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Questions Relating to the Continental Shelf Beyond 200 Nautical Miles: Delimitation, Delineation, and Revenue Sharing

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I. INTRODUCTION

When dealing with questions relating to the continental shelf beyond 200 nautical miles, it should be noted at the outset that the Arbitral Tribunal in the arbitration between Barbados and Trinidad and Tobago in 2006 pointed out that "there is in law only a single continental shelf rather than an inner shelf and a separate or outer continental shelf."¹ This was confirmed by the International Tribunal for the Law of the Sea (ITLOS) in 2012 in the *Bangladesh v. Myanmar* case, stating that Article 76 of the United Nations Convention on the Law of the Sea (UNCLOS)² embodies the concept of a single continental shelf over which the coastal State exercises exclusive sovereign rights in its entirety without any distinction being made between the shelf within 200 nautical miles and the shelf beyond that limit.³ Article 83 UNCLOS, dealing with the delimitation of the continental shelf between States with opposite or adjacent coasts, likewise makes no distinction.⁴ This position has since been generally accepted by international courts and tribunals.

Despite the fact that there is "in law" only a single continental shelf, there is, nevertheless, an important difference in the legal obligations of States Parties between the continental shelf within and beyond 200 nautical miles. According to Article 82 UNCLOS, there are obligations of coastal States, which are only applicable beyond that distance.⁵ These obligations relate to revenue sharing for the benefit of the international community by coastal States in the form of "payments or contributions in kind in respect of the exploitation of the non-living resources of the continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured."⁶

^{1.} Delimitation of the Exclusive Economic Zone and the Continental Shelf (Barb. v. Trin. & Tobago), 27 R.I.A.A. 147, 208–9 (Perm. Ct. Arb. 2006).

^{2.} United Nations Convention on the Law of the Sea art. 76, Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter UNCLOS], www.un.org/Depts/los/convention_agreements/ texts/unclos/unclos_e.pdf.

^{3.} See Delimitation of the Maritime Boundary between Bangladesh and Myanmar in the Bay of Bengal (Bangl. v. Myan.), Case No. 16, Judgment, Mar. 14, 2012, ITLOS Rep. 4, 96, ¶ 361 [hereinafter Bangladesh v. Myanmar].

^{4.} UNCLOS, *supra* note 2, art. 83.

^{5.} Id. art. 82.

^{6.} Id. art. 82(1).

II. BACKGROUND

Proposals made at the Third United Nations Conference on the Law of the Sea (the Conference) to limit the legal continental shelf to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured and to subsume it under the concept of the exclusive economic zone (EEZ) did not find general agreement. The attempts by the African Group, as well as by the Group of Landlocked and Geographically Disadvantaged States,⁷ failed because the doctrine of the continental shelf as set out in the 1958 Geneva Convention on the Continental Shelf⁸ and reinforced in 1969 by the International Court of Justice (ICJ) in the *North Sea Continental Shelf* cases⁹ was already quite firmly anchored in international law,¹⁰ except for a clear definition of the outer limits. The States with broad continental shelves therefore saw no reason to compromise on this issue.

The creation of the EEZ, recognizing the right of coastal States to jurisdiction over the resources of some 85 million square kilometers of ocean space,¹¹ covering approximately 36 percent of the surface of the seas and accounting for almost 90 percent of fisheries, has been called one of the most revolutionary features of UNCLOS.¹² This assessment, however, somewhat underestimates the importance of the evolution of the concept of the continental shelf, which had previously generally been considered "a shallow-water offshore plain area."¹³ In view of the proliferation of claims

^{7.} See also 2 UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY 843–48 (Satya N. Nandan, Shabtai Rosenne & Neal R. Grandy eds., 1993) [hereinafter UNCLOS 1982: A COMMENTARY].

^{8.} Convention on the Continental Shelf, Apr. 29, 1958, 15 U.S.T. 471, T.I.A.S. No. 5578, 499 U.N.T.S. 311.

^{9.} North Sea Continental Shelf (F.R.G. v. Den., F.R.G. v. Neth.), Judgment, 1969 I.C.J. Rep. 3, ¶ 63 (Feb. 20).

^{10.} See also Stephen Vasciannie, Landlocked and Geographically Disadvantaged States and the Question of the Outer Limit of the Continental Shelf, 58 BRITISH YEARBOOK OF INTERNATIONAL LAW 271, 272 (1987).

^{11.} Michael W. Lodge, *Implementation of the Common Heritage of Mankind, in* REGIONS, INSTITUTIONS, AND LAW OF THE SEA 129, 136 n.21 (Harry N. Scheiber & Jin-Hyun Paik eds., 2013).

^{12.} Gunnar Kullenberg, *The Exclusive Economic Zone: Some Perspectives*, 42 OCEAN AND COASTAL MANAGEMENT 849, 855 (1999).

^{13.} Yuri Kasmin, Chairman of the Commission on the Limits of the Continental Shelf, Introductory Statement at the Opening Meeting of the Commission on Limits of the

by coastal States to the resources of the continental shelf following the 1945 Truman Proclamation, which had been motivated by the long-range worldwide need for new sources of petroleum and other minerals,¹⁴ the adoption of the Continental Shelf Convention can, despite its undeniable flaws, be considered a certain progress, at least by assuring some degree of legal stability. Article 1 defined the continental shelf as the "seabed and subsoil of submarine areas adjacent to the coast but outside the area of the territorial sea" and set forth two criteria for determining its outer limit: one based on water depth of 200 meters and the other on the notion of resource exploitability beyond that limit.¹⁵

That Convention only received a limited number of ratifications as many States did not agree with the open-ended exploitability criterion, which also rendered the depth criterion practically useless. The acceptance by the ICJ in the *North Sea Continental Shelf* cases of Article 1 as part of customary international law¹⁶ therefore seems rather bold. Shortly after that judgment, the U.N. General Assembly "considered that the definition of the continental shelf as contained in the Convention on the Continental Shelf...does not define with sufficient precision the limits of that area" and that "customary international law on the subject is inconclusive."¹⁷ The ICJ in 1969 had also decided that the continental shelf constituted a "natural prolongation" of "a coastal State's land territory into and under the sea."¹⁸ In this connection, it should be remembered that the Court employed the term "natural prolongation" to justify the appurtenance of the continental shelf to the coastal States and not to clarify its outer limits.¹⁹ Many States, however, thereafter equated the concept of "natural prolongation" with the

Continental Shelf 3 (May 1, 2000), https://www.un.org/depts//los/clcs_new/documents/CLCS_26.pdf.

^{14.} 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).

^{15.} Convention on the Continental Shelf, *supra* note 8, art. 1. See Kevin A. Baumert, *The Outer Limits of the Continental Shelf under Customary International Law*, 111 AMERICAN JOURNAL OF INTERNATIONAL LAW 827, 829 (2018).

^{16.} North Sea Continental Shelf, *supra* note 9, ¶ 63.

^{17.} G.A. Res. 2574 (XXIV) A, pmbl., para. 3 (Dec. 15, 1969).

^{18.} North Sea Continental Shelf, *supra* note 9, ¶ 39.

^{19.} Barbara Kwiatkowska, Creeping Jurisdiction beyond 200 Nautical Miles in the Light of the 1982 Law of the Sea Convention and State Practice, 22 OCEAN DEVELOPMENT AND INTERNATIONAL LAW 153, 157 (1991).

notion of the continental margin, that is, the geophysical shelf, the slope, and the rise,²⁰ a view that would later find its way into UNCLOS.

III. UNCLOS NEGOTIATIONS AND THE CONTINENTAL SHELF

The protracted and extremely complicated negotiations at the Conference lasted from 1974 to 1982. The current provisions of Article 76 UNCLOS were accepted as a compromise, despite serious misgivings of many States. There were three major reasons for the opposition of States to national continental shelf rights beyond 200 nautical miles: First, there was the perception that the acceptance of the concept of the EEZ, comprising living and non-living resources, was already a major gain for most coastal States.²¹ Second, it was considered essential to create an "economically meaningful international area" with enough significant resources to be shared by all States,²² including those landlocked and geographically disadvantaged. Little point was seen in creating an international organization for seabed exploitation, which, according to the views of certain developing countries, was destined to become a major organization with perhaps thousands of employees if it did not have a substantial amount of resources to explore and exploit. Third, in light of the experience with the Convention on the Continental Shelf, it was thought that the application of geological or geomorphological criteria in defining the outer limits of the continental shelf would not be as precise as a simple distance or depth criterion.

The definition of the continental shelf now set forth in UNCLOS is once again a legal conception that differs significantly from the scientific definition.²³ Article 76, paragraph 1, provides that the continental shelf comprises the seabed and subsoil beyond the territorial sea of the coastal State "throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured"—

^{20.} Baumert, *supra* note 15, at 833.

^{21.} UNCLOS 1982: A COMMENTARY, supra note 7, at 844-45.

^{22.} Id.

^{23.} Bjorn Kunoy, *Establishment of the Outer Limits of the Continental Shelf: Is Crossing Boundaries Trespassing?*, 26 INTERNATIONAL JOURNAL OF MARINE AND COASTAL LAW 313, 316 (2011). *See also* UNCLOS 1982: A COMMENTARY, *supra* note 7, at 873.

even where no geological shelf exists.²⁴ This represents a significant change from the provisions of the 1958 Convention.²⁵ The outer edge of the continental margin is to be determined by two specific formulae—by outer limit points based on sediment thickness, the so-called Irish or Gardiner formula, or by a distance of not more than 60 nautical miles from the foot of the continental slope, the so-called Hedberg formula, together with the two restraints that are defined by a maximum distance of 350 nautical miles from the baselines or 100 nautical miles from the 2,500-meter isobath.²⁶ The opinion has been expressed it is unlikely that before the negotiations on what was to become Article 76 the legal continental shelf extended to the outer edge of the continental margin and that the ICJ in its 1969 judgment rather seemed to equate the geophysical continental shelf with the legal continental shelf.²⁷

It has been pointed out that Article 76 does not completely accommodate the views of the broad-shelf States as the detailed provisions on the establishment of the outer limits of the continental shelf may, in certain cases, result in an outer limit landward of the outer edge of the continental margin.²⁸ This new definition of the continental shelf can nevertheless be considered a major success for these States as they succeeded in persuading the Conference that "submarine areas adjacent to the coast" include the entire continental margin.²⁹ It has been estimated that the recognition of sovereign rights and jurisdiction of coastal States for these areas has "reduced" the geographical extent of the international seabed Area³⁰ by some 30 million square kilometers.³¹ Thus, probably around 97

^{24.} UNCLOS, *supra* note 2, art. 76(1). *See also* Kwiatkowska, *supra* note 19, at 154; Alex Oude Elferink, *Article 76 of the LOSC on the Definition of the Continental Shelf: Questions Concerning its Interpretation from a Legal Perspective*, 21 INTERNATIONAL JOURNAL OF MARINE AND COASTAL LAW 269, 275 (2006).

^{25.} UNCLOS 1982: A COMMENTARY, supra note 7, at 841.

^{26.} UNCLOS, *supra* note 2, art. 76(5). *See also* HELMUT TUERK, REFLECTIONS ON THE CONTEMPORARY LAW OF THE SEA, at 22 n.119 (2012).

^{27.} Elferink, Article 76 of the LOSC, supra note 24, at 273-74.

^{28.} Id. at 274. See also UNCLOS 1982: A COMMENTARY, supra note 7, at 855-56.

^{29.} See also Elferink, Article 76 of the LOSC, supra note 24, at 271-73.

^{30.} Defined as the "seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction." UNCLOS, *supra* note 2, art. 1(1)(1).

^{31.} 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 1–2 (Mar. 10, 2017), https://www.un.org/depts/los/clcs_new/documents/

percent of maritime hydrocarbon resources are now under national jurisdiction. $^{\rm 32}$

Experience has shown that the application of the two specific formulae contained in Article 76 for determining the outer edge of the continental margin is an often quite complicated, cost-intensive process requiring a high level of expert knowledge, a process that in some cases may take many years.³³ It has been recognized that from a geological perspective, there are inherent difficulties in determining the thickness of sedimentary rocks and the foot of the continental slope.³⁴ The comment has also been made that Article 76 reflects the state of scientific knowledge at the time of its elaboration and that subsequently gaps in that Article have been identified that introduce "a measure of subjectivity" into the process of the determination of the outer limit of the continental shelf.³⁵ The outer edge of the continental margin may thus not always be as readily determined as had been contended at the Conference by some of the proponents of these two formulae.³⁶ The author of the Irish formula, Tony Gardiner, repeatedly tried to convince delegates, including the author, that the practical application of his proposal would not cause particular difficulties.

The issue as to whether the definition of the continental shelf contained in Article 76 applies only to States Parties to UNCLOS or also to non-parties was clearly decided by the ICJ in 2012 when it stated in the *Nicaragua v. Colombia* judgment that it considers the entirety of paragraph 1 of Article 76 "part of customary international law."³⁷ There are good arguments to support paragraphs 2–7 of the Article, which provide the detailed rules that implement the continental margin criterion of paragraph 1, also being part of customary law, at least as far as the basic substantive rules contained

Presentations/6_CLCS_20_ANNIVERSARY_Lodge.pdf [hereinafter Lodge, Relevance and Importance of the Work].

^{32.} Helmut Tuerk, *The Landlocked States and the Law of the Sea*, 40 REVUE BELGE DE DROIT INTERNATIONAL 91, 104–5 (2007). *See also* Kullenberg, *supra* note 12, at 850–51.

^{33.} UNCLOS 1982: A COMMENTARY, *supra* note 7, at 878.

^{34.} Id.

^{35.} Informal comment by a member of the Commission on the Limits of the Continental Shelf at a session of the 2018 Global Ocean Regime Conference in Jeju-do, Republic of Korea, May 16–18.

^{36.} Helmut Tuerk, *The Common Heritage of Mankind after 50 Years*, 57 INDIAN JOURNAL OF INTERNATIONAL LAW 259, 269 (2017), https://doi.org/10.1007/s40901-018-0085-8.

^{37.} Territorial and Maritime Dispute (Nicar. v. Colom.), Judgment, 2012 I.C.J. Rep. 624, 666, ¶ 118 (Nov. 19) [hereinafter Nicaragua v. Colombia].

therein are concerned.³⁸ The ICJ, in the aforementioned judgment, had determined that "it does not need to decide" whether the detailed provisions of Article 76 form part of customary international law.³⁹

The question may be asked whether States which are not party to UNCLOS may enjoy the benefits of Article 76 without having to comply with the connected obligations. Paragraphs 2–7 of Article 76 not only implement the continental margin criterion of paragraph 1, but they substantively alter it as well.⁴⁰ In the *Bangladesh v. Myanmar* case, ITLOS confirmed 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,"⁴¹ namely paragraphs 2–7. It would hardly seem acceptable to States Parties if a State not a party to UNCLOS were to base its position exclusively on paragraph 1 of Article 76 and ignore the conditions and constraints imposed by the following paragraphs. In such a case, protests and non-recognition of these outer limit lines might well be the consequence.⁴² It can thus be concluded that the applicable law for determining the spatial extent of the continental shelf is the same for all coastal States, whether they are a party to UNCLOS or not.⁴³

The broad-shelf States had to make two compromises to have their views on their sovereign rights and jurisdiction extending to the outer edge of the continental margin accepted by the Conference. The most important one is the principle of revenue sharing enshrined in Article 82 UNCLOS.⁴⁴ It can well be said that there is an inextricable link between that Article and Article 76 as both provisions constitute an essential part of the "package deal" approach underlying UNCLOS.⁴⁵ The second point is the requirement for coastal States under paragraph 8 of Article 76 to delineate the outer limits of the continental shelf beyond 200 nautical miles "on the basis of"

^{38.} See also Tullio Treves, Remarks on Submissions to the Commission on the Limits of the Continental Shelf in Response to Judge Marotta's Report, 21 INTERNATIONAL JOURNAL OF MARINE AND COASTAL LAW 363, 363 (2006). See also Baumert, supra note 15, at 853, 857.

^{39.} Nicaragua v. Colombia, supra note 37, at 666, ¶ 118.

^{40.} Baumert, *supra* note 15, at 848.

^{41.} Bangladesh v. Myanmar, *supra* note 3, at 437, ¶ 114.

^{42.} See also Baumert, supra note 15, at 855.

^{43.} Id. at 870.

^{44.} UNCLOS, supra note 2, art. 82.

^{45.} UNCLOS 1982: A COMMENTARY, *supra* note 7, at 834–35. *See also* SUZETTE V. SUAREZ, THE OUTER LIMITS OF THE CONTINENTAL SHELF: LEGAL ASPECTS OF THEIR ESTABLISHMENT 239, 239 (2008).

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recommendations by the Commission on the Limits of the Continental Shelf (CLCS), so that these limits may become "final and binding."⁴⁶

IV. THE DELIMITATION AND THE DELINEATION OF THE CONTINENTAL SHELF

Any discussion of the delimitation and the delineation of the continental shelf beyond 200 nautical miles must begin with the landmark judgment in the *Bangladesh v. Myanmar* case.⁴⁷ The most important aspect of the judgment by ITLOS, which can rightly be called historical,⁴⁸ was its decision to proceed with the delimitation of the continental shelf beyond 200 nautical miles before recommendations had been made by the CLCS,⁴⁹ an issue that previously had mostly been avoided by international courts and tribunals.⁵⁰

According to Article 76, paragraph 10, UNCLOS, the provisions of that Article are without prejudice to the question of delimitation of the continental shelf between States with opposite or adjacent coasts. The Tribunal noted that because of the pending boundary dispute, the CLCS had deferred consideration of the submissions by Myanmar and Bangladesh in accordance with Article 76 and Article 9 of Annex 2 UNCLOS. It observed that a decision on its part not to exercise its jurisdiction over the dispute relating to the continental shelf beyond 200 nautical miles would not only fail to resolve a longstanding dispute but also would not be conducive to the efficient operation of UNCLOS.⁵¹ In the view of the Tribunal, it would be contrary to the object and purpose of the Convention not to resolve the existing impasse between the parties. Inaction by the CLCS and ITLOS, two organs created by UNCLOS that are complementary to each other so as to

^{46.} UNCLOS, *supra* note 2, art. 76(8).

^{47.} See Gudmumdur Eriksson, The Bay of Bengal Case before the International Tribunal for the Law of the Sea, in LAW OF THE SEA FROM GROTIUS TO THE INTERNATIONAL TRIBUNAL FOR THE LAW OF THE SEA: LIBER AMICORUM JUDGE HUGO CAMINOS 512 (Lilian del Castillo ed., 2015). See also Shaun Lin & Clive Schofield, Lessons from the Bay of Bengal ITLOS Case: Stepping Offshore for a 'Deeper' Maritime Political Geography, 180 GEOGRAPHICAL JOURNAL 260 (2014).

^{48.} See Ioannis Konstantinidis, Between Villa Schröder (ITLOS) and the Peace Palace (ICJ): Diverging Approaches to Continental Shelf Delimitation Beyond 200 Nautical Miles, 3 JOURNAL OF TERRITORIAL AND MARITIME STUDIES, Summer-Fall 2016, at 28, 42 (2016).

^{49.} Bangladesh v. Myanmar, *supra* note 3, at 102, ¶ 391.

^{50.} Id. at 140 (declaration by Wolfrum, J.).

^{51.} Bangladesh v. Myanmar, *supra* note 3, at 102, ¶ 391.

ensure its coherent and efficient implementation, would leave the parties in a position where they might be unable to benefit fully from their rights over the continental shelf.⁵²

The underlying reasoning of the Tribunal has been the following: if States Parties have been able to reach an agreement between themselves regarding the delimitation of the continental shelf beyond 200 nautical miles, the CLCS sees no obstacle in considering the submissions under Article 76 regarding the delineation of the outer limits since there is no longer a dispute. If an international court or tribunal decides the delimitation between States Parties for that area of the continental shelf, the CLCS will find itself in a similar position, as the dispute has been resolved.

ITLOS also emphasized that there is a clear distinction between the delimitation of the continental shelf under Article 83 and the delineation of its outer limits under Article 76. The exercise of its jurisdiction can, therefore, not be seen as an encroachment on the functions of the CLCS. The Tribunal concluded that to fulfill its responsibilities under the dispute settlement provisions of Part XV, Section 2, UNCLOS,⁵³ it had an obligation to adjudicate the dispute and to delimit the continental shelf between the parties beyond 200 nautical miles—without prejudice to the establishment of the outer limits of the continental shelf under Article 76, paragraph 8.⁵⁴

To proceed to delimitation, ITLOS first had to determine whether the parties had overlapping entitlements to a continental shelf beyond 200 nautical miles.⁵⁵ It considered the meaning of "natural prolongation" and its interrelationship with that of the "outer edge of the continental margin" in the application of Article 76, notions closely related and referring to the same area.⁵⁶ Entitlement to a continental shelf beyond 200 nautical miles should thus be determined by reference to the outer edge of the continental margin to be ascertained in accordance with Article 76, paragraph 4.⁵⁷ It has been remarked that by refraining from accepting the idea of natural prolongation based on geological and related factors, ITLOS missed a chance to clarify whether and to what extent geological and geomorphological factors should

^{52.} Id. at 120, ¶ 392.

^{53.} UNCLOS, *supra* note 2, pt. XV, § 2.

^{54.} Bangladesh v. Myanmar, *supra* note 3, at 102–3, ¶¶ 393, 394.

^{55.} Id. at 105, ¶ 397.

^{56.} Id. at 113, ¶ 434.

^{57.} *Id.* at 113, ¶ 437.

play a role in the determination of the continental shelf beyond 200 nautical miles. $^{\rm 58}$

In its judgment, ITLOS also noted that the Bay of Bengal presented a "unique situation" and was satisfied that there was a continuous and substantial layer of sedimentary rocks extending from Myanmar's coast to the area beyond 200 nautical miles.⁵⁹ It concluded that both Bangladesh and Myanmar had an entitlement to a continental shelf beyond 200 nautical miles based on the thickness of sedimentary rocks according to the formula contained in Article 76, paragraph 4 (a)(i);⁶⁰ the geographic origin of such sediments being not relevant. It further observed that it was also clear from the submissions of both parties to the CLCS that those entitlements overlap.⁶¹ In this connection, the comment has been made that if the origin of the sedimentary rocks of a relevant continental shelf were a consideration, then Nepal and China might have as much claim to the seabed of the Bay of Bengal as the riparian States.⁶²

Overlapping entitlements are a precondition for a court or tribunal to delimit the continental shelf beyond 200 nautical miles. The ICJ, in its 2012 judgment in the *Nicaragua v. Colombia* case, rejected the request by Nicaragua for delimitation of the continental shelf beyond 200 nautical miles as Nicaragua had not followed the procedures prescribed by Article 76, paragraph 4—it had only submitted "Preliminary Information" to the CLCS—and did not prove that its continental shelf to which Colombia is entitled.⁶³ Given the object and purpose of UNCLOS, as stated in its preamble, the Court held that the fact that Colombia is not a party did not relieve Nicaragua of its obligations under Article 76.⁶⁴ As regards a clear distinction between the delimitation of the continental shelf and the delineation of its outer limits, the Court concurred with the jurisprudence of ITLOS.⁶⁵

^{58.} Yao Huang & Xuexia Liao, Natural Prolongation and Delimitation of the Continental Shelf Beyond 200 nm: Implications of the Bangladesh/Myanmar Case, 4 ASIAN JOURNAL OF INTERNATIONAL LAW 281, 302 (2014).

^{59.} Bangladesh v. Myanmar, *supra* note 3, at 115, ¶ 444.

^{60.} *Id.* at 115, ¶ 445.

^{61.} *Id.* at 115, ¶¶ 444–45.

^{62.} Huang & Liao, supra note 58.

^{63.} Nicaragua v. Colombia, supra note 37, at 668, ¶ 124.

^{64.} *Id.* at 48–49, ¶¶ 126–29.

^{65.} Id. at 48, ¶ 125.

In the Bangladesh v. India case,⁶⁶ there was no question for the Arbitral Tribunal in its 2014 award, nor for the Special Chamber of ITLOS in its judgment of 2017 in the Ghana v. Cote d'Ivoire case⁶⁷ that an overlapping entitlement existed, and delimitation could therefore be effected without prior delineation of the continental shelf based on a recommendation by the CLCS. With regard to Nicaragua's request to delimit the boundary of its continental shelf beyond 200 nautical miles and that of the continental shelf of Colombia, the ICJ in its 2016 judgment also followed the jurisprudence of ITLOS in the Bangladesh v. Myanmar case. The Court considered that since delimitation of the continental shelf beyond 200 nautical miles could be undertaken independently of a recommendation from the CLCS, the latter is not a prerequisite that needs to be satisfied by a State party to UNCLOS before it can ask the Court to settle a dispute with another State over such a delimitation.⁶⁸ Support for the approach adopted by ITLOS has been reinforced and reiterated, thus endorsing its jurisprudence on the delimitation of the continental shelf beyond 200 nautical miles.⁶⁹

In delimiting the continental shelf beyond 200 nautical miles between Bangladesh and Myanmar, ITLOS used the equidistance/relevant circumstances method, which in recent years has become the preferred method used by international courts and tribunals to achieve an equitable solution as required by Article 83, paragraph 1, UNCLOS.⁷⁰ The Tribunal indicated that the delimitation method employed for the continental shelf beyond 200 nautical miles should not differ from that within 200 nautical miles. The adjusted equidistance line delimiting both the EEZ and the continental shelf within 200 nautical miles would thus continue in the same

^{66.} Bay of Bengal Maritime Boundary Arbitration (Bangl. v. India), Award, 138–41, ¶¶ 456–58 (UNCLOS Annex VII Arb. Trib. 2014), https://pcacases.com/web/ sendAttach/383.

^{67.} Delimitation of the Maritime Boundary between Ghana and Cote d'Ivoire in the Atlantic Ocean (Ghana v. Cote d'Ivoire), Case No. 23, Judgment, Sept. 23, 2017. ITLOS Rep. 4, 131–42, ¶¶ 482–527 [hereinafter Ghana v. Cote d'Ivoire].

^{68.} Question of the Delimitation of the Continental Shelf between Nicaragua and Colombia beyond 200 Nautical Miles from the Nicaraguan Coast (Nicar. v. Colom.), Preliminary Objections, Judgment, 2016 I.C.J. Rep. 100, 137, ¶ 114 (Mar. 17). See also Massimo Lando, Delimiting the Continental Shelf beyond 200 Nautical Miles at the International Court of Justice: The Nicaragua v. Colombia Case, 16 CHINESE JOURNAL OF INTERNATIONAL LAW 137 (2017).

^{69.} Konstantinidis, supra note 48, at 48.

^{70.} UNCLOS, *supra* note 2, art. 83(1).

direction beyond the 200-nautical-mile limit of Bangladesh until it reached the area where the rights of third States (India in this case) may be affected.⁷¹ This is a logical consequence of the fact that there is only one single continental shelf, which has also become uncontested jurisprudence.⁷²

If the delimitation of the continental shelf beyond 200 nautical miles is not strictly based on an equidistance line, as in that case, this results in a socalled "grey area" of overlapping rights and jurisdiction.⁷³ The Tribunal decided that in the area beyond the EEZ of Bangladesh that is within the limits of Myanmar's EEZ, the maritime boundary delimits the parties' rights to the seabed and subsoil of the continental shelf but does not otherwise limit Myanmar's rights with respect to the EEZ, notably as regards the superjacent waters. Each State must, therefore, exercise its rights and perform its duties with due regard to the rights and duties of the other in accordance with the relevant provisions of UNCLOS.⁷⁴ ITLOS also pointed out that there are many ways in which these States may ensure the discharge of their obligations in this respect, including the conclusion of specific agreements or the establishment of appropriate cooperative arrangements.⁷⁵

This was the first time that an international court or tribunal pronounced itself on the question of the "grey area." A similar situation arose in the Bangladesh v. India Arbitration, resulting in three "grey areas" with overlapping continental shelf and EEZ rights, involving not only Bangladesh and India but also Myanmar.⁷⁶ The solutions adopted by ITLOS and the Arbitral Tribunal may not be ideal, as they pose certain challenges to the States concerned. There can be no doubt that, whenever possible, a single boundary line delimiting both the seabed and the water column is preferable,⁷⁷ which has also become general practice. Thus far, no cooperative agreements or arrangements have yet been concluded by the riparian States of the Bay of Bengal. It, however, seems that at least for now these "grey areas" are not a significant problem. A solution might be to turn

^{71.} Bangladesh v. Myanmar, *supra* note 3, at 130, ¶ 463.

^{72.} See, e.g., Ghana v. Cote d'Ivoire, supra note 67, at 142, ¶ 526.

^{73.} Bangladesh v. Myanmar, *supra* note 3, at 130, ¶ 464.

^{74.} *Id.* at 133, ¶¶ 474–75.

^{75.} Id. at 121, ¶ 476.

^{76.} Raghavendra Mishra, *The 'Grey' Area in the Northern Bay of Bengal: A Note on a Functional Cooperative Solution*, 47 OCEAN DEVELOPMENT AND INTERNATIONAL LAW 29, 30–34 (2016).

^{77.} Helmut Tuerk, 20 Years of the International Tribunal for the Law of the Sea (ITLOS): An Overview, 2016 REVUE BELGE DE DROIT INTERNATIONAL 449, 475 (2016).

these relatively small areas into zones of joint development and management. 78

In this context it should also be borne in mind that the provisions of UNCLOS relating to the EEZ, on the one hand, and those concerning the continental shelf on the other were not harmonized as the broad-margin States endeavored to keep the regime of the continental shelf unaffected by the new concept of the EEZ. There is, therefore, no subordination one way or the other between the respective regimes. They exist side by side just as the continental shelf regime has from its very beginning coexisted with that of the high seas. In both the above-mentioned cases, the tribunals concerned refrained from commenting on any relative primacy in the "grey areas," be it of the EEZ or the continental shelf.⁷⁹

International jurisprudence has thus amply clarified the relationship between delimitation and delineation for the continental shelf beyond 200 nautical miles. The term "delineation" seems to have first appeared in a proposal submitted at the Conference by the United States in 1975 in connection with the suggested establishment of a "Continental Shelf Boundary Commission,"80 which was to become the CLCS. Three important suggestions made in the course of the negotiations regarding such a commission were, however, not retained in UNCLOS: the participation of legal expertise in that body, the relationship between delineation of the continental shelf and the dispute settlement procedures, and the possibility for the International Seabed Authority (ISA/the Authority) to submit a continental shelf delineation to the commission for review.⁸¹ The reason seems to have been the endeavor of important coastal States to restrict the role of such a body to the consideration of scientific and technical aspects of delineation and to ensure further that a coastal State would not have to face an international authority in any scientific dispute-nor in legal proceedings.

Although it is the coastal State that is entitled to establish the outer limits of its continental shelf beyond 200 nautical miles, as already referred to, these limits, according to Article 76, paragraph 3, only become "final and binding" if adopted "on the basis of" recommendations by the CLCS.⁸² The coastal States concerned have to submit particulars of these outer limits to the CLCS

^{78.} Mishra, *supra* note 76, at 36.

^{79.} Id. at 33.

^{80.} See also UNCLOS 1982: A COMMENTARY, supra note 7, at 848–49.

^{81.} Id. at 850.

^{82.} UNCLOS, supra note 2, art. 76(8).

with supporting scientific and technical data. The expression "on the basis of" a recommendation represents a compromise between those States that had proposed the coastal State only needed to take recommendations by the CLCS "into account" when establishing the outer limits and those that had advocated strict adherence by States to them and thus had suggested "in accordance with."⁸³ The term "on the basis of," suggested by the United States, allows the coastal State some, but perhaps not too much flexibility concerning the implementation of the recommendations of the CLCS.⁸⁴

As to the meaning of "final and binding," it is obvious that this applies to the coastal State making the submission to the CLCS. 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.⁸⁵ In any case, other State parties—as well as the ISA—will also be bound by these outer limits except for those States which explicitly challenge them. The main reason for providing in UNCLOS definite limits for the continental shelf beyond 200 nautical miles was to provide for legal stability in contrast to the previously existing situation. The question is whether any State party could mount a challenge or whether individual legal interests would have to be shown, be it in respect of delimitation, high seas freedoms, or mining sites in the international seabed Area.⁸⁶ This is, however, a matter to be considered in the framework of the dispute settlement procedures provided for in UNCLOS. Although directly affected by the delineation of the continental shelf beyond 200 nautical miles by a coastal State, as mentioned above, no role in the proceedings has been given to the ISA.⁸⁷ It has rightly been pointed out that it might have been sensible to provide for such a possibility in a contentious case, since an extensive continental shelf reduces the geographical extent of the international seabed Area, and, correspondingly, the scope of the activities of the Authority.⁸⁸

After having established the outer limits of the continental shelf, the coastal State, under Article 76, paragraph 9, is under an obligation to deposit

^{83.} Elferink, Article 76 of the LOSC, supra note 24, at 280.

^{84.} TUERK, REFLECTIONS ON THE CONTEMPORARY LAW OF THE SEA, *supra* note 26, at 23.

^{85.} See SUAREZ, *supra* note 45, at 249.

^{86.} Id. at 247, 250.

^{87.} See also id. at 250; Lodge, Relevance and Importance of the Work, *supra* note 31, at 2.

^{88.} John E. Noyes, Judicial and Arbitral Proceedings and the Outer Limit of the Continental Shelf, 42 VANDERBILT JOURNAL OF TRANSNATIONAL LAW 1211, 1239 (2009).

charts and relevant information, including geodetic data, permanently describing the outer limits of its continental shelf to the Secretary-General of the United Nations. According to Article 84, the State is also obliged to show the outer limit lines of the continental shelf and the limits of delimitation on charts adequate for ascertaining their position, or, where appropriate, lists of geographical coordinates of points specifying the geodetic datum.⁸⁹ The charts have to be given due publicity and copies deposited with the U.N. Secretary-General and the Secretary-General of the ISA. The difference between the two provisions is that in the first instance it is the task of the UN Secretary-General to give due publicity to such information while in the second case it is the coastal State.⁹⁰

These provisions are intended to make available to the international community information on the outer limits of the continental shelf set by the coastal State.⁹¹ At what point in time would other States have the possibility to challenge these limits, for example, with the argument that the provisions of UNCLOS have not been correctly applied, that the limits have not been established "on the basis of" recommendations by the CLCS,⁹² or that they are based on insufficient or flawed scientific data?⁹³ Appropriate points would seem to be, for instance, after the coastal State has enacted legislation setting the outer limits of the continental shelf or after the U.N. Secretary-General has given due publicity to the information received from the coastal States has, however, shown that most members of the international community are quite reluctant to react to maritime boundaries established by other States when their immediate interests are not involved. There are

94. See also Elferink, Article 76 of the LOSC, supra note 24, at 282.

^{89.} UNCLOS, supra note 2, art. 84(1).

^{90.} UNCLOS 1982: A COMMENTARY, supra note 7, at 883.

^{91.} Id. at 882-83.

^{92.} Alex Oude Elferink, The Establishment of Outer Limits of the Continental Shelf beyond 200 Nautical Miles by the Coastal State: The Possibilities of Other States to Have an Impact on the Process, 24 INTERNATIONAL JOURNAL OF MARINE AND COASTAL LAW 535, 554 (2009).

^{93.} See TUERK, REFLECTIONS ON THE CONTEMPORARY LAW OF THE SEA, supra note 26, at 23. See also generally Anna Cavnar, Accountability and the Commission on the Limits of the Continental Shelf: Deciding Who Owns the Ocean Floor, 42 CORNELL INTERNATIONAL LAW JOURNAL 387 (2009). See also Rüdiger Wolfrum, The Delimitation of the Outer Continental Shelf: Procedural Considerations, in LE PROCÈS INTERNATIONAL – LIBER AMICORUM JEAN-PIERRE COT 349 (Robert Badinter ed., 2009).

good reasons to assume that this attitude is basically no different concerning delineation of the continental shelf beyond 200 nautical miles.

Delineation of the continental shelf beyond 200 nautical miles has a direct bearing on the extent of the international seabed Area. This is also illustrated by Article 134, paragraph 4, UNCLOS, dealing with the scope of Part XI, which provides that nothing in that Article "affects the establishment of the outer limits of the continental shelf in accordance with Part VI."⁹⁵ It seems obvious, however, that the States Parties working collectively within the framework of the ISA entrusted with administering the common heritage of mankind, need to know where national jurisdiction ends, and the international seabed Area begins.⁹⁶ Otherwise it would, for instance, not be possible to comply with Article 142 UNCLOS according to which activities in the Area with respect to resource deposits which lie across the limits of national jurisdiction are to be conducted with "due regard to the rights and legitimate interests of any coastal State across whose jurisdiction such deposits lie."⁹⁷

At the Conference, the negotiators were led to believe that no more than thirty to thirty-five States would be able to claim an entitlement to a continental shelf beyond 200 nautical miles.⁹⁸ At present, there are, however, indications that there will be up to eighty-five such States,⁹⁹ with the consequence of further considerably diminishing the international seabed Area. Through the end of 2019, eighty-five submissions, including revised or partial revised submissions, have been made to the CLCS claiming such entitlements. It has been estimated that the total number of submissions by

^{95.} UNCLOS, supra note 2, art. 134(1).

^{96.} Lodge, The Relevance and Importance of the Work, *supra* note 31, at 1.

^{97.} UNCLOS, supra note 2, art. 142(1).

^{98.} See George Taft, Applying the Law of the Sea Convention and the Role of the Scientific Community Relating to Establishing the Outer Limit of the Continental Shelf Where it Extends beyond the 200 Mile Limit, in LAW, SCIENCE & OCEAN MANAGEMENT 470 (Myron H. Nordquist, Ronán Long, Tomas H. Heidar & John N. Moore eds., 2007).

^{99.} Clive Schofield & Robert van de Poll, *Exploring the Outer Continental Shelf* (Working Paper prepared for the International Workshop on Further Consideration of the Implementation of Article 82 of the United Nations Convention on the Law of the Sea, 1982, Beijing, 26-30 November 2012), *in* INTERNATIONAL SEABED AUTHORITY, IMPLEMENTATION OF ARTICLE 82 OF THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA: ISA TECHNICAL STUDY NO: 12, annex 5, at 69 (2013), https://isa.org.jm/files/files/documents/ts12-web.pdf [hereinafter ISA TECHNICAL STUDY NO: 12]

coastal States will approach 120.¹⁰⁰ There is the further question of those States that are not or not yet parties to UNCLOS and might also have claims to continental shelf entitlements beyond 200 nautical miles.¹⁰¹ It would seem that nothing prohibits these States from making a submission to the CLCS. It would then be up to it, as an autonomous body, to decide whether to consider the submission.¹⁰²

The argument has been put forth that non-parties have not been excluded from the mandate of the CLCS because Article 76 refers exclusively to "coastal States," as does Annex II UNCLOS except for the Article 2 provisions relating to organizational matters of the CLCS.¹⁰³ The term "coastal State" instead of "State party" in that context, as well as in other provisions of UNCLOS, has, however, most likely been employed to exclude landlocked States because even an implicit reference to them would not have made sense. Nevertheless, should a non-party file a submission with the CLCS, it might be wise for the Commission to consider it and appropriately apprise the Meeting of States Parties¹⁰⁴ of the submission. In any case, if a non-party wishes to engage in such a course of action, it would not make sense from the point of view of the interests of the international community to prevent that State from doing so. It would also seem reasonable that in such a case the non-party would be asked to defray the costs of processing its application, the amount to be determined by the Meeting of States Parties.

In the case of the EEZs, it is not very difficult to know the limits of national jurisdiction, at least for those States Parties that have declared such a zone. For continental shelves, however, the situation is more complex as relatively few of the States having continental shelves extending beyond 200

^{100.} Gaia Carrera Hurtado, An Update of the Status of Submissions to the CLCS and Notes relating to Disputes among States, Global Ocean Regime Conference, Busan, Republic of Korea, June 10, 2016, slide 22 (on file with author). See also Submissions, through the Secretary-General of the United Nations, to the Commission on the Limits of the Continental Shelf, pursuant to Art. 76, para. 8 of the United Nations Convention on the Law of the Sea of 10 December 1982, UN OCEANS AND LAW OF THE SEA, https://www.un.org/Depts/los/clcs_new/ commission_submissions.htm [hereinafter Article 76(8) Submissions] (last visited Jan. 14, 2021).

^{101.} Tuerk, The Common of Heritage of Mankind after 50 Years, supra note 36, at 269

^{102.} See also Treves, supra note 38, at 364; Baumert, supra note 15, at 865.

^{103.} Baumert, *supra* note 15, at 866–69.

^{104.} The U.N. Secretary-General "shall . . . convene necessary meetings of States Parties." UNCLOS, *supra* note 2, art. 2(e).

nautical miles have yet established the outer limits.¹⁰⁵ As of May 1, 2020, the CLCS had adopted only thirty-five recommendations on the outer limits of the continental shelf¹⁰⁶ and only eight States—Australia, France (concerning Martinique, Guadeloupe, Guyana, New Caledonia, and the Kerguelen islands), Ireland, Mauritius, Mexico, Niue, Pakistan, and the Philippines—have fulfilled their obligation under Article 84, paragraph 2, UNCLOS to deposit charts or lists of geographical coordinates with the Secretary-General of the ISA showing these limits.¹⁰⁷ This is certainly not a very heartening record. The Secretary-General has therefore urged all coastal States to deposit the relevant information as soon as possible after the establishment of the outer limit lines of their continental shelf, in accordance with the relevant provisions of UNCLOS.¹⁰⁸

Although the CLCS has made substantial progress in its work during the past years dealing with voluminous submissions of considerable complexity, it is still faced with an immense workload.¹⁰⁹ The UNCLOS framers did not foresee this situation and thus not provided adequate structures for the CLCS and the work of its members.¹¹⁰ Whether it was wise not to include lawyers on the CLCS is another matter as legal issues are almost inevitably bound to arise in connection with the delineation of the continental shelf beyond 200 nautical miles. Given its current workload, it may take decades for the CLCS to make all the recommendations regarding the submissions by coastal States with respect to the outer limits of the continental shelf.

^{105.} Lodge, Relevance and Importance of the Work, *supra* note 31, at 1–2. See also Michael W. Lodge, *International Seabed Authority Mining Standards, in* THE REGULATION OF CONTINENTAL SHELF DEVELOPMENT: RETHINKING INTERNATIONAL STANDARDS 79, 80 (Myron H. Nordquist, John N. Moore, Aldo Chircop & Ronán Long eds., 2013).

^{106.} Article 76(8) Submissions, supra note 100.

^{107.} Report of the Secretary-General of the International Seabed Authority under Article 166, Paragraph 4, of the United Nations Convention on the Law of the Sea, ¶ 7, Doc. ISBA/24/A/2 (May 29, 2018). See also Statement by the President of the Assembly of the International Seabed Authority on the Work of the Assembly at its Twenty-fourth Session, ¶¶ 9, 14, Doc. ISBA/24/A/12 (Aug. 10, 2018); Article 84(2) – Charts and Lists of Geographical Coordinates, INTERNATIONAL SEABED AUTHORITY, https://www.isa.org.jm/article-842-charts-and-lists-geographical-coordinates (last visited Jan. 14, 2021).

^{108.} Report of the Secretary-General, *supra* note 107, ¶ 8.

^{109.} See Letter dated 18 April 2016 from the Chair of the Commission on the Limits of the Continental Shelf addressed to the President of the Twenty-sixth Meeting of States Parties, ¶¶ 9, 11, Doc. SPLOS/298 (Apr. 18, 2016).

^{110.} Tuerk, The Common of Heritage of Mankind after 50 Years, supra note 36, at 269.

In cases where a coastal State disagrees with the recommendation of the CLCS, it has to make a revised or a new submission "within a reasonable time."¹¹¹ The question arises for how long such a procedure might continue if there is no agreement between the State concerned and the CLCS. Furthermore, where there are delimitation disputes between States—and there are quite a few—the final determination of the outer limits may be delayed for an indefinite period.¹¹²

After more than a quarter of a century since the entry into force of UNCLOS, the boundary between national jurisdiction and the international seabed Area still remains largely undefined. It has rightly been commented that this is a very unsatisfactory situation, making it more difficult for States Parties, acting through the ISA, to organize and control activities in the Area.¹¹³ Furthermore, it creates uncertainty in the law of the sea that the UNCLOS framers had tried to avoid.¹¹⁴ Despite this unsatisfactory situation, it may nevertheless be assumed that the seabed and ocean floor beyond national jurisdiction cover some 50 percent of the world's surface.¹¹⁵

V. REVENUE SHARING UNDER ARTICLE 82

In light of this perhaps somewhat pessimistic outlook as regards a definite global boundary of the international seabed Area, it should be pointed out that revenue sharing under Article 82 UNCLOS, which has been referred to as the "only direct incursion into ocean space within national jurisdiction,"¹¹⁶ can be considered an extension of the principle of the common heritage of

^{111.} UNCLOS, supra note 2, annex II, art. 9.

^{112.} Lodge, Relevance and Importance of the Work, supra note 31, at 2.

^{113.} *Id*.

^{114.} *Id*.

^{115.} See Michael W. Lodge, Current Legal Developments: International Seabed Authority, 24 INTERNATIONAL JOURNAL OF MARINE AND COASTAL LAW 185, 185 (2009). See also David Freestone, International Governance, Responsibility and Management of Areas beyond National Jurisdiction, 27 INTERNATIONAL JOURNAL FOR MARINE AND COASTAL LAW 191, 193 (2012).

^{116.} Wylie Spicer, *Canada, The Law of the Sea Treaty and International Payments: Where Will the Money Come From?*, 8 UNIVERSITY OF CALGARY, THE SCHOOL OF PUBLIC POLICY, SPP RESEARCH PAPERS 31, at 9 (2015), http://www.policyschool.ca/wp-content/uploads/2016/03/final-law-sea-spicer.pdf.

mankind,¹¹⁷ although this view is not undisputed.¹¹⁸ In any case, the responsibilities of the ISA in this context are limited to the various aspects of revenue sharing. It has no power to set standards for the exploration or exploitation of an area within national jurisdiction.

The idea that coastal States should make payments to the international community arising from the exploitation of the non-living resources of the continental shelf dates back to discussions in the U.N. Seabed Committee in 1971 in connection with the endeavors to define its outer limits. A system of contributions to an international authority to be created would have applied to variously-defined maritime areas beyond the territorial sea with different percentage rates based on distance from its outer limit and for developing or developed countries. In the course of the Conference it became, however, increasingly clear that revenue sharing within 200 nautical miles would not find general agreement, despite a number of proposals to that effect. The same was true regarding the suggestion that the international authority to be created would have the power to take appropriate measures if a State failed to comply with its revenue-sharing obligations¹¹⁹—a proposal to which some States were opposed as soon as it was made.

Article 82 UNCLOS in its present form thus represents a compromise between various national positions.¹²⁰ 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 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.¹²¹ A developing State which 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

^{117.} 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).

^{118.} 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 23 (2009), https://www.isa.org.jm/documents/issues-associated-implementation-article-82-united-nations-convention-law-sea [hereinafter TECHNICAL STUDY NO: 4].

^{119.} UNCLOS 1982: A COMMENTARY, *supra* note 7, at 937, 938.

^{120.} Id. at 846, 857.

^{121.} UNCLOS, *supra* note 2, art. 82(2).

resource. Production does not, however, include resources used in connection with the exploitation.

With the benefit of hindsight, the five-year grace period thought to be a reasonable time during which the operator would be able to recover development costs is probably somewhat too short given the enormous financial outlay required for deep-sea mining in great depths. When this provision was drafted, oil and gas wells were in much shallower water and closer to the shore than is the case today.¹²² The percentage of the contributions made by coastal States was a controversial issue at the Conference, with suggestions put forth during protracted negotiations ranging between 5 and 15 percent.¹²³ When the matter was once again discussed in the responsible negotiating group, the author, as a delegate of Austria, suggested 7 percent as a compromise,¹²⁴ which subsequently found its way into UNCLOS. The rationale for this relatively low figure was not to cause a disincentive for the exploitation of the seabed beyond 200 nautical miles.¹²⁵

Article 82 has been characterized as having "textual ambiguities and process gaps that can be expected to constrain implementation."¹²⁶ Indeed, Article 82 does not provide definitions for key terms used, such as "value," "volume," "site," "payments," and "contributions in kind."¹²⁷ At the Conference, the negotiators were, however, 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 to Article 82's implementation phase. Some of the terms used in that Article may be understood differently in States with a continental shelf beyond 200 nautical miles.¹²⁸ The ISA Secretariat has, therefore, commissioned a comparative study to "help identify possible paths for a practical approach" and in developing the understanding of "terminological issues in realistic

^{122.} Spicer, *supra* note 116, at 12.

^{123.} ISA TECHNICAL STUDY NO: 12, *supra* note 99, at 57. *See also* UNCLOS 1982: A COMMENTARY, *supra* note 7, at 954.

^{124.} UNCLOS 1982: A COMMENTARY, *supra* note 7, at 940, 941. *See also* TECHNICAL STUDY NO: 4, *supra* note 118, at 17.

^{125.} TUERK, REFLECTIONS ON THE CONTEMPORARY LAW OF THE SEA, *supra* note 26, at 39.

^{126.} ISA TECHNICAL STUDY NO: 12, *supra* note 99, at 57.

^{127.} Id. at 20, ¶ 10.

^{128.} Id.

settings."¹²⁹ A guide would certainly be highly useful to assist States with implementing the provisions of that Article.¹³⁰

In this context, the following comments are offered. It seems clear that the obligation to make payments or contributions in kind is that of the coastal State, not the producer. Producers might well also argue that they already provide benefits to the economy in the form of taxes, employment, and existing royalties; thus, it should not be incumbent upon them to bear the additional cost of meeting the State's treaty obligation.¹³¹ If Article 82 were interpreted otherwise, exploitation of the resources of the continental shelf beyond 200 nautical miles might become unattractive compared to exploitation within that distance, defeating its entire purpose. A positive example is the New Zealand legislation that directs the Minister of Energy and Resources to consider New Zealand's obligations under Article 82 in specifying the rate of royalties and provides that the government will make all payments under that provision.¹³² Norway, in contrast, has opted for a somewhat different system, alerting bidders that the licensee may be required to cover an expense under Article 82, the cost of which can be deducted under the petroleum taxation.¹³³ Revenue sharing may be an issue in States with a federal system as regards the respective responsibilities of the national government and the constituent units. For instance, in Canada, a country that might be among the first to become subject to the Article 82 obligation.134

In the calculation of the "value . . . of production at the site,"¹³⁵ the negotiating history of Article 82 suggests that reference to the "well-head value" is intended.¹³⁶ With regard to the definition of "site," it has been suggested that the most practical approach would likely be to leave this

^{129.} ISA TECHNICAL STUDY NO: 12, *supra* note 99, at 24. *See* 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.

^{130.} See also ISA TECHNICAL STUDY NO: 12, supra note 99, at 24, ¶ 25.

^{131.} Lodge, The International Seabed Authority and Article 82, supra note 117, at 326.

^{132.} Continental Shelf Act 1964, § 5A(5).

^{133.} Spicer, *supra* note 116, at 16.

^{134.} Id. at Summary, 18–20. See also Tuerk, The Common Heritage of Mankind after 50 Years, supra note 36, at 267.

^{135.} UNCLOS, supra note 2, art. 82(2).

^{136.} Lodge, The International Seabed Authority and Article 82, supra note 117, at 328.

determination to the State involved.¹³⁷ As far as the "resources used in connection with the exploitation"¹³⁸ are concerned, a correct interpretation of this expression would seem to restrict these to physical elements used in production and not to include financial or other resources required in the process.¹³⁹

The payments or contributions in kind by coastal States are to be made through the ISA, which is then to distribute them to "States Parties . . . on the basis of equitable sharing criteria, taking into account the interests and needs of developing States, particularly the least developed and the landlocked among them."¹⁴⁰ It is important to note that payments or contributions under that provision are to be made "through" the ISA and not "to" it as proposed in earlier drafts of the Article.¹⁴¹ This means that the Authority can be considered a trustee of the payments received until their distribution to the beneficiary States.¹⁴² These funds are distinct from any revenues collected by the ISA from deep-sea mining operations under Part XI UNCLOS and must be distributed.¹⁴³ It would nevertheless seem reasonable to allow the Authority to recover administrative costs incurred in the processing of the payments received. There would seem to be little justification for using funds from its regular budget for such a purpose.

Although it is for the coastal State to choose between payments and contributions in kind, the latter does not seem to be a very realistic option as this would put the ISA in the extremely difficult position of having to deal directly with seabed resources and oversee their distribution or marketing and subsequent sale.¹⁴⁴ Contributing States should therefore be encouraged to discharge their obligation under Article 82 based solely on payments made in an internationally convertible currency.¹⁴⁵

UNCLOS provides no guidance on how and at what point in time the ISA is to become involved in the implementation of Article 82. It should be borne in mind that the Authority will have to discharge substantial responsibilities in this connection, requiring advanced planning and

^{137.} ISA TECHNICAL STUDY NO: 12, *supra* note 99, at 22, ¶ 14.

^{138.} UNCLOS, *supra* note 2, art. 82(2).

^{139.} ISA TECHNICAL STUDY NO: 12, *supra* note 99, at 21, ¶¶ 11, 12.

^{140.} UNCLOS, supra note 2, art. 82(4).

^{141.} UNCLOS 1982: A COMMENTARY, supra note 7, at 942.

^{142.} ISA TECHNICAL STUDY NO: 12, *supra* note 99, at 19, ¶ 4.

^{143.} UNCLOS 1982: A COMMENTARY, supra note 7, at 947.

^{144.} Tuerk, The Common Heritage of Mankind after 50 Years, supra note 36, at 267.

^{145.} *Id. See also* ISA TECHNICAL STUDY NO: 12, *supra* note 99, at 20, ¶ 9.

preparations in order to be able to set up the necessary structures and processes for receiving payments.¹⁴⁶ An unresolved question is the role of the ISA in the process of determining the value or volume of the resources and the amount of the payments or contributions. It may be considered a "gap" in UNCLOS that the ISA has not been expressly granted the monitoring function needed to carry out the specific tasks under Article 82 in an efficient manner. Nevertheless, the entire process must, at the very least, be transparent to the States Parties¹⁴⁷ as the payments constitute the discharge of a legal obligation owed to the international community. These payments can neither be considered charity nor development aid. The same requirement of transparency also applies to the question as to whether a particular developing country qualifies for the resource-specific exemption.

An important task of the ISA will be to define "equitable sharing criteria" for the distribution of the payments received and to determine priorities among potential recipients. It seems those States that are at the same time least developed and landlocked would deserve to have priority.¹⁴⁸ It will be for the ISA Council to recommend to the Assembly the necessary rules, regulations, and procedures on equitable sharing.¹⁴⁹

To discharge what has been described as its "fiduciary duty to mankind as a whole,"¹⁵⁰ it is indispensable that there are consultation and agreement between a coastal State exploiting resources of the continental shelf beyond 200 nautical miles and the ISA. A model agreement has been developed, perhaps with common provisions applicable to all such States and particular ones for each individual case.¹⁵¹ The focus of such agreements would be exclusively on those aspects of production that are "central to the respective responsibilities" under Article 82.¹⁵² Another possibility may be the conclusion of a memorandum of understanding,¹⁵³ which, although having a different legal status than an agreement, might have the same practical effect.

150. Lodge, The International Seabed Authority and Article 82, supra note 117, at 328.

^{146.} *Id*. at 43.

^{147.} *Id.* at 19, ¶ 4.

^{148.} See id. at 28, ¶ 7, 45.

^{149.} UNCLOS, *supra* note 2, art. 162(2)(0)(i).

^{151.} ISA TECHNICAL STUDY NO: 12, *supra* note 99, at 47.

^{152.} *Id*. at 45.

^{153.} *Id.* at 31, ¶ 6.

It has rightly been pointed out that UNCLOS does not address how disputes regarding the interpretation and application of Article 82 should be resolved.¹⁵⁴ Besides the difficult question of whether engaging in a contentious procedure would even be possible, the option of seeking an advisory opinion should be borne in mind. Under Article 191, the Assembly and the Council of the ISA are empowered to seek an advisory opinion from the Seabed Disputes Chamber of ITLOS on "legal questions arising within the scope of their activities."¹⁵⁵ It may be assumed that these activities include the tasks of the Authority under Article 82.¹⁵⁶ The rules of procedure of ITLOS further provide for the possibility of rendering an advisory opinion by the full tribunal, if this is provided for by an international agreement related to the purposes of UNCLOS conferring jurisdiction on it.¹⁵⁷

The interpretation and application of Article 82 raise difficult questions that need to be further considered and resolved. The ISA has convened several workshops aimed at providing guidance for implementing the provisions of that Article. Many valuable suggestions were made at these, some of which have been taken up. There can, however, be no doubt that much work remains to be done.¹⁵⁸

VI. CONCLUSION

The definition of the continental shelf set forth in Article 76 UNCLOS has also become part of customary international law. Through their jurisprudence, international courts and tribunals have clarified important issues concerning the continental shelf beyond 200 nautical miles. These relate, in particular, to the concept of a "single" continental shelf and to the possibility of its binding delimitation between adjacent or opposite coastal States—in the absence of a recommendation by the CLCS regarding the delineation of its outer limits. The potential problems that may arise from areas of overlap between a State's continental shelf and EEZ rights of another State, resulting in so-called "grey areas," are a matter to which the negotiators at the Conference obviously did not devote sufficient attention.

^{154.} See also id. at 58, ¶ 6.

^{155.} UNCLOS, supra note 2, art. 191.

^{156.} See also SUAREZ, supra note 45, at 250.

^{157.} International Tribunal for the Law of the Sea, Rules of the Tribunal art. 138 (2009), https://www.itlos.org/fileadmin/itlos/documents/basic_texts/Itlos_8_E_17_03_09.pdf.

^{158.} Lodge, Relevance and Importance of the Work, *supra* note 31, at 3.

The heavy workload, besides great responsibility, imposed by the Convention on the members of the CLCS was also completely underestimated at the time of its elaboration. The result is that the precise extent of the international seabed Area—the common heritage of mankind—will at least not be known for a very long time. This may also, to a certain extent, affect the work of the ISA. With regard to revenue sharing under Article 82 UNCLOS, the hope seems justified that this provision will become operational in a foreseeable future. Its implementation, however, still requires further in-depth consideration of, in particular, the role of the ISA in the process of determining the value or volume of resources and the amount of payments to be made by the coastal States concerned.