

INTERNATIONAL COURT OF JUSTICE

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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

*Introductory observations — Object of the proceedings — Under the Court's Judgment on merits, Costa Rica entitled to compensation for material damage caused on its territory by Nicaragua's unlawful activities — Present Judgment determining amount of compensation.*

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*Legal principles applicable to determination of compensation — Obligation to make full reparation — Compensation may be appropriate form of reparation — A sufficiently direct and certain causal nexus must exist between wrongful act and injury suffered — Proof of damage and causation with respect to environmental damage — Valuation of damage — Equitable considerations.*

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*Claim for compensation for environmental damage.*

*Such a claim not previously adjudicated by the Court — Damage to environment compensable under international law — Compensation may include indemnification for impairment or loss of environmental goods and services and payment for restoration — Methodology for valuation — Ecosystem services approach advanced by Costa Rica — Replacement cost approach advanced by Nicaragua — Neither approach followed exclusively by the Court — No specific method of valuation for purposes of compensation for environmental damage prescribed by international law — The Court to be guided by principles and rules applicable to compensation.*

*Question of impairment or loss of certain environmental goods and services — The Court to determine the existence of damage and a causal link before establishing compensation due — Compensation claimed for six categories of goods and services — Impairment or loss of natural hazards mitigation and soil formation/erosion control not demonstrated — Four other categories of environmental goods and services, namely, trees, other raw materials, gas regulation and air quality services, and biodiversity, having been impaired or lost as a direct consequence of Nicaragua's activities — Valuation of damage — Valuations proposed by Parties not accepted by the Court — The Court adopts overall assessment of impairment or loss of goods and services — Removal of trees causing most significant damage to area — Affected area is a wetland protected under Ramsar Convention — Capacity of damaged area for natural regeneration — Not possible to establish single recovery period — Amount awarded for impairment or loss of environmental goods and services — Amount awarded for restoration measures.*

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*Claim for compensation for costs and expenses.*

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*Costs and expenses incurred in relation to Nicaragua's unlawful activities in northern part of Isla Portillos between October 2010 and April 2011 — Certain expenses relating to flights to monitor northern part of Isla Portillos compensable — Recalculation by the Court of compensable expenses — Expense relating to purchase of January 2011 UNITAR/UNOSAT report compensable.*

*Expenses relating to salaries of Costa Rican personnel allegedly involved in monitoring activities — Regular salaries of officials not generally compensable — No evidence of any extraordinary expenses — Expenses for salaries not compensable — Costa Rica's claim for food and water supplies, fuel for fluvial transportation and land transportation — Insufficient evidence*

*adduced to support claims — Expenses not compensable — Purchase of two satellite images allegedly to verify Nicaragua's unlawful activities — No indication in invoices produced as to area covered by satellite images — Expense not compensable.*

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*Costs and expenses incurred in monitoring northern part of Isla Portillos following withdrawal of Nicaragua's military personnel and in implementing the Court's 2011 and 2013 Orders on provisional measures — Expenses for two-day inspection of northern part of Isla Portillos in April 2011 with Secretariat of Ramsar Convention partially compensable — Quantification — Shortcomings in evidentiary record — Recalculation by the Court of compensable expenses — Costa Rica's claim for salaries — Expenses for salaries not compensable — Expenses relating to purchase of satellite images partially compensable — Quantification — Three sets of invoices by reference to area covered by satellite images — Images in first and second sets partially compensable — Criteria for compensation of satellite images — No compensation for third set of invoices as necessary causal nexus missing — Expense relating to purchase of November 2011 UNITAR/UNOSAT report partially compensable — Total amount of compensation limited to one third of total cost of report.*

*Claims relating to two new police stations in Laguna Los Portillos and Laguna de Agua Dulce — Costs in connection with equipment and operation of police stations not compensable because purpose was not to monitor Nicaragua's activities — Claims relating to biological station at Laguna Los Portillos — Costs in connection with maintenance of biological station not compensable as necessary causal nexus missing — Claims relating to salaries of personnel involved in monitoring activities, as well as ancillary costs and costs of fuel for transportation, not compensable.*

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*Costs and expenses incurred in preventing irreparable prejudice to environment — Construction in 2015 of dyke across 2013 eastern caño — Nicaragua accepts that compensation may be appropriate for costs that were reasonably incurred — Costs in connection with construction of dyke partially compensable — Overflight costs prior to construction of dyke — Invoice details and flight description showing no direct connection with intended construction of dyke — Expense not compensable — Costs connected with actual construction of dyke — Claim for helicopter flight hours fully compensable — Claim for "purchase of billed supplies" partially compensable — Costs for surplus construction materials compensable — Subsequent overflight costs fully compensable.*

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*Total compensation for costs and expenses.*

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*Costa Rica's claim for pre-judgment and post-judgment interest — Costa Rica not entitled to pre-judgment interest on amount of compensation for environmental damage — Costa Rica awarded pre-judgment interest on costs and expenses found compensable — Period over which pre-judgment interest shall accrue — Post-judgment interest to be paid should payment of total amount of compensation be delayed.*

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*Total sum awarded to Costa Rica.*

## **JUDGMENT**

*Present: President ABRAHAM; Vice-President YUSUF; Judges OWADA, TOMKA, BENNOUNA, CANÇADO TRINDADE, GREENWOOD, XUE, DONOGHUE, GAJA, SEBUTINDE, BHANDARI, ROBINSON, GEVORGIAN; Judges ad hoc GUILLAUME, DUGARD; Registrar COUVREUR.*

In the case concerning certain activities carried out by Nicaragua in the border area,

*between*

the Republic of Costa Rica,

represented by

H.E. Mr. Edgar Ugalde Álvarez, Ambassador on Special Mission,

as Agent;

H.E. Mr. Sergio Ugalde, Ambassador of Costa Rica to the Kingdom of the Netherlands,  
member of the Permanent Court of Arbitration,

as Co-Agent,

*and*

the Republic of Nicaragua,

represented by

H.E. Mr. Carlos José Argüello Gómez, Ambassador of Nicaragua to the Kingdom of the Netherlands, member of the International Law Commission,

as Agent,

THE COURT,

composed as above,

after deliberation,

*delivers the following Judgment:*

1. By an Application filed in the Registry of the Court on 18 November 2010, the Republic of Costa Rica (hereinafter “Costa Rica”) instituted proceedings against the Republic of Nicaragua (hereinafter “Nicaragua”) for “the incursion into, occupation of and use by Nicaragua’s army of Costa Rican territory”, as well as for “serious damage inflicted to its protected rainforests and wetlands” (*Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua)*), hereinafter referred to as the “*Costa Rica v. Nicaragua case*”).

2. By an Order dated 8 March 2011 (hereinafter referred to as the “2011 Order”), the Court indicated provisional measures addressed to both Parties in the *Costa Rica v. Nicaragua case (Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua), Provisional Measures, Order of 8 March 2011, I.C.J. Reports 2011 (I), pp. 27-28, para. 86)*.

3. By an Application filed in the Registry on 22 December 2011, Nicaragua instituted proceedings against Costa Rica for “violations of Nicaraguan sovereignty and major environmental damages on its territory”, resulting from the road construction works being carried out by Costa Rica in the border area between the two countries along the San Juan River (*Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica)*), hereinafter referred to as the “*Nicaragua v. Costa Rica case*”).

4. By two separate Orders dated 17 April 2013, the Court joined the proceedings in the *Costa Rica v. Nicaragua* and *Nicaragua v. Costa Rica* cases.

5. By an Order of 22 November 2013 (hereinafter referred to as the “2013 Order”), the Court indicated further provisional measures in the *Costa Rica v. Nicaragua case (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), Provisional Measures, Order of 22 November 2013, I.C.J. Reports 2013, pp. 369-370, para. 59)*.

6. Public hearings were held in the joined cases between 14 April 2015 and 1 May 2015.

7. In its Judgment dated 16 December 2015 on the merits, issued in the joined cases, the Court found, *inter alia*, with regard to the *Costa Rica v. Nicaragua* case, that Costa Rica had sovereignty over the “disputed territory”, as defined by the Court in paragraphs 69-70 (*I.C.J. Reports 2015 (II)*, p. 740, para. 229, subpara. (1) of the operative part), and that, by excavating three *caños* and establishing a military presence on Costa Rican territory, Nicaragua had violated the territorial sovereignty of Costa Rica (*ibid.*, subpara. (2) of the operative part). The Court also found that, by excavating two *caños* in 2013 and establishing a military presence in the disputed territory, Nicaragua had breached the obligations incumbent upon it under the 2011 Order (*ibid.*, subpara. (3) of the operative part).

8. In the same Judgment, the Court found that Nicaragua had “the obligation to compensate Costa Rica for material damages caused by Nicaragua’s unlawful activities on Costa Rican territory” (*I.C.J. Reports 2015 (II)*, p. 740, para. 229, subpara. (5) (a) of the operative part).

9. With respect to the question of compensation owed by Nicaragua to Costa Rica, the Court decided that “failing agreement between the Parties on this matter within 12 months from the date of [the] Judgment, [this] question . . . [would], at the request of one of the Parties, be settled by the Court” (*I.C.J. Reports 2015 (II)*, p. 741, para. 229, subpara. (5) (b) of the operative part).

10. Paragraph 142 of the same Judgment provided that the Court would, in such a case, determine the amount of compensation on the basis of further written pleadings limited to this issue.

11. By means of a letter dated 16 January 2017, the Co-Agent of Costa Rica, referring to paragraph 229, subparagraph (5) (b) of the operative part of the Court’s Judgment of 16 December 2015, noted that “[r]egrettably, the Parties ha[d] been unable to agree on the compensation due to Costa Rica for material damages caused by Nicaragua’s unlawful activities” as determined by the Court in the *Costa Rica v. Nicaragua* case. The Government of Costa Rica accordingly requested the Court “to settle the question of the compensation” due to Costa Rica.

12. At a meeting held by the President of the Court with the representatives of the Parties on 26 January 2017, pursuant to Article 31 of the Rules of Court, the latter expressed the views of their respective Governments regarding the time-limits required in order to prepare written pleadings. The Co-Agent of Costa Rica indicated that his Government wished to have at its disposal a period of two months for the preparation of its Memorial on the question of compensation. The Agent of Nicaragua stated that his Government would agree to a period of two months for the preparation of its Counter-Memorial on the same question.

13. Having ascertained the views of the Parties, and taking into account their agreement, by an Order of 2 February 2017, the Court fixed 3 April 2017 and 2 June 2017 as the respective time-limits for the filing of a Memorial by Costa Rica and a Counter-Memorial by Nicaragua on the question of compensation due to Costa Rica.

14. The Memorial and Counter-Memorial on compensation were filed within the time-limits thus fixed.

15. By a letter dated 20 June 2017, Costa Rica stated that, in its Counter-Memorial, Nicaragua had introduced evidence, and raised a number of arguments, in particular in respect of Costa Rica's expert evidence, which Costa Rica "ha[d] not yet had [the] opportunity to address". In the same letter, Costa Rica, *inter alia*, contested the methodology used by Nicaragua for the assessment of environmental harm and requested the Court that it be given an opportunity to respond by way of a short reply.

16. By a letter dated 23 June 2017, Nicaragua objected to Costa Rica's request and asked the Court "to proceed and assess the relevant material damage and the amount of compensation based on the evidence that the Parties have provided in their Memorial and Counter-Memorial".

17. The Court, noting that the Parties held different views as to the methodology for the assessment of environmental harm, considered it necessary for them to address that issue in a brief second round of written pleadings.

18. By an Order dated 18 July 2017, the President of the Court accordingly authorized the submission of a Reply by Costa Rica and a Rejoinder by Nicaragua on the sole question of the methodology adopted in the expert reports presented by the Parties in the Memorial and Counter-Memorial, respectively, on the question of compensation. By the same Order, the President fixed 8 August 2017 and 29 August 2017 as the respective time-limits for the filing of a Reply by Costa Rica and a Rejoinder by Nicaragua.

19. The Reply and Rejoinder were filed within the time-limits thus fixed.

20. In the written proceedings relating to compensation, the following submissions were presented by the Parties:

*On behalf of the Government of the Republic of Costa Rica,*

in the Memorial:

"1. Costa Rica respectfully requests the Court to order Nicaragua to pay immediately to Costa Rica:

(a) US\$6,708,776.96; and

(b) pre-judgment interest in a total amount of US\$522,733.19 until 3 April 2017, which amount should be updated to reflect the date of the Court's Judgment on this claim for compensation.

2. In the event that Nicaragua does not make immediate payment, Costa Rica respectfully requests the Court to order Nicaragua to pay post-judgment interest at an annual rate of 6 per cent."

in the Reply:

"1. Costa Rica respectfully requests the Court to reject Nicaragua's submissions and to order Nicaragua to pay immediately to Costa Rica:

(a) US\$6,711,685.26; and

(b) pre-judgment interest in a total amount of US\$501,997.28 until 3 April 2017, which amount should be updated to reflect the date of the Court's Judgment on this claim for compensation.

2. In the event that Nicaragua does not make immediate payment, Costa Rica respectfully requests the Court to order Nicaragua to pay post-judgment interest at an annual rate of 6 per cent."

*On behalf of the Government of the Republic of Nicaragua,*

in the Counter-Memorial:

"For the reasons given herein, the Republic of Nicaragua requests the Court to adjudge and declare that the Republic of Costa Rica is not entitled to more than \$188,504 for material damages caused by Nicaragua's wrongful acts."

in the Rejoinder:

"For the reasons given herein, the Republic of Nicaragua requests the Court to adjudge and declare that the Republic of Costa Rica is not entitled to more than \$188,504 for material damages caused by the actions of Nicaragua in the Disputed Area that the Court adjudged unlawful."

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## I. INTRODUCTORY OBSERVATIONS

21. In view of the lack of agreement between the Parties and of the request made by Costa Rica, it falls to the Court to determine the amount of compensation to be awarded to Costa Rica for material damage caused by Nicaragua's unlawful activities on Costa Rican territory, pursuant to the findings of the Court set out in its Judgment of 16 December 2015. The Court begins by recalling certain facts on which it based that Judgment.

22. The issues before the Court have their origin in a territorial dispute between Costa Rica and Nicaragua over an area abutting the easternmost stretch of the Parties' mutual land boundary. This area, referred to by the Court as the "disputed territory", was defined by the Court as follows: "the northern part of Isla Portillos, that is to say, the area of wetland of some 3 square kilometres between the right bank of the [2010] disputed *caño*, the right bank of the San Juan River up to its mouth at the Caribbean Sea and the Harbor Head Lagoon" (*Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua)*, *Provisional Measures, Order of 8 March 2011*, *I.C.J. Reports 2011 (I)*, p. 19, para. 55).

23. 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 (hereinafter referred to as the "2010 *caño*"). Nicaragua also sent some military units and other personnel to that area (*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, I.C.J. Reports 2015 (II)*, p. 694, para. 63; p. 703, paras. 92-93).

24. By its 2011 Order, the Court indicated the following provisional measures:

- "(1) Each Party shall refrain from sending to, or maintaining in the disputed territory, including the *caño*, any personnel, whether civilian, police or security;
- (2) Notwithstanding point (1) above, Costa Rica may dispatch civilian personnel charged with the protection of the environment to the disputed territory, including the *caño*, but only in so far as it is necessary to avoid irreparable prejudice being caused to the part of the wetland where that territory is situated; Costa Rica shall consult with the Secretariat of the Ramsar Convention in regard to these actions, give Nicaragua prior notice of them and use its best endeavours to find common solutions with Nicaragua in this respect;
- (3) Each Party shall refrain from any action which might aggravate or extend the dispute before the Court or make it more difficult to resolve;
- (4) Each Party shall inform the Court as to its compliance with the above provisional

measures.” (*Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua)*, Provisional Measures, Order of 8 March 2011, I.C.J. Reports 2011 (I), pp. 27-28, para. 86.)

25. In its 2013 Order, the Court found that two new *caños* had been constructed by Nicaragua in the disputed territory (hereinafter referred to as the “2013 *caños*”) (*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)*, Provisional Measures, Order of 22 November 2013, I.C.J. Reports 2013, p. 364, para. 44). Both Costa Rica and Nicaragua acknowledged that the excavation of the 2013 *caños* took place after the 2011 Order on provisional measures had been adopted, that this activity was attributable to Nicaragua, and that a military encampment had been installed on the disputed territory as defined by the Court. Nicaragua also acknowledged that the excavation of the *caños* represented an infringement of its obligations under the 2011 Order (*ibid.*, Judgment, I.C.J. Reports 2015 (II), p. 713, para. 125).

26. In its 2013 Order, the Court stated that “[f]ollowing consultation with the Secretariat of the Ramsar Convention [Convention on Wetlands of International Importance especially as Waterfowl Habitat, signed at Ramsar on 2 February 1971 (hereinafter the “Ramsar Convention”)] and after giving Nicaragua prior notice, Costa Rica may take appropriate measures related to the two new *caños*, to the extent necessary to prevent irreparable prejudice to the environment of the disputed territory” (*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)*, Provisional Measures, Order of 22 November 2013, I.C.J. Reports 2013, p. 370, para. 59, subpara. (2) (E)). After consultation with the Secretariat, Costa Rica constructed, during a short period in late March and early April 2015, a dyke across the eastern of the two 2013 *caños* (hereinafter referred to as the “2013 eastern *caño*”).

27. In its Judgment of 16 December 2015, the Court found that sovereignty over the “disputed territory” belonged to Costa Rica and that consequently Nicaragua’s activities, including the excavation of three *caños* and the establishment of a military presence in that territory, were in breach of Costa Rica’s sovereignty. Nicaragua therefore incurred the obligation to make reparation for the damage caused by its unlawful activities (I.C.J. Reports 2015 (II), p. 703, para. 93). The Court found that its declaration that Nicaragua had breached Costa Rica’s territorial sovereignty provided adequate satisfaction for the non-material damage suffered. However, it held that Costa Rica was entitled to receive compensation for material damage caused by those breaches of obligations by Nicaragua that had been ascertained by the Court (*ibid.*, pp. 717-718, paras. 139 and 142). The present Judgment determines the amount of compensation due to Costa Rica.

28. The sketch-map below shows the approximate locations of the three *caños* in the northern part of Isla Portillos as excavated in 2010 and 2013.

### Sketch-map The three caños in the northern part of Isla Portillos



## II. LEGAL PRINCIPLES APPLICABLE TO THE COMPENSATION DUE TO COSTA RICA

29. Before turning to the consideration of the issue of compensation due in the present case, the Court will recall some of the principles relevant to its determination. It is a well-established principle of international law that “the breach of an engagement involves an obligation to make reparation in an adequate form” (*Factory at Chorzów, Jurisdiction, Judgment No. 8, 1927, P.C.I.J., Series A, No. 9*, p. 21). The Permanent Court elaborated on this point as follows:

“The essential principle contained in the actual notion of an illegal act — a principle which seems to be established by international practice and in particular by the decisions of arbitral tribunals — is that reparation must, as far as possible, 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.” (*Factory at Chorzów, Merits, 1928, P.C.I.J., Series A, No. 17*, p. 47; see also *Avena and Other Mexican Nationals (Mexico v. United States of America), Judgment, I.C.J. Reports 2004 (I)*, p. 59, para. 119.)

30. The obligation to make full reparation for the damage caused by a wrongful act has been recognized by the Court in other cases (see for example, *Ahmadou Sadio Diallo (Republic of Guinea v. Democratic Republic of the Congo), Merits, Judgment, I.C.J. Reports 2010 (II)*, p. 691, para. 161; *Avena and Other Mexican Nationals (Mexico v. United States of America), Judgment, I.C.J. Reports 2004 (I)*, p. 59, para. 119; *Gabčíkovo-Nagymaros Project (Hungary/Slovakia), Judgment, I.C.J. Reports 1997*, p. 80, para. 150).

31. The Court has held that compensation may be an appropriate form of reparation, particularly in those cases where restitution is materially impossible or unduly burdensome (*Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment, I.C.J. Reports 2010 (I)*, pp. 103-104, para. 273). Compensation should not, however, have a punitive or exemplary character.

32. In the present case, the Court has been asked to determine compensation for the damage caused by Nicaragua’s unlawful activities, in accordance with its Judgment of 16 December 2015 (see paragraph 27 above). In order to award compensation, the Court will ascertain whether, and to what extent, each of the various heads of damage claimed by the Applicant can be established and whether they are the consequence of wrongful conduct by the Respondent, by determining “whether there is a sufficiently direct and certain causal nexus between the wrongful act . . . and the injury suffered by the Applicant”. Finally, the Court will determine the amount of compensation due (*Ahmadou Sadio Diallo (Republic of Guinea v. Democratic Republic of the Congo), Compensation, Judgment, I.C.J. Reports 2012 (I)*, p. 332, para. 14).

33. The Court recalls 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”. Nevertheless, the Court has recognized that this general rule may be applied flexibly in certain circumstances, where, for example, the respondent may be in a better position to establish certain facts (*Ahmadou Sadio Diallo (Republic of Guinea v. Democratic Republic of the Congo), Compensation, Judgment, I.C.J. Reports 2012 (I)*, p. 332, para. 15, referring to the Judgment on the merits of 30 November 2010, *I.C.J. Reports 2010 (II)*, pp. 660-661, paras. 54-56).

34. In cases of alleged environmental damage, particular issues may arise with respect to the existence of damage and causation. The damage may be due to several concurrent causes, or the state of science regarding the causal link between the wrongful act and the damage may be uncertain. These are difficulties that must be addressed as and when they arise in light of the facts of the case at hand and the evidence presented to the Court. Ultimately, it is for the Court to decide whether there is a sufficient causal nexus between the wrongful act and the injury suffered.

35. In respect of the valuation of damage, the Court recalls that the absence of adequate evidence as to the extent of material damage will not, in all situations, preclude an award of compensation for that damage. For example, in the *Ahmadou Sadio Diallo* case, the Court determined the amount of compensation due on the basis of equitable considerations (see *Ahmadou Sadio Diallo (Republic of Guinea v. Democratic Republic of the Congo), Compensation, Judgment, I.C.J. Reports 2012 (I)*, p. 337, para. 33). A similar approach was adopted by the Tribunal in the *Trail Smelter* case, which, quoting the Supreme Court of the United States of America in *Story Parchment Company v. Paterson Parchment Paper Company* (1931, *United States Reports*, Vol. 282, p. 555), stated:

“Where the tort itself is of such a nature as to preclude the ascertainment of the amount of damages with certainty, it would be a perversion of fundamental principles of justice to deny all relief to the injured person, and thereby relieve the wrongdoer from making any amend for his acts. In such case, 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.” (*Trail Smelter case (United States, Canada), 16 April 1938 and 11 March 1941, United Nations, Reports of International Arbitral Awards (RIAA)*, Vol. III, p. 1920.)

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36. In the present case, Costa Rica claims compensation for two categories of damage. First, Costa Rica claims compensation for quantifiable environmental damage caused by Nicaragua’s excavation of the 2010 *caño* and the 2013 eastern *caño*. It makes no claim in respect of the 2013 western *caño*. Secondly, Costa Rica claims compensation for costs and expenses incurred as the result of Nicaragua’s unlawful activities, including expenses incurred to monitor or remedy the environmental damage caused.

37. Nicaragua argues 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”. Nicaragua contends that the 2015 Judgment of the Court in this case further limits the scope *ratione materiae* and *ratione loci* of compensation to losses or expenses caused by the activities that the Court determined were unlawful.

38. The Court will address the Parties' submissions related to environmental damage in Section III. The Parties' submissions on costs and expenses incurred as a result of Nicaragua's activities are addressed in Section IV. The issue of interest is dealt with in Section V. The total sum awarded is stated in Section VI.

### III. COMPENSATION FOR ENVIRONMENTAL DAMAGE

#### 1. The compensability of environmental damage

39. Costa Rica argues that it is "settled" that environmental damage is compensable under international law. It notes that other international adjudicative bodies have awarded compensation for environmental damage, including for harm to environmental resources that have no commercial value. Costa Rica contends that its position is supported by the practice of the United Nations Compensation Commission ("UNCC"), which awarded compensation to several States for environmental damage caused by Iraq's illegal invasion and occupation of Kuwait in 1990 and 1991.

40. Nicaragua does not contest Costa Rica's contention that damage to the environment is compensable. In this connection, Nicaragua also refers to the approach adopted by the UNCC panels with respect to environmental claims arising from the first Gulf War. However, Nicaragua contends that, following that approach, Costa Rica is entitled to compensation for "restoration costs" and "replacement costs". According to Nicaragua, "restoration costs" comprise 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. Nicaragua also recognizes that Costa Rica 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.

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41. The Court has not previously adjudicated a claim for compensation for environmental damage. However, it is consistent with the principles of international law governing the consequences of internationally wrongful acts, including the principle of full reparation, to hold that compensation is due for damage caused to the environment, in and of itself, in addition to expenses incurred by an injured State as a consequence of such damage. The Parties also agree on this point.

42. The Court is therefore of the view that damage to the environment, and the consequent impairment or loss of the ability of the environment to provide goods and services, is compensable under international law. Such compensation may include indemnification for the impairment or loss of environmental goods and services in the period prior to recovery and payment for the restoration of the damaged environment.



43. Payment for restoration accounts for the fact that natural recovery may not always suffice to return an environment to the state in which it was before the damage occurred. In such instances, active restoration measures may be required in order to return the environment to its prior condition, in so far as that is possible.

## 2. Methodology for the valuation of environmental damage

44. Costa Rica accepts that there is no single method for the valuation of environmental damage and acknowledges that a variety of techniques have been used in practice at both the international and national level. It concludes that the appropriate method of valuation will depend, *inter alia*, on the nature, complexity, and homogeneity of the environmental damage sustained.

45. In the present case, the methodology that Costa Rica considers most appropriate, which it terms the “ecosystem services approach” (or “environmental services framework”), follows the recommendations of an expert report commissioned from Fundación Neotrópica, a Costa Rican non-governmental organization. Costa Rica claims that the valuation of environmental damage pursuant to an ecosystem services approach is well recognized internationally, up-to-date, and is also appropriate for the wetland protected under the Ramsar Convention that Nicaragua has harmed.

46. In Costa Rica’s view, the ecosystem services approach finds support in international and domestic practice. First, Costa Rica notes that the Guidelines for the Development of Domestic Legislation on Liability, Response Action and Compensation for Damage Caused by Activities Dangerous to the Environment of the United Nations Environment Programme (“UNEP”), which were adopted by its Governing Council in 2010, recognize that environmental damage may be calculated on the basis of factors such as the “reduction or loss of the ability of the environment to provide goods and services”. Secondly, Costa Rica highlights that Decision XII/14 of the Conference of the Parties to the Convention on Biological Diversity invites parties to take into account, as appropriate, the above-mentioned UNEP guidelines. Furthermore, Decision XII/14 invites parties to take into account a “synthesis report” on technical information, which states that “[l]iability and redress rules might also address . . . the loss of [the ecosystem’s] ability to provide actual or potential goods and services”. Thirdly, Costa Rica notes that the ecosystem services methodology is employed by several States in the context of their domestic legislation on environmental damage. Finally, Costa Rica argues that the Report of the Ramsar Advisory Mission No. 69, which assessed environmental damage resulting from the excavation of the 2010 *caño*, adopted the ecosystem services approach.

47. Costa Rica explains that, according to the ecosystem services approach, the value of an environment is comprised of goods and services that may or may not be traded on the market. Goods and services that are traded on the market (such as timber) have a “direct use value” whereas those that are not (such as flood prevention or gas regulation) have an “indirect use value”. In Costa Rica’s view, the valuation of environmental damage must take into account both the direct and indirect use values of environmental goods and services in order to provide an accurate

reflection of the value of the environment. In order to ascribe a monetary value to the environmental goods and services that Nicaragua purportedly damaged, Costa Rica uses a value transfer approach for most of the goods and services affected. Under the value transfer approach, the damage caused is assigned a monetary value by reference to a value drawn from studies of ecosystems considered to have similar conditions to the ecosystem concerned. However, Costa Rica uses a direct valuation approach where the data for such valuation is available.

48. Costa Rica claims that the methodology adopted by Nicaragua is the same as that used by the UNCC in relation to environmental claims, which dealt with a subject-matter that was radically different to that of the present case. Costa Rica argues that valuation practices have evolved since the UNCC concluded claims processing in 2005, and that more recent methodologies, such as the ecosystem services approach, “recognise the full and potentially long lasting extent of harm to the environment”.

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49. For its part, Nicaragua considers that Costa Rica is entitled to compensation “to replace the environmental services that either have been or may be lost prior to recovery of the impacted area”, which it terms the “ecosystem service replacement cost” or “replacement costs”. According to Nicaragua, the proper method for calculating this value is by reference to the price that would have to be paid to preserve an equivalent area until the services provided by the impacted area have recovered.

50. Nicaragua considers its methodology to be the standard approach to natural resource damage assessment. In particular, it notes that this was one of the methodologies followed by the UNCC when assessing claims for environmental damage. Nicaragua argues that there is no merit to Costa Rica’s claim that this methodology has been displaced by more recent methods of valuation of environmental damage.

51. Nicaragua contends that the methodology that Costa Rica adopts is a “benefits transfer” approach, which seeks to value the damaged environmental services by reference to values assigned to such services in other places and in other contexts. In Nicaragua’s view, such an approach is unreliable and has not been used widely in practice. Furthermore, Nicaragua argues that the UNCC declined to accept the “benefits transfer” approach, even though it was asked to do so.

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52. The Court notes that the valuation methods proposed by the Parties are sometimes used for environmental damage valuation in the practice of national and international bodies, and are not therefore devoid of relevance to the task at hand. However, they are not the only methods used by such bodies for that purpose, nor is their use limited to valuation of damage since they may also be used to carry out cost/benefit analysis of environmental projects and programmes for the purpose of public policy setting (see for example UNEP, “Guidance Manual on Valuation and Accounting of Ecosystem Services for Small Island Developing States” (2014), p. 4). The Court will not therefore choose between them or use either of them exclusively for the purpose of valuation of the damage caused to the protected wetland in Costa Rica. Wherever certain elements of either method offer a reasonable basis for valuation, the Court will nonetheless take them into account. This approach is dictated by two factors: first, international law does not prescribe any specific method of valuation for the purposes of compensation for environmental damage; secondly, it is necessary, in the view of the Court, to take into account the specific circumstances and characteristics of each case.

53. In its analysis, the Court will be guided by the principles and rules set out in paragraphs 29 to 35 above. In determining the compensation due for environmental damage, the Court will assess, as outlined in paragraph 42, the value to be assigned to the restoration of the damaged environment as well as to the impairment or loss of environmental goods and services prior to recovery.

### **3. Determination of the extent of the damage caused to the environment and of the amount of compensation due**

54. The Court notes that, for both Costa Rica and Nicaragua, the size of the area affected by the unlawful activities of Nicaragua was 6.19 hectares.

55. Although Costa Rica identifies 22 categories of goods and services that could have been impaired or lost as a result of Nicaragua’s wrongful actions, it claims compensation in respect of only six of them: 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.

56. Costa Rica claims that it is appropriate to calculate the total loss sustained as the result of Nicaragua’s actions over a period of 50 years, which it considers to be a conservative estimate of the time required for the affected area to recover. Consequently, it provides a net present value for the total loss on the basis of a recovery period of 50 years with a discount rate of 4 per cent. According to Fundación Neotrópica, the discount rate is representative of the rate at which the ecosystem will recover. In its view, as the ecosystem goods and services recover, the yearly value of the environmental damage caused will gradually decrease.

57. Based on the above approach, 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. Costa Rica claims a total amount of compensation of US\$2,880,745.82 for the environmental damage sustained as the result of Nicaragua's actions.

58. For its part, Nicaragua asserts, on the basis of its own method (see paragraph 49 above), that Costa Rica is entitled to replacement costs of US\$309 per hectare per year, the figure which Costa Rica pays landowners and communities as an incentive to protect habitat under its domestic environmental conservation scheme (adjusted to 2017 prices). Over a reasonable period for full recovery, which it estimates to be 20 to 30 years, and taking into account a 4 per cent discount rate, Nicaragua concludes that the present value of the replacement costs amounts to between US\$27,034 and US\$34,987.

59. Nicaragua argues that even if, *quod non*, the ecosystem services approach proposed by Costa Rica was an appropriate method for quantifying environmental damage, Costa Rica implemented it incorrectly in ways that create a dramatic overvaluation of the impairment or loss of environmental goods and services as a result of the damage caused. In particular, Nicaragua claims that: Costa Rica wrongly assumes the presence of environmental services that were not provided by the area impacted by Nicaragua's activities; Costa Rica incorrectly values the gas regulation and air quality services provided by the area; and Costa Rica erroneously assumes that all goods and services will be impacted for 50 years.

60. Costa Rica claims, following the six categories of environmental goods and services that it contends have been lost, under a first head of damage, compensation for trees that were felled in the construction of the 2010 *caño* and the 2013 eastern *caño*. The valuation it provides is based on the average price of standing timber for the species that were present in the 2010 *caño* (US\$64.65 per cubic metre) and the 2013 eastern *caño* (US\$40.05 per cubic metre), using figures taken from the Costa Rican National Forestry Office. Using these figures, Costa Rica values the eliminated stock and the growth potential of that stock over 50 years, assuming a volume of standing timber of 211 cubic metres per hectare, a harvest rate of 50 per cent per year, and a growth rate of 6 cubic metres per hectare per year. Fundación Neotrópica, whose figures Costa Rica adopts, explains that it does not assume, by referring to a harvest rate of 50 per cent per year, that it is possible to remove half of the annual growth of the trees each year. It maintains that it does this because the asset degradation caused by Nicaragua's unlawful activities will be reflected in Costa Rica's physical, natural, and economic accounts every year as a decrease in the monetary value of the country's natural assets until it has fully recovered.

61. Nicaragua contests Costa Rica's valuation of the trees felled in the excavation of the 2010 *caño* and the 2013 eastern *caño*. First, it claims that the only material damage caused by Nicaragua's activities was the felling of trees in the vicinity of the 2010 *caño*. It argues that the 2013 eastern *caño* has quickly revegetated and is now virtually indistinguishable from the surrounding areas. Secondly, Nicaragua contends that Costa Rica is mistaken in its calculation of the value of the felled trees over a period of 50 years, because trees can only be harvested once. Thirdly, Nicaragua claims that Costa Rica's figures do not demonstrate that it has accounted for the cost that would be required to harvest the timber and transport it to market, thus contravening accepted valuation methodology.

62. Costa Rica claims compensation, under a second head of damage, for "other raw materials" (namely, fibre and energy) that Nicaragua allegedly removed from the affected area in the course of its excavation works. The figures that Costa Rica adopts are based on studies that quantify the value of raw materials in other ecosystems (namely, in Mexico and the Philippines), from which a unit price is constructed (US\$175.76 per hectare for the first year after the loss was caused, adjusted to 2016 prices). It uses this unit price to estimate the loss of raw materials in an area of 5.76 hectares (the area cleared during excavation of the 2010 *caño*) and 0.43 hectares (the area damaged in the construction of the 2013 eastern *caño*).

63. With regard to "other raw materials" (namely, fibre and energy), Nicaragua argues that, due to its rapid recovery, the area impacted by its activities has regained the ability to provide those goods and services. In the alternative, Nicaragua contends that, even if Fundación Neotrópica had accurately assigned a unit value to other raw materials, it vastly inflated the valuation by assuming that the losses will extend for 50 years.

64. Thirdly, Costa Rica claims compensation for the impaired ability of the affected area to provide gas regulation and air quality services, such as carbon sequestration, which was allegedly caused by Nicaragua's unlawful activities. Costa Rica's estimate for the loss of this service is based on an academic study that values carbon stocks and flows in Costa Rican wetlands. Drawing on this study, Costa Rica estimates the loss of gas regulation and air quality services to amount to US\$14,982.06 per hectare (for the first year after the loss was caused, adjusted to 2016 prices). Costa Rica argues that the fact that some of the gas regulation and air quality services impaired or lost may also have benefitted the citizens of other countries is irrelevant to Nicaragua's liability to provide compensation for the unlawful harm caused to Costa Rica on its own territory.

65. Nicaragua contests Costa Rica's valuation of the gas regulation and air quality services in several respects. First, Nicaragua argues that the benefits from gas regulation and air quality services are distributed across the entire world, and thus that Costa Rica is entitled only to a small share of the value of this service. Secondly, it criticizes the study upon which Costa Rica's figures are based, arguing that Costa Rica does not demonstrate why that study is relevant to the affected area and does not explain why it ignores studies that assign lower values to the services. Thirdly, Nicaragua notes that the figure used by Costa Rica is a stock value, which reflects the total value of

all carbon sequestered in the vegetation, soil, leaf litter, and organic debris in one hectare. In Nicaragua's view, this carbon stock can only be released once into the atmosphere. Nicaragua argues that it is therefore incorrect for Costa Rica to calculate its loss on the basis of the value of carbon stock each year for 50 years.

66. Under the fourth head of damage, Costa Rica contends that freshwater wetlands, such as the affected area, are valuable assets to mitigate natural hazards, such as coastal flooding, saline intrusion and coastal erosion. In Costa Rica's view, the ability of the affected area to provide such services has been impaired by Nicaragua's actions. It argues that this conclusion is supported by the Report of the Ramsar Advisory Mission No. 69, which explains that changes in the pattern of freshwater flow in wetlands can impact both the salinity of the water and flood control capacity of the area. Costa Rica values this service at US\$2,949.74 per hectare (for the first year after the loss was caused, adjusted to 2016 prices), based on the selection of a "low value" from a range of studies from Belize, Thailand and Mexico.

67. In Nicaragua's view, Costa Rica identifies no natural hazards that the affected area mitigated nor does it explain how Nicaragua's works impacted any natural hazard mitigation services provided. Furthermore, Nicaragua argues that Costa Rica's valuation is based entirely on a value transferred from a study that is irrelevant to the present case (namely, a study on the hazard mitigation services provided by coastal mangroves in Thailand).

68. Under the fifth head of damage, Costa Rica claims that the sediment that has refilled the 2010 *caño* and the 2013 eastern *caño* is both of a poorer quality and is more susceptible to erosion. It thus claims for the cost of replacement soil, which it values at US\$5.78 per cubic metre.

69. Nicaragua argues that the 2010 *caño* and the 2013 eastern *caño* have refilled rapidly with sediment and are now covered with vegetation. In Nicaragua's view, Costa Rica has not presented any evidence that the new soil is of a poorer quality nor has it demonstrated that the soil is more vulnerable to erosion as a result of Nicaragua's actions. Moreover, it notes that Costa Rica has not presented any indication of its intention to carry out further restoration work on the two *caños*.

70. Finally, Costa Rica claims compensation for the loss of biodiversity services in the affected area, both in terms of habitat and nursery services. Costa Rica's valuation of biodiversity services is based on studies that quantify the value of biodiversity in other ecosystems (namely, in Mexico, Thailand and the Philippines), from which it constructs a unit price (US\$855.13 per hectare for the first year after the loss was caused, adjusted to 2016 prices).

71. Nicaragua argues that, due to its rapid recovery, the affected area has regained the ability to provide biodiversity services. In the alternative, Nicaragua contends that, even if Fundación Neotrópica had accurately assigned a unit value to such services, it vastly inflated the valuation by assuming that the losses will extend for 50 years.

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72. Before assigning a monetary value to the damage to the environmental goods and services caused by Nicaragua's wrongful activities, the Court will determine the existence and extent of such damage, and whether there exists a direct and certain causal link between such damage and Nicaragua's activities. It will then establish the compensation due.

73. In this context, the Court notes that the Parties disagree on two issues: first, whether certain environmental goods and services have been impaired or lost, namely natural hazards mitigation and soil formation/erosion control; and secondly, the valuation of the environmental goods and services, which they consider have been impaired or lost, taking into account the length of the period necessary for their recovery.

74. In relation to the first of these issues, the Court is of the view that Costa Rica has not demonstrated that the affected area, due to a change in its ecological character, has lost its ability to mitigate natural hazards or that such services have been impaired. As regards soil formation and erosion control, Nicaragua does not dispute that it removed approximately 9,500 cubic metres of soil from the sites of the 2010 *caño* and the 2013 eastern *caño*. However, the evidence before the Court establishes that both *caños* have subsequently refilled with soil and there has been substantial revegetation. Accordingly, Costa Rica's claim for the cost of replacing all of the soil removed by Nicaragua cannot be accepted. There is some evidence that the soil which was removed by Nicaragua was of a higher quality than that which has now refilled the two *caños* but Costa Rica has not established that this difference has affected erosion control and the evidence before the Court regarding the quality of the two types of soil is not sufficient to enable the Court to determine any loss which Costa Rica might have suffered.

75. Concerning the four other categories of environmental goods and services for which Costa Rica claims compensation (namely, trees, other raw materials, gas regulation and air quality services, and biodiversity), the evidence before the Court indicates that, in excavating the 2010 *caño* and the 2013 eastern *caño*, Nicaragua removed close to 300 trees and cleared 6.19 hectares of vegetation. These activities have significantly affected the ability of the two impacted sites to provide the above-mentioned environmental goods and services. It is therefore the view of the Court that impairment or loss of these four categories of environmental goods and services has occurred and is a direct consequence of Nicaragua's activities.

76. With regard to the second issue, relating to the valuation of the damage caused to environmental goods and services, the Court cannot accept the valuations proposed by the Parties. In respect of the valuation proposed by Costa Rica, the Court has doubts regarding the reliability of certain aspects of its methodology, particularly in light of the criticism raised by Nicaragua and its experts in the written pleadings. Costa Rica assumes, for instance, that a 50-year period represents the time necessary for recovery of the ecosystem to the state prior to the damage caused. However, in the first instance, 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. Secondly, the Court observes that different components of the ecosystem require different periods of recovery and that it would be incorrect to assign a single recovery time to the various categories of goods and services identified by Costa Rica.

77. In the view of the Court, Nicaragua's valuation of US\$309 per hectare per year must also be rejected. This valuation is based on the amount of money that Costa Rica pays landowners and communities as an incentive to protect habitat under its domestic environmental conservation scheme. Compensation for environmental damage in an internationally protected wetland, however, cannot be based on the general incentives paid to particular individuals or groups to manage a habitat. The prices paid under a scheme such as that employed by Costa Rica are designed to offset the opportunity cost of preserving the environment for those individuals and groups, and are not necessarily appropriate to reflect the value of the goods and services provided by the ecosystem. Accordingly, the Court is of the view that Nicaragua's proposed valuation does not provide an adequate reflection of the value of the environmental goods and services impaired or lost in the affected area.

78. The Court considers, for the reasons specified below, that it is appropriate to approach the valuation of environmental damage from the perspective of the ecosystem as a whole, by adopting an overall assessment of the impairment or loss of environmental goods and services prior to recovery, rather than attributing values to specific categories of environmental goods and services and estimating recovery periods for each of them.

79. First, the Court observes, in relation to the environmental goods and services that have been impaired or lost, that the most significant damage to the area, from which other harms to the environment arise, is the removal of trees by Nicaragua during the excavation of the *caños*. An overall valuation can account for the correlation between the removal of the trees and the harm caused to other environmental goods and services (such as other raw materials, gas regulation and air quality services, and biodiversity in terms of habitat and nursery).

80. Secondly, an overall valuation approach is dictated by the specific characteristics of the area affected by the activities of Nicaragua, which is situated in the Northeast Caribbean Wetland, a wetland protected under the Ramsar Convention, where there are various environmental goods

and services that are closely interlinked. Wetlands are among the most diverse and productive ecosystems in the world. 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 régimes, and acting as a sink for sediments and pollutants.

81. Thirdly, such an overall valuation will allow the Court to take into account the capacity of the damaged area for natural regeneration. As stated by the Secretariat of the Ramsar Convention, 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”.

82. These considerations also lead the Court to conclude, with regard to the length of the period of recovery, that a single recovery period cannot be established for all of the affected environmental goods and services. Despite the close relationship between these goods and services, the period of time for their return to the pre-damage condition necessarily varies.

83. In its overall valuation, the Court will take into account the four categories of environmental goods and services the impairment or loss of which has been established (see paragraph 75).

84. The Court recalls that, in addition to the two valuations considered above, respectively submitted by Costa Rica and Nicaragua, Nicaragua also provides an alternative valuation of damage, calculated on the basis of the four categories of environmental goods and services. This valuation adopts Costa Rica’s ecosystems services approach but makes significant adjustments to it. Nicaragua refers to this valuation as a “corrected analysis” and assigns a total monetary value of US\$84,296 to the damage caused to the four categories of environmental goods and services.

85. The Court considers that Nicaragua’s “corrected analysis” underestimates the value to be assigned to certain categories of goods and services prior to recovery. First, for other raw materials (fibre and energy), the “corrected analysis” assigns a value that is based on the assumption that there will be no loss in those goods and services after the first year. Such an assumption is not supported by any evidence before the Court. Secondly, with respect to biodiversity services (in terms of nursery and habitat), the “corrected analysis” does not sufficiently account for the particular importance of such services in an internationally protected wetland where the biodiversity was described to be of high value by the Secretariat of the Ramsar Convention. Whatever regrowth may occur naturally is unlikely to match in the near future the pre-existing richness of biodiversity in the area. Thirdly, in relation to gas regulation and air quality services, Nicaragua’s “corrected analysis” does not account for the loss of future annual carbon sequestration (“carbon flows”), since it characterizes the loss of those services as a one-time loss. The Court does not consider that the impairment or loss of gas regulation and air quality services can be valued as a one-time loss.

86. The Court recalls, as outlined in paragraph 35 above, that the absence of certainty as to the extent of damage does not necessarily preclude it from awarding an amount that it considers approximately to reflect the value of the impairment or loss of environmental goods and services. In this case, 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 identified in the preceding paragraph. The Court therefore awards to 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.

87. In relation to restoration, the Court rejects Costa Rica’s claim of US\$54,925.69 for replacement soil for the reasons given in paragraph 74. The Court, however, considers that the payment of compensation for restoration measures in respect of the wetland is justified in view of the damage caused by Nicaragua’s activities. Costa Rica claims compensation in the sum of US\$2,708.39 for this purpose. The Court upholds this claim.

#### **IV. COMPENSATION CLAIMED BY COSTA RICA FOR COSTS AND EXPENSES**

88. In addition to its claims of compensation for environmental damage, Costa Rica requested that the Court award it compensation for costs and expenses incurred as a result of Nicaragua’s unlawful activities.

89. On the basis of the principles described above (see paragraphs 29 to 35), the Court must determine whether the costs and expenses allegedly incurred by Costa Rica are supported by the evidence, and whether Costa Rica has established a sufficiently direct and certain causal nexus between the internationally wrongful conduct of Nicaragua identified by the Court in its 2015 Judgment and the heads of expenses for which Costa Rica seeks compensation.

##### **1. Costs and expenses incurred in relation to Nicaragua’s unlawful activities in the northern part of Isla Portillos between October 2010 and April 2011**

90. Costa Rica alleges that between October 2010 (when it became aware of Nicaragua’s military presence on its territory) and April 2011 (when Nicaragua’s military withdrew from Costa Rica’s territory following the Court’s 2011 Order on provisional measures), it has incurred a range of expenses in relation to Nicaragua’s presence and unlawful activities, in the total amount of US\$80,926.45. Costa Rica provides the following breakdown of these expenses: (a) cost of fuel and maintenance services for police aircraft used to reach and to overfly the “disputed territory” (US\$37,585.60); (b) salaries of Air Surveillance Service personnel required to attend access flights and overflights of the “disputed territory” (US\$1,044.66); (c) purchase of satellite images to verify Nicaragua’s presence and unlawful activities in the “disputed territory” (US\$17,600); (d) cost of



obtaining a report from the United Nations Institute for Training and Research/United Nations Operational Satellite Applications Programme (UNITAR/UNOSAT) to verify Nicaragua's unlawful activities in the "disputed territory" (US\$15,804); (e) salaries of National Coast Guard Service personnel required to provide water transportation to the area near the "disputed territory" (US\$6,780.60); (f) salaries of Tortuguero Conservation Area (ACTo) personnel required to attend missions in or near the "disputed territory" (US\$1,309.90); (g) food and water supplies for ACTo personnel required to attend environmental monitoring missions in or near the "disputed territory" (US\$446.12); (h) fuel for fluvial transportation for ACTo personnel required to attend missions in or near the "disputed territory" (US\$92); and (i) fuel for land transportation for ACTo personnel required to attend missions in or near the "disputed territory" (US\$263.57).

91. Nicaragua asserts that Costa Rica's claims for expenses allegedly incurred in connection with its police deployment are not compensable. Indeed, in its view, Costa Rican security forces were not employed to prevent or remedy any of the material damage caused by Nicaragua between October 2010 and January 2011. Nicaragua is also of the opinion that the flights allegedly carried out by Costa Rica were not related to its monitoring activities in the "disputed territory", nor were they substantiated by documentation. Nicaragua further argues that the salaries of Air Surveillance Service personnel, National Coast Guard Service personnel and ACTo personnel are not compensable as these staff were already employed as government officials. Finally, Nicaragua argues that the claims for satellite imagery and reports are "non-compensable litigation expenses" since they were largely commissioned by Costa Rica in connection with the presentation of its case on the merits. Moreover, Nicaragua asserts that they cover not only the "disputed territory" but also other areas.

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92. The Court now turns to its assessment of the compensation due for costs and expenses incurred by Costa Rica as a consequence of Nicaragua's presence and unlawful activities in the northern part of Isla Portillos between October 2010 and April 2011. Upon examination of all the relevant evidence and documents, the Court considers that Costa Rica has, with reference to two heads of expenses relating to the cost of fuel and maintenance services and the cost of obtaining a UNITAR/UNOSAT report, provided adequate evidence demonstrating that some of these costs have a sufficiently direct and certain causal nexus with the internationally wrongful conduct of Nicaragua identified by the Court in its 2015 Judgment.

93. With regard to the first head of expenses relating to fuel and maintenance services for police aircraft used to reach and overfly the northern part of Isla Portillos, the Court finds part of

these expenses compensable. It appears from the evidence submitted to the Court that the Costa Rican Air Surveillance Service carried out several overflights of the relevant area in the period in question. The Court is satisfied that some of these flights were undertaken in order to ensure effective inspection of the northern part of Isla Portillos, and thus considers that these ancillary costs are directly connected to the monitoring of that area that was made necessary as a result of Nicaragua's wrongful conduct.

94. Turning to the quantification of the amount of compensation with respect to that first head of expenses, the Court notes that Costa Rica claims US\$37,585.60 "for fuel and maintenance services for the police aircraft used" to reach and to overfly the "disputed territory" on 20, 22, 27 and 31 October 2010 and on 1 and 26 November 2010.

95. Costa Rica has presented evidence in the form of relevant flight logs, and an official communication dated 2 March 2016 (from the Administrative Office of the Air Surveillance Service of the Department of Air Operations of the Ministry of Public Security) with regard to the cost of overflights performed by the Air Surveillance Service on, *inter alia*, 20, 22, 27 and 31 October 2010 (US\$31,740.60), as well as on 1 and 26 November 2010 (US\$5,845), totalling US\$37,585.60. The Court notes that Costa Rica calculated these expenses on the basis of the operating costs for the hourly use of each aircraft deployed; these operating costs included expenses for "fuel", "overhaul", "insurance" and "miscellaneous". With regard to the "insurance" costs, the Court considers that Costa Rica has failed to demonstrate that it incurred any additional expense as a result of the specific missions of the police aircraft over the northern part of Isla Portillos. This insurance expense is thus not compensable. As to the "miscellaneous" costs, Costa Rica has failed to specify the nature of this expense. Thus, the evidence before the Court is not sufficient to show that this expense relates to the operating costs of the aircraft used. Moreover, the Court observes that Costa Rica itself has specified in its Memorial on compensation that it claimed expenses only for fuel and maintenance services. The Court therefore considers that these miscellaneous expenses are not compensable.

96. The Court also excludes the cost of flights to transport cargo or members of the press, the cost of flights with a destination other than the northern part of Isla Portillos, as well as the cost of flights for which, in the relevant flight logs, no indication of the persons on board has been given. Costa Rica has failed to demonstrate why these missions were necessary to respond to Nicaragua's unlawful activities and has therefore not established the requisite causal nexus between Nicaragua's unlawful activities and the expenses relating to these flights. In addition, the Court has corrected a mistake in Costa Rica's calculations for October 2010 in the list attached to the above-mentioned communication of 2 March 2016 concerning the duration of a flight on 22 October 2010. The compensation claim was calculated by Costa Rica on the basis of the duration of the flight indicated as 11.6 hours (aircraft registration number MSP018, Soloy), while the flight log indicates an actual duration of 4.6 hours.

97. The Court considers it necessary to recalculate the compensable expenses based on the information provided in the above official communication of 2 March 2016 and in the flight logs, by reference to the number and duration of the flights actually conducted in October and

November 2010 in connection with the inspection of the northern part of Isla Portillos, and only taking into account the costs of “fuel” and “overhaul”. The Court therefore finds that, under this head of expenses, Costa Rica is entitled to compensation in the amount of US\$4,177.30 for October 2010, and US\$1,665.90 for November 2010, totalling US\$5,843.20.

98. The second head of expenses that the Court finds compensable relates to Costa Rica’s claim for the cost of obtaining a report from UNITAR/UNOSAT dated 4 January 2011. The evidence shows that Costa Rica incurred this expense in order to detect and assess the environmental impact of Nicaragua’s presence and unlawful activities in Costa Rican territory. The Court has reviewed this UNITAR/UNOSAT report (entitled “Morphological and Environmental Change Assessment: San Juan River Area (including Isla Portillos and Calero), Costa Rica”) and is satisfied that the analysis given in this report provides a technical evaluation of the damage that has occurred as a consequence of Nicaragua’s unlawful activities in the northern part of Isla Portillos. In particular, the report states that, based on high-resolution satellite imagery acquired on 8 August 2010, there are “strong signature indicators of recent tree cover removal”, with “hundreds of fallen or cut trees [being] visible”. According to the report, it is likely that the removal of this tree cover occurred “during the period of May-August 2010”. The report also states that, “[b]ased on an analysis of satellite imagery recorded on 19 November and 14 December 2010, there is strong evidence to suggest that a new river channel leading from the San Juan River to the Los Portillos lagoon was constructed between August and November 2010”.

99. Turning to the quantification of the amount of compensation, the Court notes that Costa Rica has presented evidence in the form of a numbered and dated invoice from UNITAR/UNOSAT, with an annexed cost breakdown, where reference is made to “Satellite-based assessment of environmental and geo-morphological changes in Costa Rica”. The invoice for this report totals US\$15,804. In light of the Court’s finding that the analysis contained in the UNITAR/UNOSAT report is directly relevant to Nicaragua’s unlawful activities, the Court considers that there is a sufficiently direct and certain causal nexus between those activities and the cost of commissioning the report. The Court therefore finds that Costa Rica is entitled to full compensation in the sum of US\$15,804.

100. The Court now turns to those heads of expenses with reference to which it considers that Costa Rica has failed to meet its burden of proof.

101. The Court notes that three heads of expenses (incurred between October 2010 and April 2011) for which Costa Rica seeks compensation relate to salaries of Costa Rican personnel allegedly involved in monitoring activities in the northern part of Isla Portillos, namely, the salaries of personnel employed with the Air Surveillance Service, the National Coast Guard Service and ACTo. The total amount claimed by Costa Rica for this category of expense is US\$9,135.16. In this regard, the Court considers that salaries of government officials dealing with a situation resulting from an internationally wrongful act are compensable only if they are temporary and extraordinary in nature. In other words, a State is not, in general, entitled to compensation for the regular salaries

of its officials. It may, however, be entitled to compensation for salaries in certain cases, for example, where it has been obliged to pay its officials over the regular wage or where it has had to hire supplementary personnel, whose wages were not originally envisaged in its budget. This approach is in line with international practice (see UNCC, Report and Recommendations made by the Panel of Commissioners concerning the First Instalment of “F2” Claims, United Nations doc. S/AC.26/1999/23, 9 December 1999, para. 101; UNCC, Report and Recommendations made by the Panel of Commissioners concerning the Second Instalment of “F2” Claims, United Nations doc. S/AC.26/2000/26, 7 December 2000, paras. 52-58; see also *M/V “SAIGA” (No. 2) (Saint Vincent and the Grenadines v. Guinea)*, Judgment, ITLOS Reports 1999, p. 67, para. 177).

102. The Court observes that, in the present proceedings, Costa Rica has not produced evidence that, between October 2010 and April 2011, it incurred any extraordinary expenses in terms of the payment of salaries of government officials. There is some indication in the evidence adduced that Costa Rican government officials were assigned functions and duties in connection with Costa Rica’s response to Nicaragua’s wrongful conduct. For example, Annex 7 to the Memorial includes a document from the Department of Salaries and Wages of the National Coast Guard Service, entitled “Report on working hours by personnel . . . in missions that took place on [the] occasion of Nicaragua’s occupation of Costa Rican territory — 21 October 2010 to 19 January 2015”. There is no evidence, however, that any of these functions and duties were carried out by personnel other than regular government officials. The Court therefore finds that Costa Rica is not entitled to compensation for the salaries of personnel employed by the Air Surveillance Service, the National Coast Guard Service and ACTo.

103. The Court further observes that three other heads of expenses are closely related to the functions of those personnel employed by ACTo (to conduct environmental monitoring missions in or near the northern part of Isla Portillos), for which Costa Rica claims costs totalling US\$801.69 incurred in connection with food and water supplies (US\$446.12), fuel for fluvial transportation (US\$92) and fuel for land transportation (US\$263.57). As evidence of the costs incurred under these heads of expenses, Costa Rica refers to Annex 6 to its Memorial. This annex is comprised of a letter (with attachment) dated 6 January 2016 from the National System of Conservation Areas (Tortuguero Conservation Area Natural Resource Management) of the Costa Rican Ministry of the Environment and Energy, and addressed to the Ministry of Foreign Affairs of Costa Rica. It is stated in the letter that the purpose of the communication is “the formal transmittal of two binders containing printed information” including “copies of logs, reports, among other documents, which provide evidence of the participation of government officials and ACTo teams in addressing the problems arising from the Nicaraguan invasion of Isla Calero”. However, Annex 6 to the Memorial does not contain any such “logs” or “reports”; it only contains two tables which, for evidentiary purposes, are difficult to follow. The Court notes that, in terms of entries for costs related to land transportation, and to food and water, no specific information is provided to show in what way these expenses were connected to Costa Rica’s monitoring activities undertaken as a direct consequence of Nicaragua’s unlawful activities in the northern part of Isla Portillos in the period between October 2010 and April 2011. Moreover, these tables do not provide any information whatsoever regarding costs incurred in connection with fluvial transportation.

104. In light of the above, the Court considers that Costa Rica has failed to provide sufficient evidence to support its claims for the expenses under these three heads.

105. The Court finally turns to Costa Rica's claim that it be compensated in the amount of US\$17,600 for the cost of purchasing two satellite images, which, in its view, were necessary in order to verify Nicaragua's presence and unlawful activities in the northern part of Isla Portillos. The Court considers that, to the extent that such images did provide information as to Nicaragua's conduct in the northern part of Isla Portillos, this head of expenses could be compensable on the ground that there was a sufficiently direct and certain causal nexus between Nicaragua's unlawful activities and the cost thus incurred. However, having reviewed the evidence adduced by Costa Rica in support of this claim — in the form of two invoices dated 1 and 10 December 2010 (invoice Nos. 106 and 108), respectively, from INGEO innovaciones geográficas S.A. — the Court notes that neither of these invoices provides any indication as to the area covered by the two satellite images. It follows that the Court cannot conclude, on the basis of these documents, that these images related to the northern part of Isla Portillos, and that they were used for the verification of Nicaragua's presence and unlawful activities in that area. The Court therefore finds that Costa Rica has not provided sufficient evidence in support of its claim for compensation under this head of expenses.

106. In conclusion, the Court finds that Costa Rica is entitled to compensation in the amount of US\$21,647.20 for the expenses it incurred in relation to Nicaragua's presence and unlawful activities in the northern part of Isla Portillos between October 2010 and April 2011. This figure is made up of US\$5,843.20 for the cost of fuel and maintenance services for police aircraft used to reach and to overfly the northern part of Isla Portillos, and US\$15,804 for the cost of obtaining a report from UNITAR/UNOSAT to verify Nicaragua's unlawful activities in that area.

## **2. Costs and expenses incurred in monitoring the northern part of Isla Portillos following the withdrawal of Nicaragua's military personnel and in implementing the Court's 2011 and 2013 Orders on provisional measures**

107. Costa Rica recalls that the Court, in its 2011 Order, stated that

“in order to prevent the development of criminal activity in the disputed territory in the absence of any police or security forces of either Party, each Party has the responsibility to monitor [the disputed] territory from the territory over which it unquestionably holds sovereignty” (*Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua)*, *Provisional Measures, Order of 8 March 2011*, *I.C.J. Reports 2011 (I)*, p. 25, para. 78).

Costa Rica adds that the Court, in operative paragraph 59, subparagraph (1) of its 2013 Order, reaffirmed the measures indicated in its 2011 Order. Costa Rica states that, in fulfilment of its obligations under the Court's 2011 and 2013 Orders, it incurred expenses in monitoring the

“disputed territory” following the withdrawal of Nicaragua’s military personnel, so as to avoid irreparable prejudice being caused to the protected wetland. These expenses related, *inter alia*, to visits and overflights of the “disputed territory”; establishment and staffing of new police posts in close proximity to the area; transportation; instruments, tools, materials and supplies; salaries of monitoring personnel; food and water supplies; and the purchase of satellite images and a report from UNITAR/UNOSAT. According to Costa Rica, the total amount of these expenses is US\$3,551,433.67.

108. Costa Rica gives the following individual breakdown of the expenses it has incurred as a result of Nicaragua’s unlawful activities: (a) cost of fuel and maintenance services of police aircraft and salaries of Air Surveillance Service personnel for the inspection carried out in co-ordination with the Secretariat of the Ramsar Convention on 5 and 6 April 2011 (US\$21,128.55); (b) cost of equipment and repairs to equipment for the two new police posts established at Laguna de Agua Dulce and Isla Portillos (US\$24,065.87); (c) staffing of police posts in Laguna de Agua Dulce and Isla Portillos (US\$3,092,834.17); (d) cost of fluvial transportation provided by the National Coast Guard Service to the Public Force personnel and the Border Police (US\$22,678.80); (e) cost of four all-terrain vehicles (ATVs) for the police posts in Laguna de Agua Dulce and Isla Portillos (US\$81,208.40); (f) cost of a tractor for the equipment and maintenance of the biological station at Laguna Los Portillos to allow monitoring of the environment of the “disputed territory” (US\$35,500); (g) salaries of ACTo personnel taking part in monitoring activities in different site visits (US\$25,161.41); (h) cost of food and water supplies for ACTo personnel (US\$8,412.55); (i) cost of fuel for transportation of ACTo personnel (US\$3,213.04); (j) acquisition price of two ATVs and three cargo trailers, dedicated to the biological station (US\$42,752.76); (k) cost of fuel for transportation of personnel and supplies to the biological station (US\$6,435.12); (l) purchase of satellite images of the “disputed territory” (US\$160,704); and (m) cost of obtaining a report from UNITAR/UNOSAT to assess damage caused in the “disputed territory” as a consequence of Nicaragua’s unlawful activities (US\$27,339).

109. Nicaragua contends that nearly all of Costa Rica’s “purported ‘monitoring’ expenses” (US\$3,092,834.17) are salaries of Costa Rican security personnel deployed between March 2011 and December 2015 to police newly constructed posts in order to “protect against the imagined threat of Nicaragua reoccupying the disputed area and, especially, occupying other parts of Costa Rica”. As such, it maintains, they are unrelated to the material damage caused by Nicaragua’s works in the “disputed territory” and are thus “inappropriate claims” for compensation. Nicaragua argues that even if the salaries of the Costa Rican Police were, in principle, compensable, a State is only entitled to compensation for extraordinary expenses, such as costs of hiring new personnel or the payment of overtime. According to Nicaragua, Costa Rica, however, simply redeployed existing personnel from elsewhere. Moreover, Nicaragua contends that Costa Rica’s compensation claim for the wages it paid to its security personnel is not substantiated by appropriate evidence.

110. Nicaragua asserts that Costa Rica's claims for expenses it allegedly incurred in connection with its police deployment — such as the wages paid to personnel who provided fluvial transport for the police deployment and the purchase of various items of equipment — are not compensable because the deployment of Costa Rican security forces was not to prevent or remedy any of the material damage caused by Nicaragua between October 2010 and January 2011 and in September 2013. Furthermore, according to Nicaragua, none of these expenses were extraordinary, nor were they supported by evidence.

111. Nicaragua maintains that claims for compensation for satellite images taken between September 2011 and September 2015 and for reports prepared by UNITAR/UNOSAT are “non-compensable litigation expenses” since they were largely commissioned by Costa Rica in connection with the presentation of its case on the merits. Moreover, Nicaragua asserts that they cover not only the “disputed territory” but also other areas.

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112. With regard to compensation for monitoring activities claimed to have been carried out in implementation of the Court's 2011 and 2013 Orders, the Court considers that Costa Rica has, with reference to three heads of expenses, provided adequate evidence demonstrating that some of these expenses have a sufficiently direct and certain causal nexus with the internationally wrongful conduct of Nicaragua identified by the Court in its 2015 Judgment.

113. First, the Court finds partially compensable Costa Rica's expenses for its two-day inspection of the northern part of Isla Portillos on 5 and 6 April 2011, both in co-ordination and together with the Secretariat of the Ramsar Convention. This mission was carried out by Costa Rican technical experts accompanied by the technical experts of the Secretariat for the purposes of making an assessment of the environmental situation in the area and of identifying actions to prevent further irreparable damage in that part of the wetland as a consequence of Nicaragua's unlawful activities. In particular, according to the technical report produced by the officials of the Secretariat of the Ramsar Convention,

“[t]he main aims of the visit to the site were the identification and technical evaluation of the environmental situation of the study area to determine the consequences of the works carried out, the impact chains initiated, their implications and the preventive, corrective, mitigating or compensatory environmental measures that would need to be implemented to restore the natural environmental balance of the site to avoid new, irreparable changes to the wetland”.



In the view of the Court, the inspection carried out by Costa Rica on 5 and 6 April 2011 was therefore directly connected to the monitoring of the northern part of Isla Portillos that was made necessary as a result of Nicaragua's wrongful conduct.

114. Turning to the quantification of the amount of compensation, the Court notes that Costa Rica claims US\$20,110.84 "for fuel and maintenance services on the police aircrafts used" and US\$1,017.71 "for the salaries of air surveillance service personnel".

115. As evidence, Costa Rica has presented relevant flight logs and an official communication dated 2 March 2016 from the Administrative Office of the Air Surveillance Service of the Department of Air Operations of the Ministry of Public Security (as already referred to above in paragraph 95) which includes details of the cost of overflights performed by the Air Surveillance Service on 5 and 6 April 2011 totalling US\$20,110.84. The Court observes that there are shortcomings similar to those it identified earlier in paragraphs 95 and 96 when it reviewed Costa Rica's evidentiary approach in establishing the cost of fuel and maintenance services for police aircraft. In particular, regarding the expenses linked to its monitoring activities for the period now under review, the Court notes that Costa Rica calculated these expenses on the basis of the operating costs for the hourly use of each aircraft deployed; these operating costs included expenses for "fuel", "overhaul", "insurance" and "miscellaneous". As already noted above (see paragraph 95), the Court considers that such insurance cannot be a compensable expense. As to the "miscellaneous" costs, Costa Rica has failed to specify the nature of this expense. Moreover, the Court observes that Costa Rica itself has specified in its Memorial on compensation that it claimed expenses only for fuel and maintenance services. The Court therefore considers that this head of expenses is not compensable. The Court also excludes the cost of flights to transport members of the press, for the same reasons given in paragraph 96 above.

116. The Court considers it necessary to evaluate the compensable expenses based on the information provided in the above official communication of 2 March 2016, and in the flight logs, by reference to the number and duration of the flights conducted on 5 and 6 April 2011 in connection with the inspection of the northern part of Isla Portillos, and only taking into account the costs of "fuel" and "overhaul". The Court therefore finds that, under this head of expenses, Costa Rica is entitled to compensation in the amount of US\$3,897.40.

117. The Court notes that Costa Rica has also advanced a claim of US\$1,017.71 for salaries of Air Surveillance Service personnel involved in aircraft missions. The Court does not however find that Costa Rica is entitled to claim the cost of salaries for the April 2011 inspection mission. As already noted above (see paragraph 101), a State cannot recover salaries for government officials that it would have paid regardless of any unlawful activity committed on its territory by another State.



118. Secondly, the Court finds partially compensable Costa Rica's claim for the purchase, in the period running from September 2011 to October 2015, of satellite images effectively to monitor and verify the impact of Nicaragua's unlawful activities. To the extent that these satellite images cover the northern part of Isla Portillos, the Court considers that there is a sufficiently direct and certain causal nexus between the internationally wrongful conduct of Nicaragua identified by the Court in its Judgment on the merits and the head of expenses for which Costa Rica seeks compensation.

119. Turning to the quantification of the amount of compensation, the Court notes that Costa Rica has presented evidence in the form of numbered and dated invoices and delivery reports corresponding to the purchase of satellite images from INGEO innovaciones geográficas S.A. and from GeoSolutions Consulting, Inc. S.A. Under this head of expenses, Costa Rica claims a total of US\$160,704. Having carefully reviewed these invoices and delivery reports, the Court notes that, by reference to the area covered by the satellite images, these invoices can be divided into three sets. The first set relates to the satellite images that cover the northern part of Isla Portillos (see invoice Nos. 204, 205, 215, 216, 218, 219, 224, 62, 65, 70, 73 and 86); the second set relates to the satellite images that cover the general area of the northern border with Nicaragua (see invoice Nos. 172, 174, 179, 188, 189, 191 and 90); and the third set provides no indication of the area covered by the satellite images (invoice Nos. 144, 150, 157, 163, 164, 169 and 171).

120. The Court considers that, as the satellite images contained in the first and second sets of invoices all cover the northern part of Isla Portillos, their purchase is, in principle, compensable. However, the Court notes that most of these satellite images cover an area that extends beyond the northern part of Isla Portillos, often covering an area of around 200 square kilometres. Moreover, these images are charged by unit price per square kilometre, mostly at the rate of US\$28. The Court finds that it would not be reasonable to award compensation to Costa Rica for these images in full. Given the size of the northern part of Isla Portillos, the Court is of the view that a coverage area of 30 square kilometres was sufficient for Costa Rica effectively to monitor and verify Nicaragua's unlawful activities. The Court therefore awards Costa Rica, for each of the invoices in the first and second sets, compensation for one satellite image covering an area of 30 square kilometres at a unit price of US\$28 per square kilometre.

121. With regard to the third set of invoices, the Court considers that Costa Rica has not established the necessary causal nexus between Nicaragua's unlawful activities and the purchase of the satellite images in question.

122. Consequently, the Court finds that Costa Rica is entitled to compensation in the amount of US\$15,960 for the expenses incurred in purchasing the satellite images corresponding to the first and second sets of invoices, within the limits specified in paragraph 120.

123. Thirdly, the Court finds partially compensable Costa Rica's claim for the cost of obtaining a report from UNITAR/UNOSAT dated 8 November 2011. Costa Rica incurred this expense in order to detect and assess the environmental impact of Nicaragua's presence and unlawful activities in Costa Rican territory. The Court has reviewed this UNITAR/UNOSAT report and observes that the analysis given in Section 1 (entitled "Review of dredging activities at divergence of Río San Juan and Río Colorado (maps 2-3)") and in Section 3 (entitled "Review of meander cut sites (maps 5-6)") does not have any bearing on Costa Rica's efforts to detect and assess the environmental damage caused in its territory by Nicaragua. It notes, however, that the analysis given in Section 2, entitled "Updated status of the new channel along [the] Río San Juan (map 4)", provides a technical evaluation of the damage that occurred as a consequence of Nicaragua's unlawful activities in the northern part of Isla Portillos. The Court concludes that Costa Rica has proven that there exists a sufficiently direct and certain causal nexus between the internationally wrongful conduct of Nicaragua identified by the Court in its Judgment on the merits and the purchase of the UNITAR/UNOSAT report.

124. Turning to the quantification of the amount of compensation, the Court notes that Costa Rica has presented evidence in the form of a numbered and dated invoice from UNITAR/UNOSAT, with an annexed cost breakdown, where reference is made to "Satellite-based assessment of environmental and geo-morphological changes in Costa Rica". The invoice for this report, which includes the cost of analysis, satellite imagery, procurement processing of imagery, operating expenses and programme support costs, totals US\$27,339. In light of the fact that only the content of Section 2 of the UNITAR/UNOSAT report is directly relevant, and given that the three sections of the report are separable (in the sense that each section is self-standing), the Court considers that the total amount of compensation should be limited to one third of the total cost of the report. On that basis, the Court finds that Costa Rica is entitled to compensation under this head of expenses in the amount of US\$9,113.

125. With regard to the other heads of expenses for compensation, Costa Rica's claims can be separated into three categories: (i) those claims which relate to two new police stations in Laguna Los Portillos and Laguna de Agua Dulce, (ii) those claims which relate to a biological station at Laguna Los Portillos, and (iii) those claims which relate to the salaries of personnel involved in monitoring activities, as well as the ancillary costs of supplying food and water, and the costs of fuel for transportation of ACTO personnel.

126. The Court notes that Costa Rica has made it clear that it does not seek to claim compensation for the construction of the police posts or the biological station. With regard to the first category, however, Costa Rica has advanced a claim for the costs of some equipment, as well as for operational expenses. For the two police posts, Costa Rica claims expenses covering equipment costs (US\$24,065.87), staffing (US\$3,092,834.17), fluvial transportation of personnel and supplies provided by the National Coast Guard (US\$22,678.80); and the purchase of four all-terrain vehicles for the police posts (US\$81,208.40).

127. The Court finds that none of the costs incurred in connection with the equipment and operation of the police stations are compensable because the purpose of the said stations was to provide security in the border area, and not in particular to monitor Nicaragua's unlawful activities in the northern part of Isla Portillos. Moreover, Costa Rica has not presented any evidence to demonstrate that the equipment purchased and the operational costs were sufficiently linked with the implementation of the provisional measures ordered by the Court.

128. With regard to the second category relating to the biological station, the Court recalls that Costa Rica has claimed expenses covering the cost of a tractor for the equipment and maintenance of the biological station (US\$35,500), the acquisition price of two all-terrain vehicles and three cargo trailers (US\$42,752.76), and the cost of fuel for the transportation of personnel and supplies (US\$6,435.12).

129. As to the costs incurred in connection with the maintenance of the biological station, the Court similarly finds that none of the expenses incurred under this head are compensable because there was no sufficiently direct causal link between the maintenance of this station and Nicaragua's wrongful conduct in the northern part of Isla Portillos. In particular, the Court observes that in the Report for the Executive Secretariat of the Ramsar Convention on Wetlands, dated July 2013 and entitled "New Works in the Northeast Caribbean Wetland", prepared by the Costa Rican Ministry of Foreign Affairs, it is stated that the purpose of the biological station was to "[c]onsolidate the management of the Northeast Caribbean Wetland through a research program[me]", to "[c]reate an appropriate programme for biological monitoring of the status of existing resources", and to "[c]onsolidate a prevention and control programme to prevent the alteration of the existing natural resources".

130. With reference to the third category, as already explained earlier in the context of similar claims for compensation made by Costa Rica (see paragraphs 101 and 117), the Court does not accept that a State is entitled to compensation for the regular salaries of its officials. With regard to the other two heads of expenses within this category, the Court considers that Costa Rica has not provided any specific information to show in what way the expenses claimed for food and water, and for fuel for transportation of ACTo personnel, were connected with Costa Rica's monitoring of the northern part of Isla Portillos following the withdrawal of Nicaragua's military personnel.

131. In conclusion, the Court finds that Costa Rica is entitled to compensation in the amount of US\$28,970.40 for the expenses it incurred in relation to the monitoring of the northern part of Isla Portillos following the withdrawal of Nicaragua's military personnel and in implementing the Court's 2011 and 2013 Orders on provisional measures. This figure is made up of US\$3,897.40 for the cost of overflights performed by the Air Surveillance Service on 5 and 6 April 2011, US\$15,960 for the purchase, in the period running from September 2011 to October 2015, of satellite images of the northern part of Isla Portillos, and US\$9,113 for the cost of obtaining a report from UNITAR/UNOSAT providing, *inter alia*, a technical evaluation of the damage that occurred as a consequence of Nicaragua's unlawful activities in the northern part of Isla Portillos.

### 3. Costs and expenses incurred in preventing irreparable prejudice to the environment (the construction of a dyke and assessment of its effectiveness)

132. According to Costa Rica, it incurred a third category of expenses when implementing the Court's 2013 Order on provisional measures, in terms of works carried out to prevent irreparable prejudice to the environment of the "disputed territory". Costa Rica argues that, in accordance with the Order, after consultation with the Secretariat of the Ramsar Convention, it carried out the necessary works on the 2013 eastern *caño* (namely, the construction of a dyke) over a period of seven days, from 31 March to 6 April 2015. Subsequently, Costa Rica carried out overflights of the "disputed territory" in June, July and October 2015 in order to assess the effectiveness of the works that had been completed to construct the dyke across the 2013 eastern *caño*. Costa Rica states that the expenses thus incurred amounted to US\$195,671.02.

133. Nicaragua accepts that compensation may be appropriate for costs reasonably incurred by Costa Rica in 2015 in connection with the construction of the dyke across the 2013 eastern *caño*. It nevertheless argues that the amount of US\$195,671.02 claimed by Costa Rica is inflated because certain materials charged were not actually used for the construction of the dyke and certain overflights were made for purposes unrelated to activities that the Court found to be unlawful. Thus, according to Nicaragua's evaluation, Costa Rica is entitled to no more than US\$153,517 which represents the real figure for the expenses incurred in connection with the construction of the dyke in 2015.

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134. The Court recalls that in its Order of 22 November 2013 on the request presented by Costa Rica for the indication of new provisional measures, it indicated, in particular, that

"[f]ollowing consultation with the Secretariat of the Ramsar Convention and after giving Nicaragua prior notice, Costa Rica may take appropriate measures related to the two new *caños*, to the extent necessary to prevent irreparable prejudice to the environment of the disputed territory" (*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)*, Provisional Measures, Order of 22 November 2013, I.C.J. Reports 2013, p. 370, para. 59, subpara. (2) (E)).

135. From 10 to 13 March 2013, the Secretariat of the Ramsar Convention carried out an onsite visit to the northern part of Isla Portillos to assess the damage caused by Nicaragua's constructions of the two new *caños*. Following this site visit, in August 2014, the Secretariat produced a report (Ramsar Advisory Mission No. 77) with recommendations on mitigation

measures focused on the 2013 eastern *caño*. It requested that Costa Rica submit an implementation plan and recommended that it commence a monitoring programme. In accordance with that request, Costa Rica's Ministry of the Environment and Energy formulated an implementation plan, dated 12 August 2014. That plan set out in detail the proposed measures, consisting of the construction of a dyke to ensure that the waters of the San Juan River were not diverted through the 2013 eastern *caño*.

136. Costa Rica proposed to begin works in September 2014 and requested that Nicaragua grant it access to the San Juan River to facilitate the undertaking. Since no agreement had been reached between the Parties, Costa Rica made arrangements to contract a private civilian helicopter for the purposes of the construction works. According to Costa Rica, this was necessary because its Air Surveillance Service did not possess any type of aircraft with the capacity to carry out such works. Costa Rica states that its police and ACTo personnel provided ground support for the operation. The works to construct the dyke were carried out over a period of seven days, from 31 March to 6 April 2015. Costa Rican personnel charged with the protection of the environment monitored the works by means of periodic inspections. Costa Rica also carried out overflights of the northern part of Isla Portillos in June, July and October 2015, in order to assess the effectiveness of the works that had been completed to construct the dyke.

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137. The Court observes that with regard to this category of expenses incurred by Costa Rica, Nicaragua "accepts that compensation may be appropriate for costs that were reasonably incurred". The Parties however differ as to the amount of compensation owed by Nicaragua to Costa Rica under this head. In particular, Nicaragua asserts that the amount claimed by Costa Rica should be reduced by excluding the cost of surplus materials (which it estimates at US\$9,112.50) and the cost of three overflights (which it estimates at US\$33,041.75) carried out on 9 June, 8 July and 3 October 2015, after the construction of the dyke across the 2013 eastern *caño*. According to Nicaragua, these overflights were, at least in part, "for purposes unrelated to the activities that the Court determined were wrongful".

138. The Court finds that the costs incurred by Costa Rica in connection with the construction in 2015 of a dyke across the 2013 eastern *caño* are partially compensable. Costa Rica has provided evidence that it incurred expenses that were directly related to the remedial action it undertook in order to prevent irreparable prejudice to the environment of the northern part of Isla Portillos following Nicaragua's unlawful activities. In this regard, Costa Rica advances three heads of expenses: (i) overflight costs prior to the construction of the dyke; (ii) costs connected with the actual construction of the dyke; and (iii) overflight costs subsequent to the construction of the dyke.

139. With reference to the first head of expenses, Costa Rica states that on 25 July 2014, it hired a private civilian helicopter to conduct a site visit to the northern part of Isla Portillos, in order to assess the situation of the two 2013 *caños* for the purposes of determining the measures required to prevent irreparable prejudice to the environment of that area. According to Costa Rica, the cost of the flight for this mission amounted to US\$6,183. The invoice submitted by Costa Rica

for the cost of this flight indicates that the purpose of the flight was “for transportation of staff on observation and logistics flight to Isla Calero”. The flight description also shows that this flight was nowhere near the construction site. In light of this evidence, the Court considers that Costa Rica has not proven that the 2014 helicopter mission was directly connected with the intended construction of the dyke across the 2013 eastern *caño*. Therefore, the expenses for this flight are not compensable.

140. With reference to the second head of expenses, Costa Rica refers to the costs incurred in terms of the purchase of construction materials and the hiring of a private civilian helicopter to transport personnel and materials required to construct the dyke across the 2013 eastern *caño*.

141. Costa Rica has divided these costs under the second head of expenses into two categories, namely, helicopter flight hours (US\$131,067.50) and “purchase of billed supplies” (US\$26,378.77). With regard to the first category, the Court is satisfied that the evidence adduced fully supports Costa Rica’s claim.

142. In so far as the second category is concerned, the Court is of the view that the purchase of construction materials should, in principle, be fully compensated. With regard to the surplus construction materials, the Court considers that, given the difficulty of access to the construction site of the dyke, located in the wetlands, it was justified for Costa Rica to adopt a cautious approach and to ensure, at the start, that the construction materials it purchased and transported were sufficient for the completion of the work. The costs incurred for the purchase of construction materials which turned out to be more than what was actually used are, in the present circumstances, compensable. What matters, for the consideration of the claim, is reasonableness. The Court does not consider the amount of materials purchased by Costa Rica unreasonable or disproportionate to the actual needs of the construction work.

143. The Court notes, however, that in the “Breakdown of Invoices for Calero — Billed Supplies and Expenses” which gives a total amount of the expenses for the construction of the dyke, Costa Rica included an entry which refers to “Boarding — CNP and El Dólar”, with a claim for compensation totalling US\$3,706.41. It does not provide clarification as to the nature of this expense in any of its pleadings or annexes, including the “Report of works carried out from 26 March to 10 April 2015” prepared by the Costa Rican Ministry of Environment and Energy. The Court thus finds this expense to be non-compensable. The Court also points out that there is a mistake in the calculation of the item “fuel for boat”. Costa Rica is claiming a total of US\$5,936.54 whereas the calculation of the quantity (5,204) multiplied by the price of the unit (US\$1.07) equals US\$5,568.28. The Court has also corrected other minor miscalculations. Thus the Court, after recalculation, finds that Costa Rica should be compensated in the total amount of US\$152,372.81 for the costs of the construction of the dyke (made up of the cost for the helicopter flight hours in the amount of US\$131,067.50 and the purchase of billed supplies in the amount of US\$21,305.31).



144. With reference to the third head of expenses, the Court recalls that Costa Rica is claiming expenses in connection with overflights made on 9 June, 8 July and 3 October 2015 for the purposes of monitoring the effectiveness of the completed dyke. The Court considers that these expenses are compensable as there is a sufficiently direct causal nexus between the damage caused to the environment of the northern part of Isla Portillos, as a result of Nicaragua's unlawful activities, and the overflight missions undertaken by Costa Rica to monitor the effectiveness of the newly constructed dyke. Costa Rica has also discharged its burden of proof in terms of providing evidence of the cost of flight hours incurred in respect of the hired private civilian helicopter used to access the northern part of Isla Portillos. Costa Rica has submitted three invoices, accompanied by flight data which indicated that the flight route took the aircraft over the dyke. In the Court's view, it is evident that the helicopter hired for these missions had to overfly other parts of Costa Rican territory in order to reach the construction site of the dyke. Moreover, the Court observes that there is nothing on the record to show that these overflights were not en route to the dyke area, nor that the helicopter missions were unrelated to the purpose of monitoring the effectiveness of the dyke.

145. For the flight of 9 June 2015, Costa Rica has produced an invoice in the amount of US\$11,070.75, for the flight of 8 July 2015 an invoice for US\$10,689, and for the flight of 3 October 2015 an invoice for US\$11,282. The Court finds that the total expense incurred by Costa Rica under this head of expenses, totalling US\$33,041.75, is therefore compensable.

146. In conclusion, the Court finds that Costa Rica is entitled to compensation in the amount of US\$185,414.56 for the expenses it incurred in connection with the construction in 2015 of a dyke across the 2013 eastern *caño*. This figure is made up of US\$152,372.81 for the costs of the construction of the dyke, and US\$33,041.75 for the monitoring overflights made once the dyke was completed.

#### **4. Conclusion**

147. It follows from the Court's analysis of the compensable costs and expenses incurred by Costa Rica as a direct consequence of Nicaragua's unlawful activities in the northern part of Isla Portillos (see paragraphs 106, 131 and 146 above), that Costa Rica is entitled to total compensation in the amount of US\$236,032.16.

#### **V. COSTA RICA'S CLAIM FOR PRE-JUDGMENT AND POST-JUDGMENT INTEREST**

148. Costa Rica maintains that in view of the extent of damage Costa Rica has suffered, full reparation cannot be achieved without payment of interest. It claims both pre-judgment and post-judgment interest. With regard to pre-judgment interest, Costa Rica states that such interest should cover its entire compensation for losses it incurred as a direct consequence of Nicaragua's

unlawful activities. However, it makes what it considers to be a “conservative claim”, whereby pre-judgment interest would accrue from the date of the Court’s Judgment on the merits of 16 December 2015 until the date of the Judgment on compensation. As for post-judgment interest, Costa Rica argues that, should Nicaragua fail to pay the compensation immediately after the delivery of the Judgment, interest on the principal sum of compensation as determined by the Court should be added. It proposes that the annual rate of interest be set at 6 per cent for both pre-judgment and post-judgment interest.

149. Nicaragua maintains that an injured State has no automatic entitlement to the payment of interest and specifies that the awarding of interest depends on the circumstances of each case and, in particular, on whether an award of interest is necessary in order to ensure full reparation. Nicaragua observes that Costa Rica has not explained why the circumstances of the present case warrant the award of interest, nor has it attempted to justify the 6 per cent interest rate it requests.

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150. With regard to Costa Rica’s claim for pre-judgment interest, the Court recalls that, in its 2015 Judgment, the actual amount of compensation due to Costa Rica was not determined; instead, the Court decided that the Parties were first required to seek a settlement of the question through negotiations. Only in the event that the question was not settled within 12 months could a Party refer it back to the Court for resolution (*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, *I.C.J. Reports 2015 (II)*, p. 741, para. 229 (5) (b)). The Court notes, not without regret, that no agreement was reached between the Parties on the question of compensation within the time-limit fixed by the Court. Consequently, at the request of Costa Rica, the matter is now before the Court for decision.

151. The Court recalls that in the practice of international courts and tribunals, pre-judgment interest may be awarded if full reparation for injury caused by an internationally wrongful act so requires. Nevertheless, interest is not an autonomous form of reparation, nor is it a necessary part of compensation in every case (see Commentary to Article 38, Draft Articles on Responsibility of States for Internationally Wrongful Acts, *Yearbook of the International Law Commission*, 2001, Vol. II (Part Two), p. 107).

152. The Court observes that, in the present case, the compensation to be awarded to Costa Rica is divided into two parts: compensation for environmental damage and compensation for costs and expenses incurred by Costa Rica in connection with Nicaragua’s unlawful activities. The Court considers that Costa Rica is not entitled to pre-judgment interest on the amount of compensation for environmental damage; in determining the overall valuation of environmental damage, the Court has taken full account of the impairment or loss of environmental goods and services in the period prior to recovery.



153. With regard to the costs and expenses incurred by Costa Rica as a result of Nicaragua's unlawful activities, the Court notes that most of such costs and expenses were incurred in order to take measures for preventing further harm. The Court awards Costa Rica pre-judgment interest on the costs and expenses found compensable, accruing, as requested by Costa Rica, from 16 December 2015, the date on which the Judgment on the merits was delivered, until 2 February 2018, the date of delivery of the present Judgment. The annual interest rate is fixed at 4 per cent. The amount of interest is US\$20,150.04.

154. With regard to Costa Rica's claim for post-judgment interest, the Court recalls that in the case concerning *Ahmadou Sadio Diallo (Republic of Guinea v. Democratic Republic of the Congo)*, the Court awarded post-judgment interest, observing that "the award of post-judgment interest is consistent with the practice of other international courts and tribunals" (*Compensation, Judgment, I.C.J. Reports 2012 (I)*, p. 343, para. 56). The Court sees no reason in the current case to adopt a different approach.

155. Thus, although it has every reason to expect timely payment by Nicaragua, the Court decides that, in the event of any delay in payment, post-judgment interest shall accrue on the total amount of compensation. This interest shall be paid at an annual rate of 6 per cent.

#### VI. TOTAL SUM AWARDED

156. The total amount of compensation awarded to Costa Rica is US\$378,890.59 to be paid by Nicaragua by 2 April 2018. This amount includes the principal sum of US\$358,740.55 and pre-judgment interest on the compensable costs and expenses in the amount of US\$20,150.04. Should payment be delayed, post-judgment interest on the total amount will accrue as from 3 April 2018.

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157. For these reasons,

THE COURT,

(1) *Fixes* the following amounts for the compensation due from the Republic of Nicaragua to the Republic of Costa Rica for environmental damage caused by the Republic of Nicaragua's unlawful activities on Costa Rican territory:

(a) By fifteen votes to one,

US\$120,000 for the impairment or loss of environmental goods and services;

IN FAVOUR: *President* Abraham; *Vice-President* Yusuf; *Judges* Owada, Tomka, Bennouna, Cançado Trindade, Greenwood, Xue, Donoghue, Gaja, Sebutinde, Bhandari, Robinson, Gevorgian; *Judge ad hoc* Guillaume;

AGAINST: *Judge ad hoc* Dugard;

(b) By fifteen votes to one,

US\$2,708.39 for the restoration costs claimed by the Republic of Costa Rica in respect of the internationally protected wetland;

IN FAVOUR: *President* Abraham; *Vice-President* Yusuf; *Judges* Owada, Tomka, Bennouna, Cançado Trindade, Greenwood, Xue, Gaja, Sebutinde, Bhandari, Robinson, Gevorgian; *Judges ad hoc* Guillaume, Dugard;

AGAINST: *Judge* Donoghue;

(2) Unanimously,

Fixes the amount of compensation due from the Republic of Nicaragua to the Republic of Costa Rica for costs and expenses incurred by Costa Rica as a direct consequence of the Republic of Nicaragua's unlawful activities on Costa Rican territory at US\$236,032.16;

(3) Unanimously,

Decides that, for the period from 16 December 2015 to 2 February 2018, the Republic of Nicaragua shall pay interest at an annual rate of 4 per cent on the amount of compensation due to the Republic of Costa Rica under point 2 above, in the sum of US\$20,150.04;

(4) Unanimously,

Decides that the total amount due under points 1, 2 and 3 above shall be paid by 2 April 2018 and that, in case it has not been paid by that date, interest on the total amount due from the Republic of Nicaragua to the Republic of Costa Rica will accrue as from 3 April 2018 at an annual rate of 6 per cent.

Done in French and in English, the French text being authoritative, at the Peace Palace, The Hague, this second day of February, two thousand and eighteen, in three copies, one of which will be placed in the archives of the Court and the others transmitted to the Government of the Republic of Costa Rica and the Government of the Republic of Nicaragua, respectively.

(Signed) Ronny ABRAHAM,  
President.

(Signed) Philippe COUVREUR,  
Registrar.

Judges CANÇADO TRINDADE, DONOGHUE and BHANDARI append separate opinions to the Judgment of the Court; Judge GEVORGIAN appends a declaration to the Judgment of the Court; Judge *ad hoc* GUILLAUME appends a declaration to the Judgment of the Court; Judge *ad hoc* DUGARD appends a dissenting opinion to the Judgment of the Court.

*(Initialed)* R. A.

*(Initialed)* Ph. C.

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