H20LAW Conference Law-science Interface within the Law of the Sea and Fresh Water Law Leiden University

The Law-Science Interface within the Law of the Sea 26 September 2024

Keynote Address by H.E. Judge Tomas Heidar, President of the International Tribunal for the Law of the Sea

Excellencies, distinguished guests,

It is a great pleasure to join you all today. I wish to thank Professors Woker and Rudall for organizing an excellent line-up of panels and speakers and for providing us with the opportunity to explore the interactions between scientific insights and legal frameworks in salt and fresh water governance. The topic I have chosen for my keynote address is close to my heart and concerns the law-science interface within the law of the sea, with a focus on the United Nations Convention on the Law of the Sea, which I will refer to as "the Convention", and the jurisprudence and procedure of the International Tribunal for the Law of the Sea, or, simply put, "the Tribunal".

From the famous cannon shot rule for calculating the breadth of the territorial sea, to the development of the definition of the continental shelf and the concept of maximum sustainable yield in fisheries management, science has always been a major impetus for the development of the law of the sea. As Ambassador Jens Evensen of Norway pointed out after the adoption of the Convention, "[t]he basic problems with which the Law of the Sea Conference tried to cope [...] were the impact of the revolutionary developments in science and technology, and the influence of these forces in international law."¹

¹ J Evensen, "The Effect of the Law of the Sea Conference upon the Process of the Formation of International Law: Rapprochement between Competing Points of View", in RB Krueger and SA

The Convention offers fertile ground for examining the law-science interface, as is plain to see in many of its provisions. One need search no further than its preamble to find an initial example of this interface. In the preamble, the States Parties to the Convention explicitly recognize that "the study … of the marine environment" is one of the aims to be achieved by the legal order established through the Convention.²

Looking at the Convention, it is noteworthy that two whole parts cover issues closely connected to science. Part XIII of the Convention regulates marine scientific research in maritime spaces both within and beyond national jurisdiction. Topics such as scientific research installations and international cooperation in the dissemination of knowledge are addressed. Part XIV is centred on the development and transfer of marine technology. Here you will find provisions dealing with an array of issues, including the promotion of the exchange of scientists and of technological and other experts.

Further illustrations of the law-science interface can be found elsewhere in the Convention as well. Outside of Parts XIII and XIV, the Convention and its Annexes contain nearly 30 articles that include the terms "scientific" or "science".³ In a number of these instances, science informs the content of the obligations of States Parties. For instance, articles 61 and 119 require basing conservation measures for living marine resources on "the best scientific evidence available". Article 204 requires States to observe, measure, evaluate and analyse the risks or effects of pollution of the marine environment by "recognized scientific methods".

Upon further examination of the Convention, one comes across provisions that rely on scientific terminology or knowledge. In this regard, article 1, paragraph 1, subparagraph 4, concerning the definition of pollution of the marine environment and article 76 concerning the definition of the continental shelf are among the best-known

Riesenfeld (eds), *The Developing Order of the Oceans (Proceedings of the 18th Annual Conference of the Law of the Sea Institute)* (Law of the Sea Institute, University of Hawaii Honolulu 1984), p. 25. ² Preamble of the Convention, para. 4; Rainer Lagoni, "Preamble", in Alexander Proelß (ed), *The United Nations Convention on the Law of the Sea: A Commentary* (CH Beck 2017), pp. 11-12. ³ Articles 21, 40, 56, 61, 62, 87, 119, 123, 143, 144, 155, 165, 167, 200, 201, 202, 204, 211, 234, 289 and 297 of the Convention; articles 3, 4 and 5 of Annex II; article 11 of Annex VI; articles 1, 2 and 5 of Annex VIII to the Convention.

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examples. As I will later demonstrate during my discussion of the case law of the Tribunal, the definition of "pollution of the marine environment", which includes the terms "substance or energy" and "deleterious effects", can only be properly ascertained with reference to science. The same goes for the notion of the continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured. The definition found in article 76 of the Convention contains several scientific and technical terms, such as "natural prolongation", "shelf", "slope", "rise" and "ridges". In the words of the Judgment delivered by the Tribunal in the *Dispute concerning delimitation of the maritime boundary between Bangladesh and Myanmar in the Bay of Bengal*, these articles contain "elements of law and science", and their "proper interpretation and application requires both legal and scientific expertise".⁴

The law-science interface is not only apparent in the Convention, it remains a significant feature in the implementing agreements under the Convention. This becomes evident if we consider the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, or "UN Fish Stocks Agreement", and the 2023 Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction, or "BBNJ Agreement".

The UN Fish Stocks Agreement's objective 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 the Convention."⁵ The Agreement sets out principles for the conservation and management of those fish stocks and establishes that such management must be based on the precautionary approach and the best scientific evidence available. It also contains detailed rules on the collection and provision of information and cooperation in scientific research.⁶

⁴ Delimitation of the maritime boundary in the Bay of Bengal (Bangladesh/Myanmar), Judgment, ITLOS Reports 2012, p. 4, at p. 107, para. 411.

⁵ Article 2 UN Fish Stocks Agreement.

⁶ Article 14 and Annex I UN Fish Stocks Agreement.

The BBNJ Agreement, which was adopted a year ago, addresses four main substantive issues: marine genetic resources, including the fair and equitable sharing of benefits; measures such as area-based management tools, including marine protected areas; environmental impact assessments; and capacity-building and the transfer of marine technology. The role of science is essential with respect to all four of these issues. Accordingly, the BBNJ Agreement establishes a Scientific and Technical Body for the purpose of providing scientific and technical advice to the Conference of the Parties, performing various functions assigned to it under the Agreement and such other functions as may be determined by the Conference of the Parties and providing reports to the Conference of the Parties on its work.⁷

At this juncture, I wish to turn to the second part of my speech: how scientific considerations factor into the jurisprudence of the Tribunal. Since opening its doors in 1996, the Tribunal has been faced with several scientific and technical disputes. A comprehensive survey of all relevant cases before the Tribunal would go well beyond the speaking time that has been allotted to me. Therefore, I thought it would prove most fruitful to focus on our recent case law, namely the Special Chamber's Judgment on the merits in the *Dispute concerning delimitation of the maritime boundary between Mauritius and Maldives in the Indian Ocean (Mauritius/Maldives)* and the Tribunal's recent Advisory Opinion given at the request of the Commission of Small Island States on Climate Change and International Law. A general appreciation of the role that science plays in proceedings before the Tribunal can be gleaned from these two cases.

I will start with the *Mauritius/Maldives case*, which was submitted to a special chamber of the Tribunal by special agreement concluded on 24 September 2019. Following a Judgment on preliminary objections rendered on 28 January 2021, the Special Chamber delivered its Judgment on the merits on 28 April 2023. From a scientific perspective, there are at least two significant aspects that emerge from the Judgment on the merits. The first relates to the use of satellite imagery as evidence. Although the Tribunal and a special chamber have dealt with such evidence in two

⁷ Article 49 BBNJ Agreement.

earlier maritime delimitation cases⁸, the *Mauritius/Maldives case* is noteworthy in that it allows for an interesting juxtaposition of recourse to nautical maps and satellite imagery on the same contested issue. When dealing with the question as to whether Blenheim Reef is a single low-tide elevation or a feature comprising multiple low-tide elevations, which has legal implications, Mauritius contended that "various nautical charts of Blenheim Reef depict it as a single, consolidated maritime feature", parts or patches of which are connected through an "underwater structure".⁹ Conversely, according to the Maldives, "Blenheim Reef comprises 57 low-tide elevations."¹⁰ In support of this argument, the Maldives relied on satellite imagery, which had been presented by Mauritius, to show that a number of areas of land are surrounded by and above water at the "lowest astronomical tide".¹¹

The Special Chamber was thus called upon to both closely examine scientific evidence in the form of satellite imagery and undertake a precise analysis of a technical term, namely "low-tide elevation", which is defined in article 13, paragraph 1, of the Convention, as "a naturally formed area of land which is surrounded by and above water at low tide but submerged at high tide." It found that Mauritius' contention relating to the "underwater structure" of Blenheim Reef is "not in conformity with the definition of a low-tide elevation" under the Convention. It also found that "[t]here is nothing in this definition that indicates that separate 'parts' or 'patches' exposed at low tide, connected through an 'underwater structure', constitute a single low-tide elevation."¹² The Special Chamber reached the conclusion that, "[w]hile [it] cannot be certain that there are indeed 57 low-tide elevations at Blenheim Reef, … it is satisfied on the basis of evidence and arguments presented before it that Blenheim Reef consists of a number of low-tide elevations".¹³

⁸ Delimitation of the maritime boundary in the Bay of Bengal (Bangladesh/Myanmar),

ITLOS/PV.11/13/Rev.1, p. 11 (lines 2–9); Dispute concerning delimitation of the maritime boundary between Ghana and Côte d'Ivoire in the Atlantic Ocean (Ghana/Côte d'Ivoire), Judgment, ITLOS Reports 2017, p. 4, at p. 99-100, paras. 341-343.

⁹ Delimitation of the maritime boundary in the Indian Ocean (Mauritius/Maldives), Judgment of 28 April 2023, paras. 195, 215.

¹⁰ *Ibid.*, para. 201.

¹¹ Ibid., para. 214.

¹² Ibid., para. 216.

¹³ *Ibid.*, paras. 216-219.

The other important point worth emphasizing in the *Mauritius/Maldives case* is the application and further elaboration by the Special Chamber of the standard of "significant uncertainty", which concerns scientific uncertainty. This standard was first laid out and applied by the Tribunal in the *Bangladesh/Myanmar case* and relates to the determination of the coastal State's entitlement to the continental shelf beyond 200 nautical miles in the absence of recommendations of the Commission on the Limits of the Continental Shelf, or "the CLCS". According to this standard, the Tribunal would not proceed with the delimitation of an overlapping area beyond 200 nautical miles if there is "significant uncertainty as to the existence of a continental margin in the area in question."¹⁴ In the *Bangladesh/Myanmar case*, the Tribunal was able to determine the existence of entitlements of the parties to the continental shelf beyond 200 nautical miles because it found that there was no significant scientific uncertainty as to the existence of the continental shelf beyond 200 nautical miles because it found that there was no significant scientific uncertainty as to the existence of the continental margin in the area in question due to "uncontested scientific materials" before it.¹⁵

In the *Mauritius/Maldives case*, the situtation was similar to the extent that both Parties had made submissions to the CLCS, with respect to the area at issue in this case, but the Commission had not yet made recommendations to them under article 76, paragraph 8, of the Convention. However, in the *Mauritius/Maldives case*, while the entitlement of the Maldives to the continental shelf beyond 200 nm was uncontested between the Parties, they disagreed as to Mauritius' entitlement to the continental shelf beyond 200 nm.

The Special Chamber proceeded to examine Mauritius' claim of entitlement. Mauritius set out three different routes for natural prolongation to a foot of slope point which it had identified as the basis of its claim. Having carefully assessed the legal arguments as well as the supporting scientific evidence presented by the Parties, the Special Chamber considered that the first route set out by Mauritius was "impermissible on legal grounds under article 76 of the Convention" as it passed within the continental shelf of the Maldives within 200 nautical miles that was uncontested

¹⁴ Delimitation of the maritime boundary in the Bay of Bengal (Bangladesh/Myanmar), Judgment, ITLOS Reports 2012, p. 4, at p. 115, para. 443.

¹⁵ *Ibid.*, p. 115, para. 446.

by Mauritius. ¹⁶ The Special Chamber further held that there was "significant uncertainty as to whether the second and third routes could form a basis for Mauritius' natural prolongation to the critical foot of slope point." ¹⁷ The Special Chamber concluded that, given the significant uncertainty, it was not in a position to determine the entitlement of Mauritius to the continental shelf beyond 200 nautical miles in the Northern Chagos Archipelago Region. Consequently, in the circumstances of the case, the Special Chamber did not proceed to delimit the continental shelf beyond 200 nautical miles between Mauritius and the Maldives. The meticulous manner in which the Special Chamber treated scientific evidence and applied the significant uncertainty standard might be viewed as one of its major contributions to the legal regime of continental shelf.

In addition to applying the significant uncertainty standard, the Special Chamber further explained the two important rationales on which the standard rests. On the one hand, the Judgment clarified that this standard "serves to minimize the risk that the CLCS might later take a different position regarding entitlements in its recommendations from that taken by a court or tribunal in a judgment."¹⁸ On the other hand, the application of this standard also affords "protection to the interests of the international community in the Area and the common heritage principle".¹⁹ In sum, the Special Chamber has provided a well-reasoned and prudent blueprint that other international courts and tribunals may wish to follow, in appropriate circumstances, when encountering conflicting scientific evidence and views on the entitlement to the continental shelf beyond 200 nautical miles.

Now I wish to turn to one of the latest developments at the Tribunal: the delivery on 21 May 2024 of its unanimous Advisory Opinion on the *Request for an Advisory Opinion submitted by the Commission of Small Island States on Climate Change and International Law.* As I will demonstrate, this was a case in which science formed a leitmotif throughout the proceedings. At the outset, it is worth

¹⁶ Delimitation of the maritime boundary in the Indian Ocean (Mauritius/Maldives), Judgment of 28 April 2023, paras. 444 and 449.

¹⁷ *Ibid*., para. 449.

¹⁸ *Ibid*., para. 433.

¹⁹ Ibid., para. 452.

reiterating the questions posed by the Commission of Small Island States on Climate Change and International Law, which I will refer to as "COSIS", to the Tribunal.

The first question was formulated as follows:

What are the specific obligations of State Parties to the [Convention], including under Part XII:

(a) to prevent, reduce and control pollution of the marine environment in relation to the deleterious effects that result or are likely to result from climate change, including through ocean warming and sea level rise, and ocean acidification, which are caused by anthropogenic greenhouse gas emissions into the atmosphere?

The second question was phrased as follows:

What are the specific obligations of State Parties to the [Convention], including under Part XII:

(b) to protect and preserve the marine environment in relation to climate change impacts, including ocean warming and sea level rise, and ocean acidification?

Over the course of the next few minutes, I would like to offer some insights into the various interaction of law and science in the Advisory Opinion. The first notable aspect is the structure of the Advisory Opinion. Since the questions submitted by COSIS "necessarily have scientific aspects"²⁰, the Tribunal decided to devote an entire section of its Advisory Opinion to the scientific background.²¹ In these paragraphs, the Tribunal made ample use of the reports of the Intergovernmental Panel on Climate Change, commonly abbreviated to "the IPCC". Importantly, the Tribunal emphasized the authority of the reports of the IPCC by observing that most participants in the proceedings recognized these reports "as authoritative assessments of the scientific knowledge on climate change" and that "none of the participants challenged the authoritative value of these reports".²² Furthermore, in addressing the relevant IPCC reports, the Tribunal not only summarized their content, but also explained procedural

²⁰ Request for an Advisory Opinion submitted by the Commission of Small Island States on Climate Change and International Law, Advisory Opinion of 21 May 2024, para. 46.

²¹ *Ibid*., para. 45.

²² Ibid., para. 51.

and methodological matters, such as how they are subject to review and endorsement by the IPCC member countries and their use of varying confidence levels. The Tribunal also highlighted in this section the oceanic uptake of CO₂ and the deleterious effects of anthropogenic greenhouse gases emissions on the ocean, which allowed it to anchor its legal opinions in sound scientific findings.

I will now explain how the legal reasoning developed by the Tribunal in support of its replies to the questions submitted by COSIS is interwoven with science. The first point I would like to draw your attention to is the Tribunal's assessment of whether anthropogenic greenhouse gas emissions fall within the definition of "pollution of the marine environment" in article 1, paragraph 1, subparagraph 4, of the Convention.²³ The Tribunal found that it first needed to resolve this matter before it could consider the question of specific obligations to prevent, reduce and control pollution of the marine environment.

Allow me to read out the relevant parts of article 1, paragraph 1, subparagraph 4, of the Convention:

For the purposes of this Convention ... "pollution of the marine environment" means 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.

The Tribunal found that this definition is composed of three cumulative criteria which determine what constitutes such pollution: first, there must be a substance or energy; second, this substance or energy must be introduced by humans, directly or indirectly, into the marine environment; and third, such introduction must result or be likely to result in deleterious effects.

After noting that one of the forms of energy is thermal energy or heat and pointing out that greenhouse gases are substances²⁴, the Tribunal determined that

²³ *Ibid*., para. 159.

²⁴ Ibid., paras. 163-164.

the first criterion was met. It then proceeded to the second criterion. When considering how the word "introduction" should be applied in the present case, the Tribunal referred to the IPCC reports it had summarized in the section of the Advisory Opinion addressing the scientific aspects of the case. It found that, "[a]ccording to the science", greenhouse gases "are directly introduced by humans into the marine environment" and "humans indirectly introduce energy into the marine environment through anthropogenic [greenhouse gases] emissions"²⁵. On the basis of these findings, the Tribunal concluded that the second criterion was satisfied. ²⁶

In the Tribunal's analysis of the third criterion of the definition, namely the requirement that the introduction of substances or energy must result or be likely to result in "deleterious effects", science yet again played a significant role. The Tribunal once more referred to the section of the Advisory Opinion dealing with the scientific aspects of the proceedings. With reference to the effects of climate change as set out in the IPCC reports, the Tribunal pointed out that "climate change, including ocean warming and sea level rise, and ocean acidification … produce multiple deleterious effects on the marine environment and beyond. These effects of climate change and ocean acidification are observed and explained by the science and are widely acknowledged by States".²⁷ Relying on these findings, the Tribunal reached the conclusion that the third criterion was also satisfied. Accordingly, it held that anthropogenic greenhouse gas emissions constitute pollution of the marine environment under the Convention.²⁸

Another notable aspect of the law-science interface is the relevance of science in shaping the content of relevant obligations under the Convention. Having found that anthropogenic greenhouse gas emissions constitute pollution of the marine environment, the Tribunal proceeded to examine article 194, paragraph 1, of the Convention. The latter provision requires States, *inter alia*, to take all necessary measures to prevent, reduce and control pollution of the marine environment from any source. The Tribunal presented a detailed assessment of what is meant by "necessary

²⁵ *Ibid.*, para. 172.

²⁶ *Ibid.*, para. 173.

²⁷ Ibid., para. 175.

²⁸ *Ibid.*, paras. 178-179.

measures". It found that such measures "should be determined objectively" and that "there are various factors States should consider in their objective assessment of necessary measures to prevent, reduce and control marine pollution from anthropogenic GHG emissions." In terms of identifying such factors, the Tribunal held that "[i]t is evident that the science is particularly relevant in this regard."²⁹ The Advisory Opinion further strengthens the connection between the Convention and science by stating that "[w]ith regard to climate change and ocean acidification, the best available science is found in the works of the IPCC which reflect the scientific consensus" and that "the assessments of the IPCC relating to climate-related risks and climate change mitigation deserve particular consideration."³⁰

In explaining the standard of the obligation of due diligence under article 194, paragraph 1, of the Convention, the Tribunal took another opportunity to rely on authoritative scientific findings. As the Advisory Opinion emphasizes, the "[b]est available science informs that anthropogenic GHG emissions pose a high risk in terms of foreseeability and severity of harm to the marine environment."³¹ Accordingly, the Tribunal considered that the standard of due diligence States must exercise in relation to marine pollution from anthropogenic GHG emissions "needs to be stringent."³²

On a final note, I wish to point out that these proceedings presented the Tribunal with legal questions referring to, *inter alia*, "climate change", "greenhouse gas emissions", and "ocean acidification". As you may well know, these terms do not appear in the text of the Convention. Nonetheless, the Advisory Opinion makes clear that the absence of such terminology does not place these phenomena beyond the scope of the Convention. Indeed, the Advisory Opinion of 21 May 2024 effectively brought climate change into the realm of the Convention. This offers us a powerful illustration of the fact that new ocean-related issues that were not necessarily in the minds of the drafters of the Convention back in the 1970s and early 80s, including complex scientific matters such as climate change, may be subject to the comprehensive legal order it has established.

- ³⁰ Ibid., para. 208.
- ³¹ *Ibid*., para. 241.
- 32 Ibid., para. 241.

²⁹ *Ibid*., paras. 206-207.

Having addressed the recent jurisprudence of the Tribunal, I now wish to turn to the third and last part of my speech, namely the procedural rules governing scientific and technical expertise as reflected in the Convention and the Rules of the Tribunal.

In many cases, the Tribunal has heard evidence presented by experts called by the disputing parties. According to articles 78 and 80 of the Rules of the Tribunal, or "the Rules", the parties may call experts to testify during the hearing. They are then subject to cross-examination by the opposing party and to questions from the judges. It should be noted that such experts are expected to be independent and provide unbiased information. Therefore, they shall remain out of court before testifying and are required as a first step to make a solemn declaration. While party-appointed experts can play an important role, their testimonies are not necessarily sufficient to establish the facts in a case. It cannot be assured that their opinions are neutral and oftentimes they focus on a fairly narrow range of issues.³³

Beyond relying on the parties to provide expert evidence, there are other possibilities for the Tribunal to take the initiative in the area of expert evidence. I will discuss two of these options. Firstly, in accordance with article 82 of the Rules, if the Tribunal considers it necessary, it may arrange for an inquiry or an expert opinion. In order to do so, the Tribunal would have to issue an order to this effect, after hearing the parties, in which it defines the subject of the inquiry or expert opinion, states the number and mode of appointment of the persons to hold the inquiry or of the experts and lays down the procedure to be followed. An apparent benefit of this type of expert opinion lies in its impartiality. Moreover, by providing parties with the opportunity to comment upon every report or record of an inquiry and every expert opinion, article 82 of the Rules ensures transparency and due process.³⁴

Thus far, the Tribunal has not made use of its powers under article 82 of the Rules. I should note that, in the *Mauritius/Maldives case*, the Special Chamber

³³ J-H Paik, "Disputes Involving Scientific and Technical Matters and the International Tribunal for the Law of the Sea", in T Heidar (ed), *New Knowledge and Changing Circumstances in the Law of the Sea* (Brill Nijhoff 2020), pp. 19-20.

³⁴ *Ibid.*, pp. 20-21.

considered whether it would be necessary to arrange for an expert opinion pursuant to article 82 of the Rules on scientific and technical issues concerning the delimitation of the continental shelf beyond 200 nm. It came to the conclusion that, in the circumstances of this case, it would not be appropriate to arrange for such an opinion.

In a declaration appended to the Judgment, I expressed the opinion that the Special Chamber would have benefited from such an expert opinion. In my view, an expert opinion would have served to strengthen the scientific and technical basis for the Special Chamber's conclusions. Moreover, the task of the experts would have been limited to assessing the scientific and technical data presented by the Parties in the proceedings, relevant to determining whether the Parties had demonstrated beyond significant uncertainty their entitlements to the continental shelf beyond 200 nm in the area concerned.³⁵

Article 289 of the Convention introduces another innovative procedure that may assist the Tribunal in its evaluation of the evidence. The provision reads as follows:

In any dispute involving scientific or technical matters, a court or tribunal exercising jurisdiction under this section may, at the request of a party or *proprio motu*, select in consultation with the parties no fewer than two scientific or technical experts chosen preferably from the relevant list prepared in accordance with Annex VIII, article 2, to sit with the court or tribunal but without the right to vote.

Unlike experts appointed under article 82 of the Rules, experts under article 289 of the Convention have a broader involvement in the case, since their role is not confined to a narrow subject and, more importantly, they could further facilitate the Tribunal's decisions by taking part in the judicial deliberations. Neither the Tribunal, nor other courts and tribunals under Part XV of the Convention, have availed themselves of the possibilities afforded by article 289 of the Convention. However, in my view, this provision has a lot of potential in cases involving complex issues of a scientific or technical nature.

³⁵ See Delimitation of the maritime boundary in the Indian Ocean (Mauritius/Maldives), Judgment of 28 April 2023, Declaration of Judge Heidar.

I have now come to the end of my presentation. With international law becoming increasingly more permeated with science, it is likely that we will witness an uptick in disputes involving complicated scientific matters, which may present challenges to international adjudicatory bodies. Nonetheless, as both the *Mauritius/Maldives* case and the Advisory Opinion given at the request of COSIS demonstrate, the Tribunal has not shied away from elucidating some of the more intricate science-intensive issues under the Convention. Coupled with adequate fact-finding and fact-assessment procedural means at hand, it can indeed be stated that the Tribunal stands ready to engage with science when it is necessary and to carry on its mandate well into the 21st century as a leading forum for the peaceful settlement of ocean disputes.