MARITIME AFFAIRS: JOURNAL OF THE NATIONAL
MARITIME FOUNDATION OF INDIA
2022, VOL. 18, NO. 1, 42–54
https://doi.org/10.1080/09733159.2022.2106664

Conservation and sustainable use of the marine environment under UNCLOS: For the benefit of mankind as a "whole"

Petal Alexander

Law Association of Trinidad and Tobago and IMO International Maritime Law Institute, Msida, Malta

ABSTRACT

The International Seabed Authority (ISA), acting on behalf of mankind as a whole, decides on measures to achieve the common heritage of mankind principle in relation to activities in the area. Various approaches towards this end are noted in United Nations Convention on the Law of the Sea (UNCLOS), such as: a state acting in good faith, especially when its action is likely to affect prejudicially the interests of mankind as a whole; laying down detailed rules on economic and financial issues; transfer of technology to developing states; and reserved sites for developing states. Ultimately, the ISA aims to use an equitable approach to protect the marine environment and human life with respect to activities in the area. These approaches, found in UNCLOS, confirm that it remains resolute in its advocacy for the principle of common heritage of mankind.

KEYWORDS

Common heritage of mankind (CHM); good faith; equity; UNCLOS; sustainable; benefit of mankind; peaceful purposes

> To be lulled out of complacency is not what mankind requires,
>
> A more radical approach is needed!
>
> For we, the keepers of the ocean … have neglected "to keep" the ocean.
>
> So now, pressure is mounting and we are forced to act with alacrity … for the benefit of mankind as a whole.

Introduction

"The shared nature and high use of the oceans has made it necessary to manage them in a sustainable manner to ensure their enjoyment and use by future generations."[1] The question remains though, what measures/factors should be considered to manage the oceans sustainably? This question is addressed by reference to certain responsibilities of the International Seabed Authority (ISA)[2] and review of various significant approaches that allow for the protection of the marine environment, such as environmental impact assessment (EIA) and the precautionary approach.

CONTACT Petal Alexander pbcalexander@gmail.com Law Association of Trinidad and Tobago and IMO International Maritime Law Institute, Msida, Malta

Common heritage of mankind (CHM) – universally accepted principle

Kemal Baslar, in the updated version of his doctoral thesis, "aims to clarify the common heritage of mankind as a legal concept, with a view toward assessing the relevance it holds for international law now and in the future."[3] He has posited:

> the fact remains that in the evolution of modern international law, few concepts, notions, or principles have stirred as much debate or controversy as the CHM. The CHM doctrine carries sweeping and radical implications that challenge the traditional notion of resource acquisition and ownership. That CHM remains far more of a legal notion than an actual universally-accepted principle of international law is due mainly to the tremendous economic, security, and political stakes at risk for states. Thus, CHM has remained vague and ill-defined as a concept in international relations, mainly because the ramifications of CHM's application in the real world have been presented more in ideological rhetoric than exposed to the realities of international political economy.[4]

Baslar has unapologetically submitted his opinion and one has to admit that his reasoning holds merit, in particular to his position concerning the risks of "tremendous economic, security, and political stakes". However, to simply bow out of these risks that the CHM principle presents would be disappointing, particularly when there are benefits to be derived from its adoption.

The CHM principle has become a seemingly ubiquitous part of international law.[5] Further, when consideration is given to the underlying factor in the application of the principle, the obligations surrounding protection of the marine environment, and in the rules and measures of the ISA, it can be concluded that "the principal elements of the common heritage of mankind principle remain intact".[6] In this regard, there is also substance in the notion "that the common heritage of mankind continues to be the cardinal principle governing the activities in the Area".[7]

To bolster support for the CHM principle, one has to consider that the Preamble of the Implementation Agreement also reaffirmed that "the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction … , as well as the resources of the Area, are the common heritage of mankind."[8] More significant is Article 311, para 6, United Nations Convention on the Law of the Sea (UNCLOS), which mentions: "States Parties agree that there shall be no amendments to the basic principle relating to the common heritage of mankind set forth in article 136 and that they shall not be party to any agreement in derogation thereof."[9]

Notwithstanding the fact that the Implementation Agreement takes precedence over UNCLOS if there is inconsistency, Article 311, para 6, UNCLOS, reaffirms the general consensus in relation to the CHM principle. Section 4 of the Implementation Agreement also affirms that "the principles, regime and other terms referred to in article 155 paragraph 2 UNCLOS shall be maintained. This provision confirms the basic elements of the principle of the common heritage of mankind."[10]

UNCLOS and the CHM

To borrow the words of Norman Gutierrez, "One of the Conventions most salient features, which actually prompted the convening of UNCLOS III is the establishment of the international seabed area and the recognition of its resources as the common heritage

of mankind."[11] This notion is bolstered in the Preamble of the UNCLOS, where the General Assembly of the United Nations (UN) declared inter alia that:

> the area of the seabed and ocean floor and the subsoil thereof, beyond the limits of national jurisdiction, as well as its resources, are *the common heritage of mankind*, the exploration and exploitation of which shall be carried out for *the benefit of mankind as a whole*, irrespective of the geographical location of State … [emphasis added][12]

The CHM principle is established in Part XI,[13] UNCLOS, and described in Article 136 thereof as "the Area and its resources". Article 133(a), UNCLOS, defines "resources" as all solid, liquid, or gaseous mineral resources in situ in the area at or beneath the seabed, including polymetallic nodules.[14]

Article 140, para 1, UNCLOS, provides for "[a]ctivities in the Area … [to] be carried out for the benefit of mankind as a whole … and taking into particular consideration the interests and needs of developing States". It further mentions the "equitable sharing of financial and other economic benefits derived from activities in the Area". This aspect of the arrangement – equitable sharing – can be seen as the most challenging to achieve and requires regulatory controls to be implemented by the ISA. As posited by K.M.W. Owolabi, "The equitable sharing of benefits, implying distributive justice, is the most novel and most controversial feature of the CHM principle."[15] Consideration is given to the fact that the necessary expertise, resources, and funding are not at the disposal of developing states. In addition, as the geographical location of a country and whether or not it is landlocked can affect its "powers", one has to be wary of the notion of sharing and indeed place heavy reliance on the term "equitable", although undefined in UNCLOS.

The dictionaries' definition of equity promotes the idea of fairness, good faith, and justice. It may, therefore, stand to reason that the concept of equity can also be stretched to be able to refer to promotion of a common interest. This idea of common interest feeds into the use of the area for peaceful purposes.

Article 141, UNCLOS, provides that the area shall be open to use "exclusively" for peaceful purposes by all states. This use of the term "exclusively" can be compared with the language used in Article 88, UNCLOS, where it states that "the high seas shall be *reserved* for peaceful purposes [emphasis added]".[16] This use of a more emphatic language in reference to the how the area ought to be used sets the general tone within Part XI, UNCLOS, that suggestively confirms and endorses the promotion of the common interest of mankind as a whole.

Intricately linked to the exclusive use of the rea for peaceful purposes is the states' obligation to act in "good faith". Article 157, para 4, and Article 300, UNCLOS, address the need to act in good faith and not abuse rights. In relation to activities in the area, the members of the ISA, the sponsoring state, and the contractor are all tasked with the responsibility to act in "good faith". This term seeks to strike a balance between the exercises of freedoms with the right of the international community.

Based on the preliminary discourse, it is evident that UNCLOS provides "a comprehensive legal regime for all ocean activities"[17] and is stated as being "critical to the sustainable use of the world's seas and oceans",[18] not only by its all-encompassing rules to govern the various maritime zones but also in its administration of the use of the area, with its blueprint being equitable sharing.

Conservation and sustainable use of the marine environment

Conservation and sustainable use of the marine environment are inexorably linked to the realisation of the CHM principle. However, for the CHM principle to advance, access to the resources must be surrounded by equitable measures to protect the marine environment.

It is in this protection that the phrases "conservation" and "sustainable" are thriving. Interestingly, these phrases are also stated in Sustainable Development Goal (SDG) 14, which deals with life below water and has as its objective, "*the conservation and sustainable use of the oceans, seas and marine resources*".[19] The 2030 Agenda for Sustainable Development includes 17 SDGs and has been described as "the blueprint to achieve a better and more sustainable *future for all*."[20]

One commentator has stated, "Sustainable development approaches are all new stakes for the future of the Law of the Sea, not only in the perspective of possible negotiations, but also in terms of effectivity and *governance of oceans and seas* [emphasis added]."[21]

Sustainable development of the marine environment takes various forms and approaches and is geared towards fulfilling the CHM principle. According to C.C. Joyner:

> CHM is not so concerned with the ownership of the area where resources are located (e.g. the deep seabed, Antarctica, or the moon) as with the uses of them for the benefit of humankind, to serve the common interest of peoples everywhere. In that sense, if sustainable management and sharing of benefits is to be secured, *CHM must also say something about who has the lawful right to exploit what resources and when, where, and for what purposes such exploitation may occur* [emphasis added].[22]

Further review of the concept of the term sustainable development shows that it encompasses "a commitment to social progress, environmental balance and economic growth".[23] Oceans must be managed in a sustainable manner for the benefit of the future generations. A 1987 report by UN World Commission on Environment and Development, *Our Common Future*, defined sustainable development as follows: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[24] Further, sustainable development, broken down into three areas, encompasses:

> At the environmental level, sustainability prevents nature from being used as an inexhaustible source of resources and ensures its protection and rational use.
>
> At the social level, sustainability can foster the development of people, communities and cultures to help achieve reasonable and fairly-distributed quality of life, healthcare and education across the globe.
>
> Sustainability focuses on equal economic growth that generates wealth for all, without harming the environment.[25]

It will not be farfetched to link the concept of sustainable development with being able to achieve equity when dealing with "activities in the Area"[26] and the benefits to be derived therefrom. All the above-mentioned ideas and discussions still ultimately bring us back to Joyner's question and/or statement concerning exploitation of the resources in the area and how to regulate the same.

ISA

The principle of the CHM is governed by the ISA, which has been entrusted by UNCLOS with the mammoth responsibility of organising and controlling the activities in the area to be able to administer its resources.[27] The ISA's legal regime empowers it with seemingly extensive powers with respect to activities[28] in the area and, I dare say, with sufficient fluid language to allow the ISA "to adapt to changes in international law and in social attitudes … ".[29]

Governance of the area through the ISA entails measures taken to address relevant environmental, social, and economic impacts related to activities in the area. The establishment and implementation of integrated, harmonised, and extended monitoring systems and infrastructures have been also recognised as crucial for "the effective protection and restoration of the marine environment".[30]

To this end, certain approaches – such as the precautionary approach and EIA[31] – can provide an opportunity to ensure that the common interests of the international community are protected. "Access to data, information and knowledge as well as the capacity building and technology transfer opportunities are in themselves vital elements of the CHM principle"[32] and woven into its tapestry.

Marine scientific research

In the area, all states have the right to conduct marine scientific research pursuant to Part XIII, in conformity with Article 143(1) of UNCLOS. Article 143(3) requires states parties to promote international cooperation in marine scientific research in the area by:

(a) participating in international programmes and encouraging cooperation in marine scientific research by personnel of different countries and of the Authority;
(b) ensuring that programmes are developed through the Authority or other international organisations as appropriate for the benefit of developing States and technologically less developed States; and
(c) effectively disseminating the results of research and analysis when available, through the Authority or other international channels when appropriate.[33]

Article 143(2) also posits that the ISA has an obligation to coordinate and disseminate the results of such research and analysis when available.

EIA

An EIA requirement is highly recommended as highlighted in Article 206, UNCLOS, and can also be found in Section 1, para 7, of the Annex to the Implementation Agreement as follows: "An application for approval of a plan of work shall be accompanied by an assessment of the potential environmental impacts of the proposed activities … "[34]

Further, the International Court of Justice, in its judgment in *Pulp Mills on the River Uruguay*, speaks of:

> "[A] practice, which in recent years has gained so much acceptance among States that it may now be considered a requirement under general international law to undertake an

> environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource. Moreover, due diligence, and the duty of vigilance and prevention which it implies, would not be considered to have been exercised, if a party planning works liable to affect the régime of the river or the quality of its waters did not undertake an environmental impact assessment on the potential effects of such works. (Paragraph 204)[35]

Precautionary approach

The precautionary approach centres on the weighing of potential risks. Regulation 31, para 2, of the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area, and Regulation 33, para 2, of the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area state that sponsoring states (as well as the ISA) "shall apply a precautionary approach, as reflected in Principle 15 of the Rio Declaration"[36] in order "to ensure effective protection for the marine environment from harmful effects which may arise from activities in the Area."[37]

Additionally, in the advisory opinion[38] relating to the legal responsibilities and obligations of states parties to UNCLOS with respect to the sponsorship of activities in the area, amongst others, the Seabed Disputes Chambers highlighted that "the role of a State sponsoring deep seabed mining activities is to contribute to the common interest of all States in the proper implementation of the principle of the common heritage of mankind."[39]

Some semblance of the precautionary approach can also be gleaned from Article 192 of UNCLOS, wherein states have an innate obligation "to protect and preserve the marine environment". The foundation of any action by states, therefore, is propelled by the precautionary approach. As such, any activity that unfolds thereafter should, undoubtedly, be launched through the very foundation of this approach.

Article 193 of UNCLOS grants to the states the right to develop their natural resources under the consideration of their natural environmental policy and reminds states of the duty to protect and preserve the marine environment.

Equitable sharing of benefits

Marie Bourrel et al. have argued in their study that:

> … [A] correct interpretation of the CHM principle and other related concepts of fairness, equity, precaution, ecosystem integrity and future generations provides guidance towards a broad interpretation of the approach … the CHM principle also applies to the Area as a whole, and hence also to the value of the deep seabed, its ecosystems, habitats, associated biodiversity and living and mineral resources to all future generations and thus, the correct balancing of any intervention in this area to reflect these aspects.[40]

Intervention in the deep seabed must therefore reflect CHM principles, such as "[a]ccess to data, information and knowledge as well as the capacity building and technology transfer opportunities", which are in themselves "vital elements of the CHM principle … "[41] and indeed, equitable arrangements. Paying attention again to Article 140, para 2, UNCLOS, and the use of the "financial and economic benefits", one commentator suggested this reference can be attributed to both direct and non-direct benefits.[42]

While all these mechanisms are in place to benefit all states, dissemination of information cannot be enough. The proverb, "If you give a man a fish, you feed him for a day. If you teach a man to fish, you feed him for a lifetime", is apt when referring to the obligation of the ISA and the dissemination of information and the receiving state having or not having the remote knowledge of what to do with the information. What will be starkly noticeable is the lack of necessary expertise to have the "know-how" to bring relevance to the information received. Without the required training and investment by any developing country towards understanding and appreciating the information and financial wherewithal to apply the knowledge, then simply having access to the knowledge will be worthless.

Under such a circumstance, the other equitable arrangement that can be linked to the CHM principle is transfer of technology. This is a significant role performed by the ISA and efforts to promote this transfer are aimed at fulfilling the CHM principle.

Throughout UNCLOS, there are considerable references to equitable arrangements between developed and developing states. One such reference is Article 140, UNCLOS, which interestingly gives a mandatory obligation when addressing activities in the area, stipulating that consideration must be given to "the interest and needs of developing States".

The enterprise, the relationship between the developed and developing states, and the CHM principle

Developing states seemed to be considered sacrosanct when addressing activities in the area. To consider the benefits to developing states without resistance in the concept is a formidable task. One commentator uses the term "delicate compromise"[43] to describe the relationship between the developed and developing states. This compromise between developed and developing states when dealing with activities in the area is governed by the ISA and ultimately, can be deemed relevant to the CHM principle. This is not an implausible notion since sustainability spans economic growth and what better way to achieve growth than by equitable means.

Further, the "parallel system" of exploitation of the area both by the Enterprise[44] and by commercial operators seems to be geared towards equitable transactions. Annex III, Articles 8 and 9, UNCLOS, show that:

> The plans of work submitted by qualified applicants must specify two sites of equal estimated commercial value, which may or may not be contiguous, each large enough to support a mining operation. Data concerning both sites and their resources must also be submitted. The Authority may then approve a plan of work relating to one of the two sites, and enter into a contract, with the applicant incorporating that plan. If it does so, it must designate the other site as a "reserved site". Reserved sites are available only for development by the Authority, acting through the Enterprise or in association with developing States. The Enterprise may choose to exploit such a site at any time, but must decide within a reasonable time whether it wishes to proceed if a developing State announces that it intends to submit a plan of work in respect of that site.[45]

To this end, the Enterprise allows developing states "dibs"[46] on whether to make use of a reserved site. Further, "the applicant must undertake to make available to the Enterprise … any technology which it uses in sea-bed activities … Thus the Enterprise

should have access to all the technology employed in activities under LOSC licences in the Area."[47] This transfer of technology must also be embarked upon if there is the possibility of developing states wishing to begin seabed mining.

A cursory glance of the articles dealing with the operations of the Enterprise – its empowerment to "engage in mining on its own, using its rights to require transfer of technology,[48] entering into joint ventures with commercial operators to have access to reserved areas and collecting financial benefits of such collaboration" – is enough to ascertain that these activities are geared towards the CHM principle. In essence, "the 'common heritage' would be exploited for the benefit of 'mankind as a whole', and not simply the industrialised States."[49]

Persuasion towards equity as a foundation of the CHM principle is also evident in the role of the sponsoring state in the mining regime.

> In the sphere of the obligation to assist the Authority acting on behalf of mankind as a whole, while deciding what measures are reasonably appropriate, the sponsoring State must take into account, objectively, the relevant options in a manner that is reasonable, relevant and conducive to the benefit of mankind as a whole. It must act in good faith, especially when its action is likely to affect prejudicially the interests of mankind as a whole … [emphasis added][50]

Indeed, the sponsoring state has a responsibility to ensure that the obligations under UNCLOS not only guide and monitor the contractor but that the contractor operates in tandem with the same. The sponsoring state is, therefore, to operate as a watchdog, bearing in mind its role to act in good faith. The obligations of a sponsoring state have been addressed in an advisory opinion[51] dealing with applications to the ISA by two contractors who were sponsored by Nauru and Tonga. It was noted that the sponsoring state cannot simply abdicate its role, in that oversight, monitoring, and reprimanding, if necessary, are all tied to its obligations towards protection of the marine environment.

Further, the liability of the sponsoring state is triggered if there is damage.[52] This, in essence, assumingly levels the playing field between developed and developing states when dealing with the area, in that the advisory opinion stated that liabilities "apply equally to all sponsoring States, whether developing or developed".[53] Although Ximena Oyarce was wary of this assumption in her article, maybe there is merit in using private entities by a state party to UNCLOS. Oyarce was careful and deliberate to highlight that any state party to UNCLOS can make use of a private entity under Article 153, UNCLOS.[54] However, it is arguable specifically with reference to a developing state that when one considers the financial and technological means necessary to embark on activities in the area, maybe accessing these activities through an entity that has the means, with oversight by the said developing state, was a laudable method of again seeking to equitably create balance among the state parties.

The importance of equitable sharing as an intricate feature of the CHM principle pervades throughout several provisions of UNCLOS:

> … Granting a preference to developing States that wish to engage in mining in areas of the deep seabed reserved for the Authority;[55] the obligation of States to promote international cooperation in marine scientific research in the Area in order to ensure that programmes are

> developed "for the benefit of developing States";[56] and in the obligation of the Authority and of States Parties to promote the transfer of technology to developing States,[57] … and in the obligation of the Council to take "into particular consideration the interests and needs of developing States" in recommending, and approving, respectively, rules, regulations and procedures on the equitable sharing of financial and other benefits derived from activities in the Area.[58]

Added to the above list: "the essential elements governing the Area, namely, the principle of the common heritage of mankind, the non-appropriation of the Area and its natural resources, the use exclusively for peaceful purposes, and the benefit of mankind as a whole, remain intact."[59]

The conclusion is therefore that the CHM principle, permeated by equitable sharing of benefits, remains pertinent towards achieving sustainable standards of dealing with the marine environment for the benefit of mankind as a whole. "Furthermore, while it is not difficult to identify the shortcomings of CHM, it may be that our energies would be better spent learning from the experience in trying to make it a reality … . "[60]

Article 147, para 1, UNCLOS, requires that activities in the area shall be carried out with reasonable regard for other activities in the marine environment. Article 147, para 3, UNCLOS, requires other activities in the marine environment to be carried out with reasonable regard for activities in the area. It is, therefore, evident that the oceans operate in a symbiotic relationship as something done in one place can cause a ripple effect. While the scientific technology is still evolving and new and valid information comes to light, it is imperative that we, as humans, redefine our role as guardians of the oceans and make a firm decision on how best we can combine our resources and knowledge for "the benefit of mankind".

While it may be difficult to clearly state, in reference to the area, what actions and inactions can be deemed equitable,[61] one has to appreciate that aiming for equity is, in and of itself, commendable. At least there is a target to aim at, and though intangible, a goal is created. Imagine for a moment a situation where exploitation of the resources of the area was left unregulated, where then would the moral compass lie?

To this end, what comes to mind and is most fitting to the purpose of the CHM principle is a piece from the national anthem of the Republic of Trinidad and Tobago, "Together we aspire, together we achieve". Though simple language was used, the combination and intent of these words remain enthusiastic and have been described as depicting "our courage as one nation working towards living in unity despite our diversity".[62] This too can be the focus when it comes to advocating for equity in promoting the CHM principle, as the anthem readily compliments what is being depicted in the CHM principle – harmonious relations despite differences.

Notes

1. Jonathan Pace, "The IMO, Technical Cooperation, and Global Ocean Governance," in *The IMLI Treatise on Global Ocean Governance, Vol. III: The IMO and Global Ocean Governance*, eds. David Attard, Rosalie P. Balkin, and Donald W. Greig (Oxford: Oxford University Press, 2018), p. 302.
2. The principal organs of the ISA are the Assembly, the Council and the Secretariat.
3. Christopher C. Joyner, "The Concept of the Common Heritage of Mankind in International Law", *Emory International Law Review* 13, no. 2 (Fall 1999): 616, https://heinonline.org/HOL/

Page?public=true&handle=hein.journals/emint13&div=17&start_page=615&collection=journals&set_as_cursor=1&men_tab=srchresults (accessed May 23, 2022).

4. Ibid.
5. Despite this statement, this article does not consider whether the CHM principle is established in customary international law. See Kudirat Magaji W. Owolabi, "The Principle of the Common Heritage of Mankind," *Nnamdi Azikiwe University Journal of International Law and Jurisprudence* 4 (2013): 54.
6. Yoshifumi Tanaka, "Protection of Community Interests in International Law: The Case of the Law of the Sea," in *Max Planck Yearbook of United Nations Law, Vol. 15*, eds. A. von Bogdandy and R. Wolfrum (Netherlands: Koninklijke Brill N.V, 2011), p. 349, https://www.mpil.de/files/pdf3/mpunyb_07_Tanaka_151.pdf (accessed January 25, 2022).
7. B. Simma, "From Bilateralism to Community Interest in International Law," *RdC* 250 (1994), 241 et seq. (234), cited in Ibid., p. 349.
8. Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 UNTS 1836, adopted July 28, 1984, provisionally entered into force together with the UNCLOS on November 16, 1994 and definitively on July 28, 1996 (henceforth Implementation Agreement), https://www.un.org/depts/los/convention_agreements/texts/unclos/closindxAgree.htm (accessed May 23, 2022).
9. "United Nations Convention on the Law of the Sea, Montego Bay," *United Nations Treaty Series* (UNTS) 1833, opened for signature on December 10, 1982, entered into force on November 16, 1994 (henceforth UNCLOS). All articles of UNCLOS cited in this chapter refer to this citation.
10. Tanaka, "Protection of Community Interests in International Law: The Case of the Law of the Sea," p. 348.
11. David Attard, Malgosia Fitzmaurice and Norman A. Martinez Gutierrez, eds., *The IMLI Manual on International Maritime Law, Vol 1 The Law of the Sea,* (Oxford University Press, 2014 U.S.A), p. lxx.
12. Preamble of UNCLOS, p. 25, https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf (accessed May 23, 2022).
13. Implementation Agreement, n. 8. According to Article 2(1) of the Implementation Agreement, if there is inconsistency between the Agreement and UNCLOS, the Agreement shall prevail.
14. Article 135, UNCLOS, confirms that "the legal status of the waters superjacent to the Area or that of the airspace above" is not affected by Part XI.
15. Owolabi, "The Principle of the Common Heritage of Mankind," p. 52.
16. David Attard and Patricia Mallia, "The High Seas," in David Attard Malgosia Fitzmaurice and Norman A. Martinez Gutierrez, eds., *The IMLI Manual on International Maritime Law, Vol 1 The Law of the Sea,* (Oxford University Press, 2014 U.S.A), p. 242.
17. Malgosia Fitzmaurice, "Intergenerational Equity, Ocean Governance, and the United Nations," in *IMLI Treatise on Global Ocean Governance, Vol. II UN Specialised Agencies and Global Ocean Governance*, eds. David Attard, Maglosia Fitzmaurice and Alexandros XM Ntovas (New York: Oxford University Press, 2018), p. 357.
18. Ibid.
19. UN, "Sustainable Development Goals," https://www.un.org/sustainabledevelopment/oceans/ (accessed February 18, 2022); emphasis added.
20. United Nations General Assembly (UNGA), "Transforming Our World: The 2030 Agenda for Sustainable Development," Resolution 70/1, 2015; emphasis added. The SDGs, in essence, reliably complement the UNCLOS.
21. Nathalie Ros, "Sustainable Development Approaches in the New Law of the Sea," *Spanish Yearbook of International Law, Vol. 21* (2017), pp. 11–40, p.13 https://heinonline.org/HOL/Page?public=true&handle=hein.intyb/spanyb0021&div=3&start_page=11&collection=intyb&set_as_cursor=1&men_tab=srchresults (accessed January 25, 2022).
22. Christopher C. Joyner "The Concept of the Common Heritage of Mankind in International Law", p. 620.

23. "What is Sustainable Development and What are the Global Goals?," Acciona https_www.acciona.com/?url=https%3A%2F%2Fwww.acciona.com%2Fsustainable-development%2F%3F_adin%3D01833301559 (accessed February 25, 2022).
24. United Nations, *Report of the World Commission on Environment and Development: Our Common Future*, https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf (accessed June 26, 2022).
25. "What is Sustainable Development and What are the Global Goals?"
26. Article 140(2), UNCLOS. Activities have been stated to include: drilling, dredging, coring, and excavation; disposal, dumping, and discharge into the marine environment of sediment, wastes, or other effluents; and construction and operation or maintenance of installations, pipelines, and other devices related to such activities. See Seabed Disputes Chamber of International Tribunal for the Law of the Sea (ITLOS), "Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area," Advisory opinion, Case No. 17, February 1, 2011, p. 35, para 87, https://www.itlos.org/fileadmin/itlos/documents/cases/case_no_17/17_adv_op_010211_en.pdf (accessed June 26, 2022).
27. Article 157(1), UNCLOS.
28. Activities of exploration for, and exploitation of, resources in the Area; Article 1, para 1(3), UNCLOS.
29. Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental Protection* (2017), cited in Karin Mickelson, "Common Heritage of Mankind as a Limit to Exploitation of the Global Commons, *European Journal of International Law*, Volume 30, Issue 2, May 2019, 635–663" p. 662 http://www.ejil.org/pdfs/30/2/2968.pdf (accessed June 26, 2022); Article 157(2), UNCLOS.
30. Mack et al., 2020, quoted in E. Manea, C, Bergami, L. Bongiorni, L. Capotondi, E. De Maio, A. Oggioni, and A. Pugnetti, "A Transnational Marine Ecological Observatory in the Adriatic Sea to Harmonize a Fragmented Approach to Monitoring and Conservation," *Advances in Oceanography & Limnology* 12, no. 1 (2021): 16–28, https://doi.org/10.4081/aiol.2021.9811 (accessed May 23, 2022).
31. See Helmut Tuerk, "The International Seabed Area," in David Attard Malgosia Fitzmaurice and Norman A. Martinez Gutierrez, eds *The IMLI Manual on International Maritime Law, Vol. 1: The Law of the Sea*, (New York: Oxford University Press, 2014), p. 283, where it was stated that the amended Nodules Regulations provide, inter alia, for the application of the precautionary approach and for the conduct of an EIA.
32. Tanaka, "Protection of Community Interests in International Law: The Case of the Law of the Sea," p. 332.
33. Ibid., p. 342.
34. UNCLOS, p. 104, https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf and Annex to the Implementation Agreement at Section 1 para 7 https://www.un.org/depts/los/convention_agreements/texts/unclos/closindxAgree.htm (accessed June 26, 2022).
35. Seabed Disputes Chamber of ITLOS, "Responsibilities and Obligations of States with Respect to Activities in the Area," para 147.
36. UNGA, "Rio Declaration on Environment and Development," Report of the United Nations Conference on Environment and Development, Annex I, A/CONF.151/26 (vol. I), August 12, 1992 at p. 3 where the Principle 15 of the 1992 Rio Declaration on Environment and Development reads:

> In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.
>
> See https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf (accessed June 26, 2022).

37. "Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area", p. 18, https://www.isa.org.jm/files/documents/EN/Regs/PN-en.pdf; and "Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area", p. 19, https://www.isa.org.jm/files/documents/EN/Regs/PolymetallicSulphides.pdf (both accessed June 26, 2022).
38. Seabed Disputes Chamber of ITLOS, "Responsibilities and Obligations of States with Respect to Activities in the Area," para 87.
39. Ibid., para 226.
40. Marie Bourrel, Torsten Thiele, and Duncan Currie, "The Common Heritage of Mankind as a Means to Assess and Advance Equity in Deep Sea Mining," *Marine Policy* (2016): 7, http://eprints.lse.ac.uk/67988/1/Common%20heritage_2016.pdf (accessed April 11, 2022).
41. Ibid.
42. Ibid., p. 3.
43. Robin Churchill and Alan Lowe, *The Law of the Sea* (Manchester: Manchester University Press, 1988), p. 182.
44. The Enterprise is the operating arm of the ISA with the task of directly carrying out activities in the area.
45. Churchill and Lowe, *The Law of the Sea*, p. 190.
46. Colloquial language means "first choice".
47. Churchill and Lowe, *The Law of the Sea*, p. 189.
48. The know-how and technology would be acquired which would be passed onto the nationals of developing states via the training programmes which the ISA, with the cooperation of seabed mining operators, would promote.
49. Churchill and Lowe, *The Law of the Sea*, p. 194.
50. Seabed Disputes Chamber of ITLOS, "Responsibilities and Obligations of States with Respect to Activities in the Area," para 230, p. 71.
51. Ibid.
52. Ximena Hinrichs Oyarce, "Sponsoring States in the Area: Obligations, Liability and the Role of Developing States," *Marine Policy* 95 (2018): 317–23, https://www.sciencedirect.com/science/article/pii/S0308597X16303293 (accessed May 22, 2022).
53. Seabed Disputes Chamber of ITLOS, "Responsibilities and Obligations of States with Respect to Activities in the Area", para 158.
54. Oyarce, "Sponsoring States in the Area: Obligations, Liability and the Role of Developing States."
55. Annex III, Articles 8 and 9, UNCLOS.
56. Article 143, para 3, UNCLOS.
57. Article 144, para 1, UNCLOS, and Section 5 of the Annex to the 1994 Agreement.
58. Article 160, para 2(f)(i), UNCLOS; Article 162, para 2(o)(i), UNCLOS; Seabed Disputes Chamber of ITLOS, "Responsibilities and Obligations of States with Respect to Activities in the Area," para 157, p. 53.
59. Yoshifumi Tanaka, *The International Law of the Sea* (Cambridge: Cambridge University Press, 2015), p. 191.
60. Mickelson, "Common Heritage of Mankind as a Limit to Exploitation of the Global Commons", p. 662.
61. Implementation Agreement, Section 9, clause 7(f), states: "[r]ules, regulations and procedures on the equitable sharing of financial and other economic benefits derived from activities in the Area and the decisions to be made thereon."
62. Patrick S. Castagne, "National Anthem of the Republic of Trinidad and Tobago," https://otp.tt/trinidad-and-tobago/anthem/ (accessed March 29, 2022).

Notes on contributor

Petal Alexander is a citizen of Trinidad and Tobago and the Director of the Legal Services Unit at the Ministry of Works and Transport, Trinidad and Tobago. Ms. Alexander has practised law for over ten years and completed a Masters in Mediation Studies in 2018 and a Masters in

International Maritime Law in 2021. Ms. Alexander was chosen as the best performing Nippon Foundation Scholar during the maritime law programme and received the Sasakawa Prize. Ms. Alexander intends to serve her country by lending her voice and support to the quest towards cleaner oceans. Ms. Alexander uses her free time to visit restaurants, family/friends and catch-up on her favourite t.v. shows.