

Assessing reparation of environmental damage by the ICJ: A lost opportunity?

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1. *Introduction*

The recent judgment of the International Court of Justice (ICJ) brings to the fore the issues pertaining to the prevention and compensation of transboundary environmental harm. This case is of particular importance for two essential reasons. First, it is related to a freshwater wetland protected under the Ramsar Convention.¹ Wetlands indeed constitute a resource of great economic, cultural, scientific and recrea-

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¹ Convention on Wetlands of International Importance especially as Waterfowl Habitat (adopted 2 February 1971, entered into force 21 December 1975) UNTS no 14583, 246. Also referred to as 'Convention on wetlands', the Ramsar Convention, as amended by the Protocol of 3 December 1982 and the Amendments of 28 May 1987 is an intergovernmental treaty for the conservation and sustainable use of wetlands. Art 1 of the Convention defines wetlands as 'areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres'. The fifth edition of the Ramsar Handbook clarified that wetlands are broadly defined in the Convention and can include 'a wide variety of inland habitats such as marshes, peat-lands, floodplains, rivers and lakes, and coastal areas such as saltmarshes, mangroves, intertidal mudflats and seagrass beds, and also coral reefs and other marine areas no deeper than six metres at low tide, as well as human-made wetlands such as dams, reservoirs, rice paddies and wastewater treatment ponds and lagoons' (see *An Introduction to the Convention on Wetlands (previously The Ramsar Convention Manual)* (Ramsar Convention Secretariat 2016) Gland, Switzerland). To date, there are 170 parties to the Ramsar Convention. About 2,341 wetlands around the world are included in the Ramsar List of Wetlands of International Importance, covering over 252 millions hectares <www.ramsar.org>.

tional value, whose loss would be deemed irreparable.² As the Court itself underlined

‘the interaction of the physical, biological and chemical components of a wetland enable it to perform many vital functions, including supporting rich biological diversity, regulating water regimes, and acting as a sink for sediments and pollutants.’³

Secondly, The ICJ has for the first time adjudicated a claim for compensation of environmental damage.

The issues originated from an alleged occupation of Nicaragua by a territory belonging to Costa Rica. In its introductory remarks, the Court observed that

‘on 18 October 2010, Nicaragua started dredging the San Juan River in order to improve its navigability. It also carried out works in the northern part of Isla Portillos, excavating a channel (‘caño’) on the disputed territory between the San Juan River and Harbor Head Lagoon. Nicaragua also sent some military units and other personnel to that area.’⁴

In 2013, two new channels were dug by Nicaragua. After establishing Costa Rica’s sovereignty over the disputed area, the Court delivered a judgment concerning a violation of that sovereignty by Nicaragua under which the latter was to compensate Costa Rica for the resulting material damage.⁵ The failure of the parties to find an agreement on the compensation as suggested by the Court, led Costa Rica to seize the Court to settle the issue. This resulted in the judgment of 2 February 2018 related to the ‘Compensation owed by the Republic of Nicaragua to the Republic of Costa Rica’, hereinafter the Judgment on Compensation.

² *ibid.*

³ ICJ *Certain activities carried out by Nicaragua in the border Area (Costa Rica v. Nicaragua)* Compensation owed by the Republic of Nicaragua to the Republic of Costa Rica, Judgment of 2 February 2018, 23 para 80 (hereafter ‘Judgment on Compensation’).

⁴ Judgment on Compensation (n 3) para 23.

⁵ *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)* (Judgment) [2015] ICJ Rep para 142.



The central question of our contribution is to what extent the ICJ has provided clarity in the difficult question concerning how environmental damage should be repaired. We will argue that the ICJ took a relatively narrow (even anthropocentric) perspective on reparation of environmental harm and that it did not provide any indication for the amount of compensation chosen. In that sense, the judgment of the ICJ does not necessarily provide clear indications on how environmental damage will be assessed in the future. In order to develop this argument, we first sketch the facts of the case (2) and then analyze the way in which reparation of environmental damage has been addressed under international law, in particular domestic legal systems and in the literature (3). We then analyze how the ICJ deals with the reparation issue (4) and provide a critical analysis (5) as well as some concluding remarks (6).

2. *Facts of the case*

2.1. *Costa Rica's claims*

Building on the practice of the United Nations Compensation Commission (UNCC) and other adjudicative bodies, Costa Rica felt entitled to compensation for environmental damage, including for harm to environmental resources that have no commercial value. Its claims for compensation were based on two categories of damage, namely quantifiable environmental damage, and the costs and expenses incurred as the result of Nicaragua's unlawful activities, including expenses to monitor or remedy the environmental damage caused. Costa Rica identified 22 categories of goods and services that could have been affected, but submitted only a claim for compensation for 6 of them, specifically standing timber; other raw materials (fibre and energy); gas regulation and air quality; natural hazards mitigation; soil formation and erosion control; and biodiversity, in terms of habitat and nursery.⁶ Each one of these categories was considered a separate head of damages.

⁶ Memorial on Compensation of Costa Rica (MCCR) para 3.16. In fact, Costa Rica identified 22 categories of goods and services that could have been impaired or lost as a result of Nicaragua's wrongful actions (See Judgment on Compensation (n 3) para 55).

Based on the fact that there was no universal method for evaluating environmental damage, Costa Rica purported that the appropriate method of valuation would depend, *inter alia*, on the nature, complexity, and homogeneity of the environmental damage sustained. It therefore suggested the ‘ecosystem services approach’ (or ‘environmental services framework’), which, in its view, is adapted to protected wetlands under the Ramsar Convention.⁷ With this method of valuation, the value assigned to an environmental damage takes account of good and services that may or not be traded on the market. The valuation of the environmental damage may then take account of both direct and indirect use of environmental goods and services. Tradable goods and services (such as timber) have a ‘direct use value’, while non-tradable goods and services (such as flood prevention or gas regulation) have an ‘indirect use value’. In line with this view, Costa Rica used a value transfer approach for most of the goods and services affected that enabled to assign to them a monetary value by reference to a value drawn from studies of ecosystems considered to have similar conditions.⁸ In its valuation, Costa Rica assumed that the ecosystem needed a recovery period of 50 years to return to the state prior to the damage. Costa Rica therefore claimed a total amount of compensation of US\$ 2,880,745.82 for the environmental damage sustained as the result of Nicaragua’s actions.⁹

2.2. Nicaragua’s claims

It is interesting to note that Nicaragua agreed on the compensability of environmental damage as contended by Costa Rica. However, Nicaragua’s opinion differed as to what had to be compensated, and especially as to the amount of compensation due. In its view, the ‘ecosystem services approach’ is no more than a ‘benefits transfer’ approach, ‘which seeks to value the damaged environmental services by reference

⁷ Judgment on Compensation (n 3) para 45.

⁸ *ibid* para 47.

⁹ Costa Rica claims, as compensation for the impairment or loss of environmental goods and services as a result of Nicaragua’s activities, payment of US\$ 2,148,820.82 in respect of the 2010 *caño* and US\$ 674,290.92 in respect of the 2013 eastern *caño*. Costa Rica also claims US\$ 57,634.08 for restoration costs, comprising US\$ 54,925.69 for the cost of replacement soil in the 2010 *caño* and the 2013 eastern *caño* and US\$ 2,708.39 for the restoration of the wetland. See Judgment on Compensation (n 3) para 57.



to values assigned to such services in other places and in other contexts'.¹⁰ Such a method would therefore be inappropriate and unreliable to quantify environmental damage. Nicaragua further underlined several shortcomings in the implementation of this method, leading to 'a dramatic overvaluation of the impairment or loss of environmental goods and services as a result of the damage caused'.¹¹ For example, as regards felled trees, Nicaragua pointed out a quick revegetation of the 2013 eastern *caño*, and argued that because trees can only be harvested once, their valuation could not be based on a recovery period of 50 years. Nicaragua equally claimed that due to the rapid recovery, it would be inaccurate to still argue of loss with regard to 'other raw materials' or biodiversity services. Costa Rica would have further used an irrelevant study (on coastal mangroves in Thailand) for value transfer as regards the mitigation of natural hazards in the impacted area. Lastly, Nicaragua suggested that some claims were not supported by evidence. Costa Rica failed, for instance, to demonstrate that the impacted area has refilled with sediment of poorer quality that is more vulnerable to erosion.

Nicaragua contended that

'Costa Rica is entitled to compensation for 'material damages', the scope of which is limited to damage to property or other interests of the State . . . which is assessable in financial terms.'¹²

According to Nicaragua, the proper method for calculating this value was by reference to the price that would have to be paid to preserve an equivalent area until the services provided by the impacted area had been recovered. In this regard, compensation should cover two aspects. First, 'restoration costs' had to be compensated comprising 'the costs that Costa Rica reasonably incurred in the construction of a dyke across the 2013 eastern *caño* while remediating the impact of Nicaragua's works'. Secondly, Costa Rica

¹⁰ Judgment on Compensation (n 3) para 51.

¹¹ *ibid* para 59.

¹² *ibid* para 37.

‘is entitled to ‘replacement costs’ for the environmental goods and services that either have been or may be lost prior to the recovery of the impacted area.’¹³

Having regard to all these considerations, Nicaragua suggested an ‘ecosystem service replacement cost’ or ‘replacement costs’ approach.¹⁴ Based on a ‘reasonable period for full recovery’ of 20 to 30 years, and taking into account a 4 per cent discount rate, Nicaragua estimated that the compensation due was between US\$ 27,034 and US\$ 34,987.

It is worth noting that Nicaragua endeavored to highlight the inadequacies in the implementation of the ‘ecosystem services approach’ as performed by Costa Rica. In addition to the ‘replacement costs’ method it suggested, Nicaragua provided an alternative valuation of damage, calculated on the basis of four heads of damage, specifically trees, other raw materials, gas regulation and air quality services, and biodiversity. This valuation was in fact a ‘corrected analysis’ that made significant adjustments to Costa Rica’s ecosystems services approach, cutting down the compensation due to an amount of US\$ 84,296, which represents a mere 3 percent of the compensation claimed by Costa Rica.

3. *Theoretical Background*

3.1. *Reparation for environmental damage*

The necessity for reparation is no longer questionable at the international level. According to the International Law Commission (ILC), ‘Every internationally wrongful act of a State entails the international responsibility of that State’, and

‘The State responsible for the internationally wrongful act is under an obligation: to cease that act, if it is continuing; and to offer appropriate assurances and guarantees of non-repetition, if circumstances so require.’¹⁵

¹³ *ibid* paras 39 and 40.

¹⁴ *ibid* para 49.

¹⁵ ILC’s Articles on the Responsibility of States for International Wrongful Acts (adopted by the ILC on 10 August 2001) art 30.



In the same line, this responsible State is under an obligation to make full reparation for the injury caused, including any damage, whether material or moral, caused by the internationally wrongful act.¹⁶ This obligation to make ‘full reparation’, implies to endeavour to ‘wipe out all the consequences of the illegal act and reestablish the situation which would, in all probability, have existed if that act had not been committed’.¹⁷

The implementation of the concept of reparation involves many aspects that make it a complex task. In fact

‘what constitutes ‘reparation in an adequate form’ clearly varies depending upon the concrete circumstances surrounding each case and the precise nature and scope of the injury.’¹⁸

Reparation may take many forms. These forms were elaborated on by the ILC in the second chapter (Articles 34 to 38) of Part Two of the Articles on the Responsibility of States for Internationally Wrongful Acts. In its Article 34, this document states that ‘full reparation for the injury caused by the internationally wrongful act shall take the form of restitution, compensation and satisfaction, either singly or in combination’. As further explained, restitution constitutes the preferred option unless the re-establishment of the situation, which existed before the wrongful act was committed, is materially impossible or involves a burden out of all proportion to the benefit deriving from restitution instead of compensation.¹⁹

When restitution is not feasible, reparation may take the form of compensation or satisfaction, or even both. Compensation shall entail the payment of a sum corresponding to the value which a restitution in kind would bear and the award, if need be, of damages for loss sustained which would not be covered by restitution in kind or payment in place of it.²⁰ In other words, it covers any financially assessable damage

¹⁶ *ibid* art 31.

¹⁷ *Factory at Chorzów, Merits* (Judgment No 13) [1928] PCIJ Ser A No 17, 29.

¹⁸ *Avena and Other Mexican Nationals (Mexico v. United States of America)* (merits) [2004] (I) ICJ Rep 59 para 119.

¹⁹ *Pulp Mills on the River Uruguay (Argentina v. Uruguay)* (Judgment) [2010] ICJ Rep 14 para 273.

²⁰ *Factory at Chorzów* (n 17) 47.

including loss of profits insofar as it is established. The Court emphasized that compensation should not have a punitive or exemplary character.²¹

In case both restitution and compensation fail to repair the damage, the State responsible for an international wrongful act must give satisfaction for the injury caused. This involves an acknowledgement of the breach, an expression of regret, a formal apology or another appropriate modality, provided that this is not out of proportion to the injury and does not take a form humiliating to the responsible State.

Article 34 also makes it clear that full reparation may only be achieved in particular cases by the combination of different forms of reparation. For example, re-establishment of the situation, which existed before the breach, may not be sufficient for full reparation because the wrongful act has caused additional material damage. Wiping out all the consequences of the wrongful act may thus require some or all forms of reparation to be provided, depending on the type and extent of the injury that has been caused. It therefore 'calls for a mix and match of international remedies on a case-by-case basis'.²²

From this analysis it follows that in international law various forms of reparation for an internationally wrongful act are envisaged, being restitution, compensation or satisfaction. However, in order to address how reparation of environmental damage could take place, we first have to assess the precise nature of environmental damage.

3.2. *Nature of environmental damage*

Article 2 of the European Union Environmental Liability Directive (ELD) distinguishes three main categories of environmental damage, which are: damage to protected species and natural habitats, water damage,²³ and land damage.²⁴ In this regard, damage means a measura-

²¹ Judgment on Compensation (n 3) para 31.

²² O Das, *Environmental Protection, Security and Armed Conflict: A Sustainable Development Perspective* (Edward Elgar Publishing 2013) 188.

²³ A water damage is any damage that significantly adversely affects: (i) the ecological, chemical or quantitative status or the ecological potential of the waters concerned; or (ii) the environmental status of the marine waters concerned. See art 2 Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on Envi-

ble adverse change in a natural resource or measurable impairment of a natural resource service which may occur directly or indirectly. Having regard to these categorizations, the present case was dealing with a damage that can fall in the category of 'damage to protected species and natural habitats'. This means any damage that has significant adverse effects on reaching or maintaining the favourable conservation status of such habitats or species.

In the present case, the Court was called upon to determine compensation for material damage. This means damage to property or other interests of the State and its nationals which is assessable in financial terms, as opposed to 'moral damage'.²⁵

To fully ascertain the extent of any given material damage, it is still necessary to clarify the meaning of the term 'significant'. In fact, there are no clear-cut rules to define the threshold of harm that is to be considered significant. According to the ILC's articles on Prevention of Transboundary Harm from Hazardous Activities, a determination of what is significant involves more factual considerations than legal determination and has to be made in each specific case.²⁶ As such, 'significant' is something more than 'detectable' but need not be at the level of 'serious' or 'substantial',²⁷ being understood that the harm must lead to a real detrimental effect likely to be measured by factual and objective standards. According to Annex I of the ELD, a damage with a proven effect on human health must unquestionably be classified as significant damage. By contrast, when natural recovery can occur within a short time and without intervention, the damage is not deemed significant.

From an economic perspective, the determination of the threshold of harm is the result of weighing the socio-economic utility of an activity with regard to its detrimental effects on the environment.²⁸

ronmental Liability with regard to the Prevention and Remedying of Environmental Damage [2004] OJ L 143 (Environmental Liability Directive).

²⁴ A land damage is any land contamination that creates a significant risk of human health being adversely affected as a result of the direct or indirect introduction, in, on or under land, of substances, preparations, organisms or micro-organisms. See *ibid*.

²⁵ For example, affront or injury caused by a violation of rights. Moral damage is reputed not financially assessable and is often repaired through satisfaction.

²⁶ (2001) YB Intl L Commission 152.

²⁷ *ibid* 388.

²⁸ R Lefeber, *Transboundary Environmental Interference and the Origin of State Liability* (Kluwer Law International 1996) 87-89.



In any case, the significance of the adverse effects is to be assessed with reference to three criteria, specifically the conservation status at the time of the damage, the services provided by the amenities they produce, and their capacity for natural regeneration.²⁹

3.2.1. *Assessing 'significance' with regard to baseline conditions*

The baseline condition is of paramount importance to determine the significance of adverse effects to the environment. It is a critical component of the quantification of the damage as well as the restoration alternatives. The complexity of this notion lies in the fact that the environmental resource is a set of physical, biological, chemical, social and economic data. Moreover, this resource is not static, but must be dynamically evaluated over time using historical data, reference data, control data, or data on incremental changes.³⁰ As a way of example, a baseline assessment of a wetland could characterize its nature and scale, its interdependence with other ecosystems and the services provided, such as flood control services and filtration of pollutants or the potentially affected population.³¹

For the ELD, significant adverse changes to the baseline condition of species and habitats should be determined by means of measurable data such as the role of the damaged area in relation to the species or to the habitat conservation or the capacity for natural regeneration.

In the present case, there was no data on the baseline conditions. In such cases, scientific experts can palliate the unavailability or insufficiency of data on baseline conditions, using data from reference sites or by means of simulation models.

3.2.2. *Assessing 'significance' through the capacity for natural regeneration*

'Significance' can also be assessed through the capacity of the damaged ecosystem to recover within a short time, without any intervention

²⁹ Environmental Liability Directive (n 23) 56–75, Annex I.

³⁰ D Wilkinson, 'Moving the Boundaries of Compensable Environmental Damage Caused by Marine Oil Spills: The Effect of Two New International Protocols' (1993) 5 J Environmental L 88.

³¹ Department for Environment, Food and Rural Affairs (Defra), *An introductory guide to valuing Ecosystems Services* (Defra Publications 2007) 23.

other than increased protection measures, keeping the same structure and ecological functions. When this occurs, the damage is not deemed 'significant'. The time required for natural recovery depends on several factors including the vulnerability of the natural resources and/or impaired services, the physical, biological and chemical components of the environment impacted, or the resilience.

3.2.3. *Assessing significance through ecosystem services*

The importance of a natural resource can also be assessed from the perspective of its value for human societies, in other words the benefits people draw from ecosystems. According to the Millennium Ecosystem Assessment, these services include four categories: provisioning services (such as food, water, timber and fiber); regulating services that affect climate, floods, disease, wastes and water quality; cultural services that provide recreational, aesthetic, and spiritual benefits; and supporting services (such as soil formation, photosynthesis and nutrient cycling).³² It clearly appears that all heads of damage in the present case fall into this categorization.

3.3. *Approaches to restoration of environmental damage*

There are different approaches in terms of restoration of environmental damage. Two framework laws in the US deserve to be mentioned in this regard, namely the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, which was enacted by the US Congress in 1980 to address hazardous waste sites, and the Oil Pollution Act (OPA) of 1990. These laws have also inspired the European Union's ELD.

In general, a Natural Resource Damage Assessment (NDRA) aims at making the environment and public whole for injuries to damaged ecosystems with the view of the return of the injured natural resources and services to their baseline conditions, and compensation for interim losses of such natural resources and services from the date of the incident

³² Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Synthesis* (Island Press 2005) preface.

until recovery.³³ In the light of cases and experiences, the methodologies used to tackle damages to the environment have evolved over time.³⁴ Current practices favor restoration rather than a monetized estimate of lost benefits as the measure of damages.³⁵

Restoration means

‘any action (or alternative), or combination of actions (or alternatives), to restore, rehabilitate, replace, or acquire the equivalent of injured natural resources and services.’³⁶

It is implemented through three phases. As a first step, a primary restoration will be carried out to enable the injured natural resources and services to return to their baseline conditions, either on an accelerated timeframe, or through natural recovery. When this does not occur, a complementary remediation will be necessary to compensate for the loss of resources and/or residual ecological services. Finally, a compensatory remediation provides room to compensate for the interim losses of natural resources and services pending recovery.³⁷

Restoration actions are based on many factors such as technical feasibility, natural recovery period, or cost-effectiveness.³⁸ The preferred restoration alternative must be the result of a process that takes into consideration a reasonable range of restoration alternatives provided that each alternative is comprised of primary and/or compensatory restoration components. The latter that must compensate for the interim losses should seek to provide services of the same type and quality, and of comparable value as those injured.

³³ 15 CFR § 990.10.

³⁴ In an earlier stage, the Department of Interior (DOI – This Department was authorized by the CERCLA to develop assessment rules for natural resource damage) developed a ‘lesser of rule’ that limited damages to the lesser of the restoration costs and the diminution of use value. *The Ohio v US DOI*, 880 F2d 432, 442 (DC Cir 1989), and *Colorado v US DOI*, 880 F2d 481 (DC Cir 1989) cases brought restoration-based approaches to the fore.

³⁵ J. Boyd, ‘Compensating for Oil Pollution Damages’ in M. Faure, J. Hu (eds), *Prevention and Compensation of Marine Pollution Damage: Recent Developments in Europe, China and the US* (Kluwer Law International 2006) 146.

³⁶ 15 CFR § 990.10.

³⁷ Environmental Liability Directive (n 23) Annex II; see also 15 CFR § 990.10.

³⁸ 43 CFR 11-82 (d).



Restoration projects involve two types of scaling approach. First, the approaches in terms of equivalency, which include *resource-to-resource* and *service-to-service scaling approaches*. Equivalency-based approaches recommend compensation by resources of the same type, quality and value. They seek to provide compensation in kind rather than assigning a monetary value to ecological lost resources or services.³⁹ Examples of these are the Habitat Equivalency Analysis (HEA)⁴⁰ (service-to-service approach) used to compensate for interim losses when the damage affects a habitat and the ecological services it provides, or the Resource Equivalency Analysis (REA) (resource-to-resource) approach recommended to tackle cases where the damage relates to animal or vegetable species. Secondly, a valuation scaling approach may be used to provide equivalent value of the damaged resources.⁴¹

Economists have established a wide range of techniques for valuing environmental damage.⁴² Environmental valuation methods are based on the preferences of individuals and give a total economic value to an environmental good. They can cover one or a combination of alternatives. The values that are compensable include ‘all of the public economic values associated with an injured resource, including use values and non-use values such as option, existence and bequest values’.⁴³ Two main methods are used in this regard. On the one hand, indirect methods rely on behavioral observation to derive a measure of well-being (travel cost methodology, hedonic price technique, etc.). On the other

³⁹ See in general RE Unsworth, RC Bishop, ‘Assessing Natural Resource Damages Using Environmental Annuities’ (1994) 11 *Ecological Economics* 35-41.

⁴⁰ For more details on HEA, see *Habitat Equivalency Analysis: An Overview, Damage Assessment and Restoration Program*, National Oceanic and Atmospheric Administration (2000) <<https://casedocuments.darrp.noaa.gov/northwest/cbay/pdf/cbhy-a.pdf>>.

⁴¹ Environmental Liability Directive (n 23) Annex II, 1.22.

⁴² M Faure, ‘Tort Law and Economics, Encyclopedia of Law and Economics, Second Edition Series’ (2009) 1 *Encyclopedia of Law and Economics* 255.

⁴³ 56 CFR 19760. Use value is the value of the resources to the public attributable to the direct use of the services provided by the natural resources. Non-use value is the difference between compensable value and use value. These may refer to future uses that one wants to preserve for future generations (value of legacy or inheritance), or the very existence of the good, independently of any present or future use (value of existence). See A Bas, H Gaubert, ‘La Directive “Responsabilité Environnementale” et ses Méthodes d’Equivalence’ (2010) *Etudes & Documents* 14. Estimation of option and existence values is used only if it is determined that no use values can be determined.

hand, direct methods enable to interview individuals about their willingness to pay or receive (contingent valuation and conjoint analysis).⁴⁴

The application of these methods is not always easy. Not all valuation methods are suitable for all ecosystems. In particular, the estimation of non-use values raises major methodological concerns for potentially liable parties.⁴⁵ For example, contingent valuation, which is considered one the most common survey methods used by economists to estimate non-use value, has revealed difficult in practice. It is disfavored by Natural Resources Damages regulations, and trustees in the US are reluctant to use them. Besides, these methods are costly and these high costs overshadow the meager benefits reaped from their use.⁴⁶

Lastly, environmental damage can be estimated through a pricing approach. Pricing approaches enable to monetize affected ecological services by using, for example, the amount of expenditure necessary to replace the ecological service. They

‘use observed market prices either as direct measures of economic value of an ecosystem service (eg market prices, averted expenditure, damage costs avoided) or as a proxy for the value (referred to as cost-based approaches).’⁴⁷

The ‘replacement costs’ method falls into the category of cost-based approaches. The latter consider the costs that arise in relation to the provision of environmental goods and services, which may be directly observed from markets. Cost-based approaches can be useful in validating the scale of values obtained from measurement of direct utility. However, because these methods are based on costs, they do not strictly

⁴⁴ A Bas, H Gaubert (n 43). Other valuation methods include market price methodology, appraisal methodology, factor income methodology, unit value methodology (43 CFR 11-83).

⁴⁵ D McFadden, K Train, *Contingent Valuation of Environmental Goods: A Comprehensive Critique* (Edward Elgar Publishing 2017) 147.

⁴⁶ *ibid* 300-310. See also DB Thompson, ‘Valuing the Environment: Court’s struggles with Natural Resource Damages’ (2002) 32 *Environmental L* 57-89. Contingent valuation methodology to explicitly estimate option and existence values should be used only if no use values can be determined.

⁴⁷ DEFRA (n 31) 35.



measure utility, meaning they are non-demand curve methods and need to be used with care.⁴⁸

It is worth underlining that the different economic valuation techniques can all be used in benefits transfer, are generally referred to as ‘value transfer’ approach, since they can be used to transfer values that estimate environmental costs as well as environmental benefits. This refers to the process of taking evidence on the value of benefits/damages from one context (the ‘study site’) and transferring it to another context (the ‘policy site’). This procedure can help spare both the time and the costs for an initial primary study.⁴⁹

4. *Judgment on compensation*

4.1. *Court’s approach on compensation*

To shed light on the case, the Court sought support in international law and decisions of arbitral tribunals. In 1927, the ICJ already underlined in its judgment related to the *Factory of Chorzów* that a breach involves an obligation to make a reparation ‘in an adequate form’.⁵⁰ The Court recalled that it had in a previous judgment in 2015 assigned sovereignty over the area to Costa Rica, and Nicaragua’s activities were therefore in breach of that sovereignty. As such, the obligation for Nicaragua to make reparation was no longer to be disputed.⁵¹ Reparation in the form of compensation, as applied in the present case, was determined by the judgment in 2015.⁵²

Before addressing the issue of compensation in itself, the Court

⁴⁸ *ibid*

⁴⁹ ‘One must try to ensure the validity and accuracy of benefits transfer. Moreover, “double-counting of benefits” must be avoided especially when a number of benefits transfer values are applied that relate to services that overlap’ (*ibid* 40).

⁵⁰ *Factory at Chorzów, Jurisdiction* (Judgment No 8) [1927] PCIJ Series A No 9, 21. The Court equally referred to other cases such as *Factory at Chorzów* (n 17) 47; *Avena and Other Mexican Nationals* (n 18) para 119. The Court also quoted in this regard *Ahmadou Sadio Diallo (Republic of Guinea v Democratic Republic of the Congo)* (Judgment) [2010] ICJ Rep 691 para 161; *Gabcíkovo-Nagymaros Project (Hungary/Slovakia)* (Judgment) [1997] ICJ Rep 80 para 150.

⁵¹ *Certain Activities Carried Out by Nicaragua in the Border Area* (n 5) 703 para 93.

⁵² *ibid* para 142.

deemed it appropriate to follow a two-fold approach. The Court first determined the existence and extent of the damage to environmental goods and services caused by Nicaragua's wrongful activities, and then went on to assess the existence of a direct and certain causal link between such damage and Nicaragua's activities. This section will successively examine the Court's analysis of the points of contention, its choice of method, and the assessment of the damage as established by the Court.

4.1.1. *Points of contention*

There were two main points of contention between the parties. The first issue was related to the disagreement of the parties on whether certain environmental goods and services have been impaired or lost, namely natural hazards mitigation and soil formation/erosion control. The ability of Costa Rica to provide evidence of the damage incurred played a leading role in the opinion of the Court. The latter seemed to agree with Nicaragua that Costa Rica has not sufficiently demonstrated the inability of the affected area to mitigate natural hazards as a result of its changed ecological character.⁵³ The Court further rejected Costa Rica's claims for the costs of replacing all of the soil removed by Nicaragua because the evidence before the Court showed that both *caños* have refilled with soil and there has been substantial revegetation. Although there was some evidence that the 'old' soil was of higher quality, this did not satisfactorily prove that erosion control could be affected. Besides, the difference in soil quality is not sufficient to 'determine any loss which Costa Rica might have suffered'.⁵⁴

In the view of the Court, the most significant damage suffered by the disputed area was the removal of trees during the excavations, which resulted in the other damages. According to the evidence, Nicaragua removed close to 300 trees and cleared 6.19 hectares of vegetation. As regard this head of damage, the Court concurred with the evidence before it, acknowledging that Nicaragua's excavations had signif-

⁵³ Judgment on Compensation (n 3) para 74.

⁵⁴ *ibid.*

ificantly affected the ability of the impacted area to provide trees, other raw materials, gas regulation and air quality services, and biodiversity.⁵⁵

The second issue refers to the valuation of the lost or impaired environmental goods and services, taking into account the length of the recovery period. While recognizing the validity and relevance of the methods proposed by the parties, the Court decided however not to choose between them or use either of them exclusively. This position is justified by several arguments. First, the Court seemed to share Nicaragua's doubts that Costa Rica's valuation method was not entirely reliable due to the criticisms raised by Nicaragua and its experts, on the one hand, and to several shortcomings in the methodology as established by the Court, on the other hand. For example, the recovery period of 50 years appeared indeed questionable, considering there was no clear evidence of the baseline conditions prior to the environmental harm. Moreover, it would have been inaccurate to assign a single recovery period to all the goods and services because 'different components of the ecosystem require different periods of recovery'.⁵⁶

Secondly, the Court rejected Nicaragua's valuation that was based on US\$ 309 per hectare per year on the grounds that this valuation was derived from the general incentives Costa Rica pays to landowners and communities to protect habitats under its domestic environmental conservation scheme. As such, this valuation method did not provide an adequate basis to assess the impaired goods and services and to compensate for environmental damage in an internationally protected wetland.⁵⁷

4.1.2. *Choice of method*

After examining the methods of the parties, the Court decided to take account of certain elements of either of them wherever the latter offered a reasonable basis for valuation. In the view of the Court, the appropriate valuation method should have taken account of the specific circumstances and characteristics of each case, keeping in mind that 'in-

⁵⁵ *ibid* para 75.

⁵⁶ *ibid* para 76.

⁵⁷ *ibid* para 77.

ternational law does not prescribe any specific method of valuation for the purposes of compensation for environmental damage'.⁵⁸

On these grounds, the Court decided to use an 'overall valuation', by considering the ecosystem as a whole, rather than attributing values to specific categories of environmental goods and services with subsequent different recovery periods. This approach is supported by three main reasons. First, an overall valuation substantiates the correlation between the removal of the trees and the harm caused to other environmental goods and services. Secondly, such a valuation is also required because the affected area is a wetland protected by the Ramsar Convention where various environmental goods and services are closely interlinked. Thirdly, an overall assessment is best suited to consider the capacity of the area for natural regeneration. A report of the Secretariat of the Ramsar Convention indeed underlined that the area in the vicinity of the 2010 *caño* demonstrates a 'high capability for natural regeneration of the vegetation ... provided the physical conditions of the area are maintained'.⁵⁹

In a further step, the Court examined the 'corrected analysis' proposed by Nicaragua. It contended that this analysis underestimated the value to be assigned to certain categories of goods and services prior to recovery, such as other raw materials (fibre and energy), biodiversity and gas regulation, and air quality services. According to the Court, the 'corrected analysis' was based on the flawed premises that no loss would occur on other raw materials after the first year, and that impairment or loss of gas regulation and air quality services could be valued as a one-time loss. Moreover, the 'corrected analysis' undermined the particular importance of biodiversity services in an internationally protected wetland. Nevertheless, the Court decided to retain some of the elements of this analysis, while making an adjustment to fit the purposes of its own 'overall valuation'. Following this approach, the Court awarded Costa Rica the sum of US\$ 120,000 for the impairment or loss of the environmental goods and services of the impacted area in the period prior to recovery. With regard to restoration, the Court additionally granted Costa Rica the sum of US\$ 2,708.39 claimed for restoration

⁵⁸ *ibid* para 52.

⁵⁹ *ibid* para 81.

measures in respect of the wetland. The claim for replacement soil was rejected.

4.1.3. *Assessment of damage*

The assessment of the environmental damage is a complex process involving different aspects, none of which can be easily ascertained, such as baseline conditions, the nature and extent of the damage itself or interim losses. As the Court itself pointed out, there is no universally validated method for making such a valuation. This intricacy is also reflected in the different approaches adopted by the parties to the dispute. Moreover, even if the method was similar, its application could still be subject to substantial differences that would lead to significant discrepancies in the amount of compensation. As underlined above, Nicaragua engaged in this task, trying to determine the amount of compensation due by applying Costa Rica's ecosystem services approach. This resulted in a bewildering decrease of the compensation due.

In its dissenting opinion, Judge *ad hoc* Dugard expressed doubts on

'both the method employed by the Court to reach its decision on the quantum of damages to be awarded and the amount determined by the Court in its quantification of environmental damages.'⁶⁰

According to Judge Dugard, Costa Rica was entitled to a much higher compensation

'one that takes account of an increased valuation of the impairment to trees, raw materials, biodiversity and gas regulation; the inclusion of a valuation for the impairment of soil formation; harm caused to the environment; the implications of the felling of trees and the destruction of undergrowth for climate change; and the gravity of an intentional harm caused to the environment of a wetland by Nicaragua.'⁶¹

⁶⁰ Judgment on Compensation (n 3) Dissenting opinion of Judge *ad hoc* Dugard, para 7.

⁶¹ *ibid* para 18.

5. *Observations*

How does the approach of the ICJ towards compensation compare to the theoretical starting points provided above? It is striking that to some extent the Court seems to have taken a restrictive approach from the outset, because the Court appeared to be bound in many ways by its Judgment of 16 December 2015. The latter established that ‘Costa Rica is entitled to receive compensation for the material damage caused by those breaches of obligations by Nicaragua’.⁶² As a result the Court focused only on one form of repairing environmental harm and overlooked all the other options that could have proved possible. Although compensation may well be an appropriate way to repair environmental damage, it should not represent the option that had to prevail while seeking reparation. This view is also shared by Judge Cançado Trindade who stated in its separate opinion that the Court’s ‘outlook should have been wider, encompassing also the consideration of restoration measures, and distinct forms of reparation, complementary to compensation’.⁶³

The Judgment of 16 December 2015 equally stated that

‘the declaration by the Court that Nicaragua breached the territorial sovereignty of Costa Rica by excavating three *caños* and establishing a military presence in the disputed territory provides adequate satisfaction for the non-material injury suffered on this account...’⁶⁴

While the primary restoration options were not considered, this judgment found it useful to refer to satisfaction, which it hence implicitly regarded as an additional adequate form of reparation. In fact, satis-

⁶² *Certain Activities Carried Out by Nicaragua in the Border Area* (n 5) para 142. Such declaratory reliefs as a form of satisfaction for non-material injury to a State originated in the *Corfu Channel* case. See *Corfu Channel* (Merits) [1949] ICJ Rep 35. They were later used in other proceedings before the Court as well as by other international courts and tribunals. For example, in the *M/V ‘Saiga’ (No 2)* case, the tribunal considered that its declaration that Guinea acted wrongfully in arresting the vessel in the circumstances, and in using excessive force, constituted adequate reparation (*M/V ‘Saiga’ (No 2) (Saint Vincent and the Grenadines v Guinea)* (Judgment) [1999] ITLOS Rep para 176).

⁶³ Judgment on Compensation (n 3) Separate opinion of Judge Cançado Trindade, para 2.

⁶⁴ *Certain Activities Carried Out by Nicaragua in the Border Area* (n 5) para 139.

faction is only the third form of reparation to be considered in Courts' proceedings. The wrongdoing State is required to give satisfaction for the injury caused 'insofar as it cannot be made good by restitution or compensation'.

It thus appeared that the Judgment of 16 December 2015 already set the conditions for the restrictive approach taken by the Court in the current judgment. As a result, the Judgment of 2 February 2018 became a 'judgment on compensation' instead of embracing an overarching perspective as a 'judgment on reparation'.

5.1. *An approach with unclear outlines*

In the assessment of compensation, it is not clear how the Court came to its final decision. The Court rejected the assessment methods proposed by the parties to the dispute due to diverse inconsistencies it pointed out. Costa Rica's ecosystem services approach, that assigned value to the six heads of damages it identified, was not deemed satisfactory by the Court. As opposed to such an approach, the Court decided to use an overall assessment method that considers the ecosystem as a whole. This, however, seems to contradict the Court's comments that different components of the ecosystem require different periods of recovery. Although this statement specifically applied to the time necessary for the recovery of the ecosystem, it does also implicitly suggest that it would be incorrect to treat elements with differing characteristics in a similar way.

Nicaragua's replacement costs methodology was equally rejected because its initial hypothesis was erroneous. However, despite many shortcomings it identified, the Court did find some value in the corrections Nicaragua brought to the Costa Rica's ecosystem services approach. As such, the Court

'while retaining some of the elements of the 'corrected analysis', considers it reasonable that, for the purposes of its overall valuation, an adjustment be made to the total amount in the 'corrected analysis' to account for the shortcomings.'⁶⁵

⁶⁵ Judgment on Compensation (n 3) para 86.

It is here important to recall that this corrected analysis is itself based on a valuation per head of damages that stands in contradiction with an overall assessment. The choice of the Court to base the compensation on an overall assessment sounds at first blush attractive as it provides a holistic approach to the ecosystem. Yet, the major disadvantage is that it may ignore specific components of ecological harm and also conveniently relieves the Court from answering many questions that were fundamental in the quantification of the environmental damage in the *cas d'espèce*. First, what does an overall assessment involve? Besides the fact that the ecosystem would be treated as a whole, there were no further explanations provided to define the outlines of the overall valuation. Likewise, the Court no longer needed to assess the necessity of inquiring its own independent expertise to help determine the *quantum* of compensation.

Secondly, what are the bases of such an overall valuation? The Court failed to mention whether such a method is supported by scientific evidence or expertise as would be required for a wetland 'of high value', as qualified by the Secretariat of the Ramsar Convention. The judgment made no mention of an attempt by the Court to use experts in support of its 'overall valuation', making the burden of proof entirely a responsibility of Costa Rica. Yet, the use of experts would have been part of a normal procedure pursuant to Article 50 of the Statute of the Court.⁶⁶ Such expertise was sought for example in the *Corfu Channel* case where the ICJ resorted to experts for the assessment of the heads of damage submitted by the United Kingdom.⁶⁷

Thirdly, what is the appropriate natural recovery period? While Costa Rica suggested 50 years, and Nicaragua estimated it between 20-30 years, the Court ultimately never ruled on this issue.

Fourthly, how is the compensation due calculated? The Court did provide an analysis on the head of damages it considered compensable. The rejected claims were also clearly highlighted. However, the judg-

⁶⁶ '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' (art 50 Statute of the ICJ).

⁶⁷ The United Kingdom sought compensation for three heads of damage: replacement of the destroyer *Saumarez*, the damage sustained by the destroyer *Volage*, and the damage resulting from the deaths and injuries of naval personnel. See *Corfu Channel* (Assessment of Amount of Compensation, Judgment) [1949] ICJ Rep 249.

ment remained rather vague on how the Court reached the amount of US\$ 120,000 awarded to Costa Rica. The compensation awarded by the Court is insufficiently supported by evidence and prejudiced by the lack of clarity in the approach of the Court. As a way of example, Judge *ad hoc* Dugard underlined that although the Court clearly stated that the removal of trees was the most significant damage, it failed to assign a value to 'the loss of "close to 300 trees", many of which were over 100 years old'.⁶⁸ In sum, the problem not only arises that no justification or motivation is provided to explain why the (rather limited) amount of US\$ 120,000 was awarded; there is also a serious danger that this 'overall valuation' just leads to an award of a (relatively low) amount of compensation, ignoring important components of ecological losses which would have been incorporated if they would have been considered separately, as suggested by Costa Rica.

Indeed, although it is quite commendable that environmental damage is compensated in the present case, more clarity would have given more credit, not only to the approach of the Court, but also to the compensation awarded. In the *Trail Smelter* arbitration, for example, the Tribunal adopted as the measure of indemnity, to be applied on account of damage in respect of uncleared land used for merchantable timber, the measure of damages applied by American courts, viz., that since the destruction of merchantable timber will generally impair the value of the land itself the measure of damage should be the reduction in the value of the land itself due to such destruction of timber.⁶⁹

There was a clear attempt to give factual bases to the Tribunal's methodology, at least with regard to that specific head of damage.

In general, these substantive issues need to be resolved for a significant breakthrough in the area of ecosystem valuation. This would go a long way towards facilitating courts' approaches in future cases of compensation for environmental damage.

⁶⁸ Judgment on Compensation (n 3) Dissention opinion of Judge ad Hoc Dugard, para 16.

⁶⁹ *Trail Smelter case (United States v Canada)* (awards of 16 April 1938 and 11 March 1941) UN Reports of Intl Arbitral Awards vol III (1938, 1941) 1928.

5.2. *Many unresolved issues*

In the *cas d'espèce*, the Court noted that the affected area has re-filled with soil and that there has been substantial revegetation. Even though there is some evidence of a change in the quality of soil, the failure of Costa Rica to provide tangible evidence of significant ecological alterations resulted in a rejection of its claim with regard to this head of damage. This means that, in the Court's view, the affected area has returned to a state that could be assimilated to its baseline conditions. This underlines a paradox since the Court itself ensured

‘there is no clear evidence before the Court of the baseline condition of the totality of the environmental goods and services that existed in the area concerned prior to Nicaragua’s activities.’⁷⁰

It could indeed be argued that it is challenging to establish equivalence between two parameters when one of them remains an irresolute equation.

Be that as it may, this example could prove very interesting in many regards. As a matter of fact, the time elapsed before the compensation case was heard enabled the 2013 eastern *caño* to revegetate to such an extent that it ‘is now virtually indistinguishable from the surrounding areas’.⁷¹ Therein, the lapse of time before the judgment on compensation contributed to shape the scientific expertise provided by Nicaragua, and subsequently the opinion of the Court as regards the valuation of trees. Time issues can indeed influence proof and causation, especially in cases where the extent and duration of harm are unpredictable like in the Exxon Valdez oil spill.⁷² While time is the prominent asset for natural recovery, one must certainly ensure that mere observable parameters do not take precedence over scientific evidence.

This example also highlights that the recognition of damage is only a first step in the compensation process. Acknowledging that the re-filled soil is of a lesser quality is a fact, but qualifying this fact – as significant or not – would be established only according to its consequenc-

⁷⁰ Judgment on Compensation (n 3) para 76.

⁷¹ *ibid* para 61.

⁷² SH Knudsen, ‘A Precautionary Tale: Assessing Ecological Damages after the Exxon Valdez Oil Spill’ (2009) 7 U St Thomas L J 95.



es, either for the environment itself, or for the societies that benefit from it. In this respect, evidentiary requirements play a leading role in dispute settlement. In the present case, the inability of Costa Rica to provide sound scientific proof resulted in the rejection of its claims with regard to some of the heads of damage. The Court recalled that ‘as a general rule, it is for the party which alleges a particular fact in support of its claims to prove the existence of that fact’.⁷³ While this is true, proving causation can often reveal challenging in environmental litigation. The Court itself underlined that this rule may call for flexibility in particular circumstances where, for example, the respondent may be in a better position to establish certain facts.⁷⁴ Similarly, the White Paper on Environmental Liability acknowledged that in environmental cases ‘it may be more difficult for a plaintiff and easier for a defendant to establish facts concerning the causal link (or the absence of it) between an activity carried out by the defendant and the damage’.⁷⁵ In many cases, proving causation can indeed reveal a greater issue for plaintiffs than establishing fault.⁷⁶ In this regard, the Supreme Court of Michigan in *Allison v. Chandler* established that ‘juries are allowed to act upon probable and inferential, as well as direct and positive proof’.⁷⁷

Causality is a necessary but not a sufficient condition for reparation, and because circumstances are dissimilar for each dispute, causality requirements must necessarily differ for each case.⁷⁸ Consequently, only

⁷³ Judgment on Compensation (n 3) para 33.

⁷⁴ The Court quoted a previous judgment in support of this assertion: *Ahmadou Sadio Diallo (Republic of Guinea v Democratic Republic of the Congo)* (Compensation) [2012] (I) ICJ Rep 332 para 15.

⁷⁵ White Paper of the Commission of 9 February 2000 on Environmental Liability, COM(2000)66 final, 17.

⁷⁶ L Bergkamp, ‘The Commission’s White Paper on Environmental Liability: A Weak Case for an EC Strict Liability Regime’ <ssrn.com/abstract=223108>.

⁷⁷ Supreme Court of Michigan, *Allison v Chandler*, 11 Michigan 542, quoted with approval by the United States Supreme Court, as follows: ‘But shall the injured party in an action of tort, which may happen to furnish no element of certainty, be allowed to recover no damages (or merely nominal), because he cannot show the exact amount with certainty, though he is ready to show, to the satisfaction of the jury, that he has suffered large damages by the injury? Certainty, it is true, would thus be attained; but it would be the certainty of injustice. ... Juries are allowed to act upon probable and inferential, as well as direct and positive proof’.

⁷⁸ Commentary to art 31 of the ILC’s Articles on the Responsibility of States for International Wrongful Acts, in (2001) II/2 YB Intl L Commission 93.

the injury resulting from and ascribable to the internationally wrongful act must be compensated, rather than any and all consequences flowing from it.⁷⁹

In the present case, the Court has applied its judicial discretion as regards the causal link, stating that ‘it is for the Court to decide whether there is a sufficient causal nexus between the wrongful act and the injury suffered’.⁸⁰ Concurrent causes for environmental damages and scientific uncertainty are all challenges that needed to be addressed ‘as and when they arise in light of the facts of the case at hand and the evidence presented to the Court’.

The same discretion was used with regard to the valuation of the damage. The Court recalled that ‘equitable considerations’ might be considered to account for particular circumstances.⁸¹ It equally underlined the reference in the *Trail Smelter* case⁸² to the Supreme Court of the United States of America decision in the *Story Parchment Company v Paterson Parchment Paper Company* that stated:

‘Where the tort itself is of such a nature as to preclude the ascertainment of the amount of damages with certainty, ... while the damages may not be determined by mere speculation or guess, it will be enough if the evidence show the extent of the damages as a matter of just and reasonable inference, although the result be only approximate.’⁸³

Be that as it may, the Court did not clarify its own criteria, neither for the sufficiency of the causal link, nor the valuation of the damage. For the latter issue, it simply attested awarding an amount that it considers to ‘approximately reflect the value of the impairment or loss of environmental goods and services’.⁸⁴ Moreover equity has not been satisfactorily considered in the Court’s approach. Judge *ad hoc* Dugard indeed stressed the failure of the Court

‘to have regard to equitable considerations, such as the character of the

⁷⁹ Commentary to art 36 *ibid*.

⁸⁰ Judgment on Compensation (n3) para 34.

⁸¹ In support of this, the Court referred to *Ahmadou Sadio Diallo* (n 74) 337 para 33.

⁸² *Trail Smelter case* (n 69) 1920.

⁸³ *Story Parchment Company v Paterson Parchment Paper Company* (1931) 282 United States Reports 555.

⁸⁴ Judgment on Compensation (n 3) para 86.



affected terrain, the implications of deforestation for climate change and the conduct of Nicaragua.⁸⁵

5.3 *An anthropocentric vision*

It is noticeable that this judgment had a pronounced emphasis on human welfare. Both the parties and the ICJ apprehended the environmental damage in an exclusively anthropocentric way, limited to capturing the value of the environmental resource to human welfare. This approach limits the scope of its assessment to the benefits human beings could be deprived of, as a result of the harm to the affected wetland.

Such an approach tends to minimize the recognition of the environmental damage per se, which is rightly underlined by the Court. The Court ‘is consistent with the principles of international law ... to hold that *compensation is due for damage caused to the environment, in and of itself*’.⁸⁶ As such, the pure environmental damage should be acknowledged in its intrinsic value because the natural environment is valuable in its own right. The notion of pure environmental damage, compensable per se, refers to an objective acceptance, since it constitutes a breach of the tangible or intangible integrity of the environment regardless of its potential value to human societies.⁸⁷ This approach by the Court

⁸⁵ Judgment on Compensation (n 3) Dissenting opinion of Judge *ad hoc* Dugard, para 7.

⁸⁶ Judgment on Compensation para 41 (emphasis added).

⁸⁷ JB Lhommet, ‘Affaire Costa Rica contre Nicaragua devant la Cour Internationale de Justice: À Qui Profite le Droit de L’Environnement?’ (2018) <www.village-justice.com/articles/affaire-costa-rica-contre-nicaragua-devant-cour-internationale-justice-qui28092.html>. According to Lhommet ‘Les juridictions ont pu reconnaître le dommage écologique pur, comme dans l’affaire Erika, lorsque la Cour d’appel de Paris, dont l’arrêt fut par la suite confirmé par la Cour de cassation, le définissait comme un “préjudice objectif”, autonome, [qui] s’entend de toute atteinte non négligeable à l’environnement naturel, à savoir, notamment, à l’air, l’atmosphère, l’eau, les sols, les terres, les paysages, les sites naturels, la biodiversité et l’interaction entre ces éléments, qui est sans répercussions sur un intérêt humain particulier mais affecte un intérêt collectif légitime’ (Cour d’appel de Paris, 30 mars 2010, 08-02278 & Cour de cassation, Chambre criminelle, 25 septembre 2012, pourvoi n 10-82938). (The courts were able to recognize the notion of ‘pure ecological damage’, as in the Erika case, which was defined as an ‘objective, autonomous injury’, [which] means any significant interference with the natural environment, including, but not limited to, air, atmosphere, water, soils, land, landscapes, natural sites, biodiversity and the interaction between these ele-

points to a paradox raising the question of the actual place of environmental damage, compensable in itself, in international law in that it aims to be objective in principle, but becomes totally subjectivated in its compensation.⁸⁸

6. Conclusion

This judgment is undoubtedly important as it is the first judgment explicitly dealing with the compensation for environmental harm. The judgment illustrates a point often stressed by scholars and policy-makers, being that to find an appropriate approach to the reparation of environmental harm is often difficult and leads to controversies. Although the ILC and the literature indicate a variety of methods to repair environmental harm, following its prior judgment of 2015, the ICJ takes a rather narrow approach by focusing on compensation. And within the compensation it rejects Costa Rica's approach to examine the separate heads of damages separately, replacing it with an 'overall valuation' that leads to an amount of US\$ 120,000 awarded to Costa Rica, basically compensating the economic value of the trees removed by Nicaragua. There is in that respect a striking difference between the language used by the Court with respect to the importance of the biodiversity services in an internationally protected wetland, on the one hand, and the final monetary evaluation, on the other. The ICJ holds clearly that compensation is due for damage caused to the environment in and of itself but, paradoxically, when it comes to the monetary valuation, the Court does not put its money where its mouth is, and does not seem to provide a monetary assessment for the environmental resource in its intrinsic value. The mere fact that the Court stresses that the compensation is due for damage caused to the environment, in and of itself, can of course be commended. Yet, in a next step this should also be translated in a better monetary assessment of this ecological harm.

Of course, the ICJ may have chosen the relatively easy way out of the 'overall assessment', since it lacked clear criteria or indicators for a

ments, which has no repercussions on a particular human interest but affects a legitimate collective interest (authors' own translation).

⁸⁸ *ibid.*

more appropriate ecological assessment, taking into account non-economic considerations.

It is obvious that the legal system requires evidence to possess a certain level of certainty and concreteness.⁸⁹ Global cooperation to establish monitoring systems of well-documented, comparable, time-series information for ecosystem features, including non-marketed ecosystem services,⁹⁰ could help alleviate scientific hurdles in similar cases and advance policy appraisal in environmental matters.

It is important to stress that a correct evaluation of environmental damage is not only of importance to symbolize the value of the damaged protected wetlands also in monetary terms. The amount of monetary compensation awarded for an internationally wrongful act can also function as a deterrent. Even when compensation is not considered as punitive by the ICJ, assessing the compensation in such a way that it fully incorporates the value of the ecological harm caused, may provide better incentives to states to avoid engaging in internationally wrongful acts. One can seriously doubt whether a compensation amount of US\$ 120,000 will have this required deterrent effect. The judgment is therefore an important step, but a lot of further important work is still needed in order to fully incorporate the true value of ecological services in the reparation of environmental harm under international law.

⁸⁹ T Cianflone, K Wernstedt, 'Uncertainty and Monetary Assessment of Liabilities for Landfill', in M Mazzanti, A Montini (eds) *Waste and Environmental Policy. Routledge Explorations in Environmental Economics* (Routledge 2009) 161.

⁹⁰ These were major gaps identified by the Millennium Assessment Ecosystem that pose significant barriers in assessing conditions and trends in ecosystem services.