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Enclosure of the Oceans versus the Common Heritage of Mankind: The Inherent Tension between the Continental Shelf Beyond 200 Nautical Miles and the Area

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Enclosure of the Oceans versus the Common Heritage of Mankind: The Inherent Tension between the Continental Shelf Beyond 200 Nautical Miles and the Area

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CONTENTS

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The thoughts and opinions expressed are those of the author and not necessarily those of the U.S. government, the U.S. Department of the Navy, or the U.S. Naval War College.

I. INTRODUCTION

The 1982 United Nations Convention on the Law of the Sea (UNCLOS)[1] is rightly regarded as a major achievement of diplomacy in the late twentieth century.[2] It has been variously described as the "constitution for the ocean"[3] and "the most far reaching and complex conventional undertaking" of the United Nations since the adoption of the UN Charter itself in 1945.[4] Its adoption in New York in April 1982 marked the culmination of the longest-running negotiation in the history of the UN. It also set a record in the history of international law when it was signed by 119 States on December 10, 1982, in Montego Bay, Jamaica, the first day on which it was opened for signature.

As a multilateral conference, the third United Nations Conference on the Law of the Sea (UNCLOS III) was unrivaled in its scope and ambition, covering some twenty-five disparate topics and issues reflecting every aspect of the uses of the ocean and its resources. Certainly, the monumental nature of UNCLOS is striking—it consists of no less than 320 articles and 9 annexes.

Almost forty years later, UNCLOS has withstood the test of time. It now has 168 parties, including nearly all the major maritime powers except for the United States. This is a remarkable achievement when one considers that when it entered into force in 1994 only one of the sixty States that had ratified UNCLOS was not a developing country.[5] There can be no doubt that

1. United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter UNCLOS].

2. David H. Anderson, *Islands and Rocks in the Modern Law of the Sea*, *in* THE LAW OF THE SEA CONVENTION: US ACCESSION AND GLOBALIZATION 307 (Myron Nordquist et al. eds., 2012).

3. Tommy T.B. Koh, President of the Third United Nations Conference on the Law of the Sea, Remarks at the Final Session of the Conference: A Constitution for the Oceans (Dec. 11, 1982), *reprinted in* THE LAW OF THE SEA: OFFICIAL TEXT OF THE U.N. CONVENTION ON THE LAW OF THE SEA, at xxxiv (1983).

4. Patrick Robinson, *The International Seabed Authority at Twenty-Five: The Status of the UNCLOS Notion of the Common Heritage of Mankind under International Law*, *in* THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA, PART XI REGIME AND THE INTERNATIONAL SEABED AUTHORITY: A TWENTY-FIVE YEAR JOURNEY (forthcoming 2021).

5. Shabtai Rosenne, *The United Nations Convention on the Law of the Sea, 1982*, 29 ISRAEL LAW REVIEW 491 (1995).

the main substantive provisions of UNCLOS may now be regarded as customary international law.[6] The institutions created by UNCLOS are well established and supported by States parties. Even in respect of those provisions of UNCLOS that do not represent customary international law, such as the deep seabed mining provisions in Part XI and Annex III, there have been no unilateral claims outside the regime established by UNCLOS.

Experience has shown that UNCLOS is adaptable, as well as resilient. This is best demonstrated by the two implementing agreements of 1994 and 1995 on deep seabed mining[7] and high seas fisheries,[8] respectively. What is particularly significant is that these agreements develop the provisions of UNCLOS in the light of new scientific knowledge and growing environmental concerns without undermining the underlying package of rights and jurisdictions agreed in 1982.

The bodies established by UNCLOS have also been used creatively to make additions, interpretations, and subtle changes to the law of the sea. For example, the meeting of States parties has been utilized to derogate certain provisions relating to the submission of applications to the Commission on the Limits of the Continental Shelf (CLCS).[9] The International Seabed Authority (ISA) has introduced regulations governing access to mineral resources that had not even been discovered when UNCLOS was negotiated

6. David Freestone, *The Law of the Sea Convention at 30: Successes, Challenges and New Agendas,* 27 INTERNATIONAL JOURNAL OF MARINE AND COASTAL LAW 3 (2013).

7. Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, July 28, 1994, 1836 U.N.T.S. 3.

8. Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, *opened for signature* Dec. 4, 1995, 2167 U.N.T.S. 3 (entered into force Dec. 11, 2001).

9. The decision by the Meeting of States Parties to UNCLOS to allow the submission of preliminary information indicative of the outer limits of the continental shelf beyond 200 nautical miles to satisfy the ten-year time period referred to in Article 4 of Annex II of UNCLOS. *See* Meeting of States Parties, *Decision Regarding the Workload of the Commission on the Limits of the Continental Shelf and the Ability of States, Particularly Developing States, to Fulfil the Requirements of Article 4 of Annex II to the United Nations Convention on the Law of the Sea, as well as the Decision Contained in SPLOS/72, Paragraph (a)*, U.N. Doc. SPLOS/183 (June 20, 2008), https://undocs.org/en/SPLOS/183.

in the late 1970s.[10] The International Tribunal for the Law of the Sea (ITLOS) has also demonstrated its willingness to clarify and interpret the law in line with progressive environmental concepts such as the precautionary approach.[11]

Yet despite its many achievements and undoubted success, there is a deep-seated underlying tension that continues to exist at the heart of UNCLOS. This tension lies between the delineation of the continental shelf beyond 200 nautical miles under Article 76 of UNCLOS and the delineation of the extent of the Area as defined in Article 1(1). So far, this tension has not manifested itself in the form of disputes. Nevertheless, as activities in the Area[12] expand and advances in marine survey technology reveal a more complex seabed morphology than was understood in 1982, leading to more expansive claims to national jurisdiction, the possibility exists that two fundamentally different approaches—the exclusivity of coastal State jurisdiction versus the international character and shared space of the Area—are set on a collision course that may challenge one of the basic underlying foundations of UNCLOS.

This tension manifests itself in at least three ways, which will be explored in the following Parts of this essay. First, there is the problem of determining the limits of the Area itself, and hence the jurisdiction of the ISA. Second, there is the problem of dealing with potential disputes over the delineation or delimitation of the continental shelf and the spillover consequences of

10. In drafting Part XI and Annex III of UNCLOS, UNCLOS III negotiators considered only polymetallic (manganese) nodules. No consideration was given to other hard mineral resources in the deep sea, including polymetallic sulphides and cobalt-rich ferromanganese crusts. ISA has since regulated exploration for such resources. Assembly, International Seabed Authority, *Decision of the Assembly of the International Seabed Authority Relating to the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area*, ISA Doc. ISBA/16/A/12/Rev.1 (Nov. 15, 2001), https://isa.org.jm/files/files/documents/isba-16a-12rev1_0.pdf; Assembly, International Seabed Authority, *Decision of the Assembly of the International Seabed Authority relating to the Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area*, ISA Doc. ISBA/18/A/11 (Oct. 22, 2012), https://isa.org.jm/files/files/documents/isba-18a-11_0.pdf [hereinafter ISA Assembly Decision on Regulations].

11. Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area, Case No. 17, Advisory Opinion of February 1, 2011, 11 ITLOS Rep. 10, 45–47, 75.

12. "Activities in the Area" is a term of art defined as "all activities of exploration for, and exploitation of, the resources of the Area." UNCLOS, *supra* note 1, art. 1(3). "Resources" are defined as "all solid, liquid or gaseous mineral resources *in situ* in the Area at or beneath the seabed, including polymetallic nodules." *Id.* art. 133(a).

those disputes. Third, there is the unfinished business of implementing the revenue-sharing provisions of Article 82 of UNCLOS.

Perhaps the greatest achievement of UNCLOS was to replace a plethora of conflicting and competing claims by coastal States with universally agreed limits on the territorial sea, the contiguous zone, and the exclusive economic zone, as well as clarity on the rights and duties of coastal States within those zones. The regime for these zones was supported by a complex regime of baseline delineation, intended to ensure consistency and discourage excessive claims. The overriding community interest in freedom of navigation was ensured through agreement on the status of the exclusive economic zone and special rules governing innocent passage through the territorial sea and transit passage through straits used for international navigation. A new legal regime was created for archipelagic States, allowing for establishment of archipelagic baselines, but at the same time facilitating free navigation through archipelagic sea lanes. Land-locked States were assured of perpetual rights of access to and from the sea as well as a share in common resources.

With respect to the continental shelf, UNCLOS restated in Articles 76(1) and 77(3) the rights of the coastal State in customary international law over the adjacent shelf.[13] It also appeared to settle the vexed question of the determination of the outer limit of the continental shelf beyond 200 nautical miles. It did this by devising a formula set out in Article 76[14] combining the "influences of geography, geology, geomorphology and jurisprudence"[15] and adding a procedural mechanism—the CLCS—to assist States in applying this formula in a uniform and consistent manner.

At the same time, in Part XI and its associated annexes, UNCLOS established an entirely novel legal regime for management of the largest untapped mineral resource on the planet by designating the seabed beyond the limits of national jurisdiction (referred to as "the Area") and its associated

13. Ted L. McDorman, *The Continental Shelf*, *in* THE OXFORD HANDBOOK OF THE LAW OF THE SEA 181 (Donald R. Rothwell et al. eds., 2015).

14. The geomorphological basis of the formula is further elaborated in scientific and technical guidelines published by the CLCS. *See* Commission on the Limits of the Continental Shelf, *Scientific and Technical Guidelines of the Commission for the Limits of the Continental Shelf*, U.N. Doc. CLCS/11 (May 13, 1999), https://documents-dds-ny.un.org/doc/UNDOC/GEN/N99/171/08/IMG/N9917108.pdf; Commission on the Limits of the Continental Shelf, *Scientific and Technical Guidelines of the Commission for the Limits of the Continental Shelf*, U.N. Doc. CLCS/11/Add.1/Corr.1 (Nov. 19, 1999), https://documents-dds-ny.un.org/doc/UNDOC/GEN/N99/356/61/IMG/N9935661.pdf.

15. D.M. JOHNSTON, THE THEORY AND HISTORY OF OCEAN BOUNDARY MAKING 91 (1988).

mineral resources as the "common heritage of mankind."[16] The Area and its resources would be managed by an international agency (the International Seabed Authority) specially created for that purpose. The mineral resources must be used for the benefit of all humanity, but access to the resources is assured to both developed and developing States, rich or poor, large or small, coastal or landlocked.

II. DETERMINING THE LIMITS OF THE AREA

From the outset of UNCLOS III in 1974, the issue of the extent of the continental shelf was divisive. On the one hand, the broad margin States saw an opportunity to advance extended shelf claims that would not have been accepted in a purely unilateral context and thereby to capture potential hydrocarbon resources for the benefit of coastal States. On the other hand, there was a deep-seated suspicion by many developing countries that the continental shelf regime reflected in the 1958 Convention had primarily served the interests of developed States and that this should be rectified.[17] The landlocked and geographically disadvantaged States, in particular, considered it essential to create an "economically meaningful international area" with enough resources to be shared by all States.[18]

It is important here to recall that, while UNCLOS as a whole represented a "package deal," several of the key aspects were negotiated in isolation of one another, only converging at the end of UNCLOS III, or even in the drafting committee. This is particularly true for the regime for the Area, in Part XI and Annex III of the Convention, which was dealt with in the First Committee at UNCLOS III, and the regime for the continental shelf, which was dealt with by the Second Committee and in specialized negotiating groups.[19]

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16. UNCLOS, *supra* note 1, art. 136.

17. *See* Michael W. Lodge, *The International Seabed Authority and Article 82 of the UN Convention on the Law of the Sea*, 21 INTERNATIONAL JOURNAL FOR MARINE AND COASTAL LAW 323 (2006).

18. 2 UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY 844–45 (Satya N. Nandan, Shabtai Rosenne & Neal R. Grandy eds., 1993) [hereinafter UNCLOS 1982: A COMMENTARY]; Helmut Tuerk, *Questions Relating to the Continental Shelf Beyond 200 Nautical Miles: Delimitation, Delineation, and Revenue-Sharing*, 97 INTERNATIONAL LAW STUDIES 232, 234 (2021).

19. Particularly significant work was done by Negotiating Group 6 (NG6) chaired by Andres Aguilar (Venezuela) and the Informal Group of Juridical Experts (the Evenson Group). *See* UNCLOS 1982: A COMMENTARY, *supra* note 18, at 825–36.

As a result, the relationship between the Area and the continental shelf is a complex one. Whereas UNCLOS defines the maritime zones pertaining to the national jurisdiction of coastal States by reference to objective criteria, such as baselines or, in the case of the continental shelf, by reference to criteria set out in Article 76, it defines the extent of the Area only by reference to what it is not. The Area is thus defined as "the seabed and ocean floor and the subsoil thereof beyond the limits of national jurisdiction."[20] The only way the boundary of the Area can be delineated, therefore, is to first establish the limits of national jurisdiction. In the case of the exclusive economic zone, this is relatively straightforward, at least in the case of those States parties to the Convention that have already declared their maritime zones.[21]

In the case of the continental shelf, however, while coastal State jurisdiction of 200 nautical miles can be assumed, the situation is far from straightforward in the case of those States having claims to continental shelves extending beyond 200 nautical miles. Several practical problems arise, both for the ISA and for concerned coastal States. An overriding problem is the slow progress in the work of the CLCS, which means that the delineation of the outer limits of the continental shelf is likely to take many years. This is caused by two main factors.

First, during UNCLOS III, it was estimated that no more than thirty-five States would be able to claim an entitlement to a continental shelf extending beyond 200 nautical miles on the basis of Article 76. This was a significant underestimate. As of March 31, 2020, the CLCS had received a total of ninety-two submissions, including seven revised submissions, from seventy-one States parties, either individually or jointly.[22] As of the same date, the CLCS had issued thirty-five sets of recommendations, including for four revised submissions. Meanwhile, according to the chair of the CLCS, the waiting time between the making of a submission and the establishment of a subcommission has increased to approximately eleven years and is expected

20. UNCLOS, *supra* note 1, art. 1(1).

21. As of March 31, 2020, forty-four States parties had deposited information concerning the outer limits of the exclusive economic zone with the UN Secretary-General. DIVISION FOR OCEAN AFFAIRS AND THE LAW OF THE SEA OFFICE OF LEGAL AFFAIRS, UNITED NATIONS, LAW OF THE SEA: BULLETIN NO. 103, at 28, ¶ 12 (2020), https://www.un.org/Depts/los/doalos_publications/LOSBulletins/bulletinpdf/LOSBulletin103-WEB.pdf.

22. *See* Letter from Adman Rashid Nasser Al-Azri, Chair, Commission on the Limits of the Continental Shelf, to the President of the Thirtieth Meeting of States Parties ¶ 10, U.N. Doc. SPLOS/30/10 (Apr. 13, 2020), https://undocs.org/en/splos/30/10.

to increase further.[23] With at least forty-six submissions left to be considered, the work of the CLCS could well continue to the middle of the century.

Second, and related to the first, is the fact that the UNCLOS negotiators, since they did not foresee the large number of submissions, did not make adequate provision for the work of the CLCS.[24] Unlike ITLOS and ISA, which were established as permanent institutions with autonomous budgets and appropriate governance structures, the CLCS was established as a body of experts to be elected by the States parties every five years, having due regard to the need to ensure equitable geographic representation.[25] Membership in the CLCS is not a full-time job, and members are expected to combine frequent and lengthy meetings of the CLCS in New York with their regular professional commitments. The CLCS has no budget and the States parties that nominated the members have the responsibility to defray the expenses of those members while in performance of CLCS duties.[26] This situation has created many difficulties, especially in terms of ensuring the participation of members of the CLCS from developing States. Although the States parties had created a voluntary trust fund for facilitating the participation of members of the Commission from developing States in the meetings of the Commission,[27] the issue of the working conditions of the CLCS has been under discussion by the Meeting of States Parties to UNCLOS for several years.[28] A further exacerbating factor, as reported by the current chair of the CLCS is that "improvements in science and technology, coupled with deeper knowledge of continental shelf areas, has increased the complexity of submissions, requiring more time and analysis by the Commission."[29]

The end result is that, notwithstanding the fact that thirty-five recommendations have been issued by the CLCS, only nine States have so far fulfilled their obligation under Article 84(2) to deposit charts or lists of geographical coordinates showing the outer limits of the continental shelf with

23. *Id.* ¶ 11.

24. Helmut Tuerk, *The Common Heritage of Mankind After 50 Years*, 57 INDIAN JOURNAL OF INTERNATIONAL LAW 259 (2017).

25. UNCLOS, *supra* note 1, annex II, art. 1(1).

26. *Id.* annex II, art. 1(5).

27. G.A. Res. 55/7 (Oct. 30, 2000), https://undocs.org/en/A/RES/55/7.

28. *See* Meeting of States Parties, Note by the Secretariat, *Options to Address the Working Conditions of the Commission on the Limits of the Continental Shelf*, U.N. Doc. SPLOS/30/11 (Apr. 24, 2020), https://undocs.org/SPLOS/30/11.

29. Letter from Adman Rashid Nasser Al-Azri, *supra* note 22, ¶ 16.

the Secretary-General of ISA.[30] These nine States are Australia, Croatia, France (concerning Martinique, Guadeloupe, Guyana, La Reunion, New Caledonia, St Paul and Amsterdam, and the Kerguelen islands), Ireland, Mauritius, Mexico, Niue, Pakistan, and the Philippines. It is important to note that, as Article 84(2) makes no distinction as to whether the outer limits it refers to are in relation to the shelf up to or beyond 200 nautical miles, it is necessary for all coastal States to deposit information concerning the outer limits so that the extent of the Area can be known with accuracy.

A further problem concerns the position of States that are not yet parties to UNCLOS. Two related questions arise. First, are such States entitled to a continental shelf beyond 200 nautical miles and, if so, are they also subject to the related obligations set out in UNCLOS? While it seems clear that the entitlement to a continental shelf in paragraph 1 of Article 76 is part of customary international law,[31] it is less clear that the detailed provisions and related obligations set out in paragraphs 2–7 also have the status of customary international law (even though the delineation of the outer limit of the continental shelf depends entirely on the establishment of the outer edge of the continental margin, which is defined in paragraph 3). The International Court of Justice, in *Nicaragua v. Colombia*, stated that "it does not need to decide" whether the detailed provisions of Article 76 form part of customary international law.[32]

On the other hand, ITLOS, in the *Bangladesh v. Myanmar* case, considered that paragraph 1 of Article 76 "should be understood in light of the subsequent provisions of the Article defining the continental shelf and the continental margin."[33] In respect of the United States, some authors have suggested that a claim to a continental shelf beyond 200 nautical miles could be

30. Secretary-General of the International Seabed Authority, *Report under Article 166, Paragraph 4, of the United Nations Convention on the Law of the Sea*, ¶ 7, ISA Doc. ISBA/24/A/2 (May 29, 2018). *See also* President of the Assembly of the International Seabed Authority, *Statement on the Work of the Assembly at its Twenty-fourth Session*, ¶¶ 9, 14, ISA Doc. ISBA/24/A/12 (Aug. 10, 2018); *Charts and Lists of Geographical Coordinates*, INTERNATIONAL SEABED AUTHORITY, https://isa.org.jm/deposit-charts (last visited Apr. 23, 2021).

31. The International Court of Justice stated in the *Nicaragua v. Colombia* judgment that it considers the entirety of Article 76(1) to be "part of customary international law." Territorial and Maritime Dispute (Nicar. v Colom.), Judgment, 2012 I.C.J. 624, ¶ 118 (Nov. 19) [hereinafter Nicaragua v. Colombia].

32. *Id.*

33. Delimitation of the Maritime Boundary between Bangladesh and Myanmar in the Bay of Bengal (Bangl. v. Myan.), Case. No. 16, Judgment of Mar. 14, 2012, 12 ITLOS Rep. 4, 114, ¶ 437 [hereinafter Bangladesh v. Myanmar].

made based on customary international law[34] as reflected in the Truman Declaration[35] and the 1958 Geneva Convention on the Continental Shelf.[36] According to this view, while nothing in UNCLOS prohibits the United States from making a submission to the CLCS, notwithstanding its status as a non-party to UNCLOS, it is not obliged to do so in order to benefit from customary international law.[37] It is also unclear whether non-parties would be bound by the provisions of Article 84(2), although one presumes that it could only be in their interests to deposit information on the outer limits of their continental shelves with both the United Nations and ISA.

The outer limits of the continental shelf beyond 200 nautical miles established by the coastal State become "final and binding" if they are adopted "on the basis of" the recommendations of the CLCS.[38] What "final and binding" means in this context has been subject to some academic debate,[39] but it seems clear that the limits so established would be binding on other States parties as well as the ISA. As far as the ISA is concerned, UNCLOS gives the ISA no role at all in the process before the CLCS,[40] despite the fact that the Area is directly affected by the delineation of the continental shelf beyond 200 nautical miles. Indeed, the possibility for the ISA to intervene before what was then envisaged as the Continental Shelf Boundary Commission was rejected during the negotiation of UNCLOS.[41] Furthermore, Article 134(4) of UNCLOS, which deals with the scope of Part XI, provides that nothing in that article affects the establishment of the outer limits of the

34. *See, e.g.,* Raul Pedrozo, *Is it Time for the United States to Join the Law of the Sea Convention?*, 41 JOURNAL OF MARITIME LAW AND COMMERCE 151 (2010).

35. Policy of the United States with Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf, Proclamation No. 2667, 10 Fed. Reg. 12,303 (Sept. 28, 1945).

36. Convention of the Continental Shelf, Apr. 29, 1958, 15 U.S.T. 471, T.I.A.S. No. 5578, 499 U.N.T.S. 311.

37. Pedrozo, *supra* note 34.

38. UNCLOS, *supra* note 1, art. 76(8).

39. The argument has been made that it does not apply to third States and the international community as neither of these groups is a party to the submission process. *See* SUZETTE V. SUAREZ, THE OUTER LIMITS OF THE CONTINENTAL SHELF: LEGAL ASPECTS OF THEIR ESTABLISHMENT 239 (2008).

40. Michael W. Lodge, Secretary-General of the International Seabed Authority, Remarks at the Open Meeting of the Commission on the Limits of the Continental Shelf: The Relevance and Importance of the Work of the Commission to the International Seabed Authority (Mar. 10, 2017), https://www.un.org/depts/los/clcs_new/documents/Presentations/6_CLCS_20_ANNIVERSARY_Lodge.pdf.

41. UNCLOS 1982: A COMMENTARY, *supra* note 18, at 848-49.

continental shelf in accordance with Part VI, implying that the Area itself is a residual space, comprising only what is left over after coastal States have taken their share. According to this theory, the presumption is in favor of coastal State jurisdiction.

The rules and practice of the CLCS, on the other hand, do provide limited avenues for affected coastal States to intervene prior to the CLCS issuing a recommendation, albeit with not particularly satisfactory outcomes for the ISA. Under the rules of procedure of the CLCS,[42] the coastal State must, when making its submission, inform the CLCS of any dispute relating to the delimitation of the continental shelf or of any unresolved land or maritime dispute related to the submission.[43] The practice has been for affected States to quickly notify the CLCS where disputes exist and to raise explicit objections to the whole or part of submissions in such cases. In cases where a land or maritime dispute exists, the CLCS shall not consider and qualify a submission made by any of the States concerned in the dispute.[44] However, it may consider one or more submissions in the areas under dispute with prior consent given by all States that are parties to such a dispute or it may, and on several occasions has, encouraged the coastal State to make a partial submission that excludes the area in dispute. This is no doubt a logical way to proceed given that the CLCS is not, and was never intended to be, a mechanism for settlement of disputes. Such disputes over delimitation between opposite or adjacent States may instead be considered within the framework of the dispute settlement provisions under UNCLOS. The problem, of course, is that until the dispute is settled, we have no outcome as far as the delineation or delimitation of the area under dispute is concerned and are no closer to determining the limits of the Area.

A grey area exists in relation to information submitted by third States that does not amount to information regarding a dispute related to the submission. This was the case in relation to the first submission to the CLCS made by Brazil in 2004. The United States, on that occasion, submitted a letter drawing attention to certain technical issues in relation to the submission. The CLCS declined to consider the U.S. comments on the grounds that "other States" can play "only one role" with regard to the consideration of

42. *See* Commission on the Limits of the Continental Shelf, Rules of Procedure of the Commission on the Limits of the Continental Shelf, U.N. Doc. CLCS/40/Rev.1 (Apr. 17, 2008), https://documents-dds-ny.un.org/doc/UNDOC/GEN/N08/309/23/PDF/N0830923.pdf.

43. *Id.* annex I, ¶ 2(a).

44. *Id.* annex I, ¶ 5.

material submitted by the coastal State, namely in the case of a dispute as referred to in Annex I, paragraph 2(a) of the rules of procedure of the CLCS.[45] Noting that neither Annex II of UNCLOS nor the rules of procedure of the CLCS specifically prohibited the CLCS from considering such communications, the United States, in response, pointed to the reference in Annex III, paragraph 2(a)(v) of the rules to consideration of "[c]omments on any note verbale from other States regarding the data reflected in the executive summary." The rules on the matter are not particularly clear,[46] although one would assume that it would be in the interest of the CLCS to obtain as much information as possible regarding a continental shelf entitlement claimed by a coastal State in order to be able to render the most objective recommendation possible.

Notwithstanding, a number of submissions have attracted observations of other States on matters not related to disputes. These have not prevented the CLCS from proceeding to issue recommendations, even though it is not clear whether the CLCS was swayed by those observations.[47] The procedure does offer a potential, albeit narrowly circumscribed, route for States to challenge submissions on technical grounds.

In the case of disagreement by the submitting coastal State with the recommendations of the CLCS, the coastal State shall, within a reasonable time, make a revised or new submission.[48] At least seven fully or partially revised submissions have been made.[49] The CLCS has decided that revised submissions will be considered on a priority basis notwithstanding the queue[50] and

45. *See* Alex G. Oude Elferink, *Outer Limits of the Continental Shelf and Disputed Areas: State Practice Concerning Article 76(10) of the LOS Convention*, 21 INTERNATIONAL JOURNAL OF MARINE AND COASTAL LAW 461 (2006).

46. *Id.* at 474 n.56.

47. For example, the United States made observations on the submissions by Brazil and the Russian Federation. Japan made observations on the submission of the Russian Federation concerning the Sea of Okhotsk. In all instances, the State making observations did not object to the consideration of the submission. *See id.* at 486.

48. UNCLOS, *supra* note 1, annex II, art. 8.

49. Russian Federation (two partial revised submissions), Brazil (three partial revised submissions), Barbados (one revised submission), Argentina (one partial revised submission). *Submissions, through the Secretary-General of the United Nations, to the Commission on the Limits of the Continental Shelf, Pursuant to Article 76, Paragraph 8, of the United Nations Convention on the Law of the Sea of 10 December 1982*, U.N. OCEANS & LAW OF THE SEA, https://www.un.org/Depts/los/clcs_new/commission_submissions.htm (last updated Apr. 1, 2021).

50. Commission on the Limits of the Continental Shelf, *Statement by the Chairperson of the Commission on the Limits of the Continental Shelf on the Progress of Work in the Commission*, ¶ 57, U.N. Doc. CLCS/68 (Sept. 17, 2010), https://undocs.org/en/clcs/68.

these have duly taken their place at the front of the growing queue of submissions.

The application of these processes in practice and their potential implications for ISA may be seen in three examples. These will suffice to show the difficulties that could arise for ISA from uncertainty over the delineation or delimitation of the continental shelf and thus lack of clarity as to the limits of the Area. The first example concerns the Rio Grande Rise, off the coast of Brazil, where a contract for exploration has already been granted by ISA over an area which has been later identified as forming part of the continental shelf of a State. The second example concerns the situation where there is a dispute over the status of the relevant maritime space and whether the provisions of UNCLOS have been properly applied. And the third example concerns a situation where there are multiple overlapping continental shelf submissions and uncertainty over whether part of the region in question belongs to the Area.

III. RIO GRANDE RISE

An interesting illustration of the complexities that may arise can be seen in the case of the Rio Grande Rise. On December 31, 2013, Companhia de Pesquisa de Recursos Minerais (CPRM), a Brazilian state corporation, applied for approval of a plan of work for exploration for cobalt-rich ferromanganese crusts to ISA, in accordance with the ISA's Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area.[51] The ISA Council, acting on the recommendation of the Legal and Technical Commission,[52] recommended the approval of the plan of work for exploration,[53] and an exploration contract between ISA and CPRM was signed on November 9, 2015. The contract is in force until November 8, 2030.

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51. *See generally* ISA Assembly Decision on Regulations*, supra* note 10.

52. International Seabed Authority, Council, *Report and Recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority Relating to an Application for the Approval of a Plan of Work for Exploration for Cobalt-rich Ferromanganese Crusts by Companhia de Pesquisa de Recursos Minerais*, ISA Doc. ISBA/20/C/17 (July 9, 2014), https://isa.org.jm/files/files/documents/isba-20c-17_0.pdf.

53. International Seabed Authority, Council, *Decision of the Council Relating to an Application for the Approval of a Plan of Work for Exploration for Cobalt-rich Ferromanganese Crusts by Companhia de Pesquisa de Recursos Minerais*, ISA Doc. ISBA/20/C/30 (July 21, 2014), https://isa.org.jm/files/files/documents/isba-20c-30_0.pdf.

At the time the contract was entered into, it was acknowledged that the part of the Rio Grande Rise covered by the contract formed part of the Area. Indeed, Brazil had in 2004 made a submission to the CLCS pursuant to Article 76(8) of UNCLOS that did not include the Rio Grande Rise. The CLCS adopted its recommendations on the Brazilian submission on April 4, 2007.[54]

However, after receiving the recommendations of the CLCS, instead of establishing the outer limits of the continental shelf on the basis of those recommendations, Brazil opted to make not one but three revised partial submissions in respect of different regions of the continental shelf.[55] The third of these partial submissions, which was submitted on December 7, 2018, covers the Brazilian Oriental and Meridional Margin[56] and overlaps with the part of the Rio Grande Rise covered by the exploration contract between ISA and CPRM.

As of January 2021, the partial revised submission has yet to be placed on the agenda of the CLCS, and it is not known when the submission will be presented to the plenary of the CLCS, let alone considered by a subcommission. Nevertheless, on February 25, 2019, during the twenty-fifth session of the ISA Council, the representative of Brazil delivered a statement in which he indicated that "the polygon and related coordinates of the Meridional Margin comprises the Rio Grande Rise as natural prolongation of Brazil's land territory, existing *ipso facto* and *ab initio*" pursuant to Articles 76, 77, and Annex II of UNCLOS.[57] He also indicated that "Brazil is already taking necessary steps to officially and promptly notify the Secretary-General of the

54. COMMISSION ON THE LIMITS OF THE CONTINENTAL SHELF, SUMMARY OF THE RECOMMENDATIONS OF THE COMMISSION ON THE LIMITS OF THE CONTINENTAL SHELF IN REGARD TO THE SUBMISSION MADE BY BRAZIL ON MAY 17, 2004 OF INFORMATION ON THE PROPOSED OUTER LIMITS OF ITS CONTINENTAL SHELF (2011), https://www.un.org/Depts/los/clcs_new/submissions_files/bra04/Summary_Recommendations_Brazil.pdf. *See also* Commission on the Limits of the Continental Shelf, *Statement by the Chairman of the Commission on the Limits of the Continental Shelf on the Progress of Work in the Commission*, ¶ 22, U.N. Doc. CLCS/54 (Apr. 24, 2007), https://undocs.org/en/clcs/54.

55. In the case of disagreement by the coastal State with the recommendations of the CLCS, "the coastal State shall, within a reasonable time, make a revised or new submission." UNCLOS, *supra* note 1, annex II, art. 8.

56. BRAZILIAN CONTINENTAL SHELF SURVEY PROGRAM, EXECUTIVE SUMMARY OF BRAZILIAN PARTIAL REVISED SUBMISSION TO THE COMMISSION ON THE LIMITS OF THE CONTINENTAL SHELF (2018), https://www.un.org/Depts/los/clcs_new/submissions_files/bra02_rev18/BR-OMM-ExecutiveSummary.pdf.

57. Council, International Seabed Authority, 25th Sess. (pt. I), 246th mtg. (Feb. 25, 2019) (Statement by Representative of Brazil).

ISA on the legal consequence of that submission over the present sponsorship granted by Brazil and also on the necessary measures to be implemented accordingly."[58]

No such notification has been made, and no action has been taken by ISA, Brazil, as sponsoring State, or by the contractor, with respect to the contract. Indeed, in 2019 CPRM continued to submit its annual report on activities under the contract as required under the applicable ISA regulations.[59] It is assumed, therefore, that the contract remains in force unless and until the contractor exercises its right to renounce its rights and terminate the contract.[60] The sponsoring State could also withdraw its sponsorship, in which case the contract would terminate after six months unless the contractor obtained another sponsor during that time.[61] The contractor could also request a revision of the contract on the basis that circumstances have arisen, which, in the opinion of the contractor, would make it impracticable or impossible to achieve the objectives set out in the contract.[62] The contractor could even relinquish all the area allocated to it under the contract, although nothing in the applicable regulations suggests that relinquishment by itself extinguishes the terms of the contract.

Unless and until one of these eventualities arises, the position must be that ISA is entitled to consider that the contract remains in force and enforceable. It should also be noted that there is no guarantee that Brazil's revised submission will be considered by the CLCS before CPRM's contract with ISA expires in 2030. There is also the question of how the CLCS would react if a third State were to challenge Brazil's assertion of a continental shelf entitlement in this area.

Nevertheless, whether the contract is brought to a premature end or is allowed to expire naturally, there remains the question of how to treat confidential data and information transferred to ISA under the contract or required to be transferred on expiration or termination of the contract.[63] In principle, such data, generated under contract, belong to the ISA for the

58. *Id.*

59. ISA Assembly Decision on Regulations*, supra* note 10, annex IV, sec. 10.

60. Note that in such a case, the contractor shall remain liable for all obligations accrued prior to the date of such renunciation and those obligations required to be fulfilled after termination in accordance with the Regulations. *Id.* annex IV, sec. 19.

61. *Id.* annex IV, sec. 20.

62. *Id.* annex IV, sec. 24.1. But note that any such revision requires the consent of both ISA and the contractor, so the question arises, what if ISA objects?

63. *Id.* annex IV, secs. 10–11.

benefit of the international community (subject to the confidentiality provisions of ISA regulations restricting disclosure).

Considering that Brazil is also a member of the ISA Council, it seems likely that this particular issue will be resolved in due course through a consensual arrangement between the sponsoring State, the contractor, and the Council. But it is also easy to imagine alternative scenarios that may be more difficult to deal with. What if, for example, the contractor, instead of being a Brazilian-sponsored state entity, was under effective control of and sponsored by another State? And what if that State contested Brazil's claim to a continental shelf over the Rio Grande Rise? In such a case, would a communication by that State be enough to force the CLCS to refrain from any further action, even though the other State is not asserting a rival claim to jurisdiction over the area in question? As we shall see in the case of Okinotorishima, discussed below, it seems that such a communication would be enough to invoke Annex I of the Rules of Procedure of the CLCS and suspend consideration of the submission. This would hardly be satisfactory from Brazil's point of view but would also leave ISA and the contractor in an uncertain situation.

There is also an important distinction to be drawn between contracts issued prior to a submission to the CLCS and applications that may be made after a submission has already been made. In the former case, therefore, where a contract was issued prior to a submission to the CLCS, ISA would surely be bound to continue to respect the terms of the contract for as long as it remains in force and pending any recommendation by the CLCS.[64] In the latter case, it is arguable that ISA should refrain from granting any new exploration rights until the CLCS has considered the submission, even though this may take a considerable length of time. What is clear is that UNCLOS provides no procedure whereby the ISA Council, despite its supervisory responsibility in respect of activities in the Area,[65] may challenge a coastal State submission on the basis that it encroaches upon the Area.

IV. OKINOTORISHIMA

The second example concerns the Japanese "island" of Okinotorishima (Douglas Reef) in the Pacific Ocean. This is a very small insular feature, consisting of two barren rocks, neither of which is bigger at high tide than a

64. Although the contractor might have great difficulty in raising investment funds if it were left in such a position.

65. UNCLOS, *supra* note 1, art. 162(2).

king-size bed,[66] lying some 1,740 kilometers (940 nautical miles) south of Tokyo. It is Japan's southernmost possession.[67] Upon ratifying UNCLOS in June 1996, Japan declared an exclusive economic zone of 200 nautical miles. Thereafter Japan deposited charts and lists of geographical coordinates with the Secretary-General of the United Nations pursuant to Article 16(2) of UNCLOS,[68] which included a 200 nautical mile exclusive economic zone for Okinotorishima. In November 2008, Japan made a submission to the CLCS, in accordance with Article 76(8) of UNCLOS, covering seven distinct areas including the Southern Kyushu-Palau Ridge, which is a natural prolongation from the landmass represented by Okinotorishima.

In response to Japan's submission, in February 2009, the Republic of Korea and China each delivered a note verbale to the Secretary-General objecting to the Japanese claim to a 200 nautical mile exclusive economic zone and continental shelf for Okinotorishima on the grounds that it did not qualify as an island pursuant to Article 121(3) of UNCLOS and was not capable of generating an exclusive economic zone or continental shelf.[69] China later expanded on this claim in May 2009 at the fifteenth session of the International Seabed Authority, where the Chinese representative stated that the action taken by Japan was not consistent with UNCLOS as Okinotorishima is "only a dozen centimeters above sea-level and less than 10 square meters in its original size"[70] at high-tide and could not sustain human habitation or economic life of its own, as specified in Article 121(3) of UNCLOS. In August 2009, China sent a further note verbale to the Secretary-General reiterating its position that the "rock of Okinotorishima does not have any ground

66. Andrew L. Silverstein, *Okinotorishima: Artificial Preservation of a Speck of Sovereignty*, 16 BROOKLYN JOURNAL OF INTERNATIONAL LAW 409 (1990).

67. F. Shannon Sweeney, *Rocks v. Islands: Natural Tensions over Artificial Features in the South China Sea*, 31 TEMPLE INTERNATIONAL & COMPARATIVE LAW JOURNAL 599 (2017).

68. U.N. Secretary-General, Ref. M.Z.N.61.2008, *Deposit by Japan of Charts and Lists of Geographical Coordinates of Points, Pursuant to Article 16, Paragraph 2, of the Convention* (Mar. 18, 2008), https://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/mzn_s/mzn61.pdf.

69. Note Verbale, Permanent Mission of the People's Republic of China to the United Nations, Ref. No. CML/2/2009 (Feb. 6, 2009), https://www.un.org/depts/los/clcs_new/submissions_files/jpn08/chn_6feb09_e.pdf; Note Verbale, Permanent Mission of the Republic of Korea to the United Nations, Ref. No. MUN/046/09 (Feb. 27, 2009), https://www.un.org/depts/los/clcs_new/submissions_files/jpn08/kor_27feb09.pdf.

70. Press Release, International Seabed Authority, Seabed Assembly Hears 22 Speakers as it Continues Debate on Secretary-General's Report on Work of the Authority 2, Assembly (PM) Press Release SB/15/6 (May 28, 2009), https://isa.org.jm/files/files/documents/sb-15-6.pdf.

to claim a continental shelf" and asking the CLCS not to take any action on the part of the Japanese submission covering the Southern Kyushu-Palau Ridge.[71]

Despite these protestations, the CLCS proceeded to establish a subcommission to consider the Japanese submission. The subcommission adopted its recommendations on August 12, 2011, and these were adopted by the CLCS, with amendments, on April 19, 2012.[72]

Addressing the Southern Kyushu-Palau Ridge Region, the CLCS took note of all the communications made by States in relation to the submission, including several recent communications concerning Okinotorishima from China,[73] the Republic of Korea,[74] and Japan.[75] The CLCS particularly noted that China's note verbale stated that its disagreement with Japan was "in essence, a dispute of whether or not the rock of Oki-no Tori shall have exclusive economic zone or continental shelf, and a dispute of whether relevant maritime space is under national jurisdiction or a common space of the international community."[76] Korea also stated that "it considers that there exists a dispute concerning Oki-no-Tori Shima's legal status."[77]

While these assertions were disputed by Japan, the CLCS decided not only that it should not act in relation to the Southern Kyushu-Palau Ridge Region but also stated that "it will not be in a position to take action to make

71. Note Verbale, Permanent Mission of the People's Republic of China to the United Nations, Ref No. CML/31/2009 (Aug. 24, 2009).

72. COMMISSION ON THE LIMITS OF THE CONTINENTAL SHELF, SUMMARY OF RECOMMENDATIONS OF THE COMMISSION ON THE LIMITS OF THE CONTINENTAL SHELF IN REGARD TO THE SUBMISSION MADE BY JAPAN ON 12 NOVEMBER 2008 (2012), https://www.un.org/Depts/los/clcs_new/submissions_files/jpn08/com_sumrec_jpn_fin.pdf [hereinafter SUMMARY OF RECOMMENDATIONS ON THE LIMITS OF THE CONTINENTAL SHELF].

73. Note Verbale, Permanent Mission of the People's Republic of China to the United Nations, Ref. No. CML/25/2012 (Apr. 5, 2012).

74. Note Verbale, Permanent Mission of the Republic of Korea to the United Nations, Ref. No. MUN/174/12 (Apr. 5, 2012).

75. Note Verbale, Permanent Mission of Japan to the United Nations, Ref. No. PM/12/078 (Apr. 9, 2012).

76. SUMMARY OF RECOMMENDATIONS ON THE LIMITS OF THE CONTINENTAL SHELF, *supra* note 72, at 4.

77. *Id.*

recommendations on the Southern Kyushu-Palau Ridge Region until such time as the matters referred to in the notes verbales have been resolved."[78]

The situation here differs from that of the Rio Grande Rise in two important respects. First, there is clearly an objection to the claim by Japan. Second, no exploration contract has yet been issued by ISA in the area in question. The question that arises is what if a qualified entity were to apply for a plan of work for exploration in such an area or (perhaps more likely) in an area covered by a pending submission to the CLCS?[79] How should ISA react? Surprisingly, there is nothing in ISA's Regulations on Prospecting and Exploration in the Area that requires the Legal and Technical Commission or the Council to make a positive finding that an application area is actually located exclusively in the Area, although that is perhaps implicit in the requirement that the Commission must determine whether an application complies with UNCLOS and the Regulations.[80] It is also perhaps implicit from Article 134 of UNCLOS. One scenario, of course, is that the applicant may adjust its application accordingly. In this case, there is no problem. But what if the applicant does not wish to make any adjustment, which may indicate that it disputes the coastal State submission?

The most pragmatic solution, as noted above, is that ISA should refrain from granting rights in areas that are subject to a submission to the CLCS, including those areas where preliminary information has been submitted. While this may not be ideal, especially in the case of disputed areas that may not be resolved for a very long time, if ever, it would avoid later legal and political problems for ISA and also ensure security of tenure for contractors. In the unlikely case, however, that ISA were to issue a contract in a disputed

78. *Id.* at 5. *See also* Commission on the Limits of the Continental Shelf, *Progress of Work in the Commission on the Limits of the Continental Shelf,* ¶¶ 20–21, U.N. Doc. CLCS/74 (Apr. 30, 2012), https://undocs.org/en/clcs/74.

79. In its decision of June 20, 2008, the Meeting of States Parties decided that States parties who were unable to meet the deadline specified in Article 4 of Annex II of UNCLOS could submit preliminary information indicative of the outer limits of the continental shelf beyond 200 miles together with the intended date of making a submission in accordance with Article 76. Meeting of States Parties, *Decision Regarding the Workload of the Commission on the Limits of the Continental Shelf and the Ability of States, Particularly Developing States, to Fulfil the Requirements of Article 4 of Annex II to the United Nations Convention on the Law of the Sea, as Well as the Decision Contained in SPLOS/72, Paragraph (a)*, U.N. Doc. SPLOS/183 (June 20, 2008), https://undocs.org/SPLOS/183.

80. International Seabed Authority, Council, *Decision of the Council of the International Seabed Authority Relating to Amendments to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area and Related Matters*, annex, regulations 15, 21(8), ISA Doc. ISBA/19/C/17 (July 22, 2013), https://isa.org.jm/files/files/documents/isba-19c-17_0.pdf.

area, despite the language of Article 134(4), UNCLOS does not provide any procedure whereby a coastal State may challenge an application for approval of a plan of work. It is difficult in any case to see how a challenge could be made before the outer limits become final and binding.

It is conceivable that an aggrieved coastal State could bring a claim against the ISA in the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea, pursuant to Article 187(b)(ii) of the Convention on the basis that granting a contract for exploration is an act in excess of the Authority's jurisdiction, but this is by no means certain. At the same time, should the Council disapprove the contract for exploration, the applicant could presumably invoke the Chamber's jurisdiction under Article 187(d).[81]

How the Chamber would deal with such a matter raises further questions. The Chamber is certainly permitted to decide claims concerning excess of jurisdiction, as well as claims that the application of the rules, regulations, and procedures of ISA would be in conflict with the obligations of the parties to the dispute under UNCLOS.[82] The Chamber might be able to say that the outer limits have not been established "on the basis of" the recommendations of the CLCS. But what if the challenge is that provisions of UNCLOS have not been properly applied, or that the recommendations of the CLCS are based on inadequate or flawed scientific data? And what if the objection was raised by ISA? How would the Chamber resolve such a dispute without effectively usurping the function of the CLCS, something that ITLOS cautioned against in *Bangladesh v. Myanmar*?[83]

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81. Note that in all cases the sponsoring State would have the right to intervene under Article 190 of UNCLOS.

82. UNCLOS, *supra* note 1, art. 189.

83. Bangladesh v. Myanmar, *supra* note 33. In the delimitation of maritime areas between Canada and France case, the court of arbitration held that it would not be competent to determine the outer entitlement to continental shelf beyond the 200 nautical miles limit in the absence of representation of the "international community" and that such community was an indispensable party to any such determination, stating, "This Court is not competent to carry out a delimitation which affects the rights of a Party which is not before it." Delimitation of Maritime Areas Between Canada and France (Can. v. Fr.), 21 R.I.I.A. 265, ¶ 79 (Arb. Trib. 1992), *reprinted in* 31 INTERNATIONAL LEGAL MATERIALS 1145 (1992). The court assumed that the international community for this purpose was "represented by organs entrusted with the administration and protection of the international sea-bed Area (the seabed beyond national jurisdiction) that has been declared to be the common heritage of mankind." *Id.* ¶ 78.

V. ARCTIC

The Arctic Ocean and its waters are, like any other ocean, subject to the regime of UNCLOS and the 1994 Agreement.[84] The pre-eminence of the UNCLOS as the applicable legal framework for the management of the Arctic Ocean was also recognized in the Ilulissat Declaration of 2008.[85] Even the United States, although not a party to UNCLOS, has agreed with this position. This implies that any areas of the seabed beyond national jurisdiction in the Arctic Ocean would be considered part of the Area and subject to the legal regime set out in Part XI of UNCLOS and the 1994 Agreement, as well as the rules, regulations, and procedures of the ISA concerning mineral exploration and exploitation.[86]

How much of the seabed of the Arctic Ocean lies beyond national jurisdiction remains to be seen. All five Arctic coastal States (Canada, Denmark, Norway, the Russian Federation, and the United States) assert entitlements to continental shelves in the Arctic Ocean extending beyond 200 nautical miles.[87] Submissions to the CLCS by Canada, Denmark, Norway, and the Russian Federation are in various stages of consideration, and no State has yet established final and binding outer limits. The United States has gathered technical data to substantiate its entitlement to a continental shelf but, as a non-party, has not made a submission to the CLCS.

While all States acknowledge their respective entitlements to continental shelves extending beyond 200 nautical miles, there will be various overlapping claims after the delineation of the outer limits that will need to be resolved through delimitation.[88] For example, one area of 58,850 square miles is included in the continental shelf submissions of Canada, Denmark, and

84. Peter Taksøe-Jensen, *An International Governance Framework for the Arctic: Challenges for International Public Law*, 69 ZAÖRV 625 (2009).

85. Ilulissat Declaration, May 28, 2008, 48 INTERNATIONAL LEGAL MATERIALS 382 (2009).

86. Michael W. Lodge, *The International Seabed Authority and the Arctic*, *in* ARCTIC SCIENCE, INTERNATIONAL LAW AND CLIMATE CHANGE: LEGAL ASPECTS OF MARINE SCIENCE IN THE ARCTIC OCEAN 175 (Suzanne Wasum-Rainer et al. eds., 2012).

87. Karen Scott & David Vanderzwaag, *Polar Oceans and Law of the Sea*, *in* THE OXFORD HANDBOOK OF THE LAW OF THE SEA, *supra* note 13, 725, 732–33.

88. Ted L. McDorman, *The International Legal Regime of Continental Shelf with Special Reference to the Polar Regions*, *in* POLAR LAW TEXTBOOK II 77, 89–90 (Natalia Loukacheva ed., 2013).

Russia.[89] All parties have committed to the orderly settlement of these claims on the basis of the Ilulissat Declaration, which recognizes that UNCLOS provides the legal framework delineating the outer limits of the continental shelf in the Arctic.[90] The prevailing view, based on all published sources, is that there will be two small areas of seabed remaining beyond national jurisdiction that will form part of the Area.[91] Clearly, however, it will be many years before the precise boundaries of this part of the Area can be determined with certainty.

There are three main legal consequences of the existence of a part of the Area in the Arctic Ocean. The first consequence is that any activities of mineral exploration and exploitation in the Area in the Arctic must be conducted in accordance with Part XI, the 1994 Agreement, and the relevant rules, regulations, and procedures of ISA. In the event that any mineral resource deposits straddle the Area and one or more areas under national jurisdiction, such activities would need to be conducted in accordance with Article 142, which requires that due regard be paid to the rights and legitimate interests of coastal States across whose jurisdiction resource deposits in the Area lie and provides a system for consultations and prior consent in such cases. While the nature and distribution of mineral resources in the Arctic Ocean are not fully understood, it is probably quite unlikely that such resources, including hydrocarbon resources, exist beyond the outer limits of the continental shelves of the Arctic States.[92] Nevertheless, the application of Part XI is an important point of principle.

The second consequence, which applies irrespective of the existence of a part of the Area, is that Article 82(4) would apply to the exploitation of the non-living resources of the continental shelves of the Arctic States—at least

89. See also the very useful map of Maritime Jurisdiction and Boundaries in the Arctic Region, with accompanying briefing notes published by the International Boundaries Research Unit, Durham University, United Kingdom. Maritime Jurisdiction and Boundaries in the Arctic Region, IBRU, https://www.dur.ac.uk/resources/ibru/resources/ArcticMaps-May2020/IBRUArcticmap06-05-20revisedUSAclaimed-compressedpp.pdf (last visited Apr. 23, 2021).

90. Ilulissat Declaration *supra* note 85.

91. MICHAEL BYERS, INTERNATIONAL LAW AND THE ARCTIC 127 (2013). *See also* Lodge, *The International Seabed Authority and the Arctic, supra* note 86.

92. Ted L. McDorman, *The Outer Continental Shelf in the Arctic Ocean, Legal Framework and Recent Developments*, *in* LAW, TECHNOLOGY AND SCIENCE FOR OCEANS IN GLOBALIZATION: IUU FISHING, OIL POLLUTION, BIOPROSPECTING, OUTER CONTINENTAL SHELF 499 (Davor Vidas ed., 2010).

those who are parties to UNCLOS—beyond 200 nautical miles. This is discussed further below, but I have previously suggested that the geographic configuration of the Arctic Ocean suggests the need for particularly close cooperation between ISA and the Arctic States with respect to the implementation of Article 82(4).[93]

The third, and potentially the most important consequence, is that consideration must be given to the implementation of the provisions of UNCLOS relating to marine scientific research in the Area.[94] Under Article 256, all States, irrespective of their geographical location, and competent international organizations have the right, in conformity with the provisions of Part XI, to conduct marine scientific research in the Area. Article 143(1) stipulates that marine scientific research in the Area is to be carried out exclusively for peaceful purposes and for the benefit of mankind as a whole. Article 143(2) defines the role of the ISA with respect to marine scientific research. It states that the ISA may carry out marine scientific research concerning the Area and its resources and may enter into contracts for that purpose. Article 143(3) deals with the position of States parties in relation to marine scientific research in the Area and lists a number of ways in which they should fulfill their general duty (which is mandatory) to promote international cooperation in marine scientific research. This includes participating in international research programs for such purposes and disseminating the results of such research and analysis through the ISA. It also includes a requirement to ensure that programs are developed through the ISA for the benefit of developing States and technologically less developed States with a view to strengthening their research capabilities and training their personnel.

Implementation of these provisions has been somewhat limited so far. The ISA is not, so far, an observer to the Arctic Council, which is the leading intergovernmental forum promoting cooperation in the Arctic.[95] This is per-

93. Lodge, *The International Seabed Authority and the Arctic*, *supra* note 86, at 184.

94. The question of implementation of the provisions of Part XIII of UNCLOS relating to marine scientific research in the exclusive economic zone and continental shelf also raises legal complexities, particularly in terms of access by non-Arctic States, which are beyond the scope of this essay. *See* Alex Oude Elferink, *The Regime for Marine Scientific Research in the Arctic: Implications of the Absence of Outer Limits of the Continental Shelf Beyond 200 Nautical Miles*, *in* ARCTIC SCIENCE, INTERNATIONAL LAW AND CLIMATE CHANGE, *supra* note 86, at 189; Betsy Baker, *Common Precepts of Marine Scientific Research in the Arctic*, *in id.* at 209.

95. The Arctic Council has thirty-eight observers, including thirteen intergovernmental organizations. *See generally About the Arctic Council*, ARCTIC COUNCIL, https://arctic-council.org/en/about/ (last visited Apr. 23, 2021).

haps surprising given that the main functions of the Arctic Council—ensuring the protection of the environment and coordination of "common Arctic issues, in particular issues of sustainable development and environmental protection in the Arctic"[96]—are fully consistent with ISA's responsibility to ensure the effective protection of the marine environment from the harmful effects of deep seabed mining. A positive sign is that in recent years the ISA has participated in the work of the Arctic Council's Working Group on the Protection of the Marine Environment.[97] This is indicative of the opportunities that exist for strengthening international cooperation in a way that is complementary to the implementation of existing instruments and does not undermine the role of existing mechanisms.

VI. THE UNFINISHED BUSINESS OF ARTICLE 82

As a *quid pro quo* for the reduction by some thirty million square kilometers of the geographical extent of the Area caused by the recognition of national jurisdiction over the continental margin beyond 200 nautical miles, the broad-shelf States had to agree to a system of revenue sharing between coastal States and the international community in respect of the exploitation of non-living resources of the extended continental shelf. This compromise is enshrined in Article 82 of UNCLOS.[98]

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96. *Joint Communique of the Governments of the Arctic Countries on the Establishment of the Arctic Council* ¶ 1(a), ARCTIC COUNCIL (Sept. 19, 1996), https://oaarchive.arctic-council.org/bitstream/handle/11374/85/EDOCS-1752-v2-ACMMCA00_Ottawa_1996_Founding_Declaration.PDF.

97. Protection of the Arctic Marine Environment (PAME) was established in 1991. Its primary focus is protection and sustainable use of the Arctic marine environment. PAME addresses marine policy measures in response to environmental change from both land and sea-based activities. PAME develops and coordinates strategic plans, programs, assessments, and guidelines, complementing existing legal arrangements aimed at protection of the Arctic marine environment. *See generally About Pame*, PAME, https://pame.is/shortcode/about-us (last visited Apr. 23, 2021).

98. *See* Lodge, *The International Seabed Authority and Article 82*, *supra* note 17; Tuerk, *supra* note 18; Aldo Chircop, *Equity on The Extended Continental Shelf? How an Obscure Provision in UNCLOS Provides New Challenges for the Ocean Governance*, *in* SUSTAINABLE OCEANS: RECONCILING ECONOMIC USE AND PROTECTION 37 (2013). The view that Article 82 was a *quid pro quo* for the extension of the continental shelf is not universal. Rowley Harrison QC, for example, argues that Canada's position throughout UNCLOS III was consistently and rigorously that Canada had, several years before UNCLOS III first convened in 1973, established sovereign rights to explore and exploit its continental margin and that any agreement

Article 82 provides for a system of revenue sharing between coastal States and the international community. It provides that payments or contributions in kind are to be made by coastal States in respect of the exploitation of the non-living resources of the continental shelf beyond 200 nautical miles. Those payments or contributions in kind are to be distributed by the ISA to developing States, "particularly the least developed and the landlocked among them."[99]

The concept of revenue sharing, or the imposition of an international royalty, derived from Malta's Draft Ocean Space Treaty, submitted to the Seabed Committee in 1971, which proposed that a coastal State should contribute to the International Ocean Space Institution a percentage of the revenue received from exploitation of living and non-living resources within its jurisdiction.[100] In the course of the Conference, however, it became clear that revenue sharing within 200 nautical miles would not find general agreement, despite a number of proposals to that effect.[101] A formula for sharing revenue specifically derived from the shelf beyond 200 nautical miles was originally proposed at the second session of UNCLOS III in 1974. The United States suggested it as "a way to reconcile the positions of States which maintained that their rights extended to the edge of the continental margin beyond 200 miles and those that did not wish to see the common heritage of mankind diminished by recognizing coastal State jurisdiction beyond 200 miles."[102]

Article 82, in its present form, thus represents a compromise between various national positions. Coastal States with a continental shelf extending beyond 200 nautical miles must make annual payments or contributions in kind when exploiting the non-living resources beyond that distance after the

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to share revenues from the area beyond 200 nautical miles must "in no way derogate from our established sovereign rights out to the edge of the margin." Rowley Harrison, *Article 82 of UNCLOS: The Day of Reckoning Approaches*, 10 JOURNAL OF WORLD ENERGY LAW & BUSINESS 488, 489 (2017).

99. UNCLOS *supra* note 1, art. 82(4).

100. For a thorough analysis of the negotiating history of Article 82, see UNCLOS 1982: A COMMENTARY, *supra* note 18, at 930. An interesting analysis of the negotiating history is also presented in Aldo Chircop & Bruce Marchand, *International Royalty and Continental Shelf Limits: Emerging Issues for the Canadian Offshore,* 26 DALHOUSIE LAW JOURNAL 273 (2003).

101. Tuerk, *supra* note 18.

102. John R. Stevenson, U.S. Representative, Summary Records of Meetings of the Second Committee 41st Meeting, ¶ 20, U.N. Doc. A/CONF.62/C.2/SR.41, https://legal.un.org/diplomaticconferences/1973_los/docs/english/vol_2/a_conf62_c2_sr41.pdf, *reprinted in* 2 OFFICIAL RECORDS OF THE THIRD UNITED NATIONS CONFERENCE ON THE LAW OF THE SEA 290 (2009).

first five years of production at a site. The rate of payments or contributions will annually rise from 1 percent at the beginning to 7 percent of the value or the volume of production at the site as of the twelfth year after the commencement of exploitation.[103] A developing State that is a net importer of a mineral resource produced from its continental shelf is exempt from making such payments or contributions with respect to that resource. Production does not, however, include resources used in connection with the exploitation.

UNCLOS provides little guidance as to how Article 82 might be implemented in practice, and, in comparison to Article 76, very little attention has been given to Article 82. The basic idea behind the provision is quite straightforward. But even a cursory examination of the text shows that it suffers from a lack of precision and raises numerous questions of interpretation. Definitions for key terms, such as "value," "volume," "site," "payments," and "contributions in kind" are lacking.[104] Some of these terms may be understood differently in States with a continental shelf beyond 200 nautical miles. Article 82 has also been characterized as having "textual ambiguities and process gaps that can be expected to constrain implementation."[105] It has been suggested that the negotiators at UNCLOS III were hesitant to suggest too much detail in order not to upset a complicated negotiating process. They were also aware they were legislating for an unknown point in time in the future and further believed that some issues were better left for future implementation.[106]

This is a reasonable explanation and characteristic of the sort of compromises that are typically reached in complex multilateral negotiations. But these difficult issues should not be postponed indefinitely. The fact is that with increased scientific knowledge, we can expect more and more discoveries of non-living resources on the continental shelf, and we can also expect that advances in technology will make exploitation of these resources commercially viable. The interpretation and application of Article 82 raise difficult questions that need to be further considered and resolved. Applying the

103. Proposals were made ranging between 5 and 15 percent. As a compromise, Austria suggested a rate of 7 percent. UNCLOS 1982: A COMMENTARY, *supra* note 18, at 937, 940. *See also* Tuerk, *supra* note 18, at 252.

104. INTERNATIONAL SEABED AUTHORITY, IMPLEMENTATION OF ARTICLE 82 OF THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA: ISA TECHNICAL STUDY: NO. 12, at 20 (2013), https://isa.org.jm/files/documents/EN/Pubs/TS12-web.pdf [hereinafter ISA TECHNICAL STUDY: NO. 12].

105. *Id.* at 57; *see also* UNCLOS 1982: A COMMENTARY, *supra* note 18, at 954.

106. Tuerk, *supra* note 18, at 253.

lawyer's adage that "hard cases make bad law," it would be important to reach some common understanding as to how coastal States should approach the implementation of Article 82 and what should be the role of the ISA in its implementation.

In this respect, while the ISA has a responsibility to develop equitable sharing criteria for the distribution of revenue received pursuant to Article 82, it is much less clear whether the ISA has a role in the implementation of paragraphs 1, 2, and 3 of Article 82. One view is that the Authority has no role to play in the process of determining the value or volume of the resources. It is not expected to inquire as to how any payments or contributions were derived but simply to proceed to make a distribution in accordance with Article 82(4). It is suggested that this is not a reasonable position to take.[107] At the very least, there needs to be consultation and agreement with the ISA so it can discharge its fiduciary duty to mankind as a whole.[108]

Until a very late stage in UNCLOS III, language conferring a specific role on the ISA appeared in Article 82. For example, in 1975 New Zealand suggested that the method of determining value and costs of production should be decided by agreement between the ISA and the contributing State.[109] The drafts of the article that emerged from the Evensen Group included a provision that payments and contributions shall be made on terms and procedures to be agreed upon with the ISA.[110] These proposals and suggestions do not appear in the present language of Article 82. Nevertheless, it is surely desirable that there be a common understanding between the ISA and its member States as to the basic methodology and procedures for the application of Article 82. This may avoid the possibility of any disputes arising between the ISA and States parties or between States parties as regards the calculation of payments.[111]

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107. Lodge, *The International Seabed Authority and Article 82*, *supra* note 17; *see also* UNCLOS 1982: A COMMENTARY, *supra* note 18, at 947.

108. Lodge, *The International Seabed Authority and Article 82, supra* note 17.

109. UNCLOS 1982: A COMMENTARY *supra* note 18, at 935.

110. *Id.* at 936–37.

111. Note that disputes relating to the interpretation or application of Article 82 are not covered by the specialized jurisdiction of the Seabed Disputes Chamber under Part XI of UNCLOS. Unfortunately, disputes between ISA and States parties also appear to be excluded from Part XV of UNCLOS. For an extensive discussion of dispute settlement in relation to Article 82, see INTERNATIONAL SEABED AUTHORITY, ISSUES ASSOCIATED WITH THE IMPLEMENTATION OF ARTICLE 82 OF THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA: TECHNICAL STUDY NO: 4, at 64–67 (2009), https://isa.org.jm/files/

Since 2009, the ISA Secretariat has convened several workshops and commissioned studies aimed at providing guidance for implementing the provisions of Article 82.[112] Many valuable suggestions were made at these, some of which have been taken up, although others languish. In 2016, the ISA Secretariat commissioned a comparative study to "help identify possible paths for a practical approach" and in developing the understanding of "terminological issues in realistic settings."[113] Nevertheless, States parties have shown reluctance to confront the issues associated with Article 82 head-on. For example, in the Strategic Plan of the Authority for the period 2019–2023, the only reference to Article 82 is in connection with the need to develop equitable sharing criteria under Article 82(4).[114] Much work remains to be done.

VII. CONCLUSION

It is not suggested that any of the examples cited above have created any practical problems so far, nor is it suggested that they will necessarily give rise to disputes. The purpose of citing them is to provide illustrations of the sort of scenarios that could arise and offer some thoughts on how they may be dealt with in a practical sense.

The long delay in delineating the limits of the continental shelf, and hence the extent of the Area, is already problematic. This problem, largely, but not exclusively, caused by a serious underestimation of the workload of the CLCS and a failure to give it adequate resources, is only exacerbated by the fact that disputed claims to the continental shelf are indefinitely sus-

files/documents/tstudy4.pdf [hereinafter TECHNICAL STUDY NO: 4]. *See also Outer Continental Shelf*, *in* INTERNATIONAL LAW ASSOCIATION REPORT OF THE SEVENTY-THIRD CONFERENCE 1044 (2008).

112. *See, e.g.*, TECHNICAL STUDY NO: 4, *supra* note 111; ISA TECHNICAL STUDY: NO. 12, *supra* note 104.

113. ISA TECHNICAL STUDY: NO. 12, *supra* note 104, at 24. That recommendation was fulfilled by INTERNATIONAL SEABED AUTHORITY, A STUDY OF KEY TERMS IN ARTICLE 82 OF THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA: TECHNICAL STUDY: NO. 15 (2016), https://isa.org.jm/files/files/documents/ts15-web_0.pdf.

114. International Seabed Authority, Assembly, *Decision of the Assembly of the International Seabed Authority Relating to the Strategic Plan of the Authority for the Period 2019−2023*, ¶ 21, ISA Doc. ISBA/24/A/10 (July 27, 2018), https://isa.org.jm/files/files/documents/isba24_a10-en.pdf.

pended under the rules of the CLCS. The result is to create a "zone of uncertainty" in the law of the sea, which was certainly never the intention of the drafters of UNCLOS.

There are many unanswered questions and a lack of clear procedural avenues for dealing with some situations. At the same time, the issues raised amply demonstrate the interlocking nature of the various parts and provisions of UNCLOS and the wisdom of the negotiators in considering that "problems of ocean space are closely related and need to be considered as a whole."[115] Regrettably, this preambular exhortation was not fully observed in practice since key parts of UNCLOS were negotiated in silos and brought together only in the closing phase of UNCLOS III. Evidently, the drafters of UNCLOS never felt it necessary to address the problem of a contested interface between the Area and the continental shelf beyond 200 nautical miles.

The practical impact of this remains to be seen. Nevertheless, as the search for mineral deposits intensifies, and as coastal States continue to seek to extend their maritime jurisdictions to the maximum extent permitted by UNCLOS, the possibility for tension increases. In many ways, the history of the law of the sea, starting with the unintended and ill-thought-out consequences of the Truman Declaration, has been one of an erosion of the doctrine of the freedom and commonality of the sea towards enclosure.[116] This is perhaps ironic given that the original impetus for UNCLOS came from those nations interested in preserving freedom of navigation against the creeping jurisdiction of other States.[117] At UNCLOS III the move towards enclosure was balanced to some extent by the fears of the global South that nothing would be left to them of the common heritage of mankind if they did not band together to protect it.[118] Translated into international law, however, the common heritage amounts to not much more than a system of voluntary non-appropriation by competing sovereign States[119] (with a complementary condition of equal access) and offers no substantive challenge to

115. UNCLOS *supra* note 1, pmbl.

116. Donald Cameron Watt, *First Steps in the Enclosure of the Ocean: The Origins of Truman's Proclamation on the Resources of the Continental Shelf, 28 September 1945*, 3 MARINE POLICY 211, 224 (1979).

117. UNITED NATIONS DEPARTMENT OF PUBLIC INFORMATION, A QUIET REVOLUTION: THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 60 (1984).

118. Watt, *supra* note 116, at 224.

119. Pierre Dardot, *What Democracy for the Global Commons?*, *in* THE COMMONS AND A NEW GLOBAL GOVERNANCE 20, 25, 35 (Samuel Cogolati & Jan Wouters, eds. 2018).

the traditional customary international law principle, originating in the interests of States, that the land dominates the sea.[120] Procedurally, many will be prepared to concede that international recognition of the continental shelf beyond 200 nautical miles will come only with its delineation following recommendations issued by the CLCS. However, it may be much harder to find support for the proposition that, as a matter of principle, the seabed beyond 200 nautical miles forms part of the common heritage of mankind unless the coastal State concerned has proven the contrary through a recommendation by the CLCS, even though the latter approach is more consistent with the initial conceptions of common heritage advanced in the 1960s.

With respect to Article 82(4), this has long been regarded as a "back-burner" issue for the ISA, despite having received considerable attention in academic conferences and even by the International Law Association. There is a general feeling among the broad-shelf States[121] that the issue will be resolved in due course when it becomes important. This seems to be complacent. The implementation of Article 82(4) raises difficult and complex legal and political questions. The three main issues to be considered are the elaboration of equitable sharing criteria pursuant to Article 82(4); the method of determination of how and on what basis payments are to be made by coastal States; and who shall decide as to their distribution to the international community. It is important to identify practical solutions to these problems to avoid problems before they arise. This will be of particular importance to the land-locked and geographically disadvantaged States.

120. Bing Bing Jia, *The Principle of the Domination of the Land over the Sea: A Historical Perspective on the Adaptability of the Law of the Sea to New Challenges*, 57 GERMAN YEARBOOK OF INTERNATIONAL LAW 63 (2014).

121. With the notable exception of Canada, where the issue has attracted the attention of both government and industry.