THE AMAZON INFERNO: COMBATING DEFORESTATION UNDER INTERNATIONAL LAW

by

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ABSTRACT

The 2019 wildfires of the Amazon Rainforest caused severe damage to the ecological balance to the biodiversity in Brazil. The national sovereignty of Brazil and international intervention of environmental obligations are at loggerheads for the regulation of the Amazon rainforest. This research paper aims to find a resolution for the aforementioned issue. This paper will go onto analyse doctrines such as the transboundary harm principle, the no-harm principle, and international human rights focusing on environmental conventions and multilateral treaties. The paper further discusses the principles of international law on sovereignty and states responsibility concerning mass deforestation. This paper further goes onto analyse aspects of duty of nation states towards the international community regarding transboundary harm and the consequences thereof.

INTRODUCTION

The Amazon Rainforest is the biggest rainforest in the world and is often referred to as the "lungs of the world." Some scientists discredit the theory altogether because the forests do not produce a net gain in oxygen. While, the allegory may be fallacious,[1] protection of the rainforest is important to maintain the balance of the world's biodiversity and shared environment.[2] The Amazon spans out around 40% of South America, encompassing the largest water reserve in the world, contributing towards Earth's unparalleled ecosystem.[3]

The 1960s saw the onset of deforestation pertinently due to government interventions such as large scale construction of infrastructure along with agricultural and settlement subsidies.[4] With no political impetus and external international influence to preserve the Amazon coupled with Brazil's economic crash in 2015, deforestation levels rose to alarming levels with every passing year. The total deforestation level of the last 40 years added up to be 20% of the Brazilian Amazon by the year 2015.[5] In 2019, the inferno that destroyed nearly 2 million acres of the Amazon broke out.[6] The inferno of 2019 caused an increase by 34.4% adversely affecting conservation units and indigenous lands to unrivalled levels. Forest fires saw an increase of 67.9% in 2019 compared to 2018.[7] In 2020, deforestation levels have increased by 30% and forest wildfires have increased by 80% compared to 2019.[8]

The chief contributing cause to the wildfires is the slash and burn practise of land clearing to grow plantations of palm oil, soy bean, and pulp.[9] This fire fallow cultivation method is responsible for 80% of the deforestation in the Brazilian Amazon.[10] Environmentalists and

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[1] Lucy Rodgers et al., *The Amazon is on Fire – How bad is it?*, BBC News, (Last visited Jan. 08 2022), https://www.bbc.com/news/world-latin-america-49433767.

[2] David Werth & Roni Avisaar, *The Local and Global Effects of Amazon Deforestation*, 107 (D20) J. Geophysical Res. 1 (2002).

[3] Manuela L. Picq, Situating the Amazon in World Politics, Natural Resources and Sustainable Development – International Economic Law Perspectives, Celine Tan & Julio Faundez, (2017).

[4] Danielle Celentano et al., Welfare Outcomes and the Advance of the Deforestation Frontier in the Brazilian Amazon, 40 World Development 850 (2012).

[5] Beto Verissimo, *Let's Cut Amazon Deforestation to Zero, Here's How,* Americas Quarterly, (last visited Jan. 08 2022), https://www.americasquarterly.org/fulltextarticle/lets-cut-amazon-deforestation-to-zero-heres-how/.

[6] Alexandria Symonds, *Amazon Rainforest Fires: Here's What's Really Happening*, N.Y. TIMES (last visited Jan. 08 2022), https://www.nytimes.com/2019/08/23/world/americas/amazon-fire-brazil-bolsonaro.html.

[7] Programa Queimadas, INPE – Instituto Nacional de Pesquisas Espaciais (National Institute of Space Research), http://queimadas.dgi.inpe.br/queimadas/aq1km/ (last visited Jan. 08 2022).

[8] Jeff Turrentine, *Jair Bolsonaro to a Horrified World Community: "The Amazon Is Brazil's, Not Yours*," Natural Resources Defense Council: OnEarth (last visited Jan. 08 2022).

[9] Colin Dwyer, *Amazon Rainforest Sees Biggest Spike in Deforestation in over a Decade*, NPR, (last visited Jan. 08 2022).

[10] Ben Otto, *Smoky Haze Costing Southeast Asia Billions of Dollars*, Wall Street Journal, (last visited Jan. 08 2022).

scientists are heavily concerned about the overall health of the planet and irreversible damage being caused by deforestation and wildfires. The apprehension is not unfounded as the Amazon has entered the process of savannization due to an increased frequency in wildfires and land usage synergistically reducing the biodiversity of the rainforest region.

The dichotomous conundrum of preservation of sovereignty of states' control over natural resources and protection of the global environment under international law comes into play with respect to the destruction of the Amazon. However, despite the development of international environment law, sovereignty of nation states remains the greatest hurdle in the regulation of natural resources playing a major role in customary international obligations and multilateral treaties and agreements.

BRAZIL'S LEGAL FRAMEWORK FOR THE PREVENTION OF DEFORESTATION

Public Land in Brazil

For the protection of biodiversity and natural habitat in the Amazon, Brazil has created huge conservation units.[11] The conservation units comprise of "national parks, biological reserves, national forests, and environmental protection areas." The Constitution provides that any modifications to or quelling the rights of the conservation units can only be done by law.

The lands that are not private property and are also not classified as indigenous lands or conservation units are the areas known as "non-allocated public areas," which occupies 45% of the Amazon region in Brazil.[12]

Indigenous lands and conservation units boast considerably lower deforestation due to their constitutional protection and legal administration which possibly renders it next to impossible for land grabbers to get a hold of the possession of such protected land.[13] Moreover, the aforementioned protected lands are supervised by governmental bodies charged with the safeguarding of the lands. This leaves the "non-allocated public areas" extremely vulnerable for exploitation, leaving extensive expanses of land without any legal rights or constitutional protection or even a mere supervision programme.

[11] Elis Araújo et al., Unidades De Conservação Mais Desmatadas Da Amazônia Legal, Imazon, 8 (2017).
[12] José Heder et al., Instituto De Pesquisa Ambiental Da Amazônia [Amazon Environmental Research Institute], A Grilagem De Terras Públicas Na Amazônia Brasileira 17 (2006).
[13] Helen Ding et al., Climate Benefits, Tenure Costs: The Economic Case For Securing Indigenous Land Rights in the Amazon 4-5 (2016); Claudia Azevedo-Ramos et al., Lawless Land in no Man's Land: the Undesignated Public Forests in the Brazilian Amazon, 99 Land Use Policy 1, 1-3 (2020).

The Brazilian Constitution

The bulk of the Amazon Rainforest comes under the jurisdiction of the Brazilian territory implying that policy decisions and legislative frameworks would have severe consequences on the ecosystem management and upkeep. Historically speaking, Brazil has made tremendous efforts to protect and manage the Amazon to its best capacity and attempt to curb deforestation. A landmark move by the Brazilian Constitutional Assembly took place on 25th May 1988, with the introduction of a whole chapter on "environmental protection" by the legislature.

Article 225 of the Constitution encompasses the essence of the government to provide a holistic approach to forestry and preservation of the Amazon. The Article provides that "everyone has the right to an ecologically balanced environment ("Todos tern direito ao meio ambiente ecologicamente equilibrado") for the common welfare of the people."[14] The Amazon being a part of Brazil's heritage and pride, both the government and the community of people are charged with the duty for its protection at present and in the coming generations.

The constitutional safeguard for the right to a healthy environment vouchsafes it as a trump right and places it above the standard of any national or sub-national laws. It also ensures that no civil right or national law can stand in contradiction to this right. Various international agreements and organizations have also paid heed to the right to a healthy environment, thereby recognising it as a basic human right.

As a result to the constitutional recognition of such a right in Brazil, the national courts have broached the reversal of the burden of proof. Keeping in mind the concept of precautionary principle, the courts have set forth for the defendant to state their innocence and prove that their actions were not harmful to the environment.[15]

Article 225 not only mandates the protection and preservation but also provides for the restoration of the ecological processes.[16] The law requires the government to "preserve the diversity and the integrity of the genetic patrimonial and to control the entities doing research and wishing to manipulate genetic material."[17] Along with the aforesaid, the government is also required to protect the wildlife inhabiting the rainforests and save certain endangered species from extinction and prohibit animal cruelty.[18]

[14] Braz. Federal Const. art 225.
[15] Boyd David, The Environmental Rights Revolution, UBC Press 132, (2012).
[16] Braz. Federal Const. art 225 § 1, cl. I.
[17] Braz. Federal Const. art 225 § 1, cl. II.
[18] Braz. Federal Const. art 225 § 1, cl. VII.

Environmental law prosecutions discredited the long-held belief regarding environmental harm impunity. And while the legislative framework is recognised, the implementation of the same is lagging behind to put the laws into force.[19]

The Forest Code

The Forest Code was founded for the first time in Brazil in 1965. The law had erstwhile maintained that landowners of the Amazonian territory were to keep 35% - 80% of the land in the "native vegetation." Farming in the said land was only permitted for up to 20%. However, with the 2012 revised version of the Forest Code, the protections to the rainforest ecosystem have been relaxed considerably.

The amended Code, coupled with the changes ushered in by the Supreme Court have resulted in extensive deforestation in the Amazon region. The ramifications of such a drastic decision is the loss of 15 million hectares of land from the protected status.[20] However, for the implementation of the Forest Code, the local and federal governments face impediments due to lack of resources. Another hurdle is the lack of official records, as only 10% of the private lands ownership records exist in real time.

Article 3 of the Code provides for "Permanent Preservation Areas (Área de Preservação Permanente) (APP)), which are protected areas serving the environmental purpose of "preserving water resources, the landscape, geological stability, and biodiversity, facilitating the gene flow of fauna and flora, protecting the soil and ensure the well-being of human populations."[21] Article 7 of the Code states that "the owner of an APP shall maintain the vegetation located within it, in any capacity."[22] In case of an unauthorised reduction of the vegetation, the owner is under an obligation to restore the same, further reductions being prohibited until the area has been restored.

The new Code extended pardons to the illegal deforestation occurring prior to 22nd July 2008. It further resulted in the reduction of fines and restoration requirements.[23] The Court has opined it unnecessary to pay fines and also validated the pardons granted to landowners who illegally

[19] Supra Note 15 at 133.
[20] Asher Claire, *Brazil's New Forest Code puts vast areas of protected Amazon forest at risk*, Mongabay, (last visited Jan. 08 2022), https://news.mongabay.com/2019/03/brazils-new-forest-code-puts-vast-areas-of-protected-amazon-forest-at-risk/.
[21] Brazil Forest Code, 2012 § 3, cl. II, No. 12,651, Acts of Parliament (Brazil).
[22] Brazil Forest Code, 2012 § 7, No. 12,651, Acts of Parliament (Brazil).
[23] Brazil Forest Code, 2012 § 42, No. 12,651, Acts of Parliament (Brazil); Azevedo Andrea et al., Limits of Brazil's Forest Code as a means to end illegal deforestation, Proc Natl Acad Sci USA. 114(29) (2017).

acquired land before 22nd July 2008.[24] The Court has further given a free pass for steep slope farming and on hilltops.[25]

Deforestation levels have gone through the roof after 2012 with the implementation of the Forest Code as is deemed by scientists and environmentalists.[26] The illegal deforestation in Amazon accounts for 70%.[27] The intent and objective of the Forest Code may be noble in its pursuits to provide protection to the Amazon but it has done more harm than good. The Code cannot be fundamentally changed as it has the seal of approval from the federal courts and the Supreme Court.

Moreover, the Bolsonaro government is ruthless when it comes to the exploitation of mineral resources which in turn results in a burst of illegal miners, and land grabbers, whose presence and operations cause the poisoning of the waterways and reduction of vegetation without any consequences.[28]

SOVEREIGNTY AND RIGHT TO INTERVENTION

Sovereignty over Natural Resources

Article 2(1) of the UN Charter provides that the United Nations is "founded on the principle of the sovereign equality of all its member states." The concept of sovereignty over natural resources developed in a full-fledged manner after World War II. Numerous General Assembly resolutions have solidified the fundamental concept of sovereignty of nation states over their natural resources since the 1950s.

However, the conception of "absolute territorial sovereignty" has lost its relevance from the international arena. The idea proposed by the then Attorney General *Judson Harmon* that nation states could exploit their natural resources at will without more than just being frowned upon by the international community had faded from picture.

Principle 21 of the Stockholm Declaration provides that "States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to

[24] Spring Jake, *Brazil court upholds forestry law changes in blow to environmentalists*, Reuters, (last visited Jan. 08 2022).
[25] Branford Sue, *Brazil high court Forest Code ruling largely bad for environment, Amazon: NGOs*, Mongabay, (last visited Jan. 08 2022).
[26] Ibid.
[27] Supra Note 20.
[28] Poirier Christian, *Brazil's Indigenous Peoples Suffer Wave of Invasions and Attacks*, Amazon Watch, (last visited Jan. 08 2022).

exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction."[29] It is further reiterated in Principle 2 of the Rio Declaration. Furthermore, this doctrine is reflected in international instruments such as Article 3 of Convention on Biological Diversity, and Article 194(2) of United Nations Convention on the Law of the Sea.

The principle of sovereignty can be split into two parts, namely, "territorial sovereignty" and "territorial integrity."[30] Environmental catastrophes come unannounced and pay no heed to man-made borders of nation states or to their integrity and sovereignty. But there have been patterns of states using their sovereignty to shield from the questions and criticisms of the international community for their misuse of natural resources and human rights violations.

The ICJ in its advisory opinion has beautifully summarised the notion that states cannot exercise their absolute sovereignty in isolation, due to the fact that their actions are not carried out in vacuum and have consequences on other nation states. The ICJ opines that "the existence of the general obligation of states to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control is now part of corpus of international law relating to the environment."[31] And thus the scope of exerting one's sovereignty is balanced by other nations' "territorial rights and integrity."

Non Intervention

Article 2(7) of the UN Charter provides for the rule of non-intervention which restricts outside interference and meddling with the internal affairs of one's states. The ICJ in the *Nicaragua case* provided that "the principle of non-interference involves the right of every sovereign state to conduct its affairs without outside interference."[32]

But the fundamental question posited before us is that when it comes to the destruction of the environment, is the international community equipped with violating the principles of non-intervention?

[29] Declaration of the United Nations Conference on the Human Environment, Stockholm, 1972, § 21.
[30] Lennart Nijs, *Sovereignty in international environmental law – an outdated principle?*, Tilburg University, (2017).
[31] Legality of the Threat or Use of Nuclear Weapons, 1996 Reports 226, 19-20, (Advisory Opinion).
[32] Jyoti Rattan, *Changing Dimensions of Intervention under International Law: A Critical Analysis*, 9 SAGE Open (2019).

To strive to answer the aforementioned, the concept of *erga omnes* comes into play with regard to the discussions of the destruction of the Amazon. The Latin phrase imposes the rights and obligations on all nation states towards the international community in international law. Thus, when an obligation is breached by a member state, the other actors are equipped with the power to put forth a claim against such breach.[33]

The General Assembly while adopting the World Charter in 1982, put forward the "policy foundation for an obligation to protect the environment."[34] Therefore, "conservation of nature" and "protection of environment" as per the UNGA can be considered *erga omnes* since it is in the interest of the international community. In the Gabcikovo Nagymaros Case[35] in 1997, Judge Weeramantry gave a Separate Opinion from the ICJ averring that the "protection of the environment beyond national jurisdiction" has been incorporated by the obligations under *erga omnes.*

Therefore, the countries affected by the actions of Brazil that result in the destruction of the Amazon Rainforest would considered injured countries and therefore have a right to bring a claim against Brazil for the same. However, not only neighbouring countries of Brazil are being affected by the gross violations of Brazil, but so is the entire world by the annihilation of the rainforests. Due to the applicable principle of *erga omnes,* the non-injured countries would also be able to put forth a claim for wrongful conduct and demand restoration of the forests. This discredits the Harmon Doctrine of absolute sovereignty over natural resources and replaces it with the principle of "good neighbourliness" instead.[36]

NO HARM PRINCIPLE

The no-harm principle has been now incorporated into the customary international law regime.[37] This is the result of the incorporation of the principle into the Stockholm Declaration[38] and the Rio Declaration[39] along with the development of case laws on the subject

[33] Christianti, Diajeng, *Why We Need Erga Omnes Character for Obligations to Combat Impunity for International Crimes?*, 4 PADJADJARAN Jurnal Ilmu Hukum (Journal of Law) (2017).
[34] World Charter for Nature, United Nation General Assembly, 1982, A/RES/37/7.
[35] Gabčikovo-Nagymaros Project, Hungary v Slovakia, ICJ Rep 7, ICJ GL No 92 (1997).
[36] Sompong Sucharitkul, *The Principles of Good-Neighborliness in International Law*, GGU Law Digital Commons (1996).
[37] Trail Smelter (U.S. v. Can.) 1, 3 R.I.A.A. 1911 (1938); Corfu Channel (U.K. v. Alb.), 1949; Stockholm Declaration, Rio Declaration on Environment and Development.
[38] Stockholm Declaration on the Human Environment, United Nations Conference on the Human Environment, UN Doc. A/CONF. 48/14, at 2 and Corr. 1 (1972).
[39] Rio Declaration on Environment and Development (A/CONF. 151/26.)

ranging from the Trail Smelter case to the Corfu Channel case. The principle of no-harm can also be found in international conventions such as the Law of the Non-Navigational Uses of International Watercourses[40], Convention on the Protection and Use of Transboundary Watercourses and International Lakes[41], and the Geneva Convention Long-Range Transboundary Air Pollution[42].

The principle of no-harm is embodied in the Roman maxim "*Sic utere tuo ut alienum non laedas*", implying that that "one State's sovereign right to use its territory is circumscribed by an obligation not to cause injury to, or within, another State's territory."[43] Thus, the no-harm principle creates and obligation i.e. *erga omnes* for all nation states to not carry out activities that damage the environment. Thus, the notion of the erasure of absolute territorial sovereignty of a state's control over the natural resources resurfaces once again.

Max Huber, in 1928, stated that "territorial sovereignty has a corollary duty: the obligation to protect within the territory the rights of other States."[44] In keeping with the same, Article 2(c) of the Draft Articles on Transboundary Harm states that "damage caused in the territory of the region of the territorial jurisdiction of a state besides the "state of origin" whether sharing a boundary or not is "transboundary harm."[45]

The Trail Smelter Case

The foundation of environmental law responsibility is founded in the Trail Smelter case. The case was brought to arbitration by US against Canada over heavy mining and smelting operations, causing emissions of sulphur dioxide to be carried in the form of fumes over from Canada down the river valley to the state of Washington. The tribunal held Canada responsible for the damage caused by operations of the Trail Smelter and brought about the no-harm principle to the environmental arena.

Furthermore, the Corfu Channel case reiterated that "every State's obligation not to allow knowingly its territory to be used contrary to the rights of other States."[46] The ICJ held Albania responsible for the destruction of British warships in Albanian waters and pronounced that

[40] Convention on the Law of the Non-navigational Uses of International Watercourses, General Assembly Resolution 51/229 (1997).
[41] Convention on the Protection and Use of Transboundary Watercourses and International Lakes, United Nations, Treaty Series 1936, (1992).
[42] Convention on Long-range Transboundary Air Pollution, T.I.A.S. 10541 (1979).
[43] Jutta Brunnée, *Sic utere tuo ut alienum non laedas*, Oxford Public International Law.
[44] Permanent Court of Arbitration, Island of Palmas Case, 2 UNRIAA, 829, (1928).
[45] Draft articles on Prevention of Transboundary Harm from Hazardous Activities 2001, § 2 cl. (c).
[46] Corfu Channel (U.K. v. Alb.), ICJ GL No 1 (1949).

"every state is obligated not to allow knowingly its territory to be used for acts contrary to the rights of other states."[47]

Therefore, as a standing rule of no-harm principle in customary international law, the states are to be held liable for the transboundary environmental harm. And Brazil can be held responsible for the destruction of the world's rainforests having acted without any due diligence and flouting its international obligations.

STATE RESPONSIBILITY

In theory, states have a responsibility to protect the environment but in practise it is a rather difficult procedure to invoke the said responsibility. The connection between state responsibility and the duty to protect the environment entails that the states maintain due diligence and uphold their obligations to not cause any form of environmental damage. State responsibility governs all forms of "wrongful conduct" relating to their international obligations. These obligations for breaches under international law stem from the recognised duties by a treaty or customary international law or under general principles of international law.

According to Kolb Robert, "the term responsibility reflects the nature of the legal obligation," and it is a "legal response to a breach of law.[48] Enforcing state responsibility pertains to the idea that one state is the "wrongdoer" and the other is the "aggrieved entity." Thus, the possibility of accountability provides that states act in accordance with international law. If there is a breach, then other nation could bring forth a claim against the same.[49] The requisite elements for any claim for redress is that "there must be an identifiable obligation existing between the states concerned; there must be a breach or non-performance of that obligation that is imputable to state against which the claim is being made and damage must have resulted.[50] The repercussions for breach can be formalised in the form of reparations or taking countermeasures.

[47] Ibid.
[48] Kolb Robert, "The international law of state responsibility: Introduction", MA: Edward Elgar Pub., 2017.
[49] 8 Malcom Nathan Shaw, International law, 851, (Cambridge University Press (2017).
[50] The International Law Commission does not appear to look at this as a necessity, 11 Yr Bk Int L Comm, 183 (1973).

CONCLUSION

The protection and preservation of the Amazon rainforests is essential in maintaining the ecosystem and the overall health of the planet. The Bolsonaro government has maintained their position in regarding environmental concerns as secondary but it is high time that they take their international obligations off the back burner. Brazil cannot hide behind its position of an ironclad sovereignty for long.

This research paper has analysed that for the preservation of the environment, the concept of sovereignty and intervention for environmental harm are at loggerheads. However, it does not mean that the current international legal framework is rendered incapable for redressal. After delving into the scrutiny of transboundary harm principles, the author has come to the conclusion that Brazil can be held responsible for its actions causing deforestation and wildfires. The concept of *erga omnes* also maintain the states to carry out their international obligations over which Brazil has faltered upon.