

Science *novit curia*? Damage evaluation methods and the role of experts in the *Costa Rica v Nicaragua* case

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1. Introduction

In the Judgment concerning the quantification of damages owed by Nicaragua to Costa Rica, issued on 2 February 2018 ('the 2018 Judgment'),¹ the International Court of Justice ('the Court') for the first time awarded compensation for damages to the environment. The facts of the case have been aptly recounted in Kindji and Faure's contribution to this Zoom-In.² The quantification of damages by the Court was preceded by the Court's finding in the 2015 Judgement on the merits that Nicaragua had violated Costa Rica's territorial sovereignty by initiating the excavation of canals on the territory of Costa Rica.³ In doing so, Nicaragua also disrupted the environment in an area which is included in the list of protected wetlands under the Ramsar Convention.⁴ As a result, the Court found that 'Nicaragua has the obligation to compensate Costa Rica for

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¹ *Certain Activities Carried out by Nicaragua in the Border Area (Costa Rica v Nicaragua)* Compensation, Judgment of 2 February 2018 para 41.

² K Kindji, M Faure, 'Assessing reparation of environmental damage by the ICJ: A lost opportunity?' (2019) 57 QIL-Questions Intl L 5, section 2. See also J Rudall, 'Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v Nicaragua)' (2018) 112 AJIL 288, 288-291.

³ *Certain activities carried out by Nicaragua in the Border Area (Costa Rica v Nicaragua)* and *Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica)* [2015] ICJ Rep 54 paras 69-70.

⁴ Convention on Wetlands of International Importance especially as Waterfowl Habitat (adopted 2 February 1971, entered into force 21 December 1975) 996 UNTS 245.



material damages caused by Nicaragua's unlawful activities on Costa Rican territory'. Given the lack of agreement between the parties on the question of compensation, the Court was therefore called upon to settle this matter in 2018.

The occasion was ripe with opportunities since the Court was offered the chance to provide guidance on several matters,⁵ including the methodology for assessing environmental damages and in particular the heatedly debated question of whether the Court should appoint its own experts when presiding over cases that present with complex scientific and technical aspects. In the case at hand, technical aspects such as *inter alia* the recovery period of environmental goods and the methodology for assessing the *quantum* of environmental damages were to be resolved by the Court to determine the appropriate amount of compensation. As suggested by Elena Fasoli,⁶ the Court could have decided the case either with reference to equity or by engaging in a technical examination of the damage caused by Nicaragua with the help of experts. This contribution argues that the Court has missed the opportunity to position itself on one side or other of the pendulum of these two opposite methodologies. In particular, while generally referring to the applicability of equity in cases where the quantification of damages cannot be based on clear evidence,⁷ the Court opted for an overall evaluation of damages and engaged with the evidence provided by the parties in a rather unclear methodological fashion. The result is a judgment that presents many flaws in its legal reasoning.

The next section substantiates this contribution's arguments with a detailed analysis of the most salient passages of the 2018 Judgement. Section 3 explores the issue of whether the Court could have availed itself of Court-appointed experts under Article 50 of the Court's Statute to base its judgment on firmer evidential grounds.⁸ The main conclusion is that,

⁵ See LC Lima, 'Weighing the evidential value of expert opinion: The Whaling Case' (2015) 14 QIL-Questions Intl L 31, 38-39.

⁶ E Fasoli, 'The ICJ and the compensation for environmental damage in Nicaragua/Costa Rica case: Does the application of equitable principles offset independent technical expertise?' (2019) 57 QIL-Questions Intl L 1, 3.

⁷ 2018 Judgment (n 1) para 35.

⁸ This contribution focusses exclusively on Court-appointed experts under Article 50 of the Court's Statute. The reasons for this choice are explained in section 3. Other typologies of experts that may intervene or have intervened in cases before the Court are party-appointed experts, experts intervening as counsel, invisible experts, assessors,



independently from the degree to which expert opinions may have had an impact on the outcome of the 2018 Judgment, the appointment and use of experts would certainly have contributed to a sounder legal reasoning by the Court.

2. Examining the choice of methodology in the judgment

The reasons why the methodology of the Court for determining the *quantum* of compensation appears unclear are numerous.⁹ In the first part of the Judgment, the Court made a methodological premise on the relevance of equitable considerations for determining the amount of compensation in the event that the evidence is otherwise inconclusive.¹⁰ This premise, however, did not have any great consequence on the rest of the judgment since the Court did not substantiate the final determination of the *quantum* with reference to equitable principles.¹¹

experts in specialised chambers, and assistants to the Registrar. See eg G Gaja, 'Assessing Expert Evidence in the ICJ' (2016) 15 L & Practice of Intl Courts and Tribunals 409, 417-418; M Bennouna, 'Experts before the International Court of Justice: What for?' (2018) 9 J Intl Dispute Settlement 345, 348; LC Lima (n 5); JG Sandoval Coustasse, E Sweeney-Samuels, 'Adjudicating conflicts over resources: The ICJ's treatment of technical evidence in the Pulp Mills case' (2011) 3 Göttingen J Intl L 447, 454.

⁹ See J Rudall (n 2) 293.

¹⁰ 2018 Judgment (n 1) para 35.

¹¹ In support of this view, see Dissenting opinion of Judge *Ad Hoc* Dugard para 10 and Dissenting opinion of Judge Bhandari paras 10-11. The reference by the Court to the arbitral decision in the *Trail Smelter* case is instead an example of determination of damages on the basis of equitable considerations in environmental cases. See *Trail Smelter case (United States, Canada), 16 April 1938 and 11 March 1941*, UN Reports of International Arbitral Awards (RIAA) vol III, 1920: 'Where the tort itself is of such a nature as to preclude the ascertainment of the amount of damages with certainty, it would be a perversion of fundamental principles of justice to deny all relief to the injured person, and thereby relieve the wrongdoer from making any amends for his acts. In such [a] case, while the damages may not be determined by mere speculation or guess, it will be enough if the evidence shows the extent of the damages as a matter of just and reasonable inference, although the result be only approximate.' In environmental cases, equity has been used to quantify damages when these cannot be determined with certainty. The compensability of environmental damages, even when these are difficult to quantify, is also established in the Draft Articles on State Responsibility, art 36 (2001) II/2 YB Intl L Commission 101 paras 13-15.

Other problematic aspects relate to the fact that, although the Court proceeded to award compensation to Costa Rica, it did so without identifying clear legal criteria on the quantification of damages. The Court started by partially dismissing both methods proposed by the parties.¹² At the same time, it also decided to take into account those elements ‘of either method’ that it stated ‘offer[ed] a reasonable basis for valuation’.¹³ The key element for appraising this decision, therefore, is to understand what a reasonable basis for valuation is and whether the Court has met this standard.

Since the Court did not engage with the issue of what a reasonable basis for the valuation of damages is, this contribution proposes referring to the established practice of international courts in order to give substance to this rather obscure formulation. The reasonable basis for valuation may be linked either to the standard of review employed by international courts when assessing scientific and technical evidence in complex disputes or to the decision of international courts to avail themselves of experts to evaluate scientific and technical evidence. The fact that other international courts have recurrently used these methods to justify their choices concerning the quantification of damages and the assessment of scientific evidence does not by any means imply that the Court would be obliged to follow the same standards. However, in the absence of a clearly identifiable approach by the Court, the purpose of this contribution is to propose viable alternatives.

Concerning the applicable standard of review, the dispute settlement mechanism of the World Trade Organization (‘WTO’) has considered, for example, that judges must base their conclusions on the legal appraisal of scientific matters not from a first-hand examination of scientific elements—for which they are not competent—but rather from the conclusiveness of the evidence provided by the parties.¹⁴ In other words, as

¹² Costa Rica proposed the ‘ecosystem services approach’ (2018 Judgment (n 1) para 45) while Nicaragua suggested the ‘ecosystem service replacement cost’ (ibid para 49). On this point, see K Kindji, M Faure (n 2) section 2.

¹³ 2018 Judgment (n 1) para 52.

¹⁴ MM Mbengue, ‘Scientific Fact-finding at the International Court of Justice: An Appraisal in the Aftermath of the Whaling Case’ (2016) 29 *Leiden J Intl L* 529, 547: ‘the task of the panel, is not to assess the risk on its own accord... Instead, the panel’s duty is “to determine whether the risk assessment is supported by coherent reasoning and respectable scientific evidence and is, in this sense, objectively justifiable”.’



emerged from the Joint Dissenting Opinion of Judges Al-Khasawneh and Simma in the *Pulp Mills* case, ‘the task of a court of justice is not to give a scientific assessment of what has happened, but to evaluate the claims of parties before it and whether such claims are sufficiently well-founded so as to constitute evidence of a breach of a legal obligation’.¹⁵ Although not an uncontested methodology,¹⁶ this standard of review was utilised in the *Whaling* case in 2016, where the Court considered whether the taking and killing of whales, carried out by Japan and contested in the case, were justifiable as conceived for the purposes of scientific research in light of the assessable connection between foreseen actions and the stated objectives of the programme.¹⁷ Therefore, one could have legitimately expected that the Court would also have made recourse to the standard of review in the 2018 Judgment, albeit for the different objective of assessing scientific evidence while evaluating the parties’ submissions on the quantification of damages. As will be illustrated subsequently in the present section, this is the case only to a limited extent and with some inherent limitations.

As stated, the alternative to the standard of review would be for the Court to actually engage in the weighing of scientific arguments through the help of experts. There might be disputes where such recourse to experts would in fact be indispensable, such as when ‘a scientific question needs to be resolved for arriving at a conclusion on a factual issue’.¹⁸ In these cases, ‘[t]he adjudication of disputes...requires an interweaving of legal process with knowledge and expertise that can only be drawn from experts properly trained to evaluate the increasingly complex nature of the facts put before the Court’.¹⁹

¹⁵ Joint Dissenting Opinion of Judges Al-Khasawneh and Simma in the case concerning *Pulp Mills on the River Uruguay (Argentina v Uruguay)* (Merits) [2010] ICJ Rep 110, para 4.

¹⁶ G Gaja (n 8) 411: ‘this approach is open to criticism when the conclusion that evidence is insufficient would require an analysis of scientific or technical matters’. See also Dissenting Opinion of Judge Yusuf in the *Whaling* case *infra*.

¹⁷ *Whaling in the Antarctic (Australia v Japan: New Zealand intervening)* [2014] ICJ Rep 226 para 67. See MM Mbengue (n 14) for a critique of the way in which the standard of review has been applied in the case.

¹⁸ MM Mbengue (n 14) 548.

¹⁹ Joint Dissenting Opinion of Judges Al-Khasawneh and Simma in *Pulp Mills* (15) 110 para 3. See also G Gaja (n 8) 415.

To sum up, reasonableness in the 2018 Judgment must be assessed either through the application of the above-mentioned standard of review or via recourse to expert opinion. Looking at the reasoning of the Court, neither of these criteria seem to be fully satisfied.

When discussing the choice of adopting an ‘overall assessment’ method in order to offset the limitations of the methods proposed by the parties for the quantification of damages,²⁰ the Court proceeded to justify this choice with reference to three reasons. First—the Court maintained—an overall assessment would allow the judges to take into account the consequences following from ‘the most significant damage to the area’, that is the ‘removal of trees’.²¹ Although one can intuitively understand why trees are the cornerstone of many ecosystems, the Court failed to justify this conclusion on the basis of either the evidence provided by the parties or the opinion of experts on this point. It seems therefore that a reasonable basis for selecting tree removal as the main source of damage has not been provided in this case. Ad hoc Judge Dugard also noted in his Dissenting opinion that the significance of tree felling is contradicted by ‘[t]he failure of the Court to address the value to be attached to the loss of ‘close to 300 trees’, many of which were over 100 years old’.²²

The second reason the court used for using an overall assessment is that the area affected is a wetland protected under the Ramsar Convention and, as such, it provides many interlinked environmental goods and services.²³ In this case, both the significance of the wetlands and their importance as unitary ecosystems is supported by the existence of an international legal instrument protecting the wetland at stake to which Costa Rica and Nicaragua are parties. Therefore, the choice of using an ‘overall assessment’ method to quantify damages to ecosystems, such as wetlands, that are internationally protected for their inner interconnectivity, is justifiable purely in terms of legal reasoning.

The third reason put forward to justify the methodology adopted by the Court, instead, refers again to a technical evaluation, namely that ‘such an overall evaluation will allow the Court to take into account the

²⁰ 2018 Judgment (n 1) para 78.

²¹ *ibid* para 79.

²² Dissenting opinion of ad hoc Judge Dugard para 16.

²³ 2018 Judgment (n 1) para 80.



capacity of the damaged areas for natural regeneration'.²⁴ The Court did not justify this evaluation with reference to the evidence provided by the parties or to expert opinions. In fact, the regeneration period was a point of contention between the parties.²⁵ Furthermore, the correspondence between the method of an overall assessment and the capacity of the Court to evaluate the natural regeneration of the affected area is somehow contradicted by the admission of the Court that 'a single recovery period cannot be established for all of the affected environmental goods and services'.²⁶ Some authors have also highlighted that assessing recovery periods without establishing clear baseline conditions upon which recovery can be judged is another technical misconception of the reasoning followed by the Court.²⁷

Where the Court relied on expert opinions provided by the parties, it did so in ways that do not appear fully justified. For instance, the Court appears to have rejected Costa Rica's proposed methodology 'particularly in light of the criticism raised by Nicaragua and its experts in the written pleadings'.²⁸ On the one hand, this reasoning follows from the established principle of the burden of proof, according to which the Claimant must provide conclusive evidence to substantiate its demands (*actori incumbit probatio*).²⁹ On the other hand, the argument of the Court was supported solely by the opinion of experts nominated by Nicaragua, whose reliability was not discussed in the judgment. This is in contrast with settled case law according to which the Court would not rely on *ex parte* expert opinions when these contradict one other.³⁰ Notwithstanding the fact that expert opinions were used by the parties to propose quantification methodologies both very distant from one another and which produced very different results in terms of the actual quantification of damages, the Court relied on the expert advice provided

²⁴ *ibid* para 81.

²⁵ Costa Rica claimed that the affected area would have a regeneration period of 50 years (*ibid* para 56), while Nicaragua contended that each natural resource affected would have a different recovery period (*ibid* para 59).

²⁶ *ibid* para 82.

²⁷ J Rudall (n 2) 292.

²⁸ 2018 Judgment (n 1) para 76.

²⁹ On the complexities of assessing the burden of proof, see J Pauwelyn, 'Defenses and the burden of proof in international law' in L Bartels, F Paddeu (eds), *Exceptions and defences in international law* (OUP 2018).

³⁰ See below (n 67).

by Nicaragua.³¹ Based on this particular reasoning adopted by the Court, therefore, it could be expected that in future cases the Respondent could have a probatory advantage if it were able to substantiate its counterarguments with expert opinions. A remedy to this limitation may be the appointment by the Court of its own experts, who could provide the Court with reasonable arguments—based on an evaluation of evidence in light of substantive scientific criteria—to justify the choice of methodology for the quantification of environmental damages.³²

However the 2018 Judgment does not consistently support the conclusion that expert opinions of the Respondent would always take precedence. For instance, concerning the determination of the amount of damage suffered in the restoration of wetlands, notwithstanding Nicaragua's counterarguments, the Court decided to uphold Costa Rica's methodology.³³ In this case, therefore, the Court did not automatically give precedence to the contradictory opinion provided by the experts appointed by the Respondent. What is most problematic, again, is that the Court did not provide any 'reasonable basis' for rejecting the Respondent's argument since, again, it did not refer either to the conclusiveness of the evidence provided by the parties (standard of review) or to the decisiveness of the expert opinions on this point.

Another element that needs to be stressed is that what appears to be a neutral assessment of the evidence provided by the parties may be problematic when complex scientific evaluations are at stake. For instance, the Court simply dismissed the choice of methodology for the quantification of damages in relation to raw materials on the basis of the fact that Nicaragua did not provide—in the Court's view—enough supporting evidence.³⁴ However, the very estimation of what is a sufficient threshold

³¹ The overall amount claimed by Costa Rica for the damages suffered following the wrongful activities carried out by Nicaragua was 2,880,745.82 US dollars (2018 Judgment (n 1) para 57). Nicaragua's quantification of the same damages was between 27,034 and 34,987 US dollars (ibid para 58). The Court would eventually award 120,000 US dollars to Costa Rica for the impairment or loss of the environmental goods and services (ibid para 86).

³² This issue is explored in depth in section 3.

³³ 2018 Judgment (n 1) para 87.

³⁴ ibid para 85. In the same para the Court moved to assess the valuation method used for the quantification of damages in relation to gas regulation and air quality services. In this case, the Court did not even refer to the evidence provided by Nicaragua. A very different thing from the choice of methodology is instead to evaluate the amount of the



of probatory evidence, both in quantitative and qualitative terms, might be a difficult if not impossible undertaking for jurists not adequately supported by technical experts. With the purpose of correctly evaluating both the nature and the amount of needed evidence, recourse to independently-appointed experts might be potentially a decisive element, especially where parties' experts contradict one another, as occurred in the 2018 Judgment. In other words, even if the Court had diligently adopted the standard of review in the 2018 Judgment—which it decidedly had not—the final decision might not have appeared more sound in legal terms because the weighing given to party-evidence is hardly performed in an objective way by judges in cases where facts are interwoven with scientific evaluation. In particular, the choice of methodology for determining the *quantum* of environmental damages clearly implies a scientific evaluation since, as admitted by the Court, international law has not so far indicated a preferred method for the quantification of environmental damages.³⁵

In light of the above, the question arises as to where this case is positioned in terms of advancing clarity on the balance between equity and the opportunity to consult external experts. It can be concluded that the Court has not adhered to either of the two approaches sketched out in the question posed in this QIL Zoom-In.³⁶ As said, equitable principles were not fully considered in the quantification of environmental damages, since the total amount awarded to Costa Rica was based on an evaluation of the head of damages and of what had been proven by the parties. Nor have experts proven decisive since the Court partially rejected the methods for the quantification of damages proposed by the parties. At the same time, the Court relied on some evidence put forward by the parties with reference to expert opinions without however providing reasonable explanations as to the legal and technical reasons for making one Party's evidence prevail over the other.

The question that will be addressed in the following section is thus whether or not the Court could have done better by providing its own experts.

costs sustained by the Claimant, for which the Court reasonably relied on the evidence provided by Costa Rica (ibid paras 92 ff).

³⁵ ibid para 52.

³⁶ E Fasoli (n 6) 3.

3. *Sliding doors: what if the Court had appointed its own experts pursuant to Article 50 of the Court's Statute?*

As discussed in the previous section, the Court did not appoint its own experts under Article 50 of the Court's Statute.³⁷ This section clarifies in which cases independent experts can be consulted and discusses the central issue of how to assess their reliability. This section furthermore illustrates previous judicial practice of the Court concerning the appointment of *ex curia* experts. These points are instrumental for evaluating whether the Court could have provided a reasonable basis for valuation, had it appointed independent experts.

3.1. *Experts under the Statute and the Rules of the Court*

Pursuant to Article 50 of the Statute of the Court, '[t]he Court may, at any time, entrust any individual, body, bureau, commission, or other organization that it may select, with the task of carrying out an enquiry or giving an expert opinion.' The Court, therefore, has a general power to nominate individual or institutional experts entrusted with providing opinions on specific questions that may emerge during any case. This provision is very flexible both because it does not prescribe a time-frame for appointing experts³⁸ and because it does not foresee any kind of minimum threshold of the complexity of the case that must be reached for the Court to be able to appoint its own experts.³⁹ Some authors, however,

³⁷ By reading the 2018 Judgment (n 1) the present Author was not able to establish whether the Court hired other kinds of experts, such as technical staff of the Registry or *experts fantômes*. Concerning the latter category, the Court by definition is not transparent in the nomination of *experts fantômes*. Therefore, it is hard to judge the impact on the final decision of these experts, let alone for issues concerning the transparent administration of justice. It is not possible, however, to exclude that some experts have influenced the final decision. For references on this point, see *infra* (n 54).

³⁸ On this point, G Gaja (n 8) 417 observes that in any event experts will be consulted before a deliberation is taken.

³⁹ See also art 62 Rules of Court (emphasis added): '1. The Court may at any time call upon the parties to produce such evidence or to give such explanations as the Court may consider to be necessary for the elucidation of any aspect of the matters in issue, or may itself seek other information for this purpose. 2. The Court may, if necessary, arrange for the attendance of a witness or expert to give evidence in the proceedings.' This flexibility is in line with that provided by other international jurisdictions, such as the dispute settlement mechanism of the WTO. See eg D Peat, 'The use of court-appointed experts



have called for caution in the exercise of this prerogative by the Court, both in view of past practice, which has been parsimonious so far, and because of a supposed risk of shifting the judicial function to non-jurists that have not received the approval of the parties in dispute.⁴⁰

Concerning the former point, a brief consideration of existing practice to date on Court-appointed experts under Article 50 of the Statute of the Court shows that independent experts have been crucial in the determination of the *quantum* of non-environmental damages, such as in the *Corfu Channel* case,⁴¹ in the *Gulf of Maine* case⁴² and in the *Diallo* case⁴³ before the Court, as well as in the *Factory at Chorzów* case before the Permanent Court of International Justice.⁴⁴

In the case of environmental damages, where the elements to be evaluated are highly technical, the appointment of independent experts by the Court would be even more justifiable. However, it is exactly in those cases that the Court has refrained from appointing its own experts, usually by avoiding the award of compensation. In the *Pulp Mills* no compensation was awarded because the Court did not find a breach of substantive obligations and therefore excluded reparation.⁴⁵ In the *Gabčíkovo-Nagymaros* case, compensation was dismissed since both parties would have been entitled to it given the damages sustained as a consequence of the other Party's wrongful actions.⁴⁶ The *Whaling* case did not concern compensation but represents another notable example of complex environmental case where the Court decided not to appoint its

by the International Court of Justice' (2014) Legal Studies Research <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2495450> 22 ff; JG Devaney, *Fact-finding before the International Court of Justice* (CUP 2016) 128-150.

⁴⁰ M Bennouna (n 8) 351.

⁴¹ *Corfu Channel (United Kingdom of Great Britain and Northern Ireland v Albania)* (Merits) [1949] ICJ Rep 35.

⁴² *Delimitation of the Maritime Boundary in the Gulf of Maine Area (Canada/United States of America)* [1984] ICJ Rep 246.

⁴³ *Ahmadou Sadio Diallo (Republic of Guinea v. Democratic Republic of the Congo)* [2012] (I) ICJ Rep 332.

⁴⁴ *Factory at Chorzów (Merits)* [1928] PCIJ Ser A No 17, 29. On the quantification of damages in all of the abovementioned cases, see M Bennouna (n 8) 347; D Peat (n 39) 6, 9; JG Devaney (n 39) 21-25; J Rudall (n 2) 292-293; G Gaja (n 8) 416.

⁴⁵ Dissenting opinions of some Court judges on the need to consult experts however have been issued and have been referred to *supra*.

⁴⁶ *Gabčíkovo-Nagymaros Project (Hungary/Slovakia)* [1997] ICJ Rep 7 para 153.



own experts.⁴⁷ In the *Whaling* case the cross-examination of party-appointed experts was a crucial part of the solution of the case. Notwithstanding the engagement of both parties and judges with scientific expertise, however, the judgment was criticized for the way in which the Court handled the scientific material at hand.⁴⁸ It is therefore arguable and beyond the scope of this contribution to conclude whether or not the appointment of independent experts by the Court in these cases could have produced different, and more acceptable, legal solutions on the part of the Court.

Regarding the supposed risk of shifting the judicial function to non-jurists, Judge Yusuf, in his Declaration appended to the *Pulp Mills* case,⁴⁹ convincingly argued that, although—or maybe because—judges remain primarily responsible with discharging their judicial function in complex cases that require scientific expertise, expert opinions are decisive for the judges to correctly understand the facts and ultimately correctly apply the law.⁵⁰ In the application of the principle *jura novit curia*, the appointment of experts may be intended as a safeguard rather than a threat for the Court to remain the only judge as far as legal qualifications are concerned. Furthermore, ‘the use of an enquiry or an expert report by the Court has the advantage of enhancing the confidence of the parties in the technical evaluation by the Court’.⁵¹ Therefore, appointing independent experts may actually increase the responsiveness of the Court to the need of the parties to receive transparent and reliable justice. What is crucial then, in order to ensure a balance between the judicial function and the role of experts, is that the Court must carefully delimit the mandate of

⁴⁷ See LC Lima (n 5) and MM Mbengue (n 14).

⁴⁸ See eg MM Mbengue (n 14) and D Tamada, ‘Unfavourable but unavoidable procedures: Procedural aspects of the Whaling case’ in M Fitzmaurice, D Tamada (eds), *Whaling in the Antarctic: Significance and implications of the ICJ judgment* (Brill Nijhoff 2016) 163, 185-186.

⁴⁹ *Pulp Mills* (n 19) 14.

⁵⁰ Declaration of Judge Yusuf in the *Pulp Mills* (n 19) 207 paras 5-6 and 219 para 10. See also JG Sandoval Coustasse, E Sweeney-Samuels (n 8) 450, who use the same arguments with particular reference to environmental disputes; L Savadogo, ‘Le recours des juridictions internationales à des experts’ (2004) 50 *Annuaire Français de Droit International* 231, 244, who calls for caution but recognizes the importance of experts in some cases.

⁵¹ Declaration of Judge Yusuf in the *Pulp Mills* case (n 19) 207, para 7, and 220 para 13.



experts.⁵² Defining a clear mandate for the experts is not only desirable but also required under Article 67(1) of the Rules of Court, according to which the Court shall issue an order to nominate experts and to define ‘the subject of the enquiry or expert opinion’.

Concerning the acceptability of appointing experts by the parties in dispute, procedural rules clearly point to the fact that experts are to be nominated after consultation with the parties.⁵³ Moreover, compared to less transparent means of calling upon expert opinions in the practice of the Court, such as expert-counsel or *experts fantômes*,⁵⁴ Court-appointed experts have two clear advantages, namely that they can be cross-examined by the parties and that their reports must be made available to the parties, which may comment upon them.⁵⁵

⁵² Declaration of Judge Yusuf in the *Pulp Mills* (n 19) 219 para 10: the Court ‘should, in the first instance, identify the areas in which further fact-finding or elucidation of facts is necessary before resorting to the assistance of experts’.

⁵³ Art 67(1) Rules of Court (emphasis added): ‘If the Court considers it necessary to arrange for an enquiry or an expert opinion, it shall, *after hearing the parties*, issue an order to this effect, defining the subject of the enquiry or expert opinion, stating the number and mode of appointment of the persons to hold the enquiry or of the experts, and laying down the procedure to be followed. Where appropriate, the Court shall require persons appointed to carry out an enquiry, or to give an expert opinion, to make a solemn declaration.’

⁵⁴ On these categories of experts, see JG Sandoval Coustasse, E Sweeney-Samuels (n 8) 468; F Romanin Jacur, ‘Remarks on the Role of Ex Curia Scientific Experts in International Environmental Disputes’ in N Boschiero and others (eds), *International Courts and the Development of International Law* (TMC Asser Press 2013) 452; D Peat (n 39) 19; LC Lima (n 5) 33. In the *Pulp Mills* case (n 19) para 167, the Court has clarified that expert counsel are to be avoided and to add to that it must be preferred experts that can be cross-examined. On this point, see Y Kerbrat, S Maljean-Dubois, ‘La Cour internationale de justice face aux enjeux de protection de l’environnement: Réflexions critiques sur l’arrêt du 20 avril 2010, Usines de pâte à papier sur le fleuve Uruguay (Argentine c. Uruguay)’ (2011) 115 *Revue Générale de Droit International Public* 39, 24 of the pre-print version downloaded on ResearchGate.

⁵⁵ See art 51 Statute of the Court: ‘During the hearing any relevant questions are to be put to the witnesses and experts under the conditions laid down by the Court in the rules of procedure referred to in Article 30.’ Art 65 Rules of Court: ‘Witnesses and experts shall be examined by the agents, counsel or advocates of the parties under the control of the President. Questions may be put to them by the President and by the judges.’ Art 67(2) Rules of Court: ‘Every report or record of an enquiry and every expert opinion shall be communicated to the parties, which shall be given the opportunity of commenting upon it.’ See also JG Devaney (n 39) 231-237.

When compared to party-appointed experts Court-appointed experts present some advantages both in terms of transparency of the decision taken by the Court and in terms of the possibility for the Court to correctly evaluate the facts in order to reach sound legal conclusions. Partisan expertise may not be conclusive, as seen in the case in the 2018 Judgment, since party-appointed experts may come to opposite conclusions as to the presentation and evaluation of scientific facts and methodologies.⁵⁶ In the case of conflicting expert opinions, therefore, Court-appointed experts may provide the Court with a firmer basis upon which the Court can evaluate evidence submitted by the parties in the form of expert opinions. For instance, in the 2018 Judgment, Court-appointed experts could have provided the Court with the elements to better justify the limitations of the methods for the quantification of damages proposed by the parties. Similarly, experts could have assisted the Court with the identification of a more coherent method by which to determine the *quantum* of damages, with the assessment of baseline conditions, and with the evaluation of the weight of the arguments and evidence proposed by party-appointed experts.

Of course, even when appointing its own experts, the Court cannot expect uncontested truth.⁵⁷ Experts can express majoritarian or minority views about the technical issues at stake, their views might be biased by the specific discipline on which their knowledge is based, or experts themselves might have their personal biases. According to Article 64 of the Rules of Court, experts must declare that their 'statement will be in accordance with [their] sincere belief'. Procedural rules of the Court, thus, recognise that evidence provided by experts will never be about undisputable facts but rather about reasoned and methodologically sound ways to interpret reality.⁵⁸ It is, therefore, of the utmost importance that the Court considers the issue of the reliability of experts and finds legal ways to weigh expert opinions. This issue is briefly explored in the following subsection.

⁵⁶ See G Gaja (n 8) 412. See also Joint Dissenting Opinion of Judges Al-Khasawneh and Simma in the *Pulp Mills* (n 19) 112 para 9.

⁵⁷ See L Butti, 'L'utilizzo della scienza nel diritto ambientale' (2014) 2 *Rivista Giuridica dell'Ambiente* 129, 142.

⁵⁸ See JG Devaney (n 39) 79-80.



3.2. *The issue of the reliability of experts*

The reliability of experts may be evaluated by the Court on the basis of either internal factors concerning the personal and professional qualifications of the nominated experts or external factors concerning the probative weight of the opinions expressed. In both cases, the Court's rules do not address these issues⁵⁹ and limited responses can be found in the practice of the Court and other international jurisdictions most frequently related to the evidential weight to be assigned to the opinions of party-appointed experts.

When it comes to the independence and impartiality of experts, this is, for instance, modelled on that of the judges in the Statute and the Rules of the Tribunal of the International Tribunal for the Law of the Sea (ITLOS), since both expert and judges must enjoy 'the highest reputation' for fairness, competence and integrity.⁶⁰ In the practice of the WTO dispute settlement mechanism, parties have been granted with the possibility to object to the experts nominated by the Panel.⁶¹ Disqualification of experts by reason for instance of their lack of competence is also foreseen in the Statute of Court of Justice of the European Union.⁶² None of these criteria, however, have explicit resonance in the 2018 Judgment.

Regarding external factors, an important element emerging from the practice of the Appellate Body of the WTO is that—as obvious as it may seem—judges must autonomously assess the weight to ascribe to expert opinions to the point that they can completely dismiss the relevance of the advice received.⁶³ This conclusion is of course related to the fact that

⁵⁹ See M Bennouna (n 8) 350: 'the Statute and the Rules of Court are silent on the required qualifications of experts. This raises a question mark as to the weight the Court should place on the findings of experts'; JG Devaney (n 39) 44: 'no provisions in the Court's Statute or Rules which specifically address the probative weight that the Court should give to evidence submitted to it'.

⁶⁰ L Savadogo (n 50) 241. Art 2 ITLOS Statute and art 15(3) Rules of the Tribunal.

⁶¹ *EC Measures Concerning Meat and Meat Products (Hormones)* Report of the Panel paras 6.5-6.9.

⁶² *ibid* 242. Art 72 Rules of Procedure of the Court of Justice.

⁶³ *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, Report of the Appellate Body para 104: 'It is particularly within the province and the authority of a panel to determine the *need for information and advice* in a specific case, to ascertain the *acceptability and relevancy* of information or advice received, and to decide *what weight to ascribe to that information or advice* or to conclude that no weight at all should be given to what has been received' (emphasis added).

judges are exclusively competent for discharging the judicial function. Notwithstanding the complexities of assessing the relevance of expert opinions, no explicit rules exist in the context of the Court. Indeed, the Rules of the Court, as noted by Devaney, contain the requirement of cross-examination of experts, which represents a crucial element when assessing the reliability and relevance of expert opinions.⁶⁴ The parties and the judges themselves in the oral proceedings may ask for clarifications, raise limited concerns on selected issues, and even overtly challenge the positions taken by individual experts on the whole. The questioning of *ex parte* experts by the Court happened for the first time in the *Whaling* case, where the Court laid down an *ad hoc* procedure to conduct the cross-examination and then the interrogation of experts.⁶⁵ The possibility to directly engage with experts, therefore, is a significant procedural guarantee that *inter alia* allows judges to test the reliability of the expert opinions for the final decision.

From the practice of the Court concerning party-appointed experts it is possible to draw some additional elements, such as the superior weight assigned to experts who make declarations against the interest of the party that has nominated them.⁶⁶ In the context of assessing the evidential weight of Court-appointed experts this element is hardly relevant, though. More interesting is the fact that the Court has assigned more relevance to the evidence on which experts appointed by both parties were able to agree.⁶⁷ Therefore, Court-appointed experts may become critical for confirming or dismissing the opinions provided by party-appointed experts. However, the role of Court-appointed experts cannot be deemed decisive in all cases for two main reasons. First, the function of

⁶⁴ JG Devaney (n 39) 222-223. Cross-examination duties have been described in the previous sub-section.

⁶⁵ See *Whaling* case (n 17) paras 20-21. On this case and the techniques used for questioning, see MM Mbengue (n 14) 539 and D Tamada (n 48). The Court adopted the same procedure in *Construction of a Road in Costa Rica along the San Juan River (Nicaragua v Costa Rica)* Merits [2015] ICJ Rep 28 para 45.

⁶⁶ JG Devaney (n 39) 46-47; LC Lima (n 5) 36. See also *Military and Paramilitary Activities in and against Nicaragua (Nicaragua v United States of America)* Merits [1986] ICJ Rep 14 para 64; *Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v Uganda)* [2005] ICJ Rep 168 para 61.

⁶⁷ See MM Mbengue (n 14) section 3, who affirms that in the *Nicaragua v Costa Rica* Judgment of 2015, 'the Court's conclusions were often drawn from the fact that experts of both parties were in agreement on certain issues'. See also LC Lima (n 5) 37, who raises the same point concerning the *Whaling* case.



experts should be limited to only providing judges with elements to better understand the facts and to justify legal choices based on a more informed understanding of the facts. Second, the complexity of the scientific issues at stake might be so high, the state of scientific discussion so undefined, or the findings of the scientific community so uncertain that even expert views alone might not help judges to reach firm conclusions on factual elements.

Since assessing the reliability of experts directly affects the evidential value to be attributed to expert opinions and in view of a foreseeable growing number of complex cases concerning scientific issues to be heard by the Court in the future,⁶⁸ it would have certainly been useful for the Court to discuss those issues in the 2018 Judgement. The Judgment therefore is not only deceptive because it does not provide elements to strike a balance between equity and the use of experts, but also because it failed to address either the issue of the internal reliability of experts or the issue of the evidential weight to assign to expert opinions. Although it goes far beyond the scope of this contribution, a suggested avenue to fill these gaps in the future is to look at the rules and practice of national courts concerning the admission of proof and the assessment of experts. Although some national rules could be too rigid for the Court, some general principles could possibly be a source of inspiration, such as the need for the judge to justify the rejection of expert opinions, the need to verify the consistency of expert opinions with other types of evidence, and the possibility to create lists of suitable experts.⁶⁹

⁶⁸ This last point emerges *inter alia* from the Joint Dissenting Opinion of Judges Al-Khasawneh and Simma and the Declaration of Judge Yusuf in the *Pulp Mills* case (n 19).

⁶⁹ These examples are taken from a limited analysis of the relevance of expert opinions in civil and criminal proceedings in Italy. It was outside the scope of this contribution, however, a comprehensive comparative research on the role of experts in national judicial proceedings. See P Tonini, *Manuale di procedura penale* (Giuffrè 2017) 356-357; C Mandrioli, A Carratta, *Diritto processuale civile* (Giappichelli 2017) 203, 207. In particular, when assessing the weight to be attributed to expert opinions, the Italian criminal judge must evaluate *inter alia* whether the theory on which experts found their views can be falsified, whether the arguments used have been object of a scholarly publication, and whether the opinion expressed are based on knowledge and theories that are up-to-date (P Tonini 357, 359). The last point (list of experts) has emerged from J Morand-Deville, 'Olivier Leclerc. Le juge et l'expert – Contribution à l'étude des rapports entre le droit et la science' (2006) 58 *Revue Internationale de Droit Comparé* 1012, at 1013.

4. Conclusion

This contribution has argued that the 2018 Judgment presents at least two main flaws. First, it has not provided guidance on whether environmental damages must be quantified on the basis of equity or through the advice of experts. Second, it has failed to address the issue of how to weigh the reliability of expert opinions in the final decision of the Court.

Section 2 has shown that the arguments used by the Court to accept or reject the propositions and evidence of the parties is not grounded on sound legal reasoning and is often contradictory. Concerning the choice of the ‘overall assessment’ as the preferred methodology for the quantification of damages, the Court’s motivation is based neither on the standard of review nor on the conclusiveness of the evidence. While in some cases the Court seems to adhere to the normal rules on the burden of proof, in other instances the Court dismisses the evidence provided by either the Claimant or the Respondent on the basis of considerations concerning the methodology to quantify environmental damages that are not fully justified, since the Court adheres to *ex parte* expert opinions that contradict each other. Furthermore, the Court has failed to aptly make use of expert opinions based on a limited recognition that the evaluation of evidence in complex cases involving scientific and technical considerations requires a thorough understanding of these technical issues in order to reach sound legal conclusions. Experts may play a crucial role in this endeavour.

Since partisan experts may often come to opposite conclusions, section 3 has posited the question of whether the use of Court-appointed experts could have remedied the shortcomings of the judgment identified in the first part of the contribution. Section 3 has addressed this question by examining the prerogatives of the Court under Article 50 of the Court’s Statute, by focusing on the issue of assessing the reliability of experts and expert opinions, and by shortly recounting the existing practice of the Court of nominating its own experts. Although existing rules do not explicitly address the evidential weight of expert opinions, they provide the Court with the crucial prerogative to appoint its own experts in ways that may contribute to sounder legal reasoning, more transparent justice, and more informed decisions in court. As said, experts may contribute to clarify the facts and/or to correctly evaluate evidence, which in



turn is instrumental for ensuring that judges correctly apply the law.⁷⁰ Furthermore, contrary to what is commonly argued, Court-appointed experts may increase the acceptability of Court decisions for the parties in dispute, both since independent experts are subject to cross-examination and since ultimately the judicial function must remain firmly in the hand of judges. The paradox of failing to consult independent experts for fear of delegating Court's decision-making powers to scientists is that the Court's decisions are subject to more discretion since the Court is obliged to appraise scientific arguments without having the technical competences to do so.

Having said that, the possibility to appoint experts is a mere faculty of the Court and there is no obligation for the Court to do so, even in cases requiring the appraisal of complex scientific knowledge. The Court has been reluctant to nominate its own experts in previous practice. However, it has done so in cases concerning the quantification of non-environmental damages. In this light, it is hardly understandable why the Court has not adopted a similar approach in the 2018 Judgment which, as an environmental case, presented inherent complexities concerning the choice of methodology of quantifying damages. Ultimately, the main problem is not whether or not the Court should make use of independent experts—the answer is probably yes—but whether the Court manages to be both transparent in its decisions and fully cognizant of factual elements without appointing its own experts under Article 50 of its Statute.⁷¹ Although the increasing complexities of the modern world cannot be discounted or avoided simply by referring to science, the 2018 Judgment has demonstrated that the Court has only to gain in transparency, fairness and accuracy when nominating independent experts.

⁷⁰ To problematize the issue concerning the fine line dividing facts and law, see MA Orellana, 'The Role of Science in Investment Arbitrations Concerning Public Health and the Environment' (2006) 17 YB Intl Envl L 48, 53.

⁷¹ For a similar view, see Dissenting opinion of Judge ad hoc Dugard in the 2018 Judgment (n 1) para 22.