BRILL

PORTUGUESE YEARBOOK OF THE LAW OF THE SEA
1 (2024) 60–97

PYLS

Resilience of the UN Convention on the Law of the Sea: Reflections on Three Approaches

Yoshifumi Tanaka | ORCID: 0000-0002-0063-9424
Professor of International Law, with specific focus on the law of the sea, Faculty of Law, University of Copenhagen, Copenhagen, Denmark
yoshifumi.tanaka@jur.ku.dk

Received 24 April 2023 | Accepted 8 May 2023 |
Published online 15 July 2024

Abstract

More than 40 years have passed since the adoption of the UN Convention on the Law of the Sea (UNCLOS) in 1982. There are many issues that the drafters of UNCLOS may not have been able to foresee in 1982. The question that arises here is whether and how it is possible to address the new issues unknown under UNCLOS. Here, resilience of UNCLOS is at issue. In this regard, one can identify three basic approaches to ensuring resilience of UNCLOS: (1) resilience through the interpretation, (2) resilience through the law-making, and (3) resilience through the jurisprudence. The first approach seeks to adapt UNCLOS to new circumstances through the interpretation of the Convention and the second approach aims to amplify the rules of UNCLOS through the law-making to address new issues. The third approach seeks to develop or elaborate the rules set out in UNCLOS through the jurisprudence. By examining the three approaches, this article considers resilience of UNCLOS in ever changing international relations.

Keywords

resilience – systemic interpretation – evolutionary interpretation – rules of reference – the making of law – judicial creativity

Introduction

Once a treaty is concluded at a certain moment, the provisions of a treaty are fixed in time, unless it is amended. In so doing, the treaty stablishes an legal order. However, the political, economic and social conditions surrounding the treaty is changing as time goes by. As Oxman pointedly observed, '[s]tability in the law is not possible without adaptation to new circumstances'.[1] An essential issue thus arise as to how one can adapt the treaty to new situations. This issue has been vividly raised in the interpretation and application of the UN Convention on the Law of the Sea (UNCLOS or the Convention).[2] In reality, many issues unknown at the time of the adoption of the Convention have appeared in the international law of the sea. Accordingly, the question arises whether and how one can address the novel issues under UNCLOS. There, resilience of UNCLOS matters. While 'resilience' is a polysemous term which has been used in multiple disciplines,[3] in essence, the concept of resilience relates to change and adaptation. For the purpose of this article, 'resilience' can be defined as 'a capacity to adapt the existing legal system to a new or changing situation so that the legal system continues to function'. In broad terms, one can identify three basic approaches to the maintenance of resilience of UNCLOS.

The first approach concerns resilience through the interpretation. This approach seeks to adapt UNCLOS to new circumstances through the interpretation of the relevant provisions of the Convention. Specifically this approach includes four modes: the systemic interpretation, evolutionary interpretation, interpretation through subsequent agreements or practice, and 'rules of reference'.

The second approach pertains to resilience through the law-making.[4] This approach seeks to amplify the rules of UNCLOS through the law-making

1 BH Oxman, 'The Fortieth Anniversary of the United Nations Convention on the Law of the Sea' (2022) 99 *International Law Studies* 865–873, at p. 871. All websites accessed 10 May 2024.

2 Montego Bay, opened for signature 10 December 1982, in force 16 November 1994, 1833 *UNTS* 3.

3 According to Encyclopaedia Britannica, '[t]he term resilience is a term that is sometimes used interchangeably with robustness to describe the ability of a system to continue functioning amid and recover from a disturbance'. S Levin, 'Ecological Resilience' in *Encyclopaedia Britannica*, available at: https://www.britannica.com/science/ecological-resilience For various definitions of the term 'resilience', see for instance, K Knuth, 'The Term "Resilience" is Everywhere—But What Does It Really Mean?' available at https://ensia.com/articles/what-is-resilience/

4 For the purpose of this article, law-making can be considered as processes to create binding and non-binding legal instruments.

to address new issues. In this regard, three modes merit discussion: the adoption of new 'implementation' treaties, law-making through international organisations, and *de facto* amendment of UNCLOS through the Meeting of States Parties (SPLOS).

The third approach relates to resilience through the jurisprudence. This approach seeks to develop the rules set out in UNCLOS through the jurisprudence in order to ensure resilience of the Convention. There, three modes can be identified.[5] The first mode pertains to the (re-)interpretation of relevant provisions of UNCLOS in a contemporary context. By placing relevant provisions of the Convention in a contemporary context, an international court or tribunal can give a new meaning to the provisions concerned in response to challenges unknown at the time of the adoption of UNCLOS. The second mode is judicial creativity through the creative interpretation of relevant provisions of UNCLOS by an adjudicative body. Even though an international court or tribunal is not a legislative organ,[6] the interpretation of the rules of international law by adjudicative bodies may include, more or less, creative elements. In light of this, the development of law through the jurisprudence can be called judicial creativity.[7] Through the creative interpretation, an adjudicative body can develop the rules of UNCLOS in a way that drafters of the Convention did not expect. An example is provided by the advisory jurisdiction of the International Tribunal for the Law of the Sea (ITLOS) as a full court. The third mode concerns judicial creativity through cross-references in the jurisprudence. This function can be called judicial creativity by institutional circularity. Development of the law of maritime delimitation through the jurisprudence is a case in point.

Against that background, this article examines the three approaches to ensuring resilience of UNCLOS. Since no comprehensive examination of each and every mode can be made here because of limitations of space, this article focuses on the question as to how UNCLOS can ensure its resilience to new circumstances.

---

5 As a different view, Lan Ngoc Nguyen indicates three functions of international courts and tribunals: '(i) defining the scope of rights and obligations under UNCLOS, (ii) giving meaning to vague terms under the Convention and (iii) confirming a rule of customary international law'. Lan Ngoc Nguyen, *The Development of the Law of the Sea by UNCLOS Dispute Settlement Bodies* (Cambridge University Press, 2023) 247.

6 *Legality of the Nuclear Weapons*, Advisory Opinion, *ICJ Reports1996*, p. 237, para. 18.

7 A commentator uses the term 'international judicial lawmaking'. GI Hernádez, 'International Judicial Lawmaking' in C Brömann and Y Radi (eds), *Research Handbook on the Theory and Practice of International Lawmaking* (Cheltenham: Edward Elgar, 2016) 200–221. Given that an adjudicative body is not an organ of international legislation, however, this article uses the term 'judicial creativity'.

Resilience through the Interpretation

This section examines four modes that contribute to maintaining resilience of UNCLOS through the interpretation of the provisions of the Convention.

Systemic Interpretation

As the International Court of Justice (ICJ) stated in the *Namibia* advisory opinion, 'an international instrument has to be interpreted and applied within the framework of the entire legal system prevailing at the time of the interpretation'.[8] Given that currently complex webs of treaties are developing in the law of the sea and international law in general, the interpretation of UNCLOS necessitates a systemic outlook.[9] Here, the systemic interpretation comes into play.

An illustrative example on this matter is the interpretation of Article 192 UNCLOS. Under Article 192, 'States have the obligation to protect and preserve the marine environment'. In the *South China Sea* arbitration, Annex VII arbitral tribunal read Article 192 in light of 'the corpus of international law relating to the environment' and 'other applicable international law'.[10] In this regard, the tribunal made an explicit *renvoi* to the 1973 Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES),[11] stating:

> CITES is the subject of nearly universal adherence, including by the Philippines and China, and in the Tribunal's view forms part of the general corpus of international law that informs the content of Article 192 and 194(5) of the Convention.[12]

In light of this, the arbitral tribunal ruled:

> [T]he general obligation to 'protect and preserve the marine environment' in Article 192 includes a due diligence obligation to prevent the

8 *Legal Consequences for States of the Continued Presence of South Africa in Namibia* (*South West Africa*) *notwithstanding Security Council Resolution 276* (*1970*), Advisory Opinion, *ICJ Reports 1971*, p. 31, para. 53.

9 *Whaling in the Antarctic* (*Australia* v. *Japan, New Zealand intervening*), Separate Opinion of Judge Cançado Trindade, *ICJ Reports 2014*, pp. 357–358, paras 25–26.

10 The *South China Sea* Arbitration Award (Merits), Award of 16 July 2016, (2020) 33 *RIAA*, p. 519, para. 941 and p. 527, para. 959. See also MM Mbengue, 'The South China Sea Arbitration: Innovations in Marine Environmental Fact-Finding and Due Diligence Obligations' (2016) 110 *AJIL Unbound* 285–289, at p. 286.

11 Convention on the International Trade in Endangered Species of Wild Fauna and Flora. Adopted 3 March 1973. Entered into force 1 July 1975, 993 *UNTS* p. 243.

12 The *South China Sea* Arbitration Award (n 10), at p. 526, para. 956.

> harvesting of species that are recognised internationally as being at risk of extinction and requiring international protection.[13]

According to the arbitral tribunal, 'this general obligation is given particular shape in the context of fragile ecosystems by Article 194(5)'.[14] It thus held:

> Article 192 imposes a due diligence obligation to take those measures 'necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life.' Therefore, in addition to preventing the direct harvesting of species recognised internationally as being threatened with extinction, Article 192 extends to the prevention of harms that would affect depleted, threatened, or endangered species indirectly through the destruction of their habitat.[15]

The dictum suggests that the due diligence obligation is at the heart of the obligation to protect and preserve the marine environment. In light of its flexible and evolutionary nature,[16] the due diligence obligation can open the way to incorporate environmental norms developed by other treaties into Article 192 UNCLOS. The arbitral tribunal's interpretation seems to reflect a development of international law which acquires stronger environmental dimensions.

The tribunal's systemic interpretation provides an insight into interaction between UNCLOS and treaties concerning climate change. Given that presently 192 States and EU became the Contracting Parties to the UN Framework Convention on Climate Change (UNFCCC)[17] and the Paris Agreement,[18] it may not be unreasonable to argue that the treaties form 'part of the general corpus of international law'. Hence there appears to be some scope to argue that the UNFCCC and the Paris Agreement inform the content of Articles 192 and 194(5) UNCLOS; and that Article 192 includes a due diligence obligation to prevent

13 *Ibid.*

14 *Ibid.,* at p. 527, para. 959.

15 *Ibid.*

16 S Besson, *La* due diligence *en droit international* (Brill/Nijhoff, 2021) 138. See also International Law Commission (ILC), *Draft Articles on Prevention of Transboundary Harm from Hazardous Activities with Commentaries, Commentary to Article 3,* (2001) 2 *Yearbook of International Law Commission,* Part 2, p. 154, para. 11.

17 Entered into force 21 March 1994. Text in: 1771 *UNTS* 107; (1992) 31 *ILM* 849.

18 Entered into force 4 November 2016. 3156 *UNTS* 79.The electronic text of the Paris Agreement is available at: https://unfccc.int/sites/default/files/english_paris_agreement.pdf

adverse impacts of climate change on the marine environment, including marine ecosystems.

Evolutionary Interpretation

The second mode of interpretation to ensure resilience of UNCLOS concerns the evolutionary interpretation. According to evolutionary interpretation, treaties are considered as a 'living instrument', and the texts of the treaties are to be interpreted in an evolutionary manner by taking the development of norms and present-day standards into account.[19] In so doing, temporal elements, that is, change and development, are incorporated into treaty interpretation. Evolutionary interpretation constitutes a crucial technique to adapt relevant provisions of UNCLOS to new circumstances, thereby enhancing resilience of the Convention. As discussed elsewhere, one can identify three elements for applying the evolutionary treaty interpretation.[20]

The first concerns the use of generic term. As Judge Higgins stated in the *Kasikili/Sedudu Island* case, a 'generic term' is 'a known legal term, whose content the Parties expected would change through time'.[21] The evolutionary nature of the generic term has been affirmed by the international courts and tribunals.[22] For instance, the ICJ, in the 2009 *Costa Rica* v *Nicaragua* case, held:

> [W]here the parties have used generic terms in a treaty, the parties necessarily having been aware that the meaning of the terms was likely to

19 Generally on this subject, see in particular, G Distefano, 'L'interpretation évolutive de la norme internationale' (2011) 115 *Revue general de droit international public* (*RGDIP*) 373–396; P-M Dupuy, 'Evolutionary Interpretation of Treaties: Between Memory and Prophecy' in E Cannizzaro (ed), *The Law of Treaties Beyond the Vienna Convention* (Oxford University Press 2011) 123–137; M Fitzmaurice, 'Dynamic (Evolutive) Interpretation of Treaties: Part I' (2008) 21 *Hague Yearbook of International Law*101–153; by the same writer, 'Dynamic (Evolutive) Interpretation of Treaties: Part II' (2009) 22 *Hague Yearbook of International Law* 3–31; U Linderfalk, 'Doing the Right Thing for the Right Reason—Why Dynamic or Static Approaches Should be Taken in the Interpretation of Treaties' (2008) 10 *International Community Law Review* 109–141; T Georgopoulos, 'Le droit intertemporel et les dispositions conventionnelles évolutives: quelle thérapie contre la vieillesse des traités?' (2004) 108 *RGDIP* 123–148; DW Greig, *Intertemporality and the Law of Treaties* (British Institute of International and Comparative Law, 2001).

20 Y Tanaka, 'Reflections on Time Elements in the International Law of the Environment' (2013) 73 *ZaöRV/Heidelberg Journal of International Law* 139–175, at pp. 150–158.

21 Declaration of Judge Higgins in the *Kasikili/Sedudu Island* (*Botswana v. Namibia*), *ICJ Reports 1999*, p. 1113, para. 2. See also ILC, Report of the International Law Commission, Fifty-eighth session, General Assembly, Official Records Sixty-first session Supplement No. 10 (A/61/10) (2006), pp. 415–416, para. 23.

22 Tanaka (n 20), at pp. 150–154.

> evolve over time, and where the treaty has been entered into for a very long period or is 'of continuing duration', the parties must be presumed, as a general rule, to have intended those terms to have an evolving meaning.[23]

The evolutionary nature of a generic term was also confirmed by the arbitral tribunal in the 2005 *Iron Rhine Railway* case between Belgium and the Netherlands.[24] In the words of the tribunal:

> It has long been established that the understanding of conceptual or generic terms in a treaty may be seen as 'an essentially relative question; it depends upon the development of international relations'
>
> Nationality Decrees Issued in Tunis and Morocco, P.C.I.J. Series B, No. 4 (1923), p. 24.[25]

Second, as Higgins stated, 'intention of the parties is often to be deduced from the object and purpose of the agreement'.[26] Hence, to a certain extent at least, the object and purpose of treaties provide guidance for determining whether or not the parties to the treaty were thought to have committed themselves to a programme of progressive development.[27] In light of their object and purpose, it can be reasonably presumed that certain categories of treaties, such as environmental treaties, are intended to have a mobile content.[28] Indeed, since environmental knowledge and technology are constantly developing, such new developments must be reflected in the interpretation and application of environmental treaties with a view to effectively protecting the environment. Hence, generally, environmental treaties seem to have an affinity with the evolutionary interpretation.

The third element is Article 31(3)(c) of the 1969 Vienna Convention on the Law of Treaties (hereinafter the Vienna Convention).[29] This provision, which can be traced back to Waldock's proposal on draft Article 56 which dealt

23 *ICJ Reports 2009*, p. 243, para. 66. See also p. 242, para. 64.
24 Arbitration regarding the Iron Rhine ("Ijzeren Rijn") Railway (Belgium/the Netherlands) Award of 24 May 2005 (2008) 27 *Reports of International Arbitral Awards* (*RIAA*) 35–125.
25 *Ibid.,* at p. 73 para. 79.
26 Higgins (n 21), at p. 519.
27 ILC, Fragmentation of International Law: Difficulties arising from the Diversification and Expansion of International Law, Report of the Study Group of the International Law Commission, Finalized by Martti Koskenniemi, A/CN.47L.682, 13 April 2006, 242, para. 478(a).
28 Tanaka (n 20), at pp. 155–156.
29 For text, see 1155 *UNTS* 331. Entered into force 27 January 1980.

specifically with inter-temporal law,[30] can provide a channel to incorporate temporal elements in treaty interpretation. The 2005 *Iron Rhine Railway* case is a case in point.[31] In this case, the inter-temporality in the interpretation of treaty provisions, in particular, Article XII of the 1839 Treaty of Separation was at issue.[32] In this regard, the arbitral tribunal clearly stated:

> Article 31, paragraph 3, subparagraph (c) of the Vienna Convention also requires there to be taken into account 'any relevant rules of international law applicable in the relations between the parties'. The intertemporal rule would seem to be one such 'relevant rule'.[33]

In this case, new technical developments relating to the operation and capacity of the railway was at issue. There, the arbitral tribunal took the view that 'an evolutive interpretation, which would ensure an application of the treaty that would be effective in terms of its object and purpose, will be preferred to a strict application of the intertemporal rule'.[34] The arbitral tribunal accordingly held that 'it [was] reasonable to interpret Article XII as envisaging future work occurring—beyond necessary maintenance—on the line' and that '[i]t may therefore be necessary to read into Article XII, so far as the allocation of contemporary costs for upgrading is concerned, the provisions of international law as they apply today'.[35] Thus Article 31(3)(c) of the Vienna Convention opened the way to take the new development of general international law into account in the interpretation of the 1839 Treaty of Separation.

In light of the three elements above mentioned, it appears that some provisions of UNCLOS can be interpreted in an evolutionary manner. Under Article 56(1) UNCLOS, for example, the coastal State has sovereign rights 'for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the sea-bed and of the sea-bed and its subsoil' in the exclusive economic zone (EEZ). Since 'the natural resources' is a generic term, the meaning of the natural

30 This article was eventually omitted from the Vienna Convention. Cf. ILC, Fragmentation of International Law: Difficulties arising from the Diversification and Expansion of International Law, Report of the Study Group of the International Law Commission, Finalized by Martti Koskenniemi, A/CN.47L.682, 13 April 2006, 217, para. 431.

31 *Arbitration regarding the Iron Rhine ("Ijzeren Rijn") Railway (Belgium/the Netherlands)*, Award of 24 May 2005, (2008) 27 *RIAA* 35–125.

32 *Ibid.,* at p. 66, para. 57.

33 *Ibid.,* at p. 72, para. 79.

34 *Ibid.,* at p. 73, para. 80.

35 *Ibid.,* at pp. 74–75, para. 84. See also R Gardiner, *Treaty Interpretation* (Oxford University Press, 2008) 276–278.

resources will evolve over time. In fact, this interpretation is supported by the Appellate Body of the World Trade Organization (WTO) in the *United States-Import Prohibition of Certain Shrimp and Shrimp Products*, which stated:

> [T]he generic term 'natural resources' in Article XX(g) [of the WTO Agreement] is not 'static' in its content or reference but is rather 'by definition, evolutionary'.[36]

Following the evolutionary interpretation, there may be some scope to argue that genetic resources would fall within the scope of the natural resources under Article 56(1), even though the use of genetic resources was not yet part of the international agenda at the time of the adoption of UNCLOS.

Another example is provided by the concept of marine pollution. Under Article 1(4) UNCLOS, 'pollution of the marine environment' is defined as:

> the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities;

In light of the use of generic term, such as 'substance' or 'energy' and the open-texture nature of the definition, it may be reasonable to consider that the scope of marine pollution is expanding. For example, it has been suggested that anthropogenic greenhouse gas (GHG) emissions, including CO_2, have led to adverse impacts on the marine environment and its ecosystems, including through ocean warming. GHG emissions can fall within the scope of an 'introduction by man of substances or energy into the marine environment' and a likelihood of the 'deleterious effects' provided in Article 1(4) UNCLOS.[37] Accordingly, adverse impacts of GHG emissions on the oceans can be considered as 'marine pollution' under UNCLOS.[38] It would seem to follow

36 *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R, 12 October 1998, 48, para. 130.

37 A Boyle, 'Litigating Climate Change under Part XII of the LOSC' (2019) 34 *IJMCL* 458–481, at p. 462. It is also relevant to note that Article 194(1) UNCLOS obliges States to take all measures necessary to prevent pollution of the marine environment 'from any source'.

38 This view was shared by relatively many commentators, including: M Doelle, 'Climate Change and the Use of the Dispute Settlement Regime of the Law of the Sea Convention'

that in principle, Part XII UNCLOS can apply to marine pollution from GHG emissions.[39]

Subsequent Agreement and Practice

Under Article 31(3) of the Vienna Convention, a treaty must be interpretated taking account of '(a) any subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions; (b) any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation'.[40] According to the ILC, 'an agreement as to the interpretation of a provision reached after the conclusion of the treaty represents an authentic interpretation by the parties which must be read into the treaty for purposes of its interpretation'.[41] The ILC also continued, '[t]he importance of such subsequent practice in the application of the treaty, as an element of interpretation, is obvious; for it constitutes objective evidence of the understanding of the parties as to the meaning of the treaty'.[42] It appears that subsequent agreement or practice of the States Parties to UNCLOS can contribute to modernising the interpretation of relevant provisions of the Convention.

However, the establishment of the existence of a firm agreement or practice on the interpretation of treaty provisions may not be easy. In the view of the Appellate Body of the World Trade Organisation (WTO):

> Generally, in international law, the essence of subsequent practice in interpreting a treaty has been recognized as a 'concordant, common and consistent' sequence of acts or pronouncements which is sufficient to

(2006) 37 *Ocean Development and International Law* 319–337, at p. 322; A Boyle, 'Law of the Sea Perspectives on Climate Change' in D Freestone (ed), *The 1982 Law of the Sea Convention at 30: Successes, Challenges and New Agendas* (Nijhoff 2013) 157–164, at p. 158; M McCreath, 'The Potential for UNCLOS Climate Change Litigation to Achieve Effective Mitigation Outcomes' in J Lin and D Kysar (eds), *Climate Change Litigation in the Asia Pacific* (Cambridge University Press 2020) 120–143, at p. 123; J Harrison, 'Litigation under the United Nations Convention on the Law of the Sea; Opportunities to Support and Supplement the Climate Change Regime' in *ibid*, 415–432, at p. 421; N Klein, 'Adapting UNCLOS Dispute Settlement to Address Climate Change' in J McDonald et al (eds), *Research Handbook on Climate Change, Oceans and Coasts* (Edward Elgar 2020) 94–113, at pp. 96–97.

39 Boyle (n 37), at p. 463.

40 For an analysis of Article 31(3)(a) and (b) of the Vienna Convention, see Gardiner (n 35), at pp. 216–249.

41 ILC, 'Report of the International Law Commission on the Work of Its Eighteenth Session' (1966) 2 *Yearbook of the International Law Commission* 172–363, at p. 221, para. 14.

42 *Ibid.,* at p. 221, para. 15 (footnote omitted).

> establish a discernable pattern implying the agreement of the parties regarding its interpretation. An isolated act is generally not sufficient to establish subsequent practice; it is a sequence of acts establishing the agreement of the parties that is relevant.[43]

The threshold of the 'concordant, common and consistent' test seems to be high. In fact, the Annex VII arbitral tribunal, in the *South China Sea* arbitration, held:

> [T]he threshold the Court [ICJ] establishes for accepting an agreement on the interpretation by State practice is quite high. The threshold is similarly high in the jurisprudence of the World Trade Organisation, which requires 'a 'concordant, common and consistent' sequence of acts or pronouncements' to establish a pattern implying agreement of the parties regarding a treaty's interpretation.[44]

While 'subsequent practice' shows 'the common understanding of the parties as to the meaning of the terms' of a treaty, 'subsequent agreement' has the effect of constituting an authentic interpretation of the treaty.[45] Hence there may be room for the view that evidentiary value of a 'subsequent agreement' will be higher than that of a 'subsequent practice'.[46]

While it is too early to draw any general conclusions, adjudicative bodies have been wary about interpreting a treaty provision on the basis of a subsequent agreement or practice in cases concerning the law of the sea.[47] In the *Whaling in the Antarctic* case, for example, Australia claimed that International Whaling Commission (IWC) resolutions must inform the ICJ's interpretation of Article VIII of the International Convention on the Regulation of Whaling because they comprise 'subsequent agreement between the parties regarding the interpretation of the treaty' and 'subsequent practice in the application

43 Footnote omitted. *Japan—Taxes on Alcoholic Beverages*, AB-1996-2, 4 October 1996, WT/DS8/AB/R WT/DS10/AB/R WT/DS11/AB/R, pp. 12–13.

44 The *South China Sea* Arbitration Award (n 10), at p. 391, para. 552.

45 ILC (n 41), at pp. 221–222, paras. 14–15; G Nolte, 'Jurisprudence of the International Court of Justice and Arbitral Tribunals of Ad Hoc Jurisdiction Relating to Subsequent Agreements and Subsequent Practice: Introductory Report for the ILC Study Group on Treaties over Time' in G Nolte (ed), *Treaties and Subsequent Practice* (Oxford University Press, 2013) 169–209, at p. 173.

46 *Ibid.,* at p. 173.

47 See G Nolte, 'Jurisprudence Under Special Regimes relating to Subsequent Agreements and Subsequent Practice: Second Report for the ILC Study Group on Treaties over Time' in Nolte (n 45), pp. 282–286.

of the treaty which establishes the agreement of the parties regarding its interpretation', within the meaning of Article 31(3)(a) and (b) of the Vienna Convention, respectively.[48] However, the ICJ declined the Australia's claim, stating:

> [M]any IWC resolutions were adopted without the support of all States parties to the Convention and, in particular, without the concurrence of Japan. Thus, such instruments cannot be regarded as subsequent agreement to an interpretation of Article VIII, nor as subsequent practice establishing an agreement of the parties regarding the interpretation of the treaty within the meaning of subparagraphs (*a*) and (*b*), respectively, of paragraph (3) of Article 31 of the Vienna Convention on the Law of Treaties.[49]

Thus the Court took a strict approach regarding the assessment of the evidential value of the IWC Resolutions in relation to subsequent agreement and practice of the Member States of the IWC under Article 31(3)(a) and (b) of the Vienna Convention.[50]

Rules of Reference

Finally, a legal technique of 'rules of reference' merits discussion. According to the 'rules of reference', relevant provisions of UNCLOS are to be interpreted and applied in accordance with external rules adopted under the auspices of the competent international organisation(s), such as the International Maritime Organisation (IMO), to the extent that these rules are 'applicable', 'internationally agreed', or 'generally accepted'. While the expression varies, broadly speaking three formulae can be identified.[51]

According to the first formula, States are required to 'take account of' internationally agreed rules or standards.[52] This is the weakest formula of rules

48 *Whaling in the Antarctic* (*Australia v Japan: New Zealand Intervening*), Judgment, *ICJ Reports 2014*, p. 256, para. 79.

49 *Ibid.,* at p. 257, para. 83.

50 M Fitzmaurice, 'The Whaling Convention and Thorny Issues of Interpretation' in M. Fitzmaurice and D Tamada (eds), *Whaling in the Antarctic: Significance and Implications of the ICJ Judgment* (Leiden: Brill/Nijhoff, 2016) 55–138, at p. 117.

51 Lan Ngoc Nguyen, 'Expanding the Environmental Regulatory Scope of UNCLOS Through the Rule of Reference: Potentials and Limits' (2012) 52 *Ocean Development and International Law* 419–444, at pp. 421–422.

52 Examples include: Articles 60(3), 207(1), 212(1) and 262 UNCLOS.

of reference. According to the second formula, states are required to 'conform' or 'give effect' to generally accepted international rules and standards.[53] According to the third formula, States must adopt laws and regulations which shall be 'no less effective' than international rules and standards[54] or shall 'at least have the same effect' as that of generally accepted international rules and standards.[55] This formula imposes a minimum standard.[56]

In summary, 'rules of reference' can be regarded as a legal technique to internalise generally accepted international rules or standards in UNCLOS. Specifically, rules of reference performs a dual function. First, 'rules of reference' contributes to maintaining uniformity of national and international regulation with regard to marine environmental protection.[57] Second, by updating 'generally accepted international rules and standards', it becomes possible to modernise the existing rules of UNCLOS, without amendments. Since the expression 'generally accepted' remains ambiguous, however, a question may arise of whether or not an instrument can be regarded as generally accepted.[58] It would appear that the maturity of a legal instrument as generally agreed rules or standards must be continuously considered on a case-by-case basis since the status of a legal instrument, such as the number of ratification, evolves over time.[59]

The application of rules of reference may be at issue when considering interaction between UNCLOS and climate-change treaties.[60] Currently the implications of climate change for the oceans are becoming a matter of more pressing concern. However, UNCLOS was adopted at a time when climate change was not recognised as a global threat. An issue thus arises whether the relevant provisions of Part XII UNCLOS concerning marine environmental protection can apply to prevent adverse impacts of climate change on the oceans. In this regard, Boyle argues that concerning greenhouse gas emissions

53 Article 42(1)(b), 211(5), 220(3) UNCLOS. While the aim differs, the expression 'giving effect' is also used in Article 21(2) UNCLOS.

54 Articles 208(3), 209(2), and 210(6) UNCLOS.

55 Article 211(2) UNCLOS.

56 K Bartenstein, 'Article 211' in A Proelss (ed), *United Nations Convention on the Law of the Sea: A Commentary* (Beck Nomos and Hart, 2017) 1419–1442, at p. 1429; Nguyen (n 51), at p. 422.

57 J Harrison, *Saving the Oceans Through Law: The International Legal Framework for the Protection of the Marine Environment* (Oxford University Press, 2017) 38.

58 Further, see Nguyen (n 51), at pp. 423–428; J Harrison, *Making the Law of the Sea: A Study in the Development of International Law* (Cambridge University Press, 2011) 171–179.

59 Harrison (n 58), at p. 141; A Chircop, 'The International Maritime Organization' in DR Rothwell, AG Oude Elferink, KN Scott, T Stephens (eds), *The Oxford Handbook of the Law of the Sea* (Oxford, Oxford University Press, 2015) 416–438, at p. 431.

60 On this issue, see also Nguyen (n 51), at pp. 430–437.

affecting the marine environment, the 2015 Paris Agreement[61] constitutes the generally accepted international rules or standards referred to in Article 207(1) UNCLOS and that the Paris Agreement sets out a standard for giving effect to this provision.[62] Following this view, States are required to adopt laws and regulations to prevent, reduce and control pollution of the marine environment from land-based sources, taking account of obligations and measures under the Paris Agreement. States must also take other measures necessary to implement the Paris Agreement to prevent, reduce and control land-based marine pollution pursuant to Article 213. Thus 'rules of reference' can open the way to incorporate environmental norms concerning climate change into UNCLOS.

Analysis

The above considerations lead to the four observations.

First, UNCLOS does not exist in isolation. Harmonisation between UNCLOS and other treaties necessitates the systemic interpretation. In this regard, it is noteworthy that in the *South China Sea* arbitration, the Annex VII arbitral tribunal interpreted Articles 192 and 194(5) UNCLOS in light of 'the corpus of international law relating to the environment' and 'other applicable international law'. The systemic interpretation makes it possible to incorporate new norms into relevant provisions of UNCLOS, strengthening resilience of UNCLOS.

Second, one can incorporate temporal elements, that is, change and development, into the interpretation of relevant provisions of UNCLOS by applying the evolutionary interpretation. In so doing, UNCLOS can adapt itself to new circumstances. However, caution is necessary to avoid an 'excessive' evolutionary treaty interpretation since such an interpretation will not be supported by State parties to the treaty concerned.[63] Furthermore, evolutionary interpretation can provide a point of departure for new development of the norms set out in the Convention. Thus careful consideration must be given to an orientation for the future development of international law when applying the evolutionary interpretation.

Third, theoretically subsequent agreement or practice of State parties to UNCLOS can contribute to modernising the interpretation of relevant provisions of the Convention pursuant to Article 31(3)(a) and (b) of the Vienna

61 Entered into force 4 November 2016. For the outline of the Paris agreement, see https://unfccc.int/process-and-meetings/the-paris-agreement

62 Boyle (n 37), at pp. 466–467 and p. 473. Boyle referred to Articles 192, 194 and 207 UNCLOS. Among these articles, however, 'rules of reference' are included in Article 297 only.

63 Tanaka (n 20), at p. 159.

Convention. As the Annex VII arbitral tribunal held in the *South China Sea* arbitration (merits), however, the threshold for accepting a subsequent practice is high. Arguably, the threshold for accepting an agreement on the interpretation by State practice is higher than that of a subsequent practice. Accordingly, it may be less easy to establish the existence of a subsequent agreement or practice that can affect the interpretation of relevant provisions of UNCLOS in practice.

Fourth, not a few provisions of UNCLOS contain 'rules of reference' particularly in a context of marine environmental protection. By incorporating generally accepted international rules or standards into relevant provisions of UNCLOS through 'rules of reference', it becomes possible to update the existing rules of the Convention to meet new circumstances.

Resilience through the Law-Making

This section addresses three modes of ensuring resilience of UNCLOS through the law-making: making of a new treaty, legislation of new regulations by an international organisation, and *de facto* modification of relevant provisions of UNCLOS through SPLOS.

Treaty-Making

The first mode concerns change and development of UNCLOS through the treaty-making. To date, arguably the most significant change and development of UNCLOS were made by three 'implementation' agreements:[64] the 1994 Implementation Agreement,[65] the 1995 Fish Stocks Agreement,[66] and the 2023 BBNJ Agreement.[67]

The treaty-making of the Implementation Agreement commenced under the initiative of the UN Secretary-General Pérez de Cuéllar in response to the

64 Generally on this issue, see Harrison (n 58), at pp. 85–114.

65 Agreement on the Implementation of Part XI of the Convention adopted by the UN General Assembly on 28 July 1994 (hereinafter the 1994 Implementation Agreement), 1836 *UNTS*, p. 42. Entered into force 28 July 1996.

66 2167 *UNTS*. 3. Adopted 4 August 1995. Entered into force 11 December 2001. The full title is United Nations Agreement for the Implementation 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.

67 Agreement under the UN Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction. Adopted 19 June 2023. Not entered into force. The electronic text is available at: https://www.un.org/Depts/los/XXI10CTC%28EN%29.pdf

situation where major industrialised States had created the reciprocating State regime governing the deep seabed outside UNCLOS.[68] Under Article 2(1) of the Implementation Agreement, the provisions of the Agreement and Part XI UNCLOS must be interpreted and applied together as a single instrument. In the event of any inconsistency between this Agreement and Part XV, however, the provisions of the Implementation Agreement must prevail over Part XV pursuant to Article 2(1) of the Agreement. In reality, despite the title of the 'Implementation' Agreement, the Agreement significantly modified some crucial elements of Part XI UNCLOS, such as: production policies, the obligation to transfer technology, financial terms of contracts, economic assistance, decision-making, and review conference.[69] In so doing, the Implementation Agreement could ensure the universality of the deep seabed regime under UNCLOS.

Unlike the 1994 Implementation Agreement, the treaty-making of the Fish Stocks Agreement commenced under Canadian initiative with a view to preventing the depletion of fish stocks in Northwest Atlantic.[70] The objective of the Fish Stocks Agreement is to ensure the long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks through effective implementation of the relevant provisions of UNCLOS.[71] The Fish Stocks Agreement does not require that UNCLOS and the Agreement must be considered as a single instrument.[72] Even so, the Fish Stocks Agreement stresses the integrity with UNCLOS, stating:

> Nothing in this Agreement shall prejudice the rights, jurisdiction and duties of States under the Convention. This Agreement shall be interpreted and applied in the context of and in a manner consistent with the Convention.[73]

The Agreement contains some innovative provisions which are not included in UNCLOS, for instance, with regard to at-sea inspection of fishing vessels

68 Y Tanaka, 'Law of the Sea' in S Chesterman, DM Malone and S Villalpando (eds), *Oxford Handbook of UN Treaties* (Oxford University Press, 2019) 521–537, at p. 531.

69 Harrison (n 58), at p. 91; Y Tanaka, *The International Law of the Sea*, 4th edn (Cambridge University Press, 2023) 248–252; BH Oxman, 'The 1994 Agreement and the Convention' (1994) 88 *AJIL* 687–696.

70 Tanaka (n 68), at p. 533.

71 Article 2.

72 Harrison (n 58), at p. 103.

73 Article 4.

by non-flag States.[74] One can say that the Agreement has further developed mechanisms for conservation of straddling and highly migratory fish stocks.[75]

In addition, in 2015, the UN General Assembly decided to develop an international legally binding instrument under UNCLOS on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (BBNJ).[76] The BBNJ Agreement was adopted on 19 June 2023. The Agreement aims to 'ensure the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, for the present and in the long term, through effective implementation of the relevant provisions of the Convention and further international cooperation and coordination'.[77] Like the Fish Stocks Agreement, the BBNJ Agreement stresses the integrity with UNCLOS.[78] The Agreement creates a novel legal framework for the regulation of activities with respect to marine genetic resources and digital sequence information on marine genetic resources of areas beyond national jurisdiction.[79] The Agreement also provides detailed procedures for establishing marine protected areas (MPAs) in areas beyond national jurisdiction.[80] Given that legal basis for establishing MPAs on the high seas remains uncertain under UNCLOS, the procedure can be considered as a significant development. Furthermore, the BBNJ Agreement elaborates the thresholds, factors, and process for conducting an environmental impact assessment.[81] It also provides relatively detailed provisions with regard to capacity-building and transfer of marine technology for developing countries.[82] It is too early to draw any general conclusions on the effectiveness of the BBNJ Agreement because it has not entered into force yet. Whether and to what extent the BBNJ Agreement could reinforce environmental dimensions of UNCLOS would seem to rest on the universality of the Contracting Parties to the Agreement.

Law-Making through International Organisations

In a context of the law of the sea, international organisations perform two functions in law-making: forum function and legislative function.

First, an international organisation can provide a forum for discussion and negotiation of development or adoption of international instruments, even

74 Article 21.
75 See also Harrison (n 58), at p. 104.
76 UN General Assembly Resolution 69/292, A/RES/69/292, 19 June 2015.
77 BBNJ Agreement (n 67), Article 2.
78 *Ibid.,* Article 5(1).
79 *Ibid.,* Part II.
80 *Ibid.,* Part III.
81 *Ibid.,* Part IV.
82 *Ibid.,* Part V.

though it is not a legislative body per se. An illustrative example is provided by the IMO. The IMO possesses no power to adopt treaties by itself and the organ must convene diplomatic conferences for this purpose.[83] However, many instruments relating to the safety of navigation and the prevention of marine pollution have been adopted under the auspices of the IMO.[84] Those instruments may affect the interpretation and application of the relevant provisions of UNCLOS via 'rules of reference', if they became generally accepted international rules or standards. Of particular note in this context concerns the tacit acceptance procedure. According to the IMO, 'the "tacit acceptance" procedure provides that an amendment of a treaty is to enter into force at a particular time unless before that date, objections to the amendment are received from a specified number of parties'.[85] The tacit acceptance procedure contributes to speeding up the amendment process. Accordingly, this procedure has been used for the amendment of technical annexes of treaties adopted under the auspices of the IMO, such as the 1974 International Convention for the Safety of Life at Sea (SOLAS)[86] and the International Convention for the Prevention of Pollution from Ships (MARPOL).[87]

Second, international organisations can perform the legislative function.[88] Under UNCLOS, the best example can be provided by the International Seabed Authority (ISA).[89] The ISA can exercise prescription jurisdiction with regard to activities in the Area, that is, 'the seabed and ocean floor and subsoil thereof,

83 Article 2(b) of the 1948 Convention on the International Maritime Organisation. 289 *UNTS* 48. Entered into force 17 March 1958. See also Harrison (n 58), at pp. 154–199.

84 Chircop regarded the IMO as 'a quasi-legislative body'. Chircop (n 59), at p. 429. Further, see Zhen Sun, 'Unconventional Lawmaking in the Compliance Mechanism for the International Regulation of Shipping' in N Klein (ed.), *Unconventional Lawmaking in the Law of the Sea* (Oxford, Oxford University Press, 2022) 93–111.

85 IMO, 'Conventions: Adopting a Convention, Entry Into Force, Accession, Amendment, Enforcement, Tacit Acceptance Procedure' available at: https://www.imo.org/en/About/Conventions/Pages/default.aspx#:~:text=Instead%20of%20requiring%20that%20an,received%20from%20a%20specified%20number. See also Harrison (n 58), at p. 161.

86 SOLAS Article VIII(2). Adopted 1 November 1974. Entry into force 25 May 1980. Text in: 1184 *UNTS* 278.

87 MARPOL Article 16(2)(f)(iii). Adopted 2 November 1973. The Combined instrument of MARPOL and the 1978 Protocol entered into force on 2 October 1983.

88 Generally on this issue, see JE Alvarez, *International Organizations as Law-makers* (Oxford, Oxford University Press, 2005).

89 T Davenport, 'Formal and Informal Lawmaking by the International Seabed Authority: An Artificial Distinction?' in Klein (n 84), at pp. 183–209; Harrison (n 58), at pp. 115–153.

beyond the limits of national jurisdiction'.[90] Under Article 17(1) of Annex III UNCLOS:

> The Authority shall adopt and uniformly apply rules, regulations and procedures in accordance with article 160, paragraph 2(f)(ii), and article 162, paragraph 2(o)(ii), for the exercise of its functions as set forth in Part XI on, *inter alia,* the following matters.[91]

The ISA is also empowered to adopt appropriate rules concerning protection of human life,[92] protection of the marine environment,[93] installations used for carrying out activities in the Area,[94] the equitable sharing of financial and other economic benefits derived from activities in the Area and the payments and contributions made pursuant to Article 82.[95] Furthermore, the ISA has the power to adopt rules and regulations, including regulations relating to prospecting, exploration and exploitation in the Area under Articles 160(2)(f)-(ii) and 162(2)(o)-(ii) UNCLOS. To date, the ISA has issued three regulations:[96]

– Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (Polymetallic Nodules Regulations)[97]
– Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area (the Sulphides Regulations)[98]
– Regulations on Prospecting and Exploration for Cobalt-Rich Ferromanganese Crusts in the Area (Cobalt-Rich Crusts Regulations)[99]

In light of Articles 137 and 153 UNCLOS, the Regulations adopted by the ISA are binding on all members of the ISA.[100]

---

90 Article 1(1.1) UNCLOS. For the law-making power of the ISA, AL Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental Protection* (Leiden: Brill/Nijhoff, 2017), 143–148.

91 Such matters include: (a) administrative procedures relating to prospecting, exploration and exploitation in the Area; (b) operations; (c) financial matters; and (d) implementation of decisions taken pursuant to Article 151(10) and Article 164(2)(d) UNCLOS.

92 Article 146 UNCLOS.

93 Article 145 UNCLOS.

94 Article 147(2)(a) UNCLOS.

95 Article 160(2)(f)-(i) UNCLOS.

96 The electronic text of the regulations are available at: https://www.isa.org.jm/mining-code/exploration-regulations.

97 ISBA/6/A/18. Adopted on 13 July 2000. Amended in 2013. ISBA/19/C/17. The Regulations were revised and updated in 2013. ISA Doc. No ISBA/19/C/17 (2013).

98 ISBA/16/A/12/Rev.1. Adopted on 7 May 2010.

99 ISBA/18/A/11. Adopted on 27 July 2012.

100 Jaeckel (n 90), at p. 145.

A crucial issue that arises in this regard concerns the protection of the environment of the Area. As commercial exploitation of natural resources in the Area approaches, serious concerns have been raised with regard to adverse impacts of the exploitation of mineral resources on the environment of the deep seabed and marine ecosystems there.[101] The protection of the environment of the deep seabed and its marine ecosystems necessitate the making of new rules and regulation. In this regard, Article 145 UNCLOS requires the ISA to adopt appropriate rules, regulations and procedures for, inter alia:

(a) the prevention, reduction and control of pollution and other hazards to the marine environment, including the coastline, and of interference with the ecological balance of the marine environment, particular attention being paid to the need for protection from harmful effects of such activities as drilling, dredging, excavation, disposal of waste, construction and operation or maintenance of installations, pipelines and other devices related to such activities;

(b) the protection and conservation of the natural resources of the Area and the prevention of damage to the flora and fauna of the marine environment.[102]

Given that Article 145 explicitly refers to 'the ecological balance of the marine environment' as well as 'the flora and fauna of the marine environment', one can argue that rules, regulations and procedure include those relating to the protection of marine biological diversity in the Area.

In practice, the ISA has strengthened environmental dimensions of the legal regime governing the Area through the adoption of regulations and recommendations.[103] For example, the Regulations adopted by the ISA provides various environmental obligations, such as: submission of environmental

101 Some commentators have argued that the exploitation of mineral resources in the Area inevitably gives adverse impacts on marine ecosystems. HJ Niner et al, 'Deep-Sea Mining With NO Net Loss of Biodiversity: An Impossible Aim' (2018) 5 *Frontiers in Marine Science*, pp. 1–12. https://doi.org/10.3389/fmars.2018.00053; B Christiansen, A Denda, and S Christiansen, 'Potential effects of deep seabed mining on pelagic and benthopelagoc biota' (2020) 114 *Marine Policy*, pp. 1–12. https://doi.org/10.1016/j.marpol.2019.02.014

102 See also Article 17(1)(b)(ix) and (xii) of Annex III of the LOSC; International Seabed Authority, *Guidance to Facilitate the Development of Regional Environmental Management Plans* (*REMPS*) (2022), available at: https://www.isa.org.jm/wp-content/uploads/2022/12/2212509E.pdf. The prescriptive jurisdiction of the Authority is also provided by the 1994 Implementation Agreement. Section 1(5)(g) and (7) of Annex. See also section 1(5)(k) of Annex.

103 Jaeckel (n 90), at pp. 142–189.

baselines,[104] environmental impact assessment,[105] monitoring,[106] the application of the precautionary approach,[107] and best environmental practices.[108] Some of the obligations, that is, submission of environmental baselines, the precautionary approach and best environmental practices, are not provided in UNCLOS. Thus it can be observed that the ISA have further developed environmental norms set out in UNCLOS.

The legal regime governing the Area under UNCLOS is designed to promote the benefits of humankind as a whole through the exploitation of mineral resources in the Area.[109] However, the exploitation of mineral resources can damage the environment of the Area. In light of the prospect of commercial mining approaching, a tension between the exploitation and environmental protection of the Area is increasingly sharpened. A fundamental problem concerns the lack of scientific knowledge of the environment of the Area, including marine ecosystems. Arguably the exploitation of mineral resources in the Area inevitably gives adverse impacts on marine ecosystems.[110] Without knowledge of marine ecosystems, however, it is difficult if not impossible to take effective measures to protect the environment of the Area. Thus the European Parliament called on the European Commission and Member States to 'support an international moratorium on commercial deep-sea mining exploitation licences until such time as the effects of deep-sea mining on the marine environment, biodiversity and human activities at sea have been studied and researched sufficiently and all possible risks are understood'.[111]

---

104 Polymetallic Nodules Regulations (regulation 18(b)), Sulphides Regulations (regulation 20(b)), Cobalt-Rich Crusts Regulations (regulation 20(b)).

105 Polymetallic Nodules Regulation, Annex IV, section 5.2. See also Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area.

106 Polymetallic Nodules Regulations (regulation 31(6)), Sulphides and Cobalt-Rich Crusts Regulations (Regulations 33(6)).

107 Polymetallic Nodules Regulations (regulations 2(2), 5(1), 31(2) and (5)), Sulphides and Cobalt-Rich Crusts Regulations (Regulations 2(2), 5(1), 33(2) and (5)).

108 Polymetallic Nodules Regulations (regulation 31(2)), Sulphides and Cobalt-Rich Crusts Regulations (Regulations 5(1), 33(2) and (5)).

109 Article 140 UNCLOS.

110 HJ Niner et al (n 101), at pp. 1–12; B Christiansen, A Denda, and S Christiansen, 'Potential effects of deep seabed mining on pelagic and benthopelagoc biota' (2020) 114 *Marine Policy* 1–12. https://doi.org/10.1016/j.marpol.2019.02.014

111 European Parliament Resolution of 16 January 2018 on International Ocean Governance; An Agenda for the Future of our Oceans in the Context of the 2030 SDGs, para. 42, available at: https://www.europarl.europa.eu/doceo/document/TA-8-2018-0004_EN.html.

In light of the vulnerability of deep seabed biodiversity and its scientific value, there may be some scope to argue that the protection of the environment of the Area can be regarded as common interests of humankind. It is open to debate whether the exploitation of mineral resources in the Area without adequate scientific knowledge of the environment and marine ecosystems of the deep seabed would truly serve for the benefits of humankind as a whole. This situation does seem to urge reconsideration of the contents of the benefits of humankind.

De facto *Amendment of UNCLOS through SPLOS*

Finally, some consideration must be given to *de facto* amendment of UNCLOS through SPLOS.[112] The SPLOS is not a legislative body, but a forum for the specific tasks attributed to it by UNCLOS, that is, (i) the election of the members of the ITLOS,[113] (ii) determination of the salaries, (iii) allowances and compensations as well as retirement pensions of the members and of the Registrar of the Tribunal,[114] (iv) decision of the terms and manner concerning the expenses of the Tribunal,[115] and (v) the election of the members of the CLCS.[116] In practice, however, several provisions of UNCLOS have been, *de facto*, modified through the SPLOS.[117]

An example is provided by the amendment of the date of the first election of the members of ITLOS. Under Article 4(3) of Annex VI UNCLOS, the first election of ITLOS was to be held within six months of the date of entry into force of the Convention, which was 16 May 1995. In 1994, however, only sixty-three States had ratified UNCLOS, and most of the parties were developing States. In light of the situation, it appeared difficult to hold the election in accordance with the relevant provisions of UNCLOS, in particular Articles 2 and 3 of Annex VI, which require to ensure 'the representation of the principal legal systems of the world and equitable geographical distribution' and 'no fewer than three members from each geographical group as established by the General Assembly of the United Nations'. Accordingly, the first SPLOS decided

112 Tanaka (n 69), at pp. 41–43.
113 Annex VI, Article 4(4).
114 Annex VI, Article 18(5–7).
115 Annex VI, Article 19(1).
116 Annex II, Article 2(3).
117 See also I Buga, 'Between Stability and Change in the Law of the Sea Convention: Subsequent Practice, Treaty Modification, and Regime Interaction', in *Oxford Handbook*, 46–68, at pp. 55–57.

to postpone the first election of ITLOS from that date to 1 August 1996.[118] In 1996, it was also agreed by consensus that all of the seats of ITLOS would be allocated between the five geographical regions of the United Nations. The decision has been applied in subsequent elections to the Tribunal, even though there is no explicit legal basis in UNCLOS.[119] Subsequently, a new allocation of seats was agreed by consensus of the States Parties.[120]

Another example concerns the institution of the continental shelf beyond 200 nautical miles. In this regards, three amendments were made. The first amendment concerned the election of the members of the Commission on the Limits of the Continental Shelf (CLCS). Under Article 2(2) of Annex II UNCLOS, the initial election was to be held within eighteen months after the date of entry into force of the Convention, namely before 16 May 1996. While the State Party nominating a member of the CLCS shall defray the expenses of that member, developing States were reluctant to defray the expenses at that stage. Developed States also expressed their concern that they could not nominate an adequate number of experts to the CLCS because of the paucity of ratification of UNCLOS by developed States. In light of this, the SPLOS decided to postpone by a year the date of the first election of the CLCS till March 1997.[121] In 1997, the Meeting of the Parties adopted a decision concerning allocation of seats on the CLCS to particular geographical regions. The composition of the CLCS agreed by the States Parties in its decision deviated, albeit temporarily, from the requirements of Annex II UNCLOS.[122]

The second amendment related to the time limit to submit information to the CLCS. Under Article 4 of Annex II UNCLOS, a coastal State intending to establish the outer limits of its continental shelf beyond 200 nautical miles is required to submit particulars of such limits to the CLCS along with supporting data within ten years of the entry into force of the Convention for that State. Nonetheless, many countries have had difficulties complying with the time limit because of the lack of financial and technical resources. In response, SPLOS decided that the time limit of ten years should be taken as having commenced on 13 May 1999 for States for which the Convention had entered into force before that date.[123] Even so, still some coastal States, in particular

118 UN Convention on the Law of the Sea, Meeting of States Parties, SPLOS/3, 28 February 1995, p. 7, para. 16(a).

119 SPLOS/14. See also Harrison (n 58), at pp. 76–77.

120 SPLOS/201, 26 June 2009, para. 1. See also Harrison (n 58), at p. 77.

121 SPLOS/5, 22 February 1996, p. 7, para. 20.

122 Harrison (n 58), at p. 78.

123 SPLOS/73, 14 June 2001, pp. 11–13, paras. 67–84 (in particular, para. 81). The date of adoption of the Scientific and Technical Guidelines is 13 May 1999.

developing countries, face particular challenges in submitting information to the CLCS within the new time frame. In light of this, SPLOS further decided that the ten-year time period referred to in Article 4 of Annex II UNCLOS may be satisfied by submitting 'preliminary information' including a description of the status of preparation and intended date of making a submission.[124]

Third, in response to specific pandemic-related challenges, SPLOS decided to extend the five-year term of office of the current members of the CLCS by one year, only on an exceptional basis.[125]

The decisions of SPLOS above mentioned are not formal amendments using the amendment procedures set out in UNCLOS. Even so, it is undeniable that these decisions have had the practical effect of amending some provisions of the Convention.[126]

Analysis

The above considerations lead to the four observations.

First, amendment is an orthodox method of changing relevant provisions of a multilateral treaty to adapt it to new situations. However, the amendment procedures of UNCLOS, which has set out in Articles 312–316, are hard to use because of their complexity. While Article 313 makes it possible to propose an amendment to the UNCLOS without convening a conference, such a proposal can be deterred by only one objection. In light of the difficulty, to date, there has been no attempt to use the amendment procedures. Instead, UNCLOS is being developed or modified by multiple ways, without referring to the amendment procedures under the Convention.[127]

Second, since the adoption of UNCLOS, three agreements, namely, the 1994 Implementation Agreement, the 1995 Fish Stocks Agreement, and the 2023 BBNJ Agreement, have been concluded. The new agreements can offer a crucial means to develop or even change the existing rules of UNCLOS,[128] thereby enhancing resilience of UNCLOS. It can be observed that 'the UNCLOS system' is being formulated on the basis of UNCLOS and the treaties adopted subsequently.

Third, by offering a forum for negotiations, international organisations, such as the IMO, can contribute to developing new treaties, regulations, and guidelines relating to the interpretation or application of UNCLOS.

124 SPLOS/183, 20 June 2008, p. 2, para. 1(a).
125 SPLOS/31/10, 21 June 2021, p. 2, paras. 1–2; UN General Assembly, Oceans and the Law of the Sea: Report of the Secretary-General, A/76/311, 30 August 2021, p. 5, para. 23.
126 Harrison (n 58), at pp. 81–82; Tanaka (n 69), at p. 44.
127 Tanaka (n 69), at pp. 42–48.
128 Harrison (n 58), at p. 114.

Furthermore, the rules, regulations and procedures governing the activities in the Area evolve over time through the legislative activities of the ISA. Thus one can say that the legal regime governing the Area under UNCLOS is equipped with mechanisms for adapting itself to new circumstances. The legal instruments developed by international organisations also constitute part of the UNCLOS system.

Fourth, it can be observed that some technical procedures of UNCLOS have been *de facto* amended through SPLOS. In so doing, State Parties to UNCLOS have responded to challenges concerning the composition of ITLOS and procedures for CLCS in a flexible manner. At the same time, it must be noted that *de facto* amendments of UNCLOS are limited to technical issues only. It appears difficult to amend substantive provisions of UNCLOS through SPLOS without using the amendment procedures set out in the Convention.

Resilience through the Jurisprudence

This section examines three modes of ensuring resilience through the jurisprudence: (re-)interpretation of provisions of UNCLOS, judicial creativity by the creative interpretation of UNCLOS, and judicial creativity by institutional circularity.

(*Re-*)*interpretation of Relevant Provisions in a Contemporary Context*

By (re-)interpretating relevant provisions of UNCLOS, an international court or tribunal can provide a contemporary meaning to the provisions concerned. In so doing, an adjudicative body can contribute to enhancing resilience of UNCLOS. The systemic interpretation of Article 192 UNCLOS by the Annex VII arbitral tribunal in the *South China Sea* arbitration is an example. By incorporating a due diligence obligation to prevent the harvesting of endangered species, the obligation set out in Article 192 is much strengthened. Furthermore, ITLOS, in its Advisory Opinion of 2011, took the view that 'the precautionary approach is also an integral part of the general obligation of due diligence'.[129] Following this interpretation, the precautionary approach is to be incorporated into Article 192 via an obligation of due diligence, even though UNCLOS contains no provision concerning the application of that approach. Related to this,

129 *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*, Advisory Opinion of 1 February 2011, ITLOS Case No. 17, *ITLOS Reports 2011*, 46, para. 131.

ITLOS considered that the precautionary approach can be taken into account in treaty interpretation in light of Article 31(3)(c) of the Vienna Convention.[130]

Moreover, ITLOS Seabed Disputes Chamber, in the 2011 Advisory Opinion, stated:

> Each State Party may also be entitled to claim compensation in light of the *erga omnes* character of the obligations relating to preservation of the environment of the high seas and in the Area.[131]

As Article 192 covers the oceans as a whole, there may be some scope to consider that the obligation to protect the marine environment as a whole constitutes an obligation *erga omnes partes*.[132] In light of the *erga omnes* nature, arguably all States, including States that are not directly injured, can have *locus standi* to invoke responsibility for a breach of the obligation to protect and preserve the marine environment before an international court or tribunal, where that court or tribunal can establish its jurisdiction.[133] Overall it would appear that adjudicative bodies acting under Part XV UNCLOS have strengthened environmental obligations under the Convention in keeping with the progress of rules of international law governing the protection of the marine environment.[134]

Judicial Creativity by the Interpretation of the Relevant Rules

In exceptional circumstances, an adjudicative body expands the scope of its jurisdiction by creative interpretation of relevant provisions of UNCLOS. An illustrative example is provided by advisory jurisdiction of ITLOS as a full court. UNCLOS contains no provision concerning advisory jurisdiction of ITLOS as a full court. Then, is it possible for ITLOS as a full court to give an advisory

130 *Ibid.,* at p. 47, para. 135.

131 *Ibid.,* at p. 59, para. 180. Strictly speaking, the reference to '[e]ach State Party' implies that the obligation relating to preservation of the environment of the high seas and the Area is an obligation *erga omnes partes*. Y Tanaka, 'Legal Consequences of Obligations *Erga Omnes* in International Law' (2021) 68(1) *Netherlands International Law Review* 1–33, at p. 5.

132 Harrison (n 58), at pp. 24–25.

133 Chandrasekhara Rao and Philippe Gautier, *The International Tribunal for the Law of the Sea: Law, Practice and Procedure* (Edward Elgar, 2018) 327; Institut de Droit International, 'Resolution: Obligations *Erga Omnes* in International Law' (Krakow Session 2005) Article 3, available at https://www.idi-iil.org/app/uploads/2017/06/2005_kra_01_en.pdf; Dissenting Opinion of Judge Crawford in *Obligations concerning Negotiations relating to Cessation of the Nuclear Arms Race and to Nuclear Disarmament* (*Marshall Islands v UK*), Preliminary Objections, *ICJ Reports 2016*, 1102, para. 22; Tanaka (n 131), at pp. 120–24.

134 Lan Ngoc Nguyen (n 5), at p. 256.

opinion? Actually this issue was raised in *Request for an Advisory Opinion submitted by the Sub-Regional Fisheries Commission* (SRFC).[135]

By letter dated 27 March 2013, the SRFC requested ITLOS as a full court to give an advisory opinion with regard to the obligation of the flag State in combatting illegal, unreported and unregulated (IUU) fishing activities pursuant to a resolution adopted by the Conference of Ministers of the SRFC at its fourteenth session, held on 27 and 28 March 2013.[136] The resolution was adopted in accordance with Article 33 of the 1993 Convention on the Determination of the Minimal Conditions for Access and Exploitation of Marine Resources within the Maritime Areas under Jurisdiction of the Member States of the Sub-Regional Fisheries Commission (MAC Convention)[137] and Articles 138 of the Rules of the Tribunal.[138] Thus ITLOS had to address the legal basis of advisory opinion of ITLOS as a full court.

When considering this question, ITLOS focused on the combined effect of Article 21 of the ITLOS Statute and 'any other agreement' conferring jurisdiction on the Tribunal. Under Article 21:

> The jurisdiction of the Tribunal comprises all disputes and all applications submitted to it in accordance with this Convention and all matters specifically provided for in any other agreement which confers jurisdiction on the Tribunal.

In this regard, the term 'matters' is key. In the view of the Tribunal:

> The words all "matters" ("toutes les fois que cela" in French) should not be interpreted as covering only "disputes", for, if that were to be the case, article 21 of the Statute would simply have used the word "disputes". Consequently, it must mean something more than only "disputes". That something more must include advisory opinions, if specifically provided for in "any other agreement which confers jurisdiction on the Tribunal."[139]

135 *Request for an Advisory Opinion submitted by the Sub-Regional Fisheries Commission* (SRFC) (*Request for advisory opinion submitted to the Tribunal*), *ITLOS Reports 2015*, p. 4 (the 2015 ITLOS Advisory Opinion).

136 *Ibid.,* at p. 6, para. 1.

137 Adopted 8 June 2012. Entry into force 16 September 2012. The text is available at: https://spcsrp.org/en/legal-instruments

138 The 2015 ITLOS Advisory Opinion (n 135), at pp. 6–9, para 2.

139 *Ibid,* at p. 21, para 56.

In this connection, the Tribunal made an important statement:

> The Tribunal wishes to clarify that the expression 'all matters specifically provided for in any other agreement which confers jurisdiction on the Tribunal' does not by itself establish the advisory jurisdiction of the Tribunal. In terms of article 21 of the Statute, it is the 'other agreement' which confers such jurisdiction on the Tribunal. When the 'other agreement' confers advisory jurisdiction on the Tribunal, the Tribunal then is rendered competent to exercise such jurisdiction with regard to 'all matters' specifically provided for in the 'other agreement'. *Article 21 and the 'other agreement' conferring jurisdiction on the Tribunal are interconnected and constitute the substantive legal basis of the advisory jurisdiction of the Tribunal.*[140]

In light of this, ITLOS as a full court, in its Advisory Opinion of 2 April 2015, unanimously declared that it had jurisdiction to give the advisory opinion requested by the SRFC.[141]

As discussed elsewhere,[142] however, the Tribunal's interpretation of the term 'matters' under Article 21 of the ITLOS Statute is debatable. According to Virginia Commentaries, Article 21 mirrors Article 36(1) of the Statute of the ICJ.[143] Although Article 36(1) refers to the words 'all matters', this provision has not been interpreted as conferring the advisory jurisdiction to the ICJ.[144] It is open to debate whether the combination of Article 21 of the Rules of the Tribunal and 'any other agreement' conferring jurisdiction on ITLOS can provide a solid legal basis for the advisory opinion of ITLOS as a full court. If the interpretation of ITLOS is correct, theoretically the Tribunal could have jurisdiction over 'all matters', including matters which fall outside scope of

140 Emphasis added. *Ibid,* at p. 22, para. 58.

141 *Ibid,* at p. 62, para. 219(1).

142 For the author's view on this matter, see Y Tanaka, 'Reflections on the Advisory Jurisdiction of ITLOS as a Full Court: The ITLOS Advisory Opinion of 2015' (2015) 14 *The Law and Practice of International Courts and Tribunals* 318–339. See also M Lando, 'The Advisory Jurisdiction of the International Tribunal for the Law of the Sea: Comments on the Request for an Advisory Opinion Submitted by the Sub-Regional Fisheries Commission' (2016) 29 *Leiden Journal of International Law* 441–461; A Proelss, 'Advisory Opinion: International Tribunal for the Law of the Sea' in *Max Planck Encyclopaedias of International Law* (Oxford University Press, online).

143 Myron Nordquist et al (eds), *United Nations Convention on the Law of the Sea: A Commentary* (Virginia Commentaries), Vol. V (1989), 378.

144 Written Statement of the Portuguese Republic, 27 November 2013, para 10.

the law of the sea, if 'any other agreement' provided for the Tribunal to have jurisdiction.[145] Yet it is highly debatable whether the drafters of UNCLOS intended to take such an unreasonable interpretation.[146] Indeed, according to Lekkas and Staker, 'an advisory function for the Tribunal was not even proposed during the Third Conference on the Law of the Sea'.[147] This view was shared by other commentators.[148] Accordingly, a Virginia commentary clearly states that: '[T]he Tribunal itself has no advisory jurisdiction'.[149] Furthermore, it is hard to consider that advisory jurisdiction can be considered as inherent jurisdiction of an international court or tribunal.[150] Nor is it possible to consider that ITLOS was newly conferred the advisory jurisdiction through the subsequent practice of the parties to the LOSC.[151]

Overall it may have to be admitted that the leal basis of advisory jurisdiction of ITLOS as a full court remains fragile.[152] In this regard, ITLOS did not apply any rules of treaty interpretation set out in Article 31 of the Vienna Convention.[153] The Tribunal's interpretation must be regarded as 'judicial creativity' or even 'judicial innovation'.[154] It may be said that ITLOS responded to the question unknown at the time of the adoption of UNCLOS through the creative interpretation of the Convention.

145 Written Statement of the United States of America, 27 November 2013, para 25. See also Written Statement of Australia, 28 November 2013, para 14.

146 See Declaration of Judge Cot, *ITLOS Reports 2015*, p. 73, para. 3.

147 S-I Lekkas and C Staker, 'Article 21 Annex VI' in A Proelss (ed), *United Nations Convention on the Law of the Sea: A Commentary* (Beck Nomos and Hart, 2017) 2381, para 16.

148 Miguel García García-Revillo, The Contentious and Advisory Jurisdiction of the International Tribunal for the Law of the Sea (Nijhoff, 2015) 311; Lando (n 142), at pp. 450–451.

149 Myron Nordquist et al (eds.), *United Nations Convention on the Law of the Sea: A Commentary*, Vol. V (1989) 416. *Ibid.,* Vol. VI (2002), 644. In his pioneering book, Adede also states that '[t]he Law of the Sea Tribunal itself has no advisory jurisdiction'. AO Adede, *The System for Settlement of Disputes under the United Nations Convention on the Law of the Sea: A Drafting History and a Commentary* (Dordrecht, Nijhoff, 1987) 196.

150 H Thirlway, 'Advisory Opinions' in R Wolfrum (ed.), *Max Planck Encyclopaedia of Public International Law*, para. 4 (Online ed). This view was echoed by Oellers-Frahm. Karin Oellers-Frahm, 'Lawmaking Through Advisory Opinion' (2011) 12 *German Law Journal* 1033–1056, at p. 1033; T Ruys and A Soete, '"Creeping" Advisory Jurisdiction of International Courts and Tribunals? The Case of the International Tribunal for the Law of the Sea' (2016) 29 *Leiden Journal of International Law* 155–176, at p. 160.

151 Lando (n 142), at p. 449. See also Tanaka (n 142), at p. 331.

152 Proelss (n 142), at para. 32; Tanaka (n 142), at p. 339.

153 Lan Ngoc Nguyen (n 5), at p. 242.

154 Tanaka (n 142), at p. 333.

Judicial Creativity by Institutional Circularity

Finally, judicial creativity by institutional circularity must be examined.[155] An illustrative example on this matter is provided by development of the interpretation of Articles 74(1) and 83(1) UNCLOS. These provisions provide the identical rules for the delimitation of the continental shelf and of the EEZ:

> The delimitation of the exclusive economic zone [the continental shelf] between States with opposite and adjacent coasts shall be effected by agreement on the basis of international law, as referred to in Article 38 of the Statute of the International Court of Justice, in order to achieve an equitable solution.

Articles 74(1) and 83(1) were formulated as compromise between the supporters of 'equidistance' and the supporters of 'equitable principles'.[156] Hence these provisions omit any reference to a method of delimitation. As a consequence, as the ICJ observed in the *Somalia v Kenya* case, these provisions 'are of very general nature and do not provide much by way of guidance for those involved in the maritime delimitation exercise'.[157] In the words of Judge Gros, these provisions are merely 'an empty formula'.[158] However, the interpretation of Articles 74(1) and 83(1) has been elaborated through the jurisprudence concerning maritime delimitations. In this regard, two turning points merit being highlighted.

The first turning point was the 1993 *Jan Mayen* case between Denmark vis-à-vis Greenland and Norway.[159] Before the *Jan Mayen* case, with some exceptions, international courts and tribunals have been reluctant to incorporate the

155 On this issue, see also E Ivanova, 'The Cross-Fertilization of UNCLOS, Custom and Principles Relating to Procedure in the Jurisprudence of UNCLOS Courts and Tribunals' (2019) 22 *Max Planck Yearbook of United Nations Law* 142–170.

156 For a detailed legislative history of these provisions, see *Virginia Commentary*, vol. 2 (Dordrecht, Nijhoff, 1993) 796–819 and 948–985; SP Jagota, *Maritime Boundary* (Dordrecht, Nijhoff, 1985) 219–272; GJ Tanja, *The Legal Determination of International Maritime Boundaries* (Deventer, Kluwer, 1990) 81–116; Dissenting Opinion of Judge Oda in the *Tunisia/Libya* case, *ICJ Reports 1982*, pp. 234–247, paras. 131–145.

157 *Maritime Delimitation in the Indian Ocean* (*Somalia v Kenya*), Judgment, *ICJ Reports 2021*, p. 250, para. 121.

158 Dissenting Opinion of Judge Gros in the *Gulf of Maine* case. Delimitation of the Maritime Boundary in the Gulf of Maine Area (Canada/United States), *ICJ Reports 1984*, p. 365, para. 8.

159 *Maritime Delimitation in the Area between Greenland and Jan Mayen* (*Denmark v. Norway*), *ICJ Reports 1993*, p. 38. See also M Lando, *Maritime Delimitation as a Judicial Process* (Cambridge, Cambridge University Press, 2019) 20.

equidistance method in the law of the maritime delimitation.[160] In the *Jan Mayen* case, however, the ICJ, for the first time in its jurisprudence, applied the corrective-equity approach under customary international law. According to this approach, a provisional equidistance line is to be drawn at a first stage, and an adjustment of the equidistance line in light of relevant circumstances is to be envisaged at a second stage.

In this case, first, the ICJ equated Article 6 of the Convention on the Continental Shelf with customary law by relying on a passage of the 1977 award of the Court of Arbitration in the *Anglo-French Continental Shelf* case.[161] Second, with respect to the law applicable to the FZ, the Court equated the customary law applicable to the fisheries zone (FZ) with that governing the EEZ on the basis of the agreement of the Parties.[162] Third, quoting the *Anglo-French Continental Shelf* arbitral award, the Court equated the law of continental shelf delimitation with that of the FZ at the customary law level. There, the Court took the view that 'both for the continental shelf and for the fishery zones in this case, it is proper to begin the process of delimitation by a median line provisionally drawn'.[163] Furthermore, the Court held:

> It cannot be surprising if an equidistance-special circumstances rule produces much the same result as an equitable principles-relevant circumstances rule in the case of opposite coasts, whether in the case of a delimitation of continental shelf, of fishery zone, or of an all-purpose single boundary.[164]

Subsequently, basically the Court's approach has been echoed by jurisprudence relating to maritime delimitations.

The second turning point was the 2009 *Black Sea* case.[165] In this case, the ICJ, for the first time in its jurisprudence, clearly formulated the so-called three-stage approach to maritime delimitations under Articles 74(1) and 83(1) UNCLOS. According to this approach, the process of maritime delimitation

160 Such a trend can be seen in the *North Sea Continental Shelf, the Tunisia/Libya, the Gulf of Maine, Libya/Malta, Guinea/Guinea-Bissau*, and *St Pierre and Miquelon* cases. For an analysis of these cases, see Y Tanaka, *Predictability and Flexibility in the Law of Maritime Delimitation* 2nd edn (Oxford, Hart Publishing, 2019), 47 et seq.

161 *ICJ Reports 1993*, p. 58, para. 46; p. 61, para. 51.

162 *Ibid.*, at p. 59, para. 47.

163 *Ibid.*, at p. 62, para. 53.

164 *Ibid.*, at para. 56.

165 *Maritime Delimitation in the Black Sea* (*Romania v. Ukraine*), *ICJ Reports 2009*, p. 61. See also Land (n 159), at pp. 21–22.

will be divided into three stages.[166] The first stage is to establish the provisional delimitation line. It is an equidistance line, 'unless there are compelling reasons that make this unfeasible in the particular case'.[167] At the second stage, the Court is to assess whether there are relevant circumstances calling for the adjustment of the provisional equidistance line in order to achieve an equitable result.[168] At the third and final stage, the Court will verify whether the delimitation line does not lead to an inequitable result by applying the test of disproportionality.[169] Subsequently the three-stage approach has been applied by the ICJ, ITLOS and Annex VII arbitral tribunals in subsequent cases concerning maritime delimitations.

Notably, the three-stage methodology has been developed only through the jurisprudence, independent of State practice.[170] As the ICJ stated in the *Somalia v Kenya* judgment, '[s]ince the adoption of the Convention [UNCLOS], the Court has gradually developed a maritime delimitation methodology to assist it in carrying out its task'.[171] In this regard, referring to many precedents of the ICJ, ITLOS and the Annex VII arbitral tribunal,[172] the ICJ, in the *Somalia v. Kenya* case, observed:

> [T]he three-stage methodology is not prescribed by the Convention and therefore is not mandatory. It has been developed by the Court in its jurisprudence on maritime delimitation as part of its effort to arrive at an equitable solution, as required by Articles 74 and 83 of the Convention.[173]

166 *ICJ Reports 2009*, at pp. 101–103, paras. 115–122.

167 *Ibid.*, at p. 101, para. 116.

168 *Ibid.*, at pp. 101–103, paras. 120–121.

169 *Ibid.*, at p. 103, para. 122.

170 Tanaka (n 160), at pp. 447–448.

171 *ICJ Reports 2009,* p. 250, para. 122.

172 These cases are: *Maritime Delimitation in the Black Sea* (*Romania* v. *Ukraine*)*, Judgment, ICJ Reports 2009*, p. 101, paras. 115 *et seq.*; *Territorial and Maritime Dispute* (*Nicaragua* v. *Colombia*)*,* Judgment, *ICJ Reports 2012* (*II*), p. 695, para. 190; *Maritime Dispute* (*Peru* v. *Chile*)*,* Judgment*, ICJ Reports 2014*, p. 65, para. 180; *Maritime Delimitation in the Caribbean Sea and the Pacific Ocean* (*Costa Rica* v. *Nicaragua*) and *Land Boundary in the Northern Part of Isla Portillos* (*Costa Rica* v. *Nicaragua*)*,* Judgment, *ICJ Reports 2018* (*I*), p. 190, para. 135); *Delimitation of the Maritime Boundary in the Bay of Bengal* (*Bangladesh/Myanmar*)*,* Judgment, *ITLOS Reports 2012*, p. 67, para. 239; *Bay of Bengal Maritime Boundary Arbitration* (*Bangladesh* v. *India*)*, Award of 7 July 2014,* (2019) 32 *RIAA*, p. 106, para. 346; *Delimitation of the Maritime Boundary in the Atlantic Ocean* (*Ghana/Cote d'Ivoire*)*,* Judgment, *ITLOS Reports 2017*, p. 96, para. 324.

173 The *Somalia v Kenya* case, *ICJ Reports 2021*, p. 251, para. 128.

Furthermore, the Annex VII arbitral tribunal, in the *Bangladesh v. India* case, held:

> The ensuing—and still developing—international case law constitutes, in the view of the Tribunal, an *acquis judiciaire*, a source of international law under article 38(1)(*d*) of the Statute of the International Court of Justice, and should be read into articles 74 and 83 of the Convention.[174]

Overall it can be observed that the formulation of the three-stage methodology under Articles 74(1) and 83(1) can be considered as an example of judicial creativity on the basis of institutional circularity. As a consequence, a specific method of maritime delimitations, that is, the equidistance method, is incorporated into Articles 74(1) and 83(1). The equidistance method is regarded as the predictable method of maritime delimitation in the sense that once base points are fixed, the delimitation line is to be objectively determined.[175] Incorporating the objective method of maritime delimitation into Articles 74(1) and 83(1) can contribute to enhancing the predictability of the law of maritime delimitation. In this regard, the ICJ, in the *Somalia v Kenya* case, stated:

> The methodology is based on objective, geographical criteria, while at the same time taking into account any relevant circumstances bearing on the equitableness of the maritime boundary. It has brought predictability to the process of maritime delimitation and has been applied by the Court in a number of past cases.[176]

The three-stage methodology would provide a legal framework for balancing predictability and flexibility,[177] which is at the heart of the law of maritime delimitation.[178] It would be fair to say that Articles 74(1) and 83(1) UNCLOS reach a certain normative level that can deal with various cases concerning maritime delimitations through the jurisprudence. In other words, the provisions could obtain resilience to respond to various situations of maritime delimitations through the jurisprudence.

174 The *Bangladesh v India* case, (2019) 32 *RIAA*, p. 105, para. 339.
175 HWA Thirlway, *The Law and Procedure of the International Court of Justice: Fifty Years of Jurisprudence*, Vol. 1 (Oxford University Press, 2013), 518; Tanaka (n 160), at p. 188, footnote 2.
176 The *Somalia v Kenya* case, *ICJ Reports 2021*, p. 251, para. 128.
177 Tanaka (n 160), at p. 170.
178 *Ibid.,* at p. 4.

The validity of judicial creativity by institutional circularity relies on an appropriate reference to precedents. However, there is no guarantee that in the jurisprudence, reference to precedents by adjudicative bodies would always be appropriate. An illustrative example may be provided by the assessment of a cut-off effect created by the concavity of the coastline in the *Somalia v Kenya* case. In this case, by applying the three-stage methodology, the ICJ constructed a provisional equidistance line at the first stage of maritime delimitation. Then, at the second stage, the Court examined whether there are relevant circumstances requiring the adjustment of the provisional equidistance line in order to achieve an equitable solution.[179] There, a cut-off effect created by the concavity of the coastline was at issue.

According to the Court, 'the concavity of the coastline may be a relevant circumstance for the purposes of delimitation "when such concavity lies within the area to be delimited."'[180] In this regard, the Court assessed the potential cut-off effect in a broader geographical configuration, taking Tanzania's coastline.[181] In the view of the Court:

> When the mainland coasts of Somalia, Kenya and Tanzania are observed together, as a whole, the coastline is undoubtedly concave, ... Kenya faces a cut-off of its maritime entitlements as the middle State located between Somalia and Tanzania. The presence of Pemba Island, a large and populated island that appertains to Tanzania, accentuates this cut-off effect because of its influence on the course of a hypothetical equidistance line between Kenya and Tanzania.[182]

For the Court:

> The provisional equidistance line between Somalia and Kenya progressively narrows the coastal projection of Kenya, substantially reducing its maritime entitlements within 200 nautical miles. This cut-off effect occurs as a result of the configuration of the coastline extending from Somalia to Tanzania, independently of the boundary line agreed between Kenya and Tanzania, which in fact mitigates that effect in the south, in the exclusive economic zone and on the continental shelf up to 200 nautical miles.[183]

179 The *Somalia v Kenya* case. *ICJ Reports 2021*, p. 260, para. 147.
180 *Ibid.,* at p. 266, para. 164.
181 Judge Abraham called the Court's approach a 'macro-geographical' approach. Separate Opinion of Judge Abraham, *ibid.,* at p. 290, para. 11.
182 Judgment, *ibid.,* p. 267, para. 167.
183 *Ibid.,* at pp. 267–268, para. 169.

An issue that arose here concerns the validity of the Court's 'macro-geographical' approach. According to the Court, '[e]xamining the concavity of the coastline in a broader geographical configuration is consistent with the approach taken by this Court and international tribunals.'[184] To support its view, the Court referred to the *North Sea Continental Shelf* cases. In the cases, however, all three States, that is, the Netherlands, Denmark, and Germany, were parties before the ICJ.[185] Accordingly, the concavity of the German coastline lies within the area to be delimited. In the *Somalia v Kenya* case, however, Tanzania was not a party before the Court. Accordingly, it is open to debate whether the concavity of Kenya's coastline lies within the area to be delimited.[186] In light of this, the Court's reliance on the *North Sea Continental Shelf* cases seems to have been misplaced.[187]

In this context, the ICJ, in the *Somalia v Kenya* judgment, also invoked the *Bangladesh/Myanmar*, *Bangladesh v India*, and *Guinea/Guinea-Bissau* cases.[188] ITLOS, in the *Bangladesh/Myanmar* case, considered that 'the coast of Bangladesh, seen as a whole, is manifestly concave.'[189] Nonetheless, ITLOS did not refer to the coastline of India.[190]

In the *Bangladesh v India* case, the Annex VII arbitral tribunal took into account 'any compensation Bangladesh claims it is entitled to due to any inequity it suffers in its relation to India as a result of its concave coast and its location in the middle of two other States, sitting on top of the concavity of the Bay of Bengal.'[191] When assessing the effect of the provisional equidistance line on the seaward projections of the west-facing coast of Bangladesh, however, the arbitral tribunal focused on the Bangladesh's coast only and it did not refer to Myanmar's coastline.[192] In fact, it stressed that '[t]his Tribunal will, therefore, base its decision solely on consideration of the relationship between Bangladesh and India and their respective coastlines.'[193]

184 Judgment, *ibid.,* at p. 266, para. 165.

185 Separate Opinion of Judge Yusuf, *ibid.,* at p. 305, para. 34; Individual Opinion, Partly Concurring and Partly Dissenting, of Judge Robinson, *ibid.,* at pp. 343–344, para. 31.

186 *Ibid.,* at p. 344, para. 32 and p. 343, para. 30.

187 *Ibid.,* at p. 344, para. 33.

188 Judgment, *ibid.,* at p. 266–267, paras. 166–167.

189 The *Bangladesh/Myanmar* case, *ITLOS Reports 2012*, p. 81, para. 291.

190 Separate Opinion of Judge Yusuf, *ibid.,* at p. 305, para. 35. See also M Lando and JJ Hébert, 'How to Complicate a Simple Case: The Judgment on the Merits in Maritime Delimitation in the Indian Ocean (Somalia v. Kenya)' (2022) 37 *IJMCL* 350–357, at pp. 355–356.

191 The *Bangladesh v India* case (n 174), at p. 123, para. 411.

192 *Ibid.,* at pp. 121–122, para. 407. The effect of the provisional equidistance line is depicted graphically in Map 6, *ibid.,* at p. 122. See also Separate Opinion of Judge Yusuf, *ibid.,* at p. 306, para. 36.

193 *Ibid.,* at p. 123, para. 411.

In the *Guinea/Guinea-Bissau* arbitration, the arbitral tribunal took overall account of the shape of West African coastline. However, the arbitral tribunal considered that the coastline of both Parties, i.e., Guinea and Guinea-Bissau, is concave.[194] Thus the *Guinea/Guinea-Bissau* arbitration must be distinguished from the *Somalia v Kenya* case where the concavity of Kenyan coastline alone was at issue. Furthermore, the arbitral tribunal did not apply the equidistance method in the first and second segments and draw a line perpendicular to general direction of the coast line in the third segment. Accordingly, the *Guinea/Guinea-Bissau* arbitration is not a case where a provisional equidistance line was adjusted in light of the concavity of the coastline.[195] In any case, as the Chamber of ITLOS rightly pointed out, it must be remembered that 'the approach taken by that Award [the *Guinea/Guinea-Bissau* arbitral award] was not followed by subsequent international jurisprudence.'[196] Overall there may be some scope to reconsider the question regarding whether the precedents referred to by the ICJ provide appropriate precedents to support the Court's macro-geographical approach taken in the *Somalia v Kenya* judgment.

Analysis

The above considerations lead to the two brief observations.

First, the effectiveness of the third approach relies on the validity of the interpretation of an adjudicative body. As shown in the ITLOS advisory opinion of 2015, however, opinions of the members of judges and/or commentators can be divided with regard to the validity of the creative interpretation. Furthermore, as demonstrated by the *Somalia v Kenya* judgment, some doubts can be expressed whether an international court or tribunal's reliance on the precedents was relevant. An inappropriate reliance on the precedents entails the risk of undermining the consistency and predictability of the jurisprudence concerning the application of relevant provisions of UNCLOS. This situation will also reduce the level of resilience of UNCLOS provisions.

Second, the proceedings of international adjudication can be triggered only when a dispute was submitted to an international court or tribunal. Needless to say, the jurisdiction of an international court or tribunal rests on the consent of parties in dispute. In this sense, international adjudication is essentially reactive.[197] Accordingly, it is difficult to adapt UNCLOS to new circumstances in a timely manner through the jurisprudence.

194 (1985) 25 *ILM*, pp. 294–295, para. 103. See also p. 297, para. 108.

195 Lando and Hébert (n 190), at p. 356.

196 The *Ghana/Côte d'Ivoire* case, *ITLOS Reports 2017*, p. 89, para. 287. See also Separate Opinion of Judge Yusuf, *ICJ Reports 2021*, p. 304, para. 33.

197 Hernádez (n 7), at p. 204.

Conclusion

The above considerations can be summarised in five points.

(1) There are multiple modes to ensure resilience of UNCLOS. The modes can be summarised under the three approaches:
   Approach I: Resilience through the interpretation
   - The systemic interpretation
   - The evolutionary interpretation
   - Rules of reference
   - Subsequent agreement and practice

   Approach II: Resilience through the law-making
   - Adoption of a new 'implementation' agreement
   - Law-making through international organisations
   - *De facto* amendments through the Meeting of the Parties

   Approach III: Resilience through the jurisprudence
   - (Re-)interpretation in a contemporary context
   - Judicial creativity through the creative interpretation
   - Judicial creativity by institutional circularity

(2) One can adapt relevant provisions of UNCLOS to new circumstances through the systemic and/or evolutionary interpretation. Furthermore, rules of reference can open the way to update relevant provisions of UNCLOS, by incorporating temporal elements, that is, change and development of generally accepted international rules and standards, into the provisions. By contrast, the threshold for accepting the existence of a subsequent practice and subsequent agreement is high. In light of this, it may be less easy to modify the interpretation of provisions of UNCLOS in order to meet new circumstances on the basis of subsequent agreement and practice.

(3) It can be observed that the UNCLOS system is being formulated on the basis of UNCLOS, the 1994 Implementation Agreement, the 1995 Fish Stocks Agreement, and the 2023 BBNJ Agreement, and other legal instruments adopted under the auspices of international organisations. The UNCLOS system can be viewed as a mechanism to flexibly adapt UNCLOS to new circumstances, thereby enhancing resilience of the Convention.

(4) Adjudicative bodies can contribute to adapting UNCLOS to new circumstances by (re-)interpretation of relevant rules of UNCLOS, creative interpretation, and judicial creativity by institutional circularity. However, it must be noted that international adjudication is essentially reactive. Hence there is no guarantee that one can elaborate or develop relevant rules of UNCLOS through the jurisprudence in a timely manner.

(5) The approaches and modes above mentioned are not mutually exclusive. Indeed, since international courts and tribunals perform a crucial role in the interpretation of UNCLOS, the first and third approaches are intimately intertwined. By combining multiple modes above mentioned, one can open the way to ensuring resilience of UNCLOS. Given that in international law, only UNCLOS can provide a global and general legal framework for the establishment of a legal order in the oceans, the maintenance of resilience of UNCLOS will continue to be a crucial issue in the international law of the sea.