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Introduction

The Amazon (also referred to as continental Amazon or pan-Amazônia) extends its limits beyond the Amazon River basin, including part of the Tocantins and Orinoco river basins and some other small basins.[1] Its territory includes eight South American countries (Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Venezuela, and Suriname) over an area of approximately 7.5 million square kilometers (most of which is located in Brazil), comprising approximately 44 percent of the territory of South America.[2] The Amazon contains the largest freshwater reserve and forest cover on the planet, sheltering a mosaic of ecosystems with a great variety of species of fauna and flora, some of which are still unknown to science, and it is home to diverse indigenous communities, holders of ancestral knowledge and cultures. This region provides sustenance to its inhabitants, such as food, building materials, medicines, and other products, and has great potential as a field for scientific research and the development of the pharmaceutical, cosmetic, and food industries. The Amazon has recognized global importance because it plays a vital role in maintaining biodiversity, regional hydrology, and terrestrial carbon storage capacity.[3] Due to its conspicuous ecological characteristics, the Amazon benefits not only the basin States, but also the international community at large.

Despite the unique natural wealth and economic potential, the Amazon forests are being rapidly cleared, with a consequent loss of biodiversity and impact on climate change. Latin America and the Caribbean have already lost approximately 64 million hectares of their original forests,[4] and some estimates reveal that between

[1] For a general description of the Amazon River, see A. Biswas et al., *Management of Latin America River Basins: Amazon, Plata and São Francisco*, Tokyo: United Nations University, 1999.

[2] M. Goulding, R.B. Barthem, and E. Ferreira, *The Smithsonian Atlas of the Amazon*, Washington, DC: Smithsonian Books, 2003.

[3] W.F. Laurance et al., "The future of the Brazilian Amazon," *Science*, 2001, pp. 438–39, at p. 1.

[4] According to the Food and Agriculture Organisation, Latin America and the Caribbean lost about sixty-four million hectares of forest, FAO, *State of the World's Forests from 1990 to 2005*, *Oxford: Worlds and Publications*, 2007 report, p. 37.

1990 and 2020, tropical deforestation might extinguish 15 percent of the world's species.[5] The Brazilian Amazon alone has the world's highest absolute rate of forest destruction, averaging millions of hectares per year.[6] It is known that tropical forests store and process, via photosynthesis and respiration, large quantities of carbon dioxide released into the atmosphere through the burning of fossil fuels, and that small changes within tropical forest biomes can thus lead to major global impacts.[7] Although it is difficult to determine the exact number of species living in tropical forests, it is known that the majority of the world's species are located there, of which approximately one million species are "committed to extinction."[8] Whereas the clearing of tropical forests has global impacts, factors adversely affecting forests are also produced globally. Tropical forests now face dual pressure: direct deforestation and degradation, on the one hand, and climate change affecting, for example, patterns of tree growth and mortality, on the other. It is recognized that tropical forests affect climate, and vice versa.[9] This indicates that not only actions taken by States owning tropical forests might affect them, but also those taken by the wider community of States, which may lead to further climate change. Therefore, although the wider community of States might have a legitimate concern in the preservation of tropical forests, specifically the Amazon, they also share a responsibility to ensure their protection. In view of the situation of rapid deforestation and environmental degradation in the Amazon, this study looks at how the basin States have reacted to the problem, by assessing how they have been cooperating *inter se* and by examining what role the international community plays in reversing the current situation of environmental degradation. It is here assumed that at least some environmental problems have an "international dimension"[10] and require cooperative actions by a number of States.

The protection of the Amazon is an example *par excellence*, illustrating that cooperation is required at different levels in order to effectively handle some environmental problems. The extensive river network and rainforests extending over the territories of eight countries, where countless interdependent ecological processes

[5] K. R. Miller, W. V. Reid, and C. V. Barber, "Deforestation and species loss," in Jessica Tuchman Mathews (ed.), *Preserving the Global Environment: The Challenge of Shared Leadership*, New York & London: Norton, 1991, p. 84.

[6] Laurance et al., op. cit., p. 1.

[7] S.L. Lewis, "Tropical forests and the changing earth system," *Philosophical Transactions of the Royal Society*, 2006, pp. 195–210, at p. 196.

[8] As Lewis (ibid., p. 20) explains, tropical forests cover 10 percent of the Earth's land surface and the Brazilian Amazon alone contains about 40 percent of the world's remaining tropical rainforests. According to Lewis, although it is difficult to determine the exact number of species living in the tropics, it is estimated than about 40 percent of a total of 3.3 million species reside in tropical forests, from which approximately 1 million species are "committed to extinction."

[9] Ibid., p. 196.

[10] UNGA Res. 40/200, December 17, 1985.

occur, reveal the ecological unity of the Amazon and the fact that all basin States are naturally connected. Faced with similar ecological conditions, they have similar difficulties in dealing with certain environmental problems, and also common interests, particularly in exploiting the region's economic potential. Since those countries share that vast biome, regional cooperation is a predictable (and suitable) way they have at hand to tackle common environmental problems. In other areas of the world, the existence of shared ecosystems has also triggered international cooperation. For example, the adoption of the Arctic Environmental Protection Strategy in 1991, involving the eight Arctic States, was motivated by the fact that certain environmental issues could only be properly dealt with through international cooperation and recognition that the Arctic is a particular region in need of distinctive responses.[11] As a matter of fact, the interconnectedness of the natural environment, particularly observed in the case of shared ecosystems, has influenced recent developments in international environmental law based on a belief that some common values can only be safeguarded through international cooperation.[12] In this light, the scope of this book is to examine what forms of cooperation exist among the Amazon countries *inter se*, as well as between them and the international community, and finally to what extent international cooperation can help reverse the region's current situation of environmental degradation.

1.1. INTERNATIONAL COOPERATION IN THE FIELD OF ENVIRONMENTAL PROTECTION

A recognition that certain problems faced by the international community as a whole (e.g. human rights violations, environmental degradation, or threats to national security) require international cooperation among various actors (e.g. governments, international organizations, nongovernmental organizations (NGOs), and other sectors of civil society) has influenced the evolution of international law. In principle, matters such as these cannot be dealt with, or at least not adequately, by one State *uti singuli*, but demand international regulation at different levels.[13]

[11] D.R. Rothwell, "The Arctic environmental protection strategy and international environmental cooperation in the far north," *Yearbook of International Environmental Law*, vol. 6, 1995, pp. 65–105, at p. 81.

[12] J. Brunnée, "Common interests, echoes of an empty shell? Some thoughts on common interests and international environmental law," *Heidelberg Journal of International Law*, vol. 49, 1989, pp. 791–808, at p. 797.

[13] G. Abi-Saab, "The changing world order and the international legal order: The structural evolution of international law beyond the state-centric model," in Y. Sakamoto (ed.), *Global Transformation: Challenges to the State System*, Tokyo: United Nations University Press, 1994, pp. 439–61, at p. 454.

A notable change in the international legal order in the last years, prompted by a recognition of common interests and values, is the evolution from a state-centered model derived from the Peace of Westphalia, which sanctioned an "international law of coexistence," to a more cooperative approach or, as Wolfgang Friedmann puts it, toward an "international law of cooperation."[14]

In comparing the international law of "coexistence" and that of "cooperation," Georges Abi-Saab concludes that they are in fact two different techniques of legal regulation differing in several respects.[15] According to him, these two approaches are distinct firstly from a normative perspective. Legal obligations in the realm of coexistence are mostly of abstention, whereas the international law of cooperation involves performance obligations and assumes that some tasks cannot be carried out by States individually, but require joint efforts. Whereas the international law of coexistence considers sovereign States as equal, at least formally, equality in the law of cooperation means equality of participation. Therefore, in this latter case, States are expected to perform and achieve certain results. However, the *de facto* disparities among them, in terms of their capacities and needs, are taken into account to ensure that performance obligations assumed by them can be met. Secondly, as far as the instruments of lawmaking are concerned, the international law of cooperation has witnessed a tendency toward more malleable or less constraining legal instruments designated as "soft law"[16] (e.g. resolutions, codes of conduct, declarations, etc.) and innovative types of multilateral treaties ("lawmaking treaties") that are particularly observed in the field of international environmental law. Thirdly, with regard to mechanisms of implementation, Abi-Saab notes that the law of coexistence envisages one single technique, that of autoregulation, whereas the law of cooperation is essentially "institutional," requiring a basic structure in charge of ensuring a certain "division of labor" among its participants and the fulfillment of performance obligations.

This change in the focus and structure of the international legal system observed since the postwar period has been particularly influenced by human rights movements, and later, from a slightly different perspective, by the recognition of new environmental protection concerns.[17] It has become common to affirm

[14] Ibid., p. 440.
[15] G. Abi-Saab, *Cours général de droit international public*, The Hague: Martinus Nijhoff, 1987, pp. 322–23.
[16] According to Victor, soft law is used to set voluntary standards and to declare principles and aspirations (D.G. Victor, "The use and effectiveness of non-binding instruments in the management of complex international environmental problems," *American Society of International Law, Proceedings of the Annual Meeting*, 1997, pp. 241–50, at p. 241). Obligations contained in a treaty may also have a "soft-law" content.
[17] M. Bowman, "The nature, development and philosophical foundations of the biodiversity concept in international law," in M. Bowman and C. Redgwell (eds.), *International Law and the Conservation of Biological Diversity*, The Hague: Kluwer Law International, 1996, pp. 5–31, at p. 12.

that the environment knows no political boundaries and that traditional regimes of resource exploitation grounded primarily on the notion of territorial sovereignty require more collectivist approaches.[18] Particularly after the 1972 United Nations Conference on the Human Environment (hereinafter: 1972 Stockholm Conference), environmental protection treaties adopted at the bilateral, regional, and global levels have reflected in their normative content and institutional framework the characteristics of the international law of cooperation, as will be observed in the subsequent chapters.[19]

As noted, the international law of cooperation is founded on the recognition of "common interests" or a "community."[20] In this light, this book assumes that the Amazon States and the international community share a "common interest" in the protection of the Amazon, which justifies further cooperation among the basin States, as well as between them and the international community. As Abi-Saab suggests, whereas a central question within the international law of coexistence has been that of how to keep States peacefully apart, the issue under the international law of cooperation is that of how to bring States together.[21] Taking into account that approach introduced by the international law of cooperation, this study looks at ways of bringing the Amazon States closer together, in order to address more effectively common environmental problems, and at forms of enhancing cooperation between them and the international community.

1.2. THE CONTEXT AND MEANING OF INTERNATIONAL COOPERATION

International cooperation is one of the main principles of the United Nations. Under Article 1(3) of the UN Charter, States are required to achieve international cooperation in order to solve problems of an economic, cultural, or humanitarian character. The whole of Chapter 9 is dedicated to the issue of "international economic and social co-operation." Article 55 (and subsequent provisions under Chapter 9 of the UN Charter) encourages States to cooperate in raising living standards; creating conditions of economic and social development; and providing solutions for socioeconomic, health, and related problems.[22] An array of issues in the socioeconomic field can be objects of international cooperation, including, for example, those related to education, public health, employment conditions, and also environmental protection.

[18] Ibid.
[19] Abi-Saab, "The changing world," op. cit., p. 445.
[20] Abi-Saab, *Cours général*, op. cit., p. 321.
[21] Ibid.
[22] UN Charter, Article 55(b).

Under the 1970 Declaration on Principles of International Law Concerning Friendly Relations and Cooperation among States, the principle of international cooperation was enunciated as a "duty to cooperate."[23] According to this declaration, States "have the duty to cooperate with one another, irrespective of the differences in their political, economic and social systems in the various spheres of international relations."[24] This duty has been translated into obligations to negotiate, conduct consultations, exchange information, and notify other States in certain cases. As Franz Xaver Perrez notes, the duty to cooperate is now a central element of a sovereign State's authority and responsibility; it is inherently included in the principle of sovereignty and in that of a permanent sovereignty over natural resources.[25] Perrez proposes the idea of a "cooperative sovereignty," by which the authority of a State to decide on the utilization of natural resources also involves the responsibility to coordinate their use with other concerned States. This general duty to cooperate is made concrete, for example, by requiring a State to assess possible impacts and risks that its activities may have in other States, to notify and to inform other States, to enter into consultations, and to apply the precautionary principle in cases of scientific uncertainties.

Since the 1970s, the principle of international cooperation, previously invoked under Chapter 9 of the UN Charter as "international economic and social co-operation," has been advanced by developing countries, as they demanded higher levels of cooperation, notably in the socioeconomic field. Their claims were crystallized in the 1974 Declaration on the Establishment of a New International Economic Order[26] and its Program of Action,[27] whereby States committed to strengthen the role of the UN in a worldwide collaboration for economic and social development. In 1977, the notion of a "right to development" appeared for the first time, under the UN Human Rights Commission, reflecting developing countries' aspirations for a new international order.[28] A few years later, Article 9 of the 1984 Charter of Economic Rights and Duties of States[29] framed the general goal of international economic and social cooperation as a legal duty, by affirming that States

[23] UNGA Res. 2625 (XXV), October 24, 1970.
[24] Ibid.
[25] F. Xaver Perrez, *Cooperative Sovereignty: From Independence to Interdependence in the Structure of International Environmental Law*, The Hague: Kluwer Law International, 2000, p. 109. For a review of different opinions in the scholarship with respect to the duty to cooperate, see O. McIntyre, "The role of customary rules and principles of international environmental law in the protection of shared international freshwater resources," *Nature Resources Journal*, vol. 46, 2006, pp. 157–210.
[26] UNGA Res. 3201 (S-VI), May 1, 1974.
[27] Ibid., Chapter IX.
[28] Abi-Saab, "The changing world," op. cit., p. 455.
[29] GA Res.3281 (XXIX), December 13, 1974.

"have the responsibility to cooperate in the economic, social, cultural, scientific and technological fields for the promotion of economic and social progress." References to international cooperation in the social and economic fields have ever since been the object of many others UN General Assembly (UNGA) resolutions.[30]

However, the question of whether there exists a duty of international cooperation in the socioeconomic field and its exact content is controversial. According to Abi-Saab, the only real obligation in the domain of social and economic cooperation is that contained in Article 56 of the UN Charter, in which "all Members pledge themselves to take joint and separate action in co-operation with the Organization" for achieving the objectives of socioeconomic progress and development set forth in Article 55. The 1970 Declaration also requires cooperation in the economic, social, and cultural fields, as well as in the domain of science and technology. However, Abi-Saab argues that this Declaration does not clarify whether States recognize a legal duty to cooperate in the socioeconomic field, because under the heading: "The Duty of States to Cooperate with one another in accordance with the Charter," the 1970 Declaration uses the hortatory "should" in the economic, social, and cultural fields, as opposed to the "shall" contained in the remainder of the listing under that heading. Conversely, other commentators not only support the existence of a duty of international cooperation in the economic and social domains, particularly with respect to the protection of the atmosphere, but also claim that this duty has achieved customary law status.[31]

In 1992, the United Nations Conference on Environment and Development (UNCED) shifted the debate on economic development by addressing the environment-development relationship and firmly establishing the notion of sustainable development.[32] UNCED has also crystallized other ideas in the realm of the international law of cooperation, for example, that of an equal participation of States in the international legal system, which presupposes the recognition of their different responsibilities and tasks, as enunciated in Principle 7 of the 1992 Rio Declaration on Environment and Development (hereinafter: 1992 Rio Declaration).[33] Further international cooperation in the economic and social fields, for example, in the form of financial, scientific, and technological assistance required to help developing

[30] For example UNGA Res. 3362 (S-VII), September 16, 1975; Declaration on International Economic Cooperation, UNGA Res. S-18, May 1, 1990; International Co-operation for Economic Growth and Development, UNGA Res. 47/152, December 18, 1992.

[31] F. Biermann, "Common heritage of humankind: The emergence of a new concept of international environmental law," in *Archiv des Völkerrechts*, vol. 34, Hamburg, 1996, pp. 426–81, at pp. 462 and 465.

[32] B. Simma (ed.), *The Charter of the United Nations: A Commentary*, Second Edition, New York: Oxford University Press, 2002, p. 904.

[33] 1992 Rio Declaration on Environment and Development, United Nations Conference on Environment and Development, UN doc. A/CONF.151/6/Rev.1, 1992, 31 ILM 874, 1992.

countries meet certain objectives and ultimately achieve sustainable development, is now a common feature of environmental treaties.[34]

International cooperation is one of those notions that everyone understands but finds difficult to define precisely. In the environmental field, the principle of international cooperation is contained in virtually all multilateral environmental agreements (MEAs),[35] referred to in awards of international tribunals and generally supported by state practice, especially in areas involving the management of hazardous substances and environmental emergencies.[36] Since the early 1980s, UNGA resolutions[37] have addressed the issue of environmental cooperation and recalled the "historical responsibility" of States for the preservation of nature, attaching importance to "planned and constructive international co-operation in solving the problems of preserving nature."[38] Subsequent instruments have emphasized the crucial role of international cooperation in the prevention, reduction, and elimination of adverse environmental effects, as embodied in Principle 24 of the 1972 Stockholm Declaration[39] and Principle 27 of the 1992 Rio Declaration.[40] The Preamble of the 1982 World Charter for Nature[41] also stresses the importance of achieving cooperation in order to protect

[34] For example, Principle 9 of the 1992 Rio Declaration requests further international cooperation in the form of financial, scientific, and technological support for developing countries. References to cooperation in the form of financial and technical assistance are, for example, made in Articles 8, 9, and 12 of the 1992 Convention on Biological Diversity.

[35] Including for instance, the 1992 Convention on Biological Diversity, the 1968 African Convention on the Conservation of Nature and Natural Resources, the 1985 ASEAN Agreement on the Conservation of Nature and Natural Resources, the 1979 Bern Convention on the Conservation of European Wildlife and Natural Habitats, and the 1986 Convention for the Protection of the Natural Resources and Environment in the South Pacific Region.

[36] P. Sands, *Principles of International Environmental Law*, Cambridge: Cambridge University Press, 2003, p. 249.

[37] UNGA Res. 3129 (XXVIII), December 13, 1973, on Cooperation in the Field of the Environment Concerning Natural Resources Shared by Two or More States; UNGA Res. 34/186, 18 December 1979, on Co-operation in the Field of the Environment Concerning Natural Resources Shared by Two or More States; UNGA Res. 34/188, 18 December 1979, on International Cooperation in the Field of the Environment; and UNGA Res. 35/74, 5 December 1980, on International Co-operation in the Field of the Environment.

[38] UNGA Res. 36/7, October 27, 1981.

[39] 1972 Declaration of the United Nations Conference on the Human Environment, 11 ILM 1416, 1972.

[40] UN doc. A/CONF.151/26, vol. I. Various provisions in this declaration refer to cooperation, for example, Principle 5: "All States and all people shall *cooperate* in the essential task of eradicating poverty"; Principle 7: "States shall *cooperate* in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem"; Principle 12: "States should *cooperate* to promote a supportive and open international economic system that would lead to economic growth and sustainable development;" and Principle 13: "States shall also *cooperate* in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage."

[41] UNGA Res. 37/7, 28 October 1982, reprinted in 23 ILM 455, 1983. According to this declaration "States should effectively *cooperate* to discourage or prevent the relocation and transfer to other States of any

and safeguard the balance and quality of nature. The principle of international cooperation was framed under Principle 24 of the 1972 Stockholm Declaration as follows:

> International matters concerning the protection and improvement of the environment should be handled in a cooperative spirit by all countries, big and small, on an equal footing.
>
> Cooperation through multilateral or bilateral arrangements or other appropriate means is essential to effectively control, prevent, reduce and eliminate adverse environmental effects resulting from activities conducted in all spheres, in such a way that due account is taken of the sovereignty and interests of all States.

The vague content of the principle of international cooperation is given more definition in other declarations and environmental treaties. In particular, Principle 7 of the 1978 United Nations Environment Programme (UNEP) Draft Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Resources Shared by Two or More States (hereinafter: 1978 UNEP Draft Principles)[42] provides further guidance as to the meaning of that principle by enumerating ways in which States can cooperate, including "exchange of information, notification, consultation and other forms of cooperation carried out on the basis of the principle of good faith and in the spirit of good neighborliness."[43] For example, under the 1994 Convention on the Cooperation for the Sustainable Development of the Danube River,[44] this principle is translated into a duty to negotiate, conduct consultations, and exchange information. The duty to cooperate takes the form of specific measures, enumerated in Articles 5 and 6, involving, for example, the identification of groundwater resources and protection zones, or the recording of conditions of natural water resources within the Danube River, among others.[45]

Other environmental treaties also invoke the principle of international cooperation as a legal duty. For example, Article 6(1) of the 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage recognizes the cultural and natural heritage as a world heritage for whose protection "it is the duty of international community as a whole to co-operate." According to Article 197 of the 1982

activities and substances that cause severe environmental degradation or are found to be harmful to human health."

[42] The Draft Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Resources Shared by two or More States, were approved by the UNEP Governing Council on May 19, 1978 by Decision 6/14 (UNEP/IG. 12/2), reprinted in 17 ILM 1091, 1093, 1978.

[43] Ibid.

[44] Article 4, 35 ILM 651, 1996.

[45] Ibid., Articles 5 and 6.

United Nations Convention on the Law of the Sea (UNCLOS), States "shall cooperate on a global basis, and as appropriate, on a regional basis" for the protection of the marine environment.[46] Despite the imprecise content of the principle of international cooperation (or the "duty to cooperate"), Alexandre Kiss suggests that its repetition in innumerable treaties, judicial awards, and nonbinding instruments reflects a general acceptance of a duty to cooperate, as framed in Principle 24 of the Stockholm Declaration, which seems to have acquired the status of customary international law.[47] Whereas the duty to cooperate in the environmental field is generally recognized in relation to activities involving, *inter alia*, exchange of information, consultation, and notification, its acceptance in areas involving financial assistance or technology transfer finds more resistance, as discussed in the following sections.

1.3. LIMITS TO INTERNATIONAL COOPERATION IN THE ENVIRONMENTAL FIELD

Some skeptics may claim that international cooperation might be inadequate, at least for addressing some environmental issues. As Daniel Bodansky suggests, certain environmental problems may require a multilateral approach, for example, those that have sources in many countries or produce transboundary effects and involve multiple parties that then have a legitimate claim to take part in certain decision-making processes. However, he argues that unilateral actions taken by a State, for example, to prevent the pollution of its coastline, as envisaged under the 1969 International Convention on Civil Liability for Oil Pollution Damage,[48] are the norm in environmental policy, whereas international action is the exception, requiring special justification. Therefore, despite the growth of multilateral decision making, "international cooperation often remains unachievable or illusory."[49] In the particular case of the Amazon, David Goodman and Michael Redclif claim that the root causes of deforestation, especially in the Brazilian Amazon, are related to complex land ownership issues that ultimately only Brazil can handle: "the fate of the forest is inextricably linked with national issues largely immune to international public opinion and inter-governmental agreements." They note that the Amazon is not a nature reserve, but a region inhabited by millions of people whose needs

[46] Sands, op. cit., p. 244.

[47] A. Kiss and D. Shelton, *International Environmental Law*, New York & London: Transnational/Graham & Trotman, 2000, p. 43.

[48] 9 ILM 45 (1970).

[49] D. Bodansky, "What's so bad about unilateral action to protect the environment?", *European Journal of International Law*, 2000, vol. 11, no. 2, pp. 339–47, at p. 347. Other examples provided by Bodansky of "unilateral actions" include the port State power to enforce international pollution standards, as established under Article 218 of the 1982 United Nations Convention on the Law of the Sea.