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Case Note

Costa Rica v. Nicaragua and Nicaragua v. Costa Rica: Some Reflections on the Obligation to Conduct an Environmental Impact Assessment

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The Costa Rica v. Nicaragua and Nicaragua v. Costa Rica cases gave rise to important questions concerning States' procedural and substantive obligations under international environment law, namely: the obligation to conduct an environmental impact assessment; the obligation to notify and consult; and substantive obligations concerning transboundary harm. The joint decision of the International Court of Justice (ICJ) provides interesting insights into the interpretation of these obligations, especially that of conducting an environmental impact assessment. In particular, the ICJ has highlighted the interlinkage between the obligations of due diligence, to conduct an environmental impact assessment, and to notify and consult; as well as the importance of scientific evidence in the settlement of disputes concerning environmental matters.

the two cases.³ It then delivered its judgment on 16 December 2015.⁴

The two cases considered a wide range of issues, such as: (i) sovereignty over the disputed territory and alleged breaches thereof; (ii) alleged violations of international environmental law; (iii) compliance with provisional measures; (iv) rights of navigation; (v) alleged breaches of treaty obligations; and (vi) reparation. This case note examines the environmental issues that have been ascertained by the ICJ in these two cases. The following section briefly outlines the course of the litigation. Next, the case note examines the obligation to conduct an environmental impact assessment and to notify and consult, respectively. It then addresses substantive obligations concerning transboundary harm, before offering conclusions.

INTRODUCTION

Disputes between Costa Rica and Nicaragua derived from activities of the two States in the San Juan River area. On 18 November 2010, Costa Rica instituted proceedings against Nicaragua in the case concerning *Certain Activities carried out by Nicaragua in the Border Area* (hereafter *Costa Rica v. Nicaragua*) on the basis of Article XXXI of the Pact of Bogotá¹ and Article 36.2 of the Statute of the International Court of Justice (ICJ).² Subsequently, on 22 December 2011, Nicaragua instituted proceedings against Costa Rica in the case concerning *Construction of a Road in Costa Rica along the San Juan River* (hereafter *Nicaragua v. Costa Rica*) on the basis of Article XXXI of the Pact of Bogotá and Article 36.2 of the ICJ Statute. By two separate orders dated 17 April 2013, the ICJ joined the proceedings in

COURSE OF THE LITIGATION

The San Juan River runs approximately 205 kilometres from Lake Nicaragua to the Caribbean Sea. At the point known as 'Delta Colorado' or 'Delta Costa Rica', the San Juan River divides into two branches: the Lower San Juan and the Colorado River. The area situated between the Colorado River and the Lower San Juan is broadly referred to as Isla Calero, which is approximately 150 square kilometres. Isla Calero is part of the Humedal Caribe Noreste (Northeast Caribbean Wetland) which was designated as a wetland of international importance under the Ramsar Convention by Costa Rica in 1996.⁵ The area immediately adjacent to

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¹ American Treaty on Pacific Settlement (Bogotá, 30 April 1948; in force 6 May 1949).

² Statute of the International Court of Justice (San Francisco, 26 June 1945; in force 24 October 1945) ('ICJ Statute').

³ Thereafter Judges Guillaume and Dugard sat as judges ad hoc in the joined cases. ICJ 17 April 2013, *Certain Activities carried out by Nicaragua in the Border Area* (*Costa Rica v. Nicaragua*), Joinder of Proceedings.

⁴ ICJ 16 December 2015, *Certain Activities carried out by Nicaragua in the Border Area* (*Costa Rica v. Nicaragua*) *Construction of a Road in Costa Rica along the San Juan River* (*Nicaragua v. Costa Rica*), [2015] ICJ Rep. A/71/4 ('*Costa Rica v. Nicaragua/Nicaragua v. Costa Rica*').

⁵ Convention on Wetlands of International Importance (Ramsar, 2 February 1971; in force 21 December 1975).

it, known as the Refugio de Vida Silvestre Río San Juan (San Juan River Wildlife Refuge), was designated by Nicaragua as a wetland of international importance under the Ramsar Convention in 2001. In accordance with Article II of the 1858 Treaty of Limits, part of the boundary between the two States runs along the right (Costa Rican) bank of the San Juan River.⁶

On 18 October 2010, Nicaragua started dredging the San Juan River in order to improve its navigability and carried out works in the northern part of Isla Portillos, while Costa Rica contended that Nicaragua artificially created a channel on Costa Rican territory. Nicaragua also sent some military units and other personnel to the area. Nicaragua's actions led Costa Rica to institute proceedings in the *Costa Rica v. Nicaragua* case.⁷ On the other hand, in December 2010 Costa Rica started works for the construction of a road, Route 1856 Juan Rafael Mora Porras, which runs in Costa Rican territory along part of its border with Nicaragua. Costa Rica maintained that a 2011 Executive Decree declaring a state of emergency in the border area exempted it from the obligation to conduct an environmental impact assessment before constructing the road. In response, Nicaragua instituted proceedings against Costa Rica.⁸

In its judgment of 16 December 2015, the ICJ found, *inter alia*, that:⁹

- Costa Rica has sovereignty over the 'disputed territory';
- by excavating three *caños* and establishing a military presence on Costa Rican territory, Nicaragua has violated the territorial sovereignty of Costa Rica;
- by excavating two *caños* in 2013 and establishing a military presence in the disputed territory, Nicaragua has breached the obligations incumbent upon it under an ICJ order indicating provisional measures;
- Nicaragua has breached Costa Rica's rights of navigation on the San Juan River pursuant to the 1858 Treaty of Limits;
- Nicaragua has the obligation to compensate Costa Rica for material damages caused by Nicaragua's unlawful activities on Costa Rican territory;¹⁰ and
- Costa Rica has violated its obligation under general international law by failing to carry out an environmental impact assessment concerning the construction of Route 1856.

The Court's decision raises important questions concerning procedural and substantive obligations in

international environment law, namely: the obligation to conduct an environmental impact assessment; the obligation to notify and consult; and substantive obligations concerning transboundary harm. The next sections examine these three obligations in turn.

PROCEDURAL OBLIGATIONS

OBLIGATION TO CONDUCT AN ENVIRONMENTAL IMPACT ASSESSMENT

One of the most important issues in the *Costa Rica v. Nicaragua* and *Nicaragua v. Costa Rica* cases pertains to the alleged breach of the obligation to carry out an environmental impact assessment.¹¹ While this issue was discussed in the two cases, the ICJ reached different conclusions.

In the *Costa Rica v. Nicaragua* case, Costa Rica claimed that Nicaragua had not complied with an obligation to conduct an environmental impact assessment and must do so in advance of any further dredging.¹² When examining this issue, the ICJ held that:

[T]o fulfil its obligation to exercise due diligence in preventing significant transboundary environmental harm, a State must, before embarking on an activity having the potential adversely to affect the environment of another State, ascertain if there is a risk of significant transboundary harm, which would trigger the requirement to carry out an environmental impact assessment.¹³

The Court thus ascertained whether Nicaragua's dredging activities in the Lower San Juan carried a risk of significant transboundary harm. In this regard, the Court noted that in 2006, Nicaragua conducted an environmental impact study. The study stated that the programme would not have a significant impact on the flow of the Colorado River. This conclusion was confirmed by both parties' experts. After the examination of the evidence, including the reports submitted and testimony given by experts called by both parties, the Court found that Nicaragua's dredging programme was not such as to give rise to a risk of significant transboundary harm, either with respect to the flow of the Colorado River or to Costa Rica's wetland. It thus concluded that

⁶ *Costa Rica v. Nicaragua/Nicaragua v. Costa Rica*, n. 4 above, at paragraphs 56–59.

⁷ *Ibid.*, at paragraph 63.

⁸ *Ibid.*, at paragraph 64.

⁹ *Ibid.*, at paragraph 229.

¹⁰ Related to this, the ICJ decided that failing agreement between the parties on this matter within 12 months from the date of this judgment, the question of compensation due to Costa Rica will, at the request of one of the parties, be settled by the Court. *Ibid.*, at paragraph 229.5 (b).

¹¹ For a detailed study on environmental impact assessment, see N. Craik, *The International Law of Environmental Impact Assessment: Process, Substance and Integration* (Cambridge University Press, 2008).

¹² *Costa Rica v. Nicaragua/Nicaragua v. Costa Rica*, n. 4 above, at paragraph 102. See also Memorial of Costa Rica in *Costa Rica v. Nicaragua* (Vol. I, 5 December 2011), 105, at paragraphs 3.74–3.75.

¹³ *Costa Rica v. Nicaragua/Nicaragua v. Costa Rica*, n. 4 above, at paragraph 104.

Nicaragua was not required to carry out an environmental impact assessment.¹⁴

In the *Nicaragua v. Costa Rica* case, Nicaragua alleged that Costa Rica breached its obligation under general international law to assess the environmental impact of the construction of the road before commencing it, particularly in view of the road's length and location.¹⁵ It also submitted that Costa Rica was required to carry out an environmental impact assessment under Article 14 of the Convention on Biological Diversity (CBD).¹⁶

In this regard, the Court recalled that a State's obligation to exercise due diligence in preventing significant transboundary harm requires that State to ascertain whether there is a risk of significant transboundary harm prior to undertaking an activity having the potential adversely to affect the environment of another State. If that is the case, the State concerned must conduct an environmental impact assessment. According to the Court, however, Costa Rica did not adduce any evidence that it actually carried out a preliminary assessment of the risks posed by the road project.¹⁷ Furthermore, the Court found that the construction of the road by Costa Rica carried a risk of significant transboundary harm. It thus concluded that the threshold for triggering the obligation to evaluate the environmental impact of the road project was met.¹⁸ Moreover, the Court considered that there was no emergency justifying the immediate construction of the road. As a consequence, Costa Rica was under an obligation to conduct an environmental impact assessment prior to commencement of the construction works.¹⁹ Citing its judgment in the *Pulp Mills* case,²⁰ the Court stressed that 'the obligation to conduct an environmental impact assessment requires an *ex ante* evaluation of the risk of significant transboundary harm, and thus "an environmental impact assessment must be conducted prior to the implementation of a project"'.²¹

Costa Rica's environmental diagnostic assessment and its other studies were *post hoc* assessments of the environmental impact of the stretches of the road that had already been built. These studies did not evaluate the risk of future harm.²² The Court thus concluded that Costa Rica had not complied with its obligation under general international law to carry out an environmental

impact assessment concerning the construction of the road.²³ Furthermore, according to the Court, Costa Rica remains under an obligation to prepare an appropriate environmental impact assessment for any further works on the road or in the area adjoining the San Juan River, should they carry a risk of significant transboundary harm.²⁴ On the other hand, the Court took the view that, since Article 14 of the CBD does not create an obligation to carry out an environmental impact assessment before undertaking an activity that may have significant adverse effects on biological diversity, Costa Rica had not breached that provision by failing to conduct an environmental impact assessment for its road project.²⁵

Two issues arise with regard to the ICJ's view on the obligation to conduct an environmental impact assessment. The first issue concerns the relationship between the obligation of due diligence and the obligation to carry out an environmental impact assessment. It appears that the Court linked the obligation to conduct an environmental impact assessment to the obligation of due diligence via preliminary assessment to ascertain the existence of risk of significant transboundary harm. The interlinkage between the two obligations was already clearly stated in the *Pulp Mills* judgment. In the words of the Court,

[D]ue diligence, and the duty of vigilance and prevention which it implies, would not be considered to have been exercised, if a party planning works liable to affect the regime of the river or the quality of its waters did not undertake an environmental impact assessment on the potential effects of such works.²⁶

The Court's view was amplified by Judge Owada:

To summarize, conducting an environmental impact assessment is one important constituent element of the process that emanates from the international obligation of States to act in due diligence to avoid or mitigate significant transboundary harm, rather than a separate and independent obligation standing on its own under general international law.²⁷

The Court's interpretation thus contributes to specifying the content of the obligation of due diligence by combining it with the obligation to conduct an environmental impact assessment. Yet, the Court did not examine any State practice and *opinio juris* in support of its interpretation. Therefore, some doubt could be expressed on whether the Court's interpretation is

¹⁴ *Ibid.*, at paragraph 105.

¹⁵ *Ibid.*, at paragraph 146. See also Memorial of Nicaragua in *Nicaragua v. Costa Rica* (Vol. I, 19 December 2012), 152, at paragraph 5.6ff.

¹⁶ *Ibid.*, 195–197, at paragraphs 5.71–5.72. *Costa Rica v. Nicaragua/Nicaragua v. Costa Rica*, n. 4 above, at paragraph 163.

¹⁷ *Ibid.*, at paragraph 153.

¹⁸ *Ibid.*, at paragraphs 155–156.

¹⁹ *Ibid.*, at paragraphs 157–159.

²⁰ ICJ 20 April 2010, *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, [2010] ICJ Rep. 14 ('*Pulp Mills*').

²¹ *Costa Rica v. Nicaragua/Nicaragua v. Costa Rica*, n. 4 above, at paragraph 161.

²² *Ibid.*

²³ *Ibid.*, at paragraph 162.

²⁴ *Ibid.*, at paragraph 173.

²⁵ *Ibid.*, at paragraphs 163–164.

²⁶ *Pulp Mills*, n. 20 above, at paragraph 204.

²⁷ *Costa Rica v. Nicaragua/Nicaragua v. Costa Rica*, n. 4 above, Separate Opinion of Judge Owada, at paragraph 18. See also at paragraph 21.

supported by State practice.²⁸ Traditionally the obligation of due diligence is closely linked to State responsibility for damage that has been caused already, in the sense that the alleged breach of that obligation occurs *after* environmental damage has arisen.²⁹ However, an environmental impact assessment aims to detect a risk of significant environmental harm that is likely to be created in *the future*. The obligation to conduct an environmental impact assessment therefore can be breached, even if no environmental damage has been caused yet. In this sense, the function of the obligation to conduct an environmental impact assessment differs from that of the obligation of due diligence. In fact, Judge ad hoc Dugard took the view that the obligation to conduct an environmental impact assessment is an independent obligation designed to prevent significant transboundary harm, not an obligation dependent on the obligation of a State to exercise due diligence.³⁰

The second issue raised by the judgment relates to the content of an environmental impact assessment. In this regard, the Court in *Costa Rica v. Nicaragua* simply stated that: 'Determination of the content of the environmental impact assessment should be made in light of the specific circumstances of each case.'³¹ The *Pulp Mills* judgment amplified this point, stating that:

[I]t is the view of the Court that it is for each State to determine in its domestic legislation or in the authorization process for the project, the specific content of the environmental impact assessment required in each case, having regard to the nature and magnitude of the proposed development and its likely adverse impact on the environment as well as to the need to exercise due diligence in conducting such an assessment.³²

The *dictum* of the Court appears to suggest that the environmental impact assessment obligation has no independent content and that there is simply a *renvoi* to municipal law.³³ On the basis of the *Costa Rica v. Nicaragua* judgment, however, it seems possible to identify a series of requirements concerning environmental impact assessment under international law, including:³⁴

- (i) an environmental impact assessment must be undertaken prior to the implementation of the activity in question;³⁵
- (ii) a preliminary assessment must be made on the basis of an objective evaluation of all the relevant circumstances;³⁶
- (iii) an environmental impact assessment must be done by the State undertaking the activity;³⁷
- (iv) if an environmental impact assessment confirms that there is a risk of significant transboundary harm, the State planning to undertake the activity is required to notify and consult in good faith with the potentially affected State, where that is necessary to determine the appropriate measures to prevent or mitigate that risk.³⁸

These elements potentially provide criteria for determining the alleged breach of the obligation to conduct an environmental impact assessment in international law.

At the same time, it cannot pass unnoticed that the obligation to carry out an environmental impact assessment contains potential weaknesses. Two points can be made here.

First, an environmental impact assessment will be adequate if it provides the necessary information concerning the likely transboundary impact deriving from the proposed project and follows the proper process.³⁹ Thus, an environmental impact assessment does not, by itself, determine whether and how a project should go ahead.

Second, according to the ICJ, a State is required to conduct a dual assessment. At first, the State is obliged to ascertain whether there is a risk of significant transboundary harm that would trigger the duty to conduct an environmental impact assessment (preliminary assessment). Only if such a risk exists, the State is further required to carry out an environmental impact assessment. However, the evidential standard for determining 'significant' transboundary harm is less clear and it is a matter of subjective appreciation. As a consequence, there is no guarantee that the obligation to conduct an environmental impact assessment is appropriately triggered by the State causing the risk. In this regard, the application of the precautionary approach merits attention.⁴⁰ Yet, there was no

²⁸ *Costa Rica v. Nicaragua/Nicaragua v. Costa Rica*, n. 4 above, Separate Opinion of Judge ad hoc Dugard, at paragraph 9; *Costa Rica v. Nicaragua/Nicaragua v. Costa Rica*, n. 4 above, Separate Opinion of Judge Donoghue, at paragraph 13.

²⁹ Y. Matsui, *International Law of the Environment: Its Fundamental Principles* (Toshindo, 2010), 108 (in Japanese).

³⁰ Separate Opinion of Judge ad hoc Dugard, n. 28 above, at paragraph 9.

³¹ *Costa Rica v. Nicaragua/Nicaragua v. Costa Rica*, n. 4 above, at paragraph 104.

³² *Pulp Mills*, n. 20 above, at paragraph 205.

³³ Separate Opinion of Judge ad hoc Dugard, n. 28 above, at paragraph 18; Separate Opinion of Judge Donoghue, n. 28 above, at paragraph 15.

³⁴ Judge ad hoc Dugard attempted to clarify these elements in his Separate Opinion. Separate Opinion of Judge ad hoc Dugard, n. 28 above, at paragraph 19.

³⁵ *Costa Rica v. Nicaragua/Nicaragua v. Costa Rica*, n. 4 above, at paragraph 161. See also *Pulp Mills*, n. 20 above, at paragraph 205.

³⁶ *Costa Rica v. Nicaragua/Nicaragua v. Costa Rica*, n. 4 above, at paragraph 153.

³⁷ *Ibid.*

³⁸ *Ibid.*, at paragraph 104.

³⁹ Alan Boyle, 'Developments in the International Law of Environmental Impact Assessments and their Relation to the Espoo Convention', 20:3 *Review of European Community and International Environmental Law* (2011), 229.

⁴⁰ P. Birnie, A. Boyle and C. Redgwell, *International Law and the Environment* (Oxford University Press, 2009), at 171.

reference to the precautionary approach in the Court's judgment.

OBLIGATION TO NOTIFY

Another procedural issue to be examined relates to the obligation to notify. Notably, the Court linked the obligation to notify with the obligation to conduct an environmental impact assessment, stating that:

If the environmental impact assessment confirms that there is a risk of significant transboundary harm, the State planning to undertake the activity is required, in conformity with its due diligence obligation, to notify and consult in good faith with the potentially affected State, where that is necessary to determine the appropriate measures to prevent or mitigate that risk.⁴¹

In fact, the Court, in *Costa Rica v. Nicaragua*, ruled that since Nicaragua was not under an international obligation to carry out an environmental impact assessment in light of the absence of risk of significant transboundary harm, it was not required to notify or consult with Costa Rica. In *Nicaragua v. Costa Rica*, the Court held that since Costa Rica did not comply with its obligation under general international law to perform an environmental impact assessment prior to the construction of the road, the duty to notify and consult did not call for examination by the Court.⁴² At the same time, the Court ruled that, if the circumstances so require, Costa Rica would have to consult in good faith with Nicaragua to determine the appropriate measures to prevent significant transboundary harm or minimize the risk thereof.⁴³

The Court's formulation could be read in a way to suggest that only when an environmental impact assessment confirms that there is a risk of significant transboundary harm, the State causing the risk must notify potentially affected State(s). As Judge Donoghue pointedly observed, however, there may be other circumstances that call for notification. For instance, assessment of a risk of transboundary environmental harm necessitates cooperation between the State causing the risk and potentially affected State(s). Input from a potentially affected State may be needed when assessing such a risk.⁴⁴ In this case, there will be a need for the State causing the risk to notify and consult in good faith with potentially affected State(s). Hence, there appears to be some scope to consider whether the obligation to notify is triggered only when an environmental impact assessment finds a risk of significant transboundary environmental harm. In this regard, the Court did not examine State practice and *opinio juris* in

support of its formulation of the obligation of notification.⁴⁵ Thus, the legal basis for this particular formulation remains unclear.

A further issue concerns the question whether the parties to the dispute had breached obligations under Articles 3.2 and 5 of the Ramsar Convention. In the view of the Court, the obligation to notify set out in Article 3.2 is limited to notifying the Ramsar Secretariat of changes or likely changes in the 'ecological character of any wetland' in the territory of the notifying State. In this regard, the Court found that no obligation to inform the Ramsar Secretariat arose for Nicaragua, since no evidence before the Court indicated that Nicaragua's dredging programme had brought about any changes in the ecological character of the wetland.⁴⁶ Likewise, the Court ruled that Costa Rica has not breached Article 3.2 of the Ramsar Convention since it notified the Ramsar Secretariat about the stretch of the road that passes through the *Humedal Caribe Nor-este*.⁴⁷

Article 5 of the Ramsar Convention provides a general obligation for parties to consult about implementing obligations arising from the Convention. This provision deserves quoting in full:

The Contracting Parties shall consult with each other about implementing obligations arising from the Convention especially in the case of a wetland extending over the territories of more than one Contracting Party or where a water system is shared by Contracting Parties. They shall at the same time endeavour to coordinate and support present and future policies and regulations concerning the conservation of wetlands and their flora and fauna.

The Court considered that this provision does not create an obligation on Nicaragua to consult with Costa Rica concerning a particular project, namely, the dredging of the Lower San Juan River.⁴⁸ The Court thus concluded that it had not been established that Nicaragua breached any procedural obligations owed to Costa Rica under treaties or the customary international law of the environment.⁴⁹

However, Judge ad hoc Dugard dissented with the Court's finding, arguing: 'When read in conjunction with Article 3(1), Nicaragua was obliged to consult with Costa Rica on the promotion of conservation in both its own wetland and that of Costa Rica in its planning of activities affecting the wetlands.'⁵⁰ Indeed, there may

⁴¹ *Costa Rica v. Nicaragua/Nicaragua v. Costa Rica*, n. 4 above, at paragraph 104.

⁴² *Ibid.*, at paragraph 168.

⁴³ *Ibid.*, at paragraph 173.

⁴⁴ *Ibid.*, at paragraphs 21–24.

⁴⁵ Separate Opinion of Judge Donoghue, n. 28 above, at paragraphs 17–18.

⁴⁶ *Costa Rica v. Nicaragua/Nicaragua v. Costa Rica*, n. 4 above, at paragraph 109.

⁴⁷ *Ibid.*, at paragraph 172.

⁴⁸ *Ibid.*, at paragraph 110.

⁴⁹ *Ibid.*, at paragraph 112.

⁵⁰ Separate Opinion of Judge ad hoc Dugard, n. 28 above, at paragraph 44.

be some scope to argue that a water system is shared by Costa Rica and Nicaragua in relation to Northeast Caribbean Wetland. If this is the case, shared responsibility may arise with regard to the conservation of the wetland concerned.⁵¹ Hence, there appears to be some basis to reconsider the question of whether Nicaragua is obliged to consult with Costa Rica about implementing obligations under the Ramsar Convention in relation to Northeast Caribbean Wetland.⁵²

SUBSTANTIVE OBLIGATIONS CONCERNING TRANSBOUNDARY HARM

The substantive issue to be examined in *Costa Rica v. Nicaragua* and *Nicaragua v. Costa Rica* is whether Nicaragua is responsible for any transboundary harm allegedly caused by its dredging activities that have taken place in areas under Nicaragua's territorial sovereignty, in the Lower San Juan River and on its left bank. Here the Court confirmed the *dictum* of the *Pulp Mills* judgment that under customary international law, '[a] State is . . . obliged to use all the means at its disposal in order to avoid activities which take place in its territory, or in any area under its jurisdiction, causing significant damage to the environment of another State'.⁵³ However, the Court considered that Costa Rica had not provided any convincing evidence that sediments dredged from the river were deposited on its right bank and that a causal link between this reduction and Nicaragua's dredging programme has not been established.⁵⁴ It thus concluded that Nicaragua has not breached its obligations by engaging in dredging activities in the Lower San Juan River.⁵⁵

In the *Nicaragua v. Costa Rica* case, the key issue was whether the construction of the road by Costa Rica had caused significant harm to Nicaragua. In considering this issue, scientific evidence is of central importance. Yet, there was considerable disagreement amongst the experts on key data on this matter. In this regard, the Court took the position that there was no need to go into a detailed examination of the scientific and technical validity of the different estimates put forward by the experts. According to the Court, '[s]uffice it to note that the amount of sediment in the river due to the

construction of the road represents at most 2 per cent of the river's total load, according to Costa Rica's calculations based on the figures provided by Nicaragua's experts and uncontested by the latter'.⁵⁶ In the *Nicaragua v. Costa Rica* case, the figure of 2% provided a key criterion to determine: (i) alleged harm caused by increased sedimentation concentrations in the river; and (ii) alleged harm to the river's morphology, to navigation and to Nicaragua's dredging programme. In this regard, the Court held that Nicaragua failed to prove that sediment concentration arising from the construction of the road caused significant transboundary harm to the San Juan River.⁵⁷ It also ruled that Nicaragua failed to prove that the construction of the road caused significant harm to the river's ecosystem and water quality.⁵⁸

In determining substantive obligations concerning transboundary harm, there is a need to ascertain scientific evidence submitted by the parties. Arguably, this is a challenging task for the ICJ since the disputing parties often submit contrasting data on environmental harm. Some doubts could be expressed on whether the Court is well placed to deal with competing scientific evidence.⁵⁹ A possible solution to this matter could be to entrust an expert to evaluate scientific evidence in accordance with Article 50 of the ICJ Statute, which provides that: 'The 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'.⁶⁰

In practice, however, it is rare for the Court to invoke its power under this provision.⁶¹ In the *Costa Rica v. Nicaragua* and *Nicaragua v. Costa Rica* cases, the Court ascertained competing scientific evidence on its own, without appointing a scientific expert. However, there may be some scope to consider the question whether the evaluation of scientific evidence by the Court itself is always relevant when determining the 'significant' environmental harm since the degree of 'significant' harm must be determined on the basis of scientific standard.⁶² To enhance the persuasiveness

⁵¹ Related to this, it is to be noted that the obligations which the parties to the Ramsar Convention undertake regarding conservation of listed sites are not restricted to those within their own territory. M. Bowman, P. Davies and C. Redgwell, *Lyster's International Wildlife Law*, 2nd edn (Cambridge University Press, 2010), at 424.

⁵² Separate Opinion of Judge ad hoc Dugard, n. 28 above, at paragraph 44.

⁵³ *Ibid.*, at paragraph 118. See also *Pulp Mills*, n. 20 above, at paragraph 101.

⁵⁴ *Costa Rica v. Nicaragua/Nicaragua v. Costa Rica*, n. 4 above, at paragraph 119.

⁵⁵ *Ibid.*, at paragraph 120.

⁵⁶ *Ibid.*, at paragraph 186.

⁵⁷ *Ibid.*, at paragraphs 194–196 and 203–207.

⁵⁸ *Ibid.*, at paragraphs 211–213.

⁵⁹ A. Riddell and B. Plant, *Evidence before the International Court of Justice* (British Institute of International and Comparative Law, 2009), at 353.

⁶⁰ ICJ Statute, n. 2 above, Article 50.

⁶¹ In the *Corfu Channel* case, the Court appointed experts since it was necessary to obtain an expert opinion with regard to certain points contested between the Parties. ICJ 17 December 1948, *Corfu Channel (United Kingdom of Great Britain and Northern Ireland v. Albania)*, ICJ Rep. 1948, 124. Recently, it appointed experts in a case concerning maritime delimitation. ICJ 16 June 2016, *Maritime Delimitation in the Caribbean Sea and the Pacific Ocean (Costa Rica v. Nicaragua)*, not yet reported.

⁶² *Pulp Mills*, n. 20 above, Joint Dissenting Opinion of Judges Simma and Al-Khawazneh, at paragraph 17.

of the ICJ's judgments concerning environmental disputes, the use of appointed experts deserves serious consideration.⁶³

CONCLUSIONS

In the *Costa Rica v. Nicaragua* and *Nicaragua v. Costa Rica* cases, the ICJ examined procedural obligations under international environmental law in some detail. It is noteworthy that the Court highlighted the interlinkage between three obligations, namely, those of due diligence, to conduct an environmental impact assessment, and to notify and consult. However, further consideration should be given to the question of whether the obligation to notify is triggered only when an environmental impact assessment finds a risk of significant transboundary environmental harm. The *Costa Rica v. Nicaragua* and *Nicaragua v. Costa Rica* cases also highlighted the importance of scientific evidence in the settlement of disputes concerning environmental protection, including the protection of biological diversity.

More often than not, it is difficult for the Court as a judicial organ to evaluate competing scientific evidence. In future, the use of scientific experts under Article 50 of the ICJ Statutes is worth considering in the settlement of disputes involving scientific and technical aspects.

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⁶³ See A. Riddell and B. Plant, n. 59 above, at 353. See also D. Peat, 'The Use of Court-Appointed Experts by the International Court of Justice', 84 *British Yearbook of International Law* (2014), 271; C.E. Foster, 'New Clothes for the Emperor? Consultation of Experts by the International Court of Justice', 5:1 *Journal of International Dispute Settlement* (2014), 139. Related to this, in the 2016 *South China Sea Arbitration*, the Annex VII Arbitral Tribunal actively used experts in order to gather evidence but also to have an independent opinion on the environmental impact of China's construction activities. See Permanent Court of Arbitration 12 July 2016, *South China Sea Arbitration (The Philippines v. the People's Republic of China)*, found at: <<https://pcacases.com/web/view/7>>, at paragraphs 84, 136, 821, 957 and 958. See also M.M. Mbengue, 'The South China Sea Arbitration: Innovations in Marine Environmental Fact-Finding and Due Diligence Obligations', 110 *American Journal of International Law Unbound* (2016), 287.