the seabed and ocean floor. It found potato-sized manganese nodules scattered on the abyssal plains of the oceans. A unique quality of these nodules is that they are multi- metal. In order words, they contain a variety of metals such as manganese, nickel, cobalt and copper.

Aside from these valuable metals, these nodules will also give a range of by-products that are all marketable including zinc, sulphide concentrate, high-grade silica, iron hydroxide and nitrogen-calcium which will find copious use in the manufacture of cement and fertilizers.[44] These nodules therefore contain metal ores used in diverse industrial applications. This discovery aroused great interest among the developed States regarding the possibility of mining manganese nodules located in water depths of 4000-5000 metres.[45]

As scientific knowledge grows concerning the deep seabed, more minerals and their locations on the ocean floor are being discovered. Aside from manganese nodules scattered on the abyssal plains of the oceans, for example, massive (polimetallic) sulphides have been found around

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[42] See preambular paragraph 5 of UNCLOS. Emphasis is the authors'.

[43] The HMS Challenger (a British Navy corvette converted into an oceanographic ship, with its own laboratories, microscope and other scientific equipment) was the first ship to carry out an expedition organised specifically to gather data on a wide range of ocean features, including ocean temperatures, seawater chemistry, currents, marine life, and the geology of the sea floor.

[44] See Mine, 'Seafloor Mining: The Deepgreen Method' available at <http:www.mining technology.com/features/featuresseafloor-mining-the-deepgreen-method-5889044> accessed 3 January 2023.

[45] M. Allsopp and others, Review of the Current State of Development and the Potential for Environmental Impacts of Seabed Mining Operations, Greenpeace Research Laboratories Technical Report (Review) 03-2013, 6.

hydrothermal vents while Cobalt-rich Crusts (CRCs) have been found to exist on the flanks of seamounts.[46] Aside from these minerals, there is also interest in the extraction of methane from gas hydrants found on continental slopes and rises.[47]

Interest in deep seabed mining has presently reached unprecedented levels consequent upon a number of factors which include:[48] (i) advances in deep-sea mining technology; (ii) a dramatic increase in demand for metals fuelled primarily by emerging economies; (iii) rises in global metal prices; (iv) a decline in available grades of land-based metals; and, (v) an increased demand but reduced supply of rare- earth minerals. Added to these factors is the increasing popularity of renewable energies which has resulted in a rising demand for such green technologies as batteries, turban blades and solar cells.

It is now globally accepted that the seafloor holds an enormity of these minerals.[49] Since land represents only 30 percent of the earth's surface,50 it follows that 100 percent of current mineral mining is done terrestrially on only 30 percent of the earth's surface while 70 percent of the world's minerals remains untouched on the seabed and ocean floor.[51] In more specific terms, it is estimated that nearly 1.5 trillion tones of mineable manganese nodules exist on the ocean floor, representing almost a limitless supply of metal for global consumption.[52] So much is the quantum of mineral deposits on the seabed and ocean floor that it is estimated that a square kilometre around the site with the highest concentration of these

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46 K. A. Miller and others, 'An Overview of Seabed Mining Including the Current State of Development, Environmental Impacts, and Knowledge Gaps' (2018) 4 Front. Mar. Sci., 1.

47 Ibid.

48 Ibid.

49 World Ocean Review, 'The Seafloor – Humankind's Resource Repository' available at <http://www.worldoceanreview.com/en/wor-1/energy/marine- minerals> accessed 13 April 2022.

50 70 percent or three-quarters of the earth is covered by water.

51 W. Tarere, Deep-sea Mining to Drive Green Growth and Economy, Vanatu Daily Post, Jeju Korea, 21 September 2012, available at < http://earthjournalism.net/stories/6713> accessed on 14 April 2015.

52 S. Mitchell, S. C. Nemeth and E. A. Nyman, Ruling the Sea: Institutionalisation and Privatisation of the Global Ocean Commons, Iowa Research Online (2008) 1-48, at 5.

minerals holds a cache equivalent to one-fifth of the current annual demand for them across the world.[53]

The importance of deep seabed minerals lies in the fact that they find use in countless industrial applications for both commercial and military purposes. Uses to which these minerals could be put include the making of disk drives, fluorescent lamps, magnets, lasers, X-ray tubes, fibre optics, switches, liquid crystal display of television and computer monitors, roofs and pipes.[54] These minerals become the more important when it is considered that their terrestrial supply is greatly limited and fast running out. China currently produces 97 percent of available rare-earths but has placed a ceiling on the quantity exportable, thereby causing prices to soar.[55]

Despite the fact that these minerals are in short supply, demand for them has leapt from 30,000 tonnes in the 1990s to about 120, 000 tonnes in 2010, in excess of the world's annual production of 112,000 tonnes.[56] The increasing importance of deep seabed minerals is also attributable to dwindling supply of terrestrial copper – a key ingredient of industrialisation used in everything from wires and switches to pipes and roofs. This has, in fact, caused miners to go after increasingly low grades of ore.[57] It has been argued by many proponents of seabed mining that, with onshore mines fast depleting, the seabed is believed to have large stores of the minerals needed to make the batteries for electric vehicles and solar panels necessary for a global transition to renewable energy systems.[58] With almost all the new discoveries in oil and gas going to the sea, minerals mining are, inevitable, also headed that way. With the shortage of such an important industrial metal as copper, and the gradual depletion of terrestrial supply of other minerals, the imperative of mining manganese nodules which contain high quality minerals in the international seabed becomes a desideratum.

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53 N. Jones, Sea Holds Treasure Trove of Rare Earth Elements available at <http://www.nature.com/news/2011/110703/full/news.2011.399.html> accessed on 7 April 2015; S. J. Shackelford, The Tragedy of the Common Heritage of Mankind, 27 Stanford Environmental Law Journal, (2008) 106.

54 W. J. Broad, Mining the Seafloor for Rare-Earth Minerals available at <http://www.nytimes.com/2010/11/09seafloor.html?_r=0> accessed on 10 March 2015.

55 Jones (n 51).

56 Ibid.

57 Broad (n 52).

58 Ochoa (n 6) 106.

Developed-States Exclusivist Development of the International Seabed

Ambassador Arvid Pardo's views on the CHM concept represented the position of the G-77 at UNCLOS III. The developing States wanted a regime of the seabed that would guarantee them, not only benefits, but direct participation in the exploitation of the anticipated wealth of the deep seabed. They were, thus, as much interested in direct participation in deep seabed development as they were in seabed resource benefit. In order words, these countries are not content with sharing revenue from the resources of the international seabed as provided under UNCLOS, but desire to participate in production and develop their own personnel in ocean science and mining.

Today, innovations in deep seabed mining technology have made the mining of the deepest parts of the oceans feasible and mining companies had since commenced exploration activities in areas within national jurisdiction.[59] Nautilus Minerals of Canada commenced the world's first licensed seafloor mining operation in 2019 in Papua New Guinea. In January 2016 it announced that it had taken delivery of three fully operational seafloor production machineries which were being tested for the commencement of mining in the near future. Innovations in machinery having reduced the challenges confronting ocean floor mining, other mining companies have joined in the exploration of other locations within the limits of national jurisdiction.[60] For example, Japanese Oil, Gas and Minerals National Corporation has successfully deployed excavators to extract seabed soils rich in zinc, gold, copper and lead from depths of 1,600 metres in waters within Japanese Exclusive Economic Zone.[61]

Following the establishment of the ISA in 1994, and pursuant to its mandate under UNCLOS, it awarded contracts for the exploration for mineral resources beyond the limits of national jurisdiction.[62] These

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[59] K. A. Miller and others, 'An Overview of Seabed Mining Including the Current State of Development, Environmental Impacts, and Knowledge Gaps' (2018) 4 Front. Mar. Sci., 1.

[60] Ochoa (n 6) 107.

[61] Ibid.

[62] The ISA has so far awarded 19 exploration contracts for the exploration of the deep seabed. See Global Ocean Commission, Strengthening Deep Seabed Mining Regulation, Policy Option Paper, Third Meeting of the Global Ocean Commission, November 2003, at 3.

contracts cover different zones of the international seabed, including the Clarion-Clipperton Fracture Zone, the Central Indian Ocean Basin, the Western Pacific Ocean, the South West Indian Ridge, the Central Indian Ridge and the Mid-Atlantic Ridge. By mid-2019, the ISA had awarded thirty 15-year exploration contracts to States and private entities and it is estimated that about 1.2 million square kilometres of seafloor are now covered by various mineral prospecting permits awarded by the ISA.[63]

Under UNCLOS, the ISA is required to avoid discrimination in the exercise of its powers and functions, including the granting of opportunities for activities in the international seabed area.[64] In fact, in carrying out its powers and functions, it is permitted to have special consideration for developing countries.[65] Contracts awarded so far by the ISA have, however, gone to only mining companies from the technologically advanced countries which have the means to explore the deep seabed.[66] The developing countries have not been awarded any exploration contracts in the supposed CHM and therefore have had nothing to do with exploration activities so far. This is obviously due to lack of requisite capital, technology and technical know-how required for the difficult task of deep seabed exploration and mining. So far, therefore, all efforts at the development of the international seabed area and the resources thereof which are the common heritage of all humankind are exclusively those of the developed countries. This is contrary to the wish of developing nations which, through the G-77 at UNCLOS III, championed, not only the recognition of the international seabed and the resources thereof as common property, but also the establishment of the ISA that would superintend the development of those common resource areas and protect the interests of all nations.

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[63] Eighteen of these contracts were awarded for exploration for polymetallic nodules in the Clarion-Clipperton Fracture Zone, Central Indian Ocean Basin and Western Pacific Ocean. Seven contracts have been awarded for exploration for polymetallic sulphides in the South West Indian Ridge, Central Indian Ridge and the Mid-Atlantic Ridge, while five have were awarded for exploration for cobalt-rich crusts in the Western Pacific Ocean.

[64] UNCLOS, art. 152(1).

[65] Ibid. art. 153(2).

[66] Ibid.

Participation Constraints of Developing Countries

Part XI of UNCLOS which deals exclusively with the international seabed area does not only guarantee developing States the right to benefit from wealth recovered from the area,[67] but also puts them in a position to acquire seabed mining technology through mandatory transfer of technology to them from the developed countries.[68]

Developing countries were, therefore, intended to share in the resources of the international seabed, acquire deep-sea mining technology, share in marine scientific research and thus be in a position to directly participate in the exploitation of the resources of the international seabed.

Contrary to developing countries' expectations, they have been side- lined in the development of the common property areas of the oceans. As already pointed out, seabed mining companies have since commenced exploration in seabed within national jurisdiction while and the ISA has issued contracts for exploration in the international seabed without developing countries or their corporations awarded contracts. The ISA, the international body developing countries literally brought into existence to ensure fairness in the exploitation and distribution of the resources of the common property areas of the oceans has yet to involve developing countries in development activities in those areas. Below, we discuss two major factors that have constrained developing countries from direct participation in deep seabed development.

The 1994 Implementation Agreement

In its original form, UNCLOS contains sufficient measures necessary to ensure that developing countries would not be left out in the production of wealth from the deep seabed. Implemented in its original form, therefore, developed countries would be able to participate directly side-by-side with their developed counterparts in the exploitation of the wealth of the oceans. This, unfortunately for developing countries, did not happen. Objections to Part XI of UNCLOS (dealing with the international seabed)

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[67] Art. 140(2) of UNCLOS provides for the equitable sharing of financial and other economic benefits derived from the international seabed area through any appropriate mechanism, on a non-discriminatory basis.

[68] Ibid. art. 144.

by the industrialised countries dashed the hopes of developing nations of acquiring seabed mining technology and mining the deep seabed alongside the developed countries.[69] Beyond controversy, the ISA cannot develop the common resource areas without the technology, technical know- how and huge risk capital available to the developed nations. The objections of the developed nations to Part XI of UNCLOS and their refusal to commit to deep seabed development made the alteration of Part XI of the Convention inevitable.

Due to their objections, coupled with the refusal of the developed States to ratify UNCLOS and commit to the development of the deep seabed, it was not long before the UN realised the impossibility of realisng the objectives of the Convention without the cooperation of the developed countries. It became obvious that developing countries which were behind the mandatory technology transfer provisions of UNCLOS 'lacked the financial capacity to fund both the Convention and the institutions created by the Convention.'[70] Efforts were then made by the UN to ensure that the objecting nations were brought into the Convention system.[71] These efforts led to greater flexibility in the attitude of the developing countries regarding the provisions of Part XI of UNCLOS,[72] those countries having also realised the futility of continued expectation of wealth from the deep seabed without bringing the developed States into the Convention system.[73]

In 1994, efforts by the UN to bring the industrialised nations into the Convention system culminated in the adoption of the Agreement Relating to the Implementation of Part XI of the Convention on the Law of the

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[69] These objections relate, among others, to transfer of marine technology, lack of protection for intellectual property rights under UNCLOS, the control powers of the ISA over access to the deep seabed and production, and resource distribution.

[70] D. J. Harris, Cases and Materials on International Law, 6th edn., (London: Sweet & Maxwell, 2004) 493.

[71] M. N. Shaw, International Law 5th edn (Cambridge: Cambridge University Press, 2003) 565.

[72] D. H. Anderson, 'Further Efforts to Ensure Participation in the United Nations Convention on the Law of the Sea' (1993) 43 I.C.LR 654.

[73] Vincent Iwunze, 'Transfer of Technology under the United Nations Convention on the Law of the Sea, 1982: What Hopes for Developing Countries?' (2016) 3(1) Indian Journal of Law & Public Policy, 59.

Sea, 1982.[74] The Implementation Agreement is, therefore, a compromise agreement aimed at bringing the developed States that opposed Part XI of UNCLOS to ratify UNCLOS and join the Convention system.[75] Rather than mandatory transfer of technology to developing States under UNCLOS,[76] the Agreement provides that a developing State wishing to obtain deep seabed mining technology shall obtain such technology on 'fair and commercial terms and conditions on the open market or through joint venture arrangements . . .'[77] The implication is that a developing country wishing to acquire seabed mining technology can only do so by paying the price for the technology as asked by the developers. If it cannot, then it will never acquire the technology. There is nothing, unfortunately, the ISA could do about this.

But many a developing country may not be able to pay for seabed mining technology in view of the huge expense involved in their invention. This is assuming the inventors of the technology would be willing to sell at all. If this is so, then seabed mining technology may never be accessed by developing countries. With respect to transfer of mining technology, therefore, the Implementation Agreement has made the prospect of acquiring seabed mining technology by developing nations quite remote. Thus, the hopes of developing nations of being initiated into the penetralia of marine technology would appear to have been dashed by the Implementation Agreement.

The only option now open to developing countries for direct participation in deep seabed development under the Implementation Agreement is participation through joint venture arrangements. A joint venture arrangement would provide a developing country the opportunity to jointly with a developed country explore and mine minerals in an area covered under a licence in the international seabed. Considering, however, that developing countries have no seabed mining technology and do not possess the technical know- how to contribute in a joint-venture arrangement, they can only contribute investible capital. But do these countries, most of which are ravaged by poverty, in a position to muster the huge

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[74] The agreement was adopted in New York on 29 July 1994 [hereinafter 'Implementation Agreement' or 'Agreement'].

[75] See preambular paragraph 6 of the Agreement.

[76] Art. 144 UNCLOS.

[77] Section 5(1)(a) Implementation Agreement.

capital needed for investment in the daunting task of seabed exploration and mining? They do not. Absent developing their own mining technology and accumulating huge investible capital, therefore, these countries are doomed to only watch as their developed counterparts exploit the wealth of the oceans which is supposed to be CHM.

The Implementation Agreement therefore radically altered Part XI of UNCLOS and significantly changed the CHM concept as conceived by developing countries. It 'toned down some of the most direct mandatory technology transfer requirements' of the Convention.[78]

This has prompted a writer to conclude that in the present state of affairs, the Implementation Agreement only pays 'mere lip service to the [CHM] principle.'[79] Thus, though the international community maintains that the international seabed and its resources are the CHM, in reality they have become the CHM in the exclusive control of the developed nations of the world. In view of events in the post-Convention years which have seen the developing nations side- tracked in seabed development, the CHM concept has lost most of its perceived importance to the developing world. Anand could not have put this point better when he wrote.[80]

Although the area of the deep seabed beyond the limits of national jurisdiction is still called and declared as the common heritage of mankind, the term has lost its original meaning and substance when it symbolized the interests, needs, hopes and aspirations of a large number of poor peoples. The principle has lost its lustre and soul.

Poor Capital Formation – Unfavourable Trade Connection

Aside from the Implementation Agreement, poor capital accumulation also constitutes an obstacle to direct participation by developing countries

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[78] Peter Leitner, 'A Bad Treaty Returns: The Case of the Law of the Sea', Statement before the U.S. Senate Committee on Environment and Public Works, Washington D. C., 3 February 2004, 1-9.

[79] V. D. Degan, The Common Heritage of Mankind in the Present Law of the Sea, cited in J. E. Noyes, 'The Common Heritage of Mankind: Past, Present and Future (2011-2012) Denver Journal of International Law and Policy, 447, 464.

[80] R. P. Anand, Common Heritage of Mankind: Mutilation of an Ideal, in R. P. Anand, Studies in International Law and History: An Asian Perspective (Leiden: Brill, 2004) 196.

in the international seabed area. As already pointed out in this paper, direct participation is a function of cutting- edge technology, technical know-how and huge capital. These are assets developing nations do not have in sufficient supply. With the hope of having seabed mining technology transferred to them dashed under the Implementation Agreement, developing countries can only participate in seabed mining through acquiring technology from the open market, if available for sale, or by investing capital through joint-venture arrangements with developed countries. But as earlier adverted to, these countries are largely poor and may not muster the needed financial power to acquire seabed mining technology from the open market or to invest huge capital in joint-venture arrangements. This is due to poor capital formation and accumulation among these countries compared to their developed counterparts.

Other factors aside, the poverty of most developing countries is induced by and perpetuated by the unfair, skewed nature of world trade. Even before these countries were co-opted into the world trade system, the system had been set up to allow them only peripheral participation. For these countries, export prices are usually low relative to import prices for goods from the industrialised world. Their exports also face various protectionist policies of the industrialised economies. The World Trade Organisation (WTO) is supposed to ensure liberalised world trade for all nations. For developing countries, it is supposed to see to the removal of non-tariff barriers to their export trade and facilitate their access to the industrialised markets. But this has not been the case due to which capital formation and accumulation among developing nations has been poor.

The WTO replaced the multilateral trading system called the General Agreement on Trade and Tariff (GATT) in 1995. The mandate and purpose of GATT was to continue the process of trade liberalisation that would bring greater wealth and prosperity.[81] But GATT was essentially a developed-country affair having a bipolar trading system driven by the U.S. and the European Union.[82] In fact, one author described the GATT as a 'bicycle built for two with the United States in the front seat and the

[81] D. P. Steger, 'The Culture of the WTO: Why it Needs to Change' in: W. J. Davey and J. Jackson (eds.), The Future of International Economic Law (Oxford: University Press, 2008) 47-48.

[82] Ibid at 45.

European Communities in the back.'[83] So the multilateral trading system became a system to liberalise trade and ensure prosperity for the biggest economies of the world.

The Uruguay Round[84] of the WTO put in place a comprehensive programme of reform covering liberalisation commitments with respect to tariffs, domestic support and export subsidies. All quantitative restrictions and other non-tariff measures deployed agricultural exports to the industrialised markers were replaced by tariffs. Since developing countries depend mainly on agriculture for their exports, it was hoped that agreements reached at the Uruguay Round with regard to agriculture would translate to enlarged trade for developing countries. Regrettably, years after the implementation of the Uruguay Round Agreement on Agriculture (URAA), the agricultural market is still protected in the industrialised countries. Export subsidies which ought to have abated in those countries are still provided in their agricultural sectors. This allows those countries to export production surpluses to the world market at prices below the prevailing prices in their domestic markets.[85]

Aside from the protections against developing-country exports, the developed countries are also reported to use technical standards as barriers to exports from developing countries.[86] The EU, for example, is said to set standards for food products from developing countries higher than those internationally allowed.[87] These unreasonably high standards become serious barriers to agricultural exports of developing countries.

The WTO has therefore not succeeded in ensuring favourable trade arrangements for developing countries despite agreements already

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[83] S. Ostry, 'The Uruguay Round North-South Grand Bargain: Implications for Future Negotiations' in: DLM Kennedy and Southwick (eds.), The Political Economy of International Trade Law (Cambridge: Cambridge University Press, 2002) 285-300, at 299-300.

[84] WTO multilateral trade agreements are bargained in Rounds.

[85] K Kumar, 'Impact of the Uruguay Round on the Multilateral Trading System' in: The North-South Institute, The Reality of Trade: The WTO and Developing Countries', 4-13.

[86] C Blouin, 'Canada' in: The North-South Institute, The Reality of Trade: The WTO and Developing Countries', 19.

[87] Vincent Iwunze, A Critical Examination of the Benefits of Accruing to Third- World Countries under the United Nations Convention on the Law of the Sea, 1982' (PhD Thesis, University of Uyo, 2018) 168.

reached. Its culture has yet to change to reflect the new political realities in the international economic system.[88] It has yet to fully integrate developing countries into the world market by increasing their access to the industrialised markets. With low prices for the exports of developing nations, and due to inadequate access for them to the industrialised markets, international trade has been skewed against them and has inevitably resulted in poor capital accumulation among them.

The Way Forward for Developing Countries

From the analysis above, it is clear that the prospects of direct participation by developing countries in the exploitation of the wealth of the deep seabed through transfer of marine technology are no longer existent. As already shown, the Implementation Agreement has left those countries with only the chances of purchasing seabed mining technology from inventors or participating in joint-venture arrangements for seabed exploration and mining. Plagued by poor capital formation and accumulation, purchasing technology for mining the deepest parts of the oceans is doubtlessly a significant challenge for those nations. To participate directly, therefore, developing countries must embrace joint-venture arrangements with developing countries and mining companies.

In joint-venture arrangements, they should, in the short-run, invest capital in the initial stage and contribute personnel subsequently when they have developed manpower in the relevant areas. With regard to manpower development, developing countries need to build on the training arrangement already established by the ISA and financed through the Endowment Fund. Since contributions to the Fund have been, reportedly, poor,[89] resulting in the training of only a limited number of personnel from developing countries, these countries should contribute more to the Fund. Aside from the developing states, corporations, organisations and philanthropists from those States should also make generous contribu-

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[88] Steger (n 79) 47.

[89] Only few donors actually contribute to the Fund to subsidise the participation of developing countries' personnel in marine science training and research. The Fund is reported to sometimes be in such critical condition that the ISA would have to fund it from its own budget. See Doug Bandow, 'Sink the Law of the Sea Treaty' <http://www.cato.org/publications/commentary/sink-the-law-of-the- seatreaty> accessed 18 November 2022.

tions to the Fund. This will enable the participation of more nationals of developing nations in marine scientific research and training.

In the long-run, developing countries should pursue a coordinated plan of indigenous technology development. They should begin to prioritise research and Development (R&D) rather than expect marine technology to be transferred to them mandatory by the inventors. With land-based minerals fast depleting, the future of mineral mining lies undoubtedly on the seabed. Channelling R&D effort in the direction of marine science and technology is something the developed nations have done for decades which their developing counterparts can no longer ignore. All developing countries should borrow a leaf from China where huge investment has been directed over the years to R&D with the clear objective of building indigenous technological capabilities.[90] In 2006, for instance, total R&D expenditure in China was greater than that of Germany, the U.K. and France and was about a third of that in the EU.[91] The outcome for China, in terms of technological development, is globally acknowledged.

Conclusion

It has been shown in this paper that, though UNCLOS contains copious provisions that assure direct participation by developing countries in the exploitation of the resources of the international seabed, their participation has been constrained by the Implementation Agreement. It has also been shown that, aside from the Implementation Agreement, lack of requisite capital for investment in seabed mining arising from poor capital accumulation among developing countries is another major constraint to their participation. If the developing nations must directly participate in the exploitation of the enormous wealth of the seabed, then they must go into joint-ventures with the developed countries and strive to develop their own technologies in the future. Until they can stand alone in resource production in the international seabed, they must work closely with the ISA and ensure they receive their fair shares of resources won from the Area.

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[90] X Fu, C Pietrobelli and L Soete, 'The Role of Foreign Technology and Indigenous Innovation in Emerging Economies: Technological Change and Catching Up', Inter-American Bank Technical Notes, 2010, 6.

[91] Ibid.