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## Compliance with Science-Based Treaties

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### 7.1 Introduction

International law, from its very origins, has developed without a central authority. Consequently, mechanisms for settling disputes or for ensuring compliance with international treaties have not been uniform or even coordinated. There is a wide array of courts and tribunals for judicial settlement of international disputes. There are also multiple non-judicial mechanisms to address treaty breaches or non-compliance, to interpret treaty provisions, or for dispute prevention. Judicial dispute settlement is thus not the only means of ensuring adherence to treaty provisions.

International legal agreements in recent times, especially those on various environmental or other technical or scientifically complex subject matters, envisage mechanisms for facilitating, promoting, and enforcing compliance with the commitments undertaken by the parties to these treaties.<sup>1</sup> Such mechanisms for assessing the compliance of parties with their obligations under that treaty have been referred to as non-compliance mechanisms (NCMs). Such NCMs are usually non-confrontational. As such they are markedly different from judicial dispute settlement, which is adversarial or confrontational by its very nature. For this reason, these NCMs may provide innovative alternatives to traditional dispute resolution procedures.<sup>2</sup>

<sup>1</sup> See, e.g., Convention on International Trade in Endangered Species of Wild Fauna and Flora, signed 3 March 1973, entered into force 1 July 1975, 1453 UNTS 243 (CITES); Convention on Biological Diversity, signed 5 June 1992, 1760 UNTS 79; Cartagena Protocol on Biosafety to the Convention on Biological Diversity, signed 29 January 2000, entered into force 11 September 2003, 2226 UNTS 208; United Nations Framework Convention on Climate Change 1992, signed 9 May 1992, entered into force 21 March 1994, 1771 UNTS 107; Kyoto Protocol to the United Nations Framework Convention on Climate Change, signed 11 December 1997, entered into force 16 February 2005, 2303 UNTS 162.

<sup>2</sup> Y Lador, 'Access to Justice and Public Participation in the Water Sector: A Promising Legal Development' in M Tignino and K Sangbana (eds), *Public Participation and Water*

Another kind of treaty body often seen in international instruments of this nature is the Scientific Committee. Scientific committees have varying names under different treaty regimes.<sup>3</sup> This kind of committee, often with an advisory role, exists in treaty regimes related to, for example, environment and health, where scientific research is critically important to establishing agreed procedures and for effectively administering the treaty regime. Though not specifically established for the purposes of bringing about treaty compliance, these committees may make pronouncements that assist States to implement provisions of treaties or ascertain whether treaty obligations have been violated. This has the potential to go beyond mere application of treaty provisions, leading to the interpretation of certain (usually scientific) aspects of the treaty, thus overlapping to an extent with the powers of international courts or tribunals (ICTs) or avoiding recourse to them by pre-empting a dispute. The work of such committees and their impact is also examined in this chapter, along with NCMs and ICTs.

The focus on 'science-based' treaties in this chapter stems from the unique nature of the compliance issues that may arise in the context of treaties that govern complex technical or scientific subject matters. In the context of compliance with treaty obligations, a single treaty might provide for an NCM, provide for recourse to an ICT as a dispute settlement forum, and might also have a scientific committee whose role may involve indirectly interpreting treaty provisions. This chapter therefore analyses the various institutional contributions towards implementation and compliance of science-based treaties made through NCMs, other treaty bodies including scientific committees and dispute resolution before an ICT. The focus is on how best to address potential or actual treaty breaches, and the possible interactions among these different bodies.

Considering the evidently disparate natures of these processes – NCMs, the activities of scientific committees, and ICT dispute settlement – concerns exist with respect to the selection of members serving on the relevant bodies, their qualifications, expertise, and independence. Some of these concerns may arise out of a perception that scientific committees of a treaty would tend to be biased in favour of conservation

*Resources Management: Where Do We Stand in International Law? International Conference, Geneva 13 December 2013 Proceedings* (UNESCO 2015) 147–53, 150.

<sup>3</sup> These include the Scientific Committee of the International Whaling Commission (IWC) and the Commission on Conservation of Southern Bluefin Tuna (CCSBT). See Section 7.3.

or protection of the environment, while on the other hand, judges of ICTs may be considered less qualified to rule on matters involving scientific issues. The way in which judicial decision-making works, as distinct from a scientific body feeding its views into issues of treaty compliance, may also lead to particular questions of legitimacy of the outcome. It is however unclear which options may lend themselves to greater legitimacy. Would a judicial process with all its trappings of due process and reasoned decision-making, or the recommendation of a group of individuals with technical expertise in the relevant subject matter be more legitimate? Is it perhaps a combination of both?

This chapter takes a look at the various modes of enhancing the compliance of State parties with treaty obligations – whether with the aid of ICTs, scientific committees, or NCMs. In doing so, the chapter examines how procedures in NCMs, scientific committees, and international courts relate to each other and how they may operate in conjunction with one another. Scientific committees, on the one hand, and ICTs, on the other, are not presented as two dispute settlement choices emanating from a fork-in-the-road clause. Their spheres of influence may operate independently of each other in the treaty system. They may also be arranged sequentially with a committee serving as a first step in efforts to clarify facts about obligations and facilitate compliance, or to address a difference before it becomes a dispute.

A question that arises in this context is whether a judicial body should decide a case in the situation where there exists an expert scientific body under the relevant treaty, such as the International Whaling Commission (IWC) or the Commission on the Limits of the Continental Shelf (CLCS) under the UN Convention for the Law of the Sea (UNCLOS). Should an ICT necessarily defer to a competent scientific body, or can it decide not to rule on the issue?

It could be argued that in the *Whaling* case,<sup>4</sup> the definitive assessment of Japan's actions should have been undertaken by the Scientific Committee of the IWC, a body truly competent to do so.<sup>5</sup> Similarly, in the *Bay of Bengal* delimitation case, the International Tribunal for the Law of the Sea (ITLOS) determined that it was able to delimit the continental shelf between the parties in the area beyond 200 nautical

<sup>4</sup> *Whaling in the Antarctic (Australia v Japan: New Zealand intervening)*, Judgment [2014] ICJ Reports 226.

<sup>5</sup> *Whaling in the Antarctic (Australia v Japan: New Zealand intervening)*, Judgment, Dissenting Opinion of Judge Bennouna [2014] ICJ Reports 341, 346.

miles ('nm') from the respective States' coasts, notwithstanding the role of the CLCS in issuing recommendations to States regarding the outer limits of the continental shelf.<sup>6</sup> The International Court of Justice (ICJ) adopted a similar approach in *Delimitation of the Continental Shelf between Nicaragua and Colombia beyond 200 Nautical Miles*.<sup>7</sup> In this context it is useful to remember the words of Arbitrator Wolfrum in the *Chagos* arbitration, in the context of leaving matters of scientific debate to scientists – 'lawyers can do nearly everything'.<sup>8</sup> It is clear from the jurisprudence, and it is also the author's opinion, that a judicial body is well within its jurisdictional limits to decide a legal dispute having scientific aspects.<sup>9</sup> It is indeed a fulfilment of its judicial function.

This chapter first examines NCMs (Section 7.2) and scientific committees (Section 7.3) in a range of treaties that cover environmental or other issues of a scientific character. This is followed by an examination of reference to ICTs for dispute settlement in the context of violations of treaties that also have an NCM alternative or a scientific committee making pronouncements on overlapping issues (Section 7.4). Thereafter, the chapter engages in a further discussion with specific case studies involving the crossing of paths between ICTs and certain scientific committees (Section 7.5). The chapter ends with concluding observations arising out of this analysis (Section 7.6).

## 7.2 Non-Compliance Mechanisms and Their Contribution to Compliance

This section provides an overview of compliance mechanisms (NCMs),<sup>10</sup> their working methods generally and in specific contexts, the scope of

<sup>6</sup> *Delimitation of the Maritime Boundary in the Bay of Bengal (Bangladesh/Myanmar)*, Judgment [2012] ITLOS Reports 4, 107.

<sup>7</sup> *Question of the Delimitation of the Continental Shelf between Nicaragua and Colombia beyond 200 Nautical Miles from the Nicaraguan Coast (Nicaragua v Colombia)*, Preliminary Objections, Judgment [2016] ICJ Reports 100, 137.

<sup>8</sup> *Chagos Marine Protected Area Arbitration (Mauritius v United Kingdom)*, Hearing Transcript Day 11, available at [pcacases.com/web/sendAttach/1581](http://pcacases.com/web/sendAttach/1581) (accessed 22 November 2022) 1344.

<sup>9</sup> Scientific aspects would include those issues that involve diverging views on science and may require specialised scientific knowledge for their resolution.

<sup>10</sup> See, e.g., T Stephens, *International Courts and Environment Protection* (Cambridge University Press 2009) 81–89; T Treves, L Pineschi, A Tanzi et al. (eds), *Non-Compliance Procedures and Mechanisms and the Effectiveness of International Environmental Agreements* (TMC Asser Press 2009); M Fitzmaurice and P Merkouris,

their powers, and the nature of their pronouncements, that is, the outcome of the compliance procedure.

NCMs in the form of compliance committees (with some having wider powers) can often be found in treaties, conventions, or protocols relating to the environment, or scientific issues generally (such as technical aspects of health, food, and agriculture). These include, *inter alia*, the Aarhus Convention,<sup>11</sup> the Kyoto Protocol,<sup>12</sup> the Kiev Protocol,<sup>13</sup> the London Protocol on Water and Health,<sup>14</sup> the Convention on the Conservation of Antarctic Marine Living Resources,<sup>15</sup> the Basel Convention on Transboundary Movement of Hazardous Wastes,<sup>16</sup> the Paris Agreement,<sup>17</sup> and the International Treaty on Plant Genetic Resources for Food and Agriculture.<sup>18</sup>

Non-compliance committees such as those under the above-mentioned conventions and protocols are generally established to review compliance under that protocol or treaty. An NCM commonly goes through the following steps. Review of a party's compliance may be

'Environmental Compliance Mechanisms' (*Oxford Bibliographies Online*, 2021) <http://doi.org/10.1093/obo/9780199796953-0010>.

- <sup>11</sup> Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, signed 25 June 1998, entered into force 29 October 2001, 2161 UNTS 447.
- <sup>12</sup> Kyoto Protocol to the United Nations Framework Convention on Climate Change.
- <sup>13</sup> Protocol on Pollutant Release and Transfer Registers to the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, signed 21 May 2003, entered into force 8 October 2009, 2626 UNTS 119.
- <sup>14</sup> Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 17 June 1999, entered into force 4 August 2005, 2331 UNTS 202.
- <sup>15</sup> Standing Committee on Implementation and Compliance, established by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) with terms of reference available at [www.ccamlr.org/en/system/files/e-pt8\\_0.pdf](http://www.ccamlr.org/en/system/files/e-pt8_0.pdf) (accessed 11 November 2022). The CCAMLR was established under Article VII, Convention for the Conservation of Antarctic Marine Living Resources, signed 20 May 1980, entered into force 7 April 1982, 1329 UNTS 47.
- <sup>16</sup> Implementation and Compliance Committee, established by the Conference of Parties under Article 15, Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, signed 22 March 1989, entered into force 5 May 1992, 1673 UNTS 57.
- <sup>17</sup> Paris Agreement, signed 12 December 2015, entered into force 4 November 2016, UNTS 3156, UN Doc FCCC/CP/2015/L.9/Rev/1.
- <sup>18</sup> Compliance Committee, established under Article 21 of the International Treaty on Plant Genetic Resources for Food and Agriculture, signed 3 November 2001, entered into force 29 June 2004, 2400 UNTS 303.

triggered usually in several ways: by a submission to the treaty committee from another party, or from the party itself concerning its own compliance, or by referrals from the secretariat of the treaty body, or by the committee itself. In case of the Aarhus Convention, submissions may even come from members of the public.<sup>19</sup> Non-compliance committees are empowered and required to examine the question of non-compliance before them. However, they cannot issue binding decisions. Instead, these committees make 'recommendations' to the parties collectively, or to individual parties. The members of these NCMs are appointed in their personal capacity and are therefore expected to remain independent as opposed to being State representatives. This should depoliticise their work and give them greater independence and credibility. Unlike ICTs,<sup>20</sup> such NCMs tend to include in their membership technical or scientific experts as well as lawyers or diplomats.

Pursuant to an NCM's recommendation, the final output is often a decision by the Conference of Parties to the treaty. Substantively, an NCM procedure could lead to financial or technical incentives to assist the party concerned in becoming compliant, or it could lead to penalties, sanctions, or suspension of privileges. Despite these possible consequences, the procedures before NCMs remain less adversarial and thus non-confrontational.<sup>21</sup>

One of the earliest NCMs can be seen within the framework of the Montreal Protocol.<sup>22</sup> It may be triggered by any party, or the secretariat.<sup>23</sup> Once the NCM is invoked, the Implementation Committee, a standing body elected by the Meeting of the Parties, considers the

<sup>19</sup> UNECE, 'Guidance Document on the Aarhus Convention Compliance Mechanism', 2, available at [www.unece.org/fileadmin/DAM/env/pp/compliance/CC\\_GuidanceDocument.pdf](http://www.unece.org/fileadmin/DAM/env/pp/compliance/CC_GuidanceDocument.pdf) (accessed 2 October 2021).

<sup>20</sup> See, e.g., referring to dispute resolution by the ICJ: Convention on Biological Diversity, Art 27(3)(b); United Nations Framework Convention on Climate Change, Article 14(2) (a); UNECE Convention on Environmental Impact Assessment in a Transboundary Context, signed 25 February 1991, entered into force 10 September 1997, 1989 UNTS 309, Article 15(2); Protocol on Further Reduction of Sulphur Emissions to the 1979 Convention on Long-Range Transboundary Air Pollution, Article 9.

<sup>21</sup> For the issue of State-to-State triggers, see Chapter 6.

<sup>22</sup> Montreal Protocol on Substances That Deplete the Ozone Layer, signed 16 September 1987, entered into force 1 January 1989, 1522 UNTS 3, Article 8.

<sup>23</sup> Decision IV/5, Report of the Fourth Meeting of the Parties to the Montreal Protocol on Substances That Deplete the Ozone Layer, UN Doc UNEP/Oz.L.Pro.4/15 (1992) (as revised by Decision X/10, Report of the Tenth Meeting of the Parties to the Montreal Protocol on Substances That Deplete the Ozone Layer, UN Doc UNEP/Oz.L.Pro.10/9 (1998)).

situation of non-compliance, with a view to securing an amicable solution. Recommendations of this committee can be adopted as decisions of the Meeting of the Parties. The Kyoto Protocol's comprehensive compliance mechanism includes an enforcement branch that determines non-compliance followed by a consequent course of action.<sup>24</sup>

The compliance committee under the Aarhus Convention has been established pursuant to Article 15 of the Convention, which requires the Meeting of the Parties to establish 'optional arrangements of a non-confrontational, non-judicial and consultative nature for reviewing compliance with the provisions of the Convention'. On the recommendations of this committee, parties to the Convention adopt decisions on general issues of compliance as well as compliance by individual parties. Under the Escazú Agreement, a Committee to Support Implementation and Compliance is established<sup>25</sup> as a subsidiary body of the Conference of Parties to promote the implementation of the treaty and to support the parties in that regard. The nature and role of this committee is clarified in this provision itself, as 'consultative and transparent', 'non-adversarial, non-judicial and non-punitive', while it reviews compliance with treaty provisions and makes recommendations. Its functioning is further defined by the rules promulgated at the first meeting of the Conference of Parties to this treaty.<sup>26</sup> Similar to the Aarhus Convention, here too, members of the public have the option to file communications regarding non-compliance by a treaty party.<sup>27</sup> Article 15 of the Minamata Convention on Mercury establishes an Implementation and Compliance Committee as a subsidiary body of the Conference of Parties. It functions according to its own rules of procedure, drawn up

<sup>24</sup> See UNFCCC, 'An Introduction to the Kyoto Protocol Compliance Mechanism', available at <http://unfccc.int/process/the-kyoto-protocol/compliance-under-the-kyoto-protocol/introduction> (accessed 15 April 2022). See also Chapter 3. The course of action depends on the nature of non-compliance and could take the form of making up the difference in emissions exceeding the assigned amount, or suspension of eligibility to make transfers under emissions trading.

<sup>25</sup> Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean, 4 March 2018, Article 18.

<sup>26</sup> Rules Relating to the Structure and Functions of the Committee to Support Implementation and Compliance of the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean, Annex 1 of Decision I/3, First Meeting of Conference of Parties.

<sup>27</sup> *Ibid.*, Rule V(1).

at its first meeting.<sup>28</sup> The Espoo Convention has an Implementation Committee, established by a Meeting of the Parties,<sup>29</sup> to review party compliance with treaty objectives. The procedures of this committee have been referred to as non-adversarial and assistance-oriented,<sup>30</sup> and they are without prejudice to provisions for dispute settlement under the Convention.

Most recently, the Paris Agreement, under Article 15, established the Committee to Facilitate Implementation and Promote Compliance, whose role is to function in a transparent, non-adversarial, and non-punitive manner. It will function according to its rules of procedure, adopted at CMA4 in Egypt,<sup>31</sup> and the committee's work is guided by the modalities and procedures for its effective functioning.<sup>32</sup>

A potential weakness of compliance committees is that the committee decisions cannot have the same legal weight as those of judicial bodies. However, this may also be viewed instead as an advantage. The procedures of compliance committees are still too often considered only in comparison to those of judicial organs, leading to the conclusion that they are similar to judicial bodies, but without the same capacity for action.<sup>33</sup> A number of them are composed of legal, as well as other expert members, with recognised competence in the field to which the treaty or protocol relates. Yet they have distinct procedures for determining facts and for discussing different points of view. And, in essence, a compliance

<sup>28</sup> Decision Adopted by the Second Conference of the Parties to the Minamata Convention on Mercury, Second Meeting, Geneva, 19–23 November 2018, UNEP/MC/COP.2/Dec.4.

<sup>29</sup> Decision II/4 of the Second Meeting of the Parties, revised as Decision III/2.

<sup>30</sup> Structure and Functions of the Implementation Committee and Procedures for Review of Compliance, Decision III/2, Appendix (ECE/MP.EIA/6) as Amended by Decision VI/2 (ECE/MP.EIA/20/Add.1 – ECE/MP.EIA/SEA/4/ Add.1), Article 14, available at [http://unece.org/DAM/env/eia/documents/ImplementationCommittee/2014\\_Structure\\_and\\_functions/Implementation\\_Committee\\_structure\\_functions\\_procedures\\_rules\\_e\\_2014.pdf](http://unece.org/DAM/env/eia/documents/ImplementationCommittee/2014_Structure_and_functions/Implementation_Committee_structure_functions_procedures_rules_e_2014.pdf) (accessed 6 February 2022).

<sup>31</sup> Decision 24-/CMA.4, Rules of Procedure of the Committee to Facilitate Implementation and Promote Compliance Referred to in Article 15, paragraph 2, of the Paris Agreement, UN Doc FCCC/PA/CMA/2022/L.1.

<sup>32</sup> Decision 20/CMA.1, available at <http://unfccc.int/process-and-meetings/bodies/constituted-bodies/committee-to-facilitate-implementation-and-promote-compliance-referred-to-in-article-15-paragraph-2> (accessed 15 April 2022). See also, 'Report of the Conference of the Parties Serving as the Meeting of the Parties to the Paris Agreement on the Third Part of Its First Session, Katowice 2–15 December 2018, UN Doc FCCC/PA/CMA/2018/3/Add.2 (19 March 2019).

<sup>33</sup> M Tignino, 'Quasi-Judicial Bodies' in CM Brölmann and Y Radi (eds), *Research Handbook on the Theory and Practice of International Law-Making* (Edward Elgar 2016) 242–61.



committee often provides a non-confrontational means of preventing and addressing situations of non-compliance, with legal as well as technical expert involvement.

Due to their quasi-judicial nature, compliance committees are half-way between scientific committees and ICTs from an institutional perspective.<sup>34</sup> However, they are suitable for minor breaches,<sup>35</sup> especially when the party in breach is willing to comply, or for serious issues of non-compliance in the first instance (before seeking recourse to an ICT), in cases involving systemic concerns, or when penalties for non-compliance are severe. In the case of serious breaches or when it is foreseen that a treaty party may be unwilling to comply, ICTs have the advantage of providing a more public forum of redress, bringing widespread attention to the non-complying party's infractions.

### 7.3 Scientific Committees and Their Contribution to Compliance

Scientific committees contribute to treaty compliance in a number of ways, although their primary role can be seen as an advisory one, on scientific and technical matters, usually advising a treaty's Conference of Parties. This function helps in strengthening the treaty regime, making it more robust, defensible, and progressive. There are, however, other ways in which scientific bodies could contribute to treaty compliance. This may take the form of contributions to treaty interpretation, or even determining treaty infractions,<sup>36</sup> though such roles are rarely seen.

Scientific committees are a sub-class of a wider range of treaty bodies. Under various treaties with environmental or scientific subject

<sup>34</sup> See V Roben, 'Institutional Developments under Modern International Environmental Agreements' in JA Frowein and R Wolfrum (eds), *Max Planck Yearbook of United Nations Law* (Kluwer Law International 2000) 363–443; G Samvel, 'Non-Judicial, Advisory, Yet Impactful? The Aarhus Convention Compliance Committee as a Gateway to Environmental Justice' (2020) 9 *Transnational Environmental Law* 211–38; C Zengerling, *Greening International Jurisprudence: Environmental NGOs before International Courts, Tribunals, and Compliance Committees* (Brill 2013) 1, 4, 9–10.

<sup>35</sup> As opposed to a serious, significant, or material breach; or in other words, a breach that can be remedied without much difficulty. A minor breach by its nature would not be the subject of much disagreement that may otherwise necessitate recourse to ICTs.

<sup>36</sup> For example, special permit whaling, in compliance with Article VIII of the Whaling Convention, is regularly reviewed by the Scientific Committee established under the International Whaling Commission. See e.g., Scientific Committee, 'Report, Annex P: Process for the Review of Special Permit Proposals and Research Results from Existing and Completed Permits' (2015) 16(Suppl) *Journal of Cetacean Resource Management*, 349.

matters, as under certain other treaties, there are often treaty bodies which effectively monitor implementation of or compliance with the treaty (such as the IWC Infractions Sub-Committee),<sup>37</sup> or provide advice or recommendations on the interpretation<sup>38</sup> or application of the concerned treaty (such as the CLCS).<sup>39</sup> Treaty bodies may be legal or technical depending on the body. The Infractions Sub-Committee of the IWC is an intergovernmental body, while the CLCS is a technical body. Examples of other intergovernmental treaty bodies include fisheries commissions such as the Commission for the Conservation of Southern Bluefin Tuna (CCSBT)<sup>40</sup> or regional seas bodies such as the OSPAR Commission.<sup>41</sup> These latter treaty bodies are advised in turn by scientific committees established under these treaties.

Undoubtedly, the role of scientific committees is distinct from that of other treaty bodies as well as from both NCMs and ICTs. Scientific committees exist to ensure smooth and uniform functioning of the treaty regime, along with pushing forward the growth of scientific knowledge in the specific field pertaining to the treaty. For selected examples of scientific committees, we can refer to the scientific committees under the IWC<sup>42</sup> or the Convention for the Conservation of Southern Bluefin Tuna, the Scientific Committee of which performs an important role in advising the intergovernmental CCSBT.<sup>43</sup>

However, as in other regional fisheries management organisations, it is the intergovernmental Commission that is the decision-making organ under the Convention. The CCSBT exists to ensure the conservation and optimum utilisation of Southern Bluefin Tuna. Similar to the IWC, the CCSBT is responsible for setting a total allowable catch and its allocation among the members, it can administer regulatory measures to meet

<sup>37</sup> International Whaling Commission, Infractions Sub-Committee, available at [http://iwc.int/index.php?clID=html\\_513](http://iwc.int/index.php?clID=html_513) (accessed 15 April 2022).

<sup>38</sup> See S Suarez, *The Outer Limits of the Continental Shelf: Legal Aspects of Their Establishment* (Springer 2008) 122.

<sup>39</sup> Commission on the Limits of the Continental Shelf (CLCS): Purpose, Functions and Sessions, available at [www.un.org/depts/los/clcs\\_new/commission\\_purpose.htm](http://www.un.org/depts/los/clcs_new/commission_purpose.htm) (accessed 15 April 2022).

<sup>40</sup> See Commission for the Conservation of Southern Bluefin Tuna, available at [www.ccsbt.org/](http://www.ccsbt.org/) (accessed 15 April 2022).

<sup>41</sup> See Ospar Commission, available at [www.ospar.org/about/how/](http://www.ospar.org/about/how/) (accessed 11 November 2022).

<sup>42</sup> Established by the IWC under Article III(4) of the ICRW.

<sup>43</sup> Established by the CCSBT under Article 9 of the Convention for the Conservation of Southern Bluefin Tuna, 10 May 1993, 1819 UNTS 359.

Convention objectives, and also take decisions to support and implement fishery management. The CCSBT has also adopted a compliance plan, providing a framework for States to improve compliance. Moreover, non-compliance with the total allowable catch attracts 'corrective action'. The compliance plan includes policy guidelines such as the Corrective Actions Policy, which sets out a framework to respond to evidence of non-compliance by a treaty party.<sup>44</sup> This includes details of the decision-making process of the compliance committee of the CCSBT and a list of corrective actions that the committee may recommend. As in the IWC, the Commission's Scientific Committee acts as an advisory body and makes recommendations to the CCSBT.

We likewise see both non-scientific and scientific treaty bodies under the Convention on International Trade in Endangered Species (CITES), which has a Standing Committee, Secretariat, and two scientific committees – the Animals and Plants Committees – who all play their roles in ensuring treaty implementation and compliance. The Standing Committee provides policy guidance to the Secretariat concerning the implementation of CITES, while also co-ordinating the work of the other committees. The two scientific committees are composed of scientific experts and were established at the sixth meeting of the Conference of Parties in 1987. Their function is to provide technical support to decision-making about species of plants or animals that are or may become subject to CITES trade controls. They provide scientific advice and guidance to the other bodies involved in ensuring compliance, and their membership ensures geographic diversity.

Scientific committees, as distinguished from NCMs and other treaty bodies, are usually composed of scientific members,<sup>45</sup> and their working procedures vary. Their strength lies in providing authoritative pronouncements on scientific issues. Their recommendations may be used by another treaty body (such as a commission) in arriving at its decisions (as is the case with the IWC relying on its Scientific Committee's reports in making recommendations and the CCSBT drawing on its Scientific Committee's advice).

<sup>44</sup> Corrective Actions Policy, Compliance Policy Guideline 3 (updated at the Twenty-Fifth Annual Meeting, 18 October 2018), available at [www.ccsbt.org/sites/default/files/user\\_files/file/docs\\_english/operational\\_resolutions/CPG3\\_CorrectiveActions.pdf](http://www.ccsbt.org/sites/default/files/user_files/file/docs_english/operational_resolutions/CPG3_CorrectiveActions.pdf) (accessed 15 April 2022).

<sup>45</sup> It must be noted that while the SBSTTA of the CBD is composed of parties, specific committees are composed of individuals.

The IWC is composed of Commissioners, one from each party to the International Convention for the Regulation of Whaling (ICRW). Its tasks include designating whale sanctuaries, setting catch limits on whales by species and area, and imposing restrictions on hunting methods. In the absence of any explicit compliance mechanism under the ICRW, the IWC has established an Infractions Sub-Committee. Breaches of the Convention must be reported to the IWC and are discussed by this Sub-Committee. It is not always easy to determine the existence of an infraction, due to 'wider issues within the Commission'.<sup>46</sup> Infractions within a country's national jurisdiction are dealt with by that nation itself, and these countries often impose penalties in the form of fines or imprisonment. The Scientific Committee of the IWC provides scientific advice to the Commission on matters under the Convention. Its tasks have included, for example, review of the second phase of Japan's Whale Research Programme under Special Permit in the Antarctic (JARPA II),<sup>47</sup> which was the subject matter of a dispute before the ICJ,<sup>48</sup> discussed in Section 7.5.1. Thus, a scientific review of whaling research programmes such as JARPA II falls within the purview of the Scientific Committee. The IWC, on the advice of its Scientific Committee, has the power to amend the schedule to the ICRW by adopting regulations with respect to the conservation and utilisation of whale resources.<sup>49</sup> The Commission may also make recommendations to the State parties.<sup>50</sup>

Established under the UNCLOS is the CLCS. The CLCS is a *sui generis* body. Like scientific committees under the various conventions, it is comprised of technical experts. It is composed of twenty members, experts in the fields of geology, geophysics, or hydrography, who are elected by States parties to the Convention from among their nationals.<sup>51</sup> They serve in their personal capacities.<sup>52</sup> Yet its role differs markedly

<sup>46</sup> International Whaling Commission (n 37).

<sup>47</sup> Report of the Scientific Committee (n 36).

<sup>48</sup> *Whaling in the Antarctic* (n 4).

<sup>49</sup> International Convention for the Regulation of Whaling, 2 December 1946, 161 UNTS 72, Article V(1). See Art V(2): 'based on scientific findings.'

<sup>50</sup> ICRW, Article VI.

<sup>51</sup> UNCLOS Annex II, Article 2. See also, Commission on the Limits of the Continental Shelf (CLCS): Members of the Commission, available at [www.un.org/depts/los/clcs\\_new/commission\\_members.htm](http://www.un.org/depts/los/clcs_new/commission_members.htm) (accessed 15 April 2022).

<sup>52</sup> See UNCLOS Rules of Procedure of the Commission on the Limits of the Continental Shelf, 17 April 2008, UN Doc CLCS/40/Rev.1, Article 11: Duty to Act Independently.

from that of scientific committees. The primary function of the CLCS is to implement Article 76 of UNCLOS, dealing with the definition of the continental shelf, and to establish the outer limit of the continental shelf beyond 200 nautical miles (nm). More specifically, the CLCS considers data from coastal States (UNCLOS parties) concerning the outer limits of the continental shelf beyond 200 nm, provides scientific or technical advice to the State if so asked during preparation of this data, and makes recommendations on the same. The CLCS also has detailed rules of procedure governing not just its composition, conduct of business, and voting, but also the procedure to be followed when receiving submissions from a coastal State and in giving advice to such States.<sup>53</sup> It is important to note that the limits of the continental shelf beyond 200 nm established by coastal States based on CLCS recommendations are final and binding.<sup>54</sup> This is an important distinguishing feature of this body, and is one of the features setting it apart both from traditional scientific committees and from the NCMs discussed so far.

#### 7.4 Recourse to ICTs

Apart from the above-mentioned non-judicial, non-confrontational mechanisms to ensure compliance, many of the treaties or protocols also envisage the option for dispute settlement before an ICT. As the following discussion reveals, these could be the same treaties that also include NCMs. This section looks at the dispute settlement clauses in these kinds of treaties and how ICTs may therefore contribute to treaty compliance, focussing on the examples of the ICRW, UNCLOS, and the CCSBT.

ICTs are certainly not incapable of resolving disputes involving complex scientific issues. An advantage of resorting to judicial means would be that judges have fresh eyes on the matters which treaty bodies deal with on a daily (or at least annual) basis. Judges would thus have some distance and an independent perspective on the matter. This perceived independence also arises out of a perception that scientific committees of a treaty system would tend to be biased in favour of conservation or protection of the environment.

<sup>53</sup> UNCLOS, Rules of Procedure of the Commission, available at [www.un.org/depts/los/clcs\\_new/commission\\_rules.htm](http://www.un.org/depts/los/clcs_new/commission_rules.htm) (accessed 15 April 2022).

<sup>54</sup> UNCLOS, Article 76(8).

Apart from the IWC and its various committees keeping a check on compliance by treaty parties, there is no dispute resolution clause in the ICRW, providing for recourse to arbitration or judicial settlement by the ICJ, for example. The dispute between Australia and Japan under this Convention was brought before the ICJ through the optional clause of the Statute of the ICJ, that allows States to opt into accepting the compulsory jurisdiction of the ICJ.<sup>55</sup>

On the other hand, the UNCLOS has a robust system of compulsory dispute settlement laid out in Part XV of the Convention. This Part provides a number of options to Contracting Parties, after attempting to settle a dispute through peaceful means, negotiation, or conciliation: recourse to either the ICJ, ITLOS or arbitration under Annex VII or Annex VIII of the Convention. All matters covered by the UNCLOS fall within the jurisdiction of these courts and tribunals. A few specific matters may be expressly excluded by a Contracting Party, as listed in Section 3 of Part XV. UNCLOS tribunals will otherwise have jurisdiction over disputes relating to the continental shelf, and indeed a number of disputes have come up, as discussed in Section 7.5.2.<sup>56</sup>

Parties to the Southern Bluefin Tuna Convention may submit any dispute concerning its interpretation or application, that is not settled amicably to the ICJ or to arbitration under the Annex to the Convention.<sup>57</sup> However, prior consent of all parties concerned is required before resorting to either of these judicial means of dispute settlement. In the *Southern Bluefin Tuna* cases,<sup>58</sup> the Tribunal established under Annex VII of UNCLOS declined jurisdiction since it found that these provisions of the Southern Bluefin Tuna Convention excluded dispute settlement under UNCLOS.

The treaties and conventions discussed in Section 7.2, all possessing NCMs to oversee compliance with treaty obligations, also provide for dispute settlement through ICTs, as in the Southern Bluefin Tuna Convention. Under the Aarhus Convention, parties, after attempting to resolve a dispute by negotiation, have the option to accept the compulsory jurisdiction of the ICJ or of arbitration<sup>59</sup> for disputes arising under

<sup>55</sup> Statute of the International Court of Justice (1945) 33 UNTS 993, Article 36(2). See also *Whaling in the Antarctic* (n 4) 234.

<sup>56</sup> *Question of the Delimitation* (n 7); *Delimitation of the Maritime Boundary* (n 6); *Dispute Concerning Delimitation of the Maritime Boundary between Ghana and Côte d'Ivoire in the Atlantic Ocean (Ghana/Côte d'Ivoire)*, Judgment [2017] ITLOS Reports 4.

<sup>57</sup> Convention for the Conservation of Southern Bluefin Tuna, Article 16(2).

<sup>58</sup> *Southern Bluefin Tuna Cases (New Zealand v Japan; Australia v Japan)* (*Award on Jurisdiction and Admissibility*) (2000) XXIII UNRIAA 1.

<sup>59</sup> In accordance with the procedure set out in Annex II of the Convention.

this treaty.<sup>60</sup> The Escazú Agreement<sup>61</sup> and the Espoo Convention<sup>62</sup> follow an identical procedure to the Aarhus Convention. The CITES follows a similar route, however including only the possibility of arbitration at the Permanent Court of Arbitration, if negotiations fail.<sup>63</sup> The Convention on Biological Diversity envisages a few more amicable means of resolving disputes. Failing resolution through negotiations, parties in dispute could jointly seek good offices or mediation.<sup>64</sup> Failing both these stages, the modes of ICT dispute settlement as in the Aarhus Convention are also envisaged here.<sup>65</sup>

## 7.5 Relationship between ICTs and Scientific Committees

The preceding sections have mapped broadly three kinds of mechanisms that operate simultaneously towards treaty implementation and compliance: NCMs, treaty bodies including scientific committees, and ICTs. This chapter now focusses on the latter two mechanisms. This section investigates the relationship between the work of scientific committees and ICTs through a focus on two examples: the Japanese whaling programme in the Antarctic, and selected disputes regarding continental shelf delimitation beyond 200 nm.

First, examining the dispute over the Japanese whaling programme in the ICJ, a proposal is made for the greater involvement of scientific treaty bodies in decision-making by ICTs. Second, examining the selected continental shelf disputes, we look at situations where a specialised scientific body (the CLCS) may issue its recommendations on matters before they proceed to an ICT. This is a unique situation and in the author's opinion deserves a brief discussion.

### 7.5.1 *Whaling in the Antarctic: The ICJ and IWC's Scientific Committee*

The preceding sections have examined the contributions of different international bodies to treaty compliance. In focussing this section on the relationship between two of these fora (scientific committees and

<sup>60</sup> Aarhus Convention (n 11) Article 16.

<sup>61</sup> Escazú Agreement (n 25) Article 19.

<sup>62</sup> Convention on Environmental Impact Assessment in a Transboundary Context, Article 15.

<sup>63</sup> CITES, Article XVIII.

<sup>64</sup> Convention on Biological Diversity (n 1) Article 27(1) and (2).

<sup>65</sup> Convention on Biological Diversity (n 1) Article 27(3).

ICTs), a case study on the *Whaling* case before the ICJ leads to a proposal to involve scientific treaty bodies in the decision-making of ICTs.

In the *Whaling* case, Australia brought a dispute against Japan (with New Zealand intervening) under the ICRW before the ICJ claiming that Japan's whaling programme was in breach of its obligations under the Convention.<sup>66</sup> Although twelve judges were in favour of the majority in its final decision on the merits, eleven judges appended separate or dissenting opinions to the judgment. A reading of these opinions indicates that judges were divided on whether it was the Court's task to judicially review the Japanese whale research programme, and decide whether the same was 'for the purpose of scientific research', or whether it could only be subject to scientific review by the IWC.<sup>67</sup> According to Judge Xue, the question whether activities under Japan's whaling research programme, 'JARPA II', involved scientific research was a matter of fact rather than a matter of law, and thus should be subject to scientific, not judicial review.<sup>68</sup> On the other hand, Judge Keith's declaration emphasised the ICJ's power to judicially review a State's granting of special permits under the ICRW.<sup>69</sup> Judge Bennouna raised the issue that perhaps instead of the ICJ sitting in judgment over such matters of science, these issues could best be left to the IWC and the Scientific Committee to determine at the appropriate times, as determined by the ICRW.<sup>70</sup> In Judge Bennouna's opinion, the Court had usurped the powers of these treaty-based bodies. Judge Owada agreed with this proposition,<sup>71</sup> though he further argued that certain aspects of these issues were subject to legal scrutiny – such as whether procedural requirements were followed, or whether the activities in question met the

<sup>66</sup> *Whaling in the Antarctic* (n 4).

<sup>67</sup> MM Mbengue and R Das, 'The ICJ's Engagement with Science: To Interpret or Not To Interpret?' (2015) 6 *Journal of International Dispute Settlement* 568, 573–74; J Morishita, 'IWC and the ICJ Judgment' in M Fitzmaurice and D Tamada (eds), *Whaling in the Antarctic: The Significance and the Implications of the ICJ Judgment* (Brill 2016) 238–67, 253.

<sup>68</sup> *Whaling in the Antarctic (Australia v Japan: New Zealand intervening)*, Judgment, Separate Opinion of Judge Xue [2014] ICJ Reports 420, para 15.

<sup>69</sup> *Whaling in the Antarctic (Australia v Japan: New Zealand intervening)*, Judgment, Declaration of Judge Keith [2014] ICJ Reports 336, para 7.

<sup>70</sup> *Whaling in the Antarctic (Australia v Japan: New Zealand intervening)*, Judgment, Dissenting Opinion of Judge Bennouna [2014] ICJ Reports 341, 346: 'In engaging in an evaluation of the programme, the Court has, in a sense, substituted itself for these two bodies.'

<sup>71</sup> *Whaling in the Antarctic (Australia v Japan: New Zealand intervening)*, Judgment, Dissenting Opinion of Judge Owada [2014] ICJ Reports 301, 312.



'general accepted notion of scientific research'.<sup>72</sup> In the context of adherence to procedural requirements, the Court ruled that Japan had complied with the obligations under paragraph 30 of the Schedule to the ICRW, that is, submitting proposed scientific permits for review by the Scientific Committee. It is interesting to note the interaction between the Court and the Scientific Committee in this analysis, in the sense that the Court went into detail regarding the Committee's practice and arrived at its decision on this point based on that practice.<sup>73</sup>

Thus in the *Whaling* case, although parties presented expert witnesses who testified and were cross-examined in the oral proceedings, a few judges were of the opinion that the expertise most suited to decide these scientific issues was situated outside the Court.<sup>74</sup> It is important to note that in accordance with its Statute, the ICJ Registrar had notified the IWC of the proceedings before the Court; however, the IWC chose not to submit any observations.<sup>75</sup> The Court also noted that the Scientific Committee of the IWC is not empowered to make binding assessments on special whaling permits, the subject of contention before the Court.<sup>76</sup> Rather, the Committee sends 'recommendations' to the IWC regarding its views on programmes for scientific research. The Court considered that Japan should have given 'due regard' to the Scientific Committee's recommendations since States parties to the treaty had a duty to cooperate with the IWC and Committee.<sup>77</sup> However, a point of contention in this dispute included an assessment of whether all the required reviews had been conducted by the Scientific Committee.

The dissenting judges' critiques raise important questions regarding the processes most suited to resolve disputes of a scientific nature, especially in the context of treaties which have constituted scientific bodies to advise and provide recommendations on the same scientific issues. One may even consider how ICTs could benefit from the expertise

<sup>72</sup> Ibid.

<sup>73</sup> *Whaling in the Antarctic* (n 4) 297.

<sup>74</sup> *Whaling in the Antarctic*, Separate Opinion of Judge Xue (n 70) 420, 425; *Whaling in the Antarctic (Australia v Japan: New Zealand intervening)*, Judgment, Separate Opinion of Judge Sebutinde [2014] ICJ Reports 431, 433; *Whaling in the Antarctic*, Dissenting Opinion of Judge Bennouna (n 72) 341, 346–47.

<sup>75</sup> *Whaling in the Antarctic* (n 4) 234.

<sup>76</sup> *Whaling in the Antarctic* (n 4) 248.

<sup>77</sup> *Whaling in the Antarctic* (n 4) 257, 271. The Court noted that by using lethal methods and not assessing the feasibility of non-lethal alternatives in its new proposed research programme, Japan was clearly not giving due regard to the IWC and scientific committee recommendations calling for an assessment of non-lethal alternatives.

of scientific bodies in their decision-making. The involvement of scientific bodies could be envisaged in two ways: either as consultants involved in the selection of court-appointed experts, or as experts themselves, advising the court or tribunal. Such involvement would provide the dual benefits of uniform treaty compliance and enhanced legitimacy of the judicial decision.

The question of legitimacy of outcome hinges on the legitimacy of the judicial process versus the legitimacy of scientific findings. An ICT could combine the two if it involved the relevant scientific bodies in its decision-making process, perhaps through seeking expert opinions from these bodies. Dispute settlement panels of the World Trade Organization receive advice from international organisations that have the necessary expertise on the subject in dispute before them.<sup>78</sup> They may also rely on international organisations to suggest names of experts who could aid in fact-finding.<sup>79</sup> At the same time, certain scientific bodies have often been criticised as being politicised. Some disputing parties may also be of the opinion that scientific committees will always have a bias in favour of the treaty's objectives (not necessarily a disadvantage). If there is merit in these arguments, it may be better for ICTs to go through their own processes of seeking expert advice (or relying on parties' expert evidence) and reaching a decision.

### 7.5.2 *Delimitation of the Continental Shelf: Judicial Bodies and the CLCS*

This section looks at a specific scientific treaty body, the CLCS, and how its activities intertwine with those of ICTs. In examining selected decisions by the ICJ and ITLOS, this section proposes that for a specialised scientific body like the CLCS, it may be more conducive to compliance if the parties were to wait until the CLCS issues its recommendations prior to initiating dispute settlement proceedings before an ICT.

<sup>78</sup> See e.g., *Saudi Arabia - Protection of IPR* (DS567) (consulting WIPO); *Korea - Radionuclides* (DS495) (consulting Codex Alimentarius Commission, IAEA, and International Commission on Radiological Protection); *Australia - Tobacco Plain Packaging* (DS435, DS441, DS458, DS467) (consulting, among others, the WHO Framework Convention on Tobacco Control).

<sup>79</sup> See e.g., *Russia - Pigs* (DS475) (consulting FAO and World Organisation for Animal Health - OIE); *India - Agricultural Products* (DS430) (consulting the WHO, FAO, and OIE); *Australia - Apples* (DS367) (consulting the Secretariat of the International Plant Protection Convention).

A series of cases before different ICTs have highlighted the interactions between these judicial bodies and the CLCS. Before the ICJ, in the case concerning *Delimitation of the Continental Shelf between Nicaragua and Colombia*,<sup>80</sup> Colombia made a preliminary objection to admissibility of the dispute on the ground that Nicaragua had not obtained the requisite recommendation from the CLCS. While the Court decided on this point that it could undertake the delimitation of the continental shelf beyond 200 nm independently of a recommendation of the CLCS,<sup>81</sup> Judge Bhandari's declaration on this issue is also interesting to note. In his opinion, the CLCS, a specialised agency with a specific mandate to investigate and pronounce upon continental shelf claims, consisting of members who are world-renowned experts in such relevant fields as geology, geophysics, and hydrology, are better equipped to resolve a continental shelf dispute such as the one before the ICJ. He was not in favour of relying on expert testimony from the parties either, since that would not only constitute an

inefficient use of valuable Court resources, but . . . Parties would bring witnesses most likely to advance their respective and competing claims, whose opinions could . . . be at odds with those of the expert members of the CLCS. This, in turn, could potentially lead to the uneasy situation wherein the CLCS and the Court reach incompatible conclusions regarding Nicaragua's continental shelf claim.<sup>82</sup>

While Judge Bhandari's comment brings forth the general question of the ICJ being able to adjudicate scientific claims, in this particular instance, it must be read with Article 9 of Annex II to UNCLOS, which states that the 'actions of the Commission shall not prejudice matters relating to delimitation of boundaries between States with opposite or adjacent coasts'. This could, however, lead to conflicting pronouncements from two different authorities. Scholarly opinion leans towards the Court appointing experts under Article 50 of its Statute, for a transparent evaluation of the scientific evidence.<sup>83</sup>

<sup>80</sup> *Question of the Delimitation* (n 7) 100.

<sup>81</sup> *Question of the Delimitation* (n 7) 100, 137.

<sup>82</sup> *Question of the Delimitation of the Continental Shelf between Nicaragua and Colombia beyond 200 Nautical Miles from the Nicaraguan Coast (Nicaragua v Colombia)*, Preliminary Objections, Declaration of Judge Bhandari [2016] ICJ Reports 204, 206.

<sup>83</sup> X Liao, 'Evaluation of Scientific Evidence by International Courts and Tribunals in the Continental Shelf Delimitation Cases' (2017) 136(48) *Ocean Development & International Law* 150–51.

In another ICJ dispute between Somalia and Kenya, the Court noted unequivocally that

a lack of certainty regarding the outer limits of the continental shelf, and thus the precise location of the endpoint of a given boundary in the area beyond 200 nautical miles, does not, however, necessarily prevent either the States concerned or the Court from undertaking the delimitation of the boundary in appropriate circumstances before the CLCS has made its recommendations.<sup>84</sup>

This pronouncement is a step towards embracing the legal aspect of scientific issues and responds to the challenge to the ICJ's capability to evaluate the scientific evidence supporting a claim of continental shelf beyond 200 nm.<sup>85</sup> Thus, issues of maritime delimitation require international tribunals 'to make a conclusive decision as to whether the continental shelves beyond 200 nm exist and to what extent they are overlapping'.<sup>86</sup>

Like the ICJ, the ITLOS has also faced the question of its competence to decide technical questions of boundary delimitation as opposed to the CLCS. While the Tribunal decided that it is competent to decide the legal aspects of these issues, strong opposing views contend that the CLCS being an expert body would be best placed to ascertain the scientific facts, perhaps in contradiction to uncontested evidence before the ITLOS. The significance of the *Bangladesh/Myanmar* case<sup>87</sup> lies in the examination of the relationship between the dispute-settling role of the Tribunal and the recommendatory (though almost decision-making) role of a body composed of scientific experts, the CLCS.<sup>88</sup> The determination of entitlement on the continental shelf beyond the 200 nm limit requires interpretation of Article 76 of UNCLOS, which, *inter alia*, defines the continental shelf and its limits. It is with respect to this task that the judgment made important remarks regarding the Tribunal's authority to interpret and

<sup>84</sup> *Maritime Delimitation in the Indian Ocean (Somalia v Kenya)*, Preliminary Objections, Judgment [2017] ICJ Reports 3, 38.

<sup>85</sup> G Vega-Barbosa, 'The Admissibility of Outer Continental Shelf Delimitation Claims before the ICJ Absent a Recommendation by the CLCS' (2018) 49 *Ocean Development & International Law* 103, 111.

<sup>86</sup> Liao (n 85) 139; Vega-Barbosa (n 87) 112.

<sup>87</sup> *Delimitation of the Maritime Boundary (Bangladesh/Myanmar)* (n 6).

<sup>88</sup> T Treves, 'Law and Science in the Interpretation of the Law of the Sea Convention: Article 76 between the Law of the Sea Tribunal and the Commission on the Limits of the Continental Shelf' (2012) 3 *Journal of International Dispute Settlement* 483, 484.

apply Article 76, relying on scientific evidence as appropriate. The ITLOS noted that

as this article contains elements of law and science, its proper interpretation and application requires both legal and scientific expertise. While the CLCS is a scientific and technical body with recommendatory functions entrusted by the Convention to consider scientific and technical issues arising in the implementation of article 76 on the basis of submissions by coastal States, the Tribunal can interpret and apply the provisions of the UNCLOS, including article 76. This may include dealing with uncontested scientific materials or require recourse to experts.<sup>89</sup>

Moreover, since the question before the Tribunal regarding the parties' entitlement to a continental shelf beyond 200 nm was largely legal in nature, the ITLOS ruled that it 'can and should determine entitlements of the Parties in this particular case'. However since the application of Article 76(4) required scientific and technical expertise, the ITLOS considered that it 'would have been hesitant to proceed with the delimitation of the area beyond 200 nm had it concluded that there was significant uncertainty as to the existence of a continental margin in the area in question'.<sup>90</sup> Due to the 'uncontested scientific material' before it (Bangladesh's expert reports that Myanmar did not challenge), it could proceed to decide the legal question, by interpreting Article 76.<sup>91</sup> It would have been interesting to see the steps taken by the Tribunal if there were no such uncontested scientific evidence before it.<sup>92</sup> The facts of this case also raise the question as to whether uncontested scientific evidence should in principle relieve the ITLOS of its obligation to evaluate the evidence on its merits.

An interesting aspect of this unchallenged acceptance of scientific evidence comes to light from Judge Ndiaye's Separate Opinion in *Bangladesh/Myanmar*.<sup>93</sup> He notes that under UNCLOS the power to assess the scientific and technical data submitted by a coastal State to the CLCS is vested exclusively in the CLCS. According to him, an 'exercise in maritime delimitation consists of applying the natural

<sup>89</sup> *Delimitation of the Maritime Boundary (Bangladesh/Myanmar)* (n 6), 107.

<sup>90</sup> *Ibid.*, 115.

<sup>91</sup> Liao (n 85) 144.

<sup>92</sup> Treves (n 90) 491.

<sup>93</sup> *Delimitation of the Maritime Boundary in the Bay of Bengal (Bangladesh/Myanmar)*, Judgment, Separate Opinion of Judge Ndiaye [2012] ITLOS Reports 151.

sciences to ascertain the extent of the natural prolongation under the sea of each of the two States and of making a finding on – not awarding – the extent of the submarine basement nature has placed before each of the two States.<sup>94</sup> While it is true that under Article 9 of Annex II to UNCLOS, actions of the CLCS do not prejudice matters regarding delimitation of coastal boundaries between States, according to Judge Ndiaye, the subject matter of this dispute called for a factual determination, rather than the Tribunal's acceptance of 'uncontested scientific evidence'. The CLCS, conducting an independent, objective analysis,<sup>95</sup> might have found the uncontested scientific evidence to be incorrect. This reasoning goes a step further than that of Judge Bhandari in *Nicaragua v Colombia* before the ICJ.

More recently, in the maritime boundary dispute between Ghana and Côte d'Ivoire, the CLCS had already made its recommendations in respect of Ghana, thus there was no risk that a judicial pronouncement would interfere with the functions of the CLCS. The Special Chamber of the ITLOS constituted to deal with the dispute, following the Tribunal in the *Bangladesh/Myanmar* case, also decided that it had the jurisdiction to delimit the continental shelf beyond 200 nm.<sup>96</sup> In this case, it justified its decision in light of the circumstances of the case: 'there [was] no doubt that a continental shelf beyond 200 nm exists in respect of the two Parties.'<sup>97</sup>

The exercise of delimitation of the continental shelf has both legal and scientific components. Although scientifically based,<sup>98</sup> it is legal in nature since it prescribes the entitlement of coastal States to the continental shelf.<sup>99</sup> Conversely, although legal in nature, the establishment of entitlement to the continental shelf beyond 200 nm involves evaluation of

<sup>94</sup> *Ibid.*, 172.

<sup>95</sup> *Ibid.*, 183.

<sup>96</sup> *Dispute Concerning Delimitation (Ghana/Côte d'Ivoire)* (n 58) 136.

<sup>97</sup> *Ibid.*, 138: '... the Special Chamber has no doubt that a continental shelf beyond 200 nm exists for Côte d'Ivoire since its geological situation is identical to that of Ghana, for which affirmative recommendations of the CLCS exist.'

<sup>98</sup> RW Smith and G Taft, 'Legal Aspects of the Continental Shelf' in PJ Cook and C Carleton (eds), *Continental Shelf Limits: The Scientific and Legal Interface* (Oxford University Press 2000) 17.

<sup>99</sup> *Delimitation of the Maritime Boundary in the Gulf of Maine Area (Canada/United States of America)*, Judgment [1984] ICJ Reports 246, 296: 'Legal title to certain maritime or submarine areas is always and exclusively the effect of a legal operation.'

scientific evidence from geology or geomorphology or both. While Article 76 of the UNCLOS sets out specific criteria for the determination of the outer edge of the continental margin and the outer limits of the legal continental shelf, the task of application is not straightforward. Although Article 76 uses scientific terminology, the terms do not necessarily have the same meaning as in science. As pointed out in the Scientific and Technical Guidelines adopted by the CLCS, '[t]he Convention makes use of scientific terms in the legal context which at times departs significantly from accepted scientific definitions and terminology'.<sup>100</sup>

Two main options are thus presented to disputing parties: first, if States dealing with a continental shelf delimitation were consistently to follow a sequence of approaching the CLCS before resorting to ICTs (if necessary), these courts and tribunals would have the benefit of a CLCS recommendation before issuing their decisions. It is in States' interests to avoid inconsistency between recommendations and rulings in these different fora. Second, in the event that such disputes are brought before ICTs, if the courts' decision-making involves assessment of scientific evidence, the use of experts by ICTs could grant greater legitimacy to their decisions and might increase the possibility of the courts' operating in harmony with the recommendations of the CLCS. Of course, it must be borne in mind that, thus far, consultation of experts by the ICJ has been sparse, and by the ITLOS non-existent.<sup>101</sup>

## 7.6 Conclusion

This chapter has examined how treaty compliance could be strengthened through the spectrum of a variety of fora – NCMs, scientific committees, and ICTs. The goal has been to examine their roles in treaty compliance both separately and in conjunction with each other. The chapter concludes that, to the extent possible, treaty parties should aim for a

<sup>100</sup> Commission on the Limits of the Continental Shelf, 'Scientific and Technical Guidelines of the Commission on the Limits of the Continental Shelf, CLCS/11', adopted 13 May 1999, para 1.3, available at [www.un.org/depts/los/clcs\\_new/commission\\_documents.htm#Guidelines](http://www.un.org/depts/los/clcs_new/commission_documents.htm#Guidelines) (accessed 19 October 2021).

<sup>101</sup> MM Mbengue and R Das, 'Experts' in *Max Planck Encyclopaedia of International Procedural Law* (2022); C Foster, 'Court-Appointed Expert' in *Max Planck Encyclopaedia of International Procedural Law* (2019).

sequential approach, with ICTs being the last resort. This would provide the ICTs with the technical expertise of the scientific committees, and could enhance the legitimacy of the judicial decision, also avoiding inconsistencies between the outcomes of different fora. States parties should operate on a basis informed by the advice of scientific committees and the guidance of NCMs and thereafter, if necessary, an ICT could rely on this Scientific Committee's findings or recommendations in arriving at its decision.