

International Law's Role in the Prevention of Mass Deforestation

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The Amazon is burning. The widespread damage it is suffering has thrown rainforest protection back onto the international community's agenda. But what should be international law's role in preventing and halting rainforest destruction worldwide? Following an outline of the current situation in the Amazon and similar deforestation taking place in other rainforests around the world, this policy brief considers principles of international law on sovereignty and whether mass deforestation can be categorized as an international legal wrong. I argue that, not only does international law mandate that States have a duty to prevent transboundary environmental harm, but there should also be a duty owed to the international community to refrain from taking actions that would damage global environmental resources and contribute to runaway climate change.

1. Human Desire, Natural Destruction

The Earth's forests and rainforests, among its most critical natural resources, are under grave threat. Recent headlines have been filled with news of widespread fires throughout the Amazon, with over 90,000 fires burning in the 2019 dry season.¹ This is the season when fires are intentionally and often illegally lit in previously deforested areas of the Amazon to clear the way in preparation for cattle ranching. Compared to previous years, fires in the Amazon have tripled.²

A glance at Brazil's economy illustrates why. Brazil has become a world leader in cattle ranching and soy-bean farming, with its arable farmland doubling between 2000 and 2019.³ This makes farming an important industry both politically and economically as agriculture was responsible for approximately 10% of Brazil's jobs in 2017. States bordering the Amazon show strong political support for clearing the rainforest.⁴

Furthermore, the recent US-China trade war is spurring Brazilian farmers to try to outmanoeuvre their American rivals and exploit the USD 36 billion Chinese market.⁵ In 2018, Hong Kong was the largest

importer of Brazilian beef, taking 24% of total exports (or almost 395,000t), whereas Mainland China imported 22.63%.⁶ At the time of writing this brief, Hong Kong was gripped by mass protests against the government. I am not aware of a single demonstration against the burning of the Amazon or beef imports from Brazil.

In the face of the tremendous economic gains to be made in its exploitation of natural resources, the Brazilian Government's approach has at best been one of complicity. Not only is it in the politicians' interests to pander to farming lobbies; the Brazilian Government has left its environmental protection agency underfunded and unable to function properly.⁷

As it stands, the Amazon has reached a tipping point. It is estimated that once 20% of total loss of the Amazon is reached (we are currently at 17%), it will no longer be able to generate enough rainfall to sustain itself and it will collapse entirely.⁸

Further, the harm suffered by the Amazon is not confined to Brazil. Fires are also burning on the Amazon's borders with Peru, Bolivia, and Paraguay. Smoke from burning fires drifts across borders, posing health risks. Reduced rainfall affects farm yields and livelihoods across the Amazon basin.⁹

At the same time, on the other side of the planet, a quieter but equally pernicious course of deforestation is taking place. In South East Asia, countries like Malaysia, Indonesia, and Papua New Guinea, have some of the world's highest biodiversity, but also see equally high rates of deforestation.¹⁰ Like Brazil, forestry and agriculture are key industries for these countries and their rich forests are being exploited to fuel economic growth. In Malaysia, for example, agriculture is responsible for around 8.2% of the country's GDP, with 46% coming from the production of palm oil.¹¹ Palm oil requires vast tracts of land to be cleared from rainforests, often by fire. The

South China Morning Post, 17 May 2019.

- ¹ INPE, "Situação Atual", 10 September 2019.
- ² Sergio Peçanha and Tim Wallace, "We're thinking about the Amazon fires all wrong. These maps show why", *Washington Post*, 5 September 2019.
- ³ Vivian Zalles *et al.*, "Near doubling of Brazil's intensive row crop area since 2000", in *Proceedings of the National Academy of Sciences of the United States of America*, 2019, vol. 116, no. 2, p. 428.
- ⁴ Trading Economics, "Brazil – Employment in agriculture (% of total employment)", 2019; Tom Phillips, "'Chaos, chaos, chaos': a journey through Bolsonaro's Amazon inferno", *The Guardian*, 9 September 2019.
- ⁵ Daniel Ren, "The US-China trade war has been a boon for Brazil's soybean farmers. But can they keep up with Chinese demand?",
- ⁶ Ashley Williams, "Brazil closes 2018 with largest-ever beef volume exports", *Global Meat News*, 22 January 2019.
- ⁷ The Guardian, 9 September 2019, above note 4.
- ⁸ Thomas Lovejoy and Carlos Nobre, "Amazon tipping point", in *Science Advances*, 2018, vol. 4, no. 2.
- ⁹ Stefan Lovegren, "Near the Amazon fires, residents are sick, worried, angry", *National Geographic*, 23 August 2019; Craig Welch, "How Amazon forest loss may affect water – and climate – far away", *National Geographic*, 27 August 2019.
- ¹⁰ Alice Hughes, "Have Indo-Malaysian forests reached the end of the road?", in *Biological Conservation*, 2018, vol. 223, p. 129.
- ¹¹ Department of Statistics Malaysia, "Selected Agricultural Indicators, Malaysia, 2018", 31 December 2018.

destruction of forests not only reduces their ability to act as carbon sinks, but increases greenhouse gas emissions, worsening climate change. The 2015 fires in Indonesia, likely contributed to by razing of forests for palm oil production, tripled its greenhouse gas emissions for that year.¹² Deforestation in South East Asia also has severe transboundary effects, for example, the haze caused by the 2015 fires was estimated to have contributed to “100,300 excess deaths across Indonesia, Malaysia, and Singapore”.¹³ Owners of some of the largest palm oil producers have bases in Hong Kong and Singapore.¹⁴

The root cause of deforestation in Brazil, Malaysia, Indonesia, and beyond is the same: human consumption and pursuit of infinite economic growth, with limited natural resources. If a sufficient number of individuals chose to reduce their consumption of beef and palm oil products, the situation would be nowhere near as dire. The disastrous clearing of rainforests around the world does economically benefit farmers in the short run, but it is a complete fallacy to think it will do so forever.¹⁵ Once the tipping point is reached, whether for the Amazon, or climate change, there is no going back.

Preserving these natural resources for future generations is vital not just to the successful development of the countries concerned, but for the international community as a whole. Climate change is well-understood to be brought about and exacerbated by increased carbon emissions that lead to higher mean temperatures and more erratic climate patterns. The Amazon and other global forests act as carbon sinks, absorbing carbon dioxide and releasing oxygen, as well as providing rainfall for nearby areas.¹⁶ The complete destruction of the Amazon will transform it from a carbon sink into another source of carbon emissions, hindering or even derailing attempts to fight climate change.

The survival of these resources and our species requires a drastic shift in human attitude and behaviour as well as powerful and sustained political will. The international community can use international law to act and put pressure on governments who abuse their natural resources to the detriment of their own people and the world at large.

2. Previous Efforts and the Challenge of Sovereignty

What are the international measures available to halt rampant deforestation? The Brazilian Government’s inaction and posture caused an international outcry in 2019, which led to some measures to incentivise Brazil to stop the fires. But the Amazon Fund – a body that helps curb deforestation with funding from international donors – has seen its governance structure crippled by Brazilian President Bolson-

aro. In response to this, and the 2019 fires, Germany and Norway, its biggest donors, would not be going through with their annual payments of approximately USD 60 million.¹⁷ Similarly, France – a Permanent Member of the United Nations Security Council and a key actor in the European Union – threatened to torpedo the planned trade deal between Mercosur and the Union. Ireland backed the measure and Finland called for the Union to consider a ban on Brazilian beef.¹⁸ Furthermore, the G7 states pledged USD 22 million in aid to fight the fires, which the Government of Brazil rejected.¹⁹ Less international attention has been paid to deforestation in South East Asia. The European Union has promised to phase out palm oil from biofuel by 2030, but 70% of palm oil consumption is intended for food products which are so ubiquitous as to be difficult to sanction or boycott.²⁰ These challenges are aggravated by the fact that Brazil, Malaysia and other states are pursuing public relations offensives to enhance their global image.²¹

The measures described above are in other words wholly inadequate to stop the threat to humankind’s rainforests. Stronger interventions run head first into the problem of state sovereignty – widely understood as the supreme authority of a state within its territory. One extreme theoretical position is that these rainforests belong to the territory of sovereign states, and that, hence, their management or exploitation is none of the international community’s concern. As Brazilian congressman João Chrisóstomo put it: “This forest isn’t shared as [Emmanuel Macron] claims. It belongs to a nation which enjoys complete autonomy and authority to decide what happens to the forest and takes every possible care to prevent it”.²²

The principles of sovereign equality and non-intervention are cornerstones of traditional international law. Their importance should not be understated.²³ This is especially true for non-Western states that have either been subject to colonialism or that are sceptical of the *Realpolitik* of international affairs. There is also a perceived historical irony that former colonies such as Brazil were pushed by the global economic establishment to ‘develop’, but when they did so at the expense of the natural environment, they were castigated by former colonial states that had the luxury of industrialising 200 years earlier.²⁴

Hypocrisy aside, science is clear: we are at a climate-change tipping point, and further excesses will lead to widespread extinction.²⁵ The destruction of rainforests worldwide will actually bring *negative or even catastrophic* economic results in the long term.²⁶ The international community must take stronger action to prevent environmental destruction, and international law provides tools for doing so.

¹² Mark Bethel *et al.*, “Study on the environmental impact of palm oil consumption and on existing sustainability standards” for the European Commission, DG Environment, 2018, p. 20.

¹³ Shannon Koplitz *et al.*, “Public health impacts of the severe haze in Equatorial Asia in September – October 2015: demonstration of a new framework for informing fire management strategies to reduce downwind smoke exposure”, in *Environmental Research Letters*, 2011, vol. 11, no. 094023.

¹⁴ First Pacific Company Limited (第一太平有限公司) is a Hong Kong-based investment-management and holding company controlled by the Salim family from Indonesia. Its Chairman is Anthoni Salim. The Salim Group has been severely criticised for their deforestation for palm oil production purposes (see, for example, ‘Palm oil sustainability assessment of Salim-related companies in Borneo peat forests’, Aidenvironment, Amsterdam, April 2018. This report also criticises the financial institutions Bank Central Asia and Mizuho Financial Group for ignoring, *inter alia*, Indonesian regulations in their co-operation with the Salim Group and Anthoni Salim specifically).

¹⁵ Bethel *et al.*, 2018, above note 12.

¹⁶ Josh Gabbatiss, “Amazon carbon sink could be ‘much less’ due to lack of soil nutrients”, in *Carbonbrief*, 5 August 2019.

¹⁷ Reuters, “Norway stops Amazon fund contribution in dispute with Brazil”, 16 August 2019.

¹⁸ Helene Focquet and Simone Iglesias, “Macron opposes Mercosur trade, saying Brazil ‘lied’ on climate”, Bloomberg, 23 August 2019.

¹⁹ BBC News, “Amazon fires: Brazil to reject G7 offer of \$22m aid”, 27 August 2019.

²⁰ Al-Jazeera, “Malaysia is fighting for its billion-dollar palm oil industry”, 22 August 2019.

²¹ Al-Jazeera, 22 August 2019, above.

²² The Guardian, 9 September 2019, above note 7.

²³ Charter of the United Nations, 24 October 1945, Art. 2(1) (<http://www.legal-tools.org/doc/6b3cd5/>); UNGA Resolution 2625 (XXV), 24 October 1970 (<http://www.legal-tools.org/doc/5039aa/>).

²⁴ Tom Phillips, “Jair Bolsonaro demands Macron withdraw ‘insults’ over Amazon fires”, *The Guardian*, 27 August 2019.

²⁵ Tapio Schneider *et al.*, “Possible climate transitions from breakup of stratocumulus decks under greenhouse warming”, in *Nature Geoscience*, 2019, vol. 12, p. 163.

²⁶ Alok Jha, “Amazon deforestation leads to development ‘boom-and-bust’”, *The Guardian*, 11 June 2009.

3. Transboundary Harm in International Law

Sovereignty as a right of states is formidable, but neither ironclad nor absolute. Sovereign equality runs both ways. As Max Huber put it in 1928, “territorial sovereignty has a corollary duty: the obligation to protect within the territory the rights of other States”.²⁷ It follows that a state cannot undertake acts within its jurisdiction or control that would cause harm in another state. This is, in effect, a restatement of the Roman maxim of *sic utere tuo ut alienum non laedas* – you must not use your property such that it injures others. This idea has grown into a cornerstone of international environmental law. It has been developed by international agreements and the jurisprudence to the International Court of Justice, and is now considered a rule of custom binding upon all.

An important early precedent affirming the *sic utere* maxim was the *Trail Smelter Arbitration*.²⁸ For many years, fumes from a smelting plant in British Columbia (Canada) drifted across the border into the United States, causing widespread damage to local farms. After a long-running dispute, the two states resorted to *ad hoc* arbitration. In the Tribunal’s second decision, it held that “no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence”.²⁹

A few years later, the International Court of Justice ruled that every state has an obligation “not to allow knowingly its territory to be used for acts contrary to the rights of other States”.³⁰ Therefore, when read together with *Trail Smelter*, it becomes clear that, under international law, any form of transboundary harm that causes damage in a nearby state may amount to an international wrong. Furthermore, the Court in *The Legality of the Threat or Use of Nuclear Weapons* concluded that the principle of responsibility for transboundary harm has crystallized into custom. In a passage worth quoting in full it held that:

the environment is not an abstraction but represents the living space, the quality of life and the very health of human beings, including generations unborn. 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 the corpus of international law relating to the environment.³¹

Since the mid-twentieth century, variations on the *sic utere* maxim have made their way into numerous international treaties, further cementing its customary status. Most important perhaps is Principle 21 of the Stockholm Declaration 1972 which restates the ruling from *Trail Smelter* and mandates that “States have, in accordance with the Charter of the United Nations and the principles of international law [...] 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”.³² Since 1972, Principle 21 enjoyed a long and successful life in international environmental law and has been referenced and adopted in several

²⁷ Permanent Court of Arbitration, *Island of Palmas Case*, 1928, 2 UNRIAA, p. 829.

²⁸ *Trail Smelter Arbitration (USA v. Canada)*, 1935, 3 UNRIAA, p. 1905.

²⁹ *Ibid.*, p. 1965.

³⁰ International Court of Justice (‘ICJ’), *Corfu Channel Case (UK v. Albania)*, Merits, 1949, ICJ Rep. 4, p. 22 (<https://legal-tools.org/doc/861864>).

³¹ ICJ, *The Legality of the Threat or Use of Nuclear Weapons*, Advisory opinion, 1996, ICJ Rep. 226, para. 29 (<https://legal-tools.org/doc/d97bc1>).

³² Declaration of the United Nations Conference on the Human Environment, 16 June 1972.

multilateral instruments since its adoption, for example, Espoo Convention 1991, Ozone Layer Protection Convention 1985, and the Rio Declaration 1992.³³ Accordingly, the International Court of Justice adopted the position of its *Nuclear Weapons Advisory Opinion* in the *Gabčíkovo-Nagymaros Project* case, and re-emphasizing its customary status in the *Pulp Mills on the River Uruguay* case.³⁴

Therefore, as a norm of customary international law, the principle of *sic utere* binds all states. However, *sic utere* alone is not sufficient to curb deforestation, as it relies by implication on *post hoc* reasoning. States become responsible for transboundary environmental harm once it has occurred and been proven. To allow for more comprehensive protection of the world’s rainforests, the *sic utere* principle should be paired with an obligation of due diligence.

4. The Precautionary Principle in International Law

To fully protect humankind’s rainforests, the principle of *sic utere* should be paired with a due diligence obligation to prevent transboundary harm. Such an obligation does exist, but its scope is contested. The United Nations International Law Commission, for example, initially argued that the duty is one of strict liability, however, it has since revised its approach.³⁵ Nevertheless, states are under a minimum duty to take precautions from risks of environmental harm to other states generated within their borders.

This is in turn supplemented by another useful customary norm, namely the precautionary principle. It is a decision-making strategy that prioritizes caution in the face of uncertainty, and assumes that our existing knowledge may be insufficient to fully appreciate the environmental consequences of acts we undertake.³⁶ When making decisions that affect the environment, the environment must be given the benefit of the doubt.³⁷ In other words, when there is a significant risk that an act will damage the environment, the risk must be minimized to the greatest extent possible, or the proposed act not be undertaken.

Therefore, when states like Brazil are presented with the choice of clearing rainforests to exploit farming and mining resources, the precautionary principle would have them err on the side of caution and decline to clear the rainforests as doing so would risk even greater environmental and economic harm to their populations. This is especially true in the case of deforestation. Excessive clearing of rainforests in Brazil will turn the Amazon into a savannah within a generation, annihilating the farming interests it was cleared to appease.

As Owen McIntyre and Thomas Mosedale argued in their 1997 article on the subject that there is ample state practice and *opinio juris* to conclude that the precautionary principle reflects custom, and that states must take precautionary action to protect a transboundary resource such as the Amazon.³⁸ State practice regarding the precautionary principle often goes hand-in-hand with the *sic utere* maxim. A

³³ Convention on Environmental Impact Assessment in a Transboundary Context, 1 March 1997; Vienna Convention for the Protection of the Ozone Layer, 22 September 1988; The Rio Declaration on Environmental Development, 14 June 1992.

³⁴ ICJ, *Gabčíkovo-Nagymaros Project Case (Hungary v. Slovakia)*, Judgment, 1997, ICJ Rep., p. 7 (<https://legal-tools.org/doc/5c99a1>); ICJ, *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, Judgment, 2010, ICJ Rep., p. 14 (<https://legal-tools.org/doc/7858c8>).

³⁵ Marte Jevan, “The Prohibition of Transboundary Environmental Harm. An Analysis of the Contribution of the International Court of Justice to the Development of the No-harm Rule”, 2014, Pluri-Courts Research Paper no. 14-17, p. 60.

³⁶ Owen McIntyre and Thomas Mosedale, “The Precautionary Principle as a Norm of Customary International Law”, in *Journal of Environmental Law*, 1997, vol. 9, no. 2, pp. 221, 222.

³⁷ *Ibid.*

³⁸ *Ibid.*

representative sample includes the 1985 Convention for Protection of the Ozone Layer, and Principle 15 of the Rio Declaration. Similarly, the International Court of Justice in *Gabčíkovo-Nagymaros Project* also explicitly affirmed the place of the precautionary principle in international law.³⁹

In other words, the international community need not wait for deforestation to occur to assign responsibility. The fact that the destruction is happening *at all* is an international legal wrong. The states concerned did not merely fail to give the environment the benefit of the doubt; they actively ignored scientific consensus and pursued their designs for profit. Indeed, the clearing of forests does provide income to farmers and miners who work the new land, but, as is often the case, the bulk of the profits become swallowed up by large corporations and their shareholders.⁴⁰ Once the long-term effects begin to show – food prices rise, farming work evaporates, and livelihoods are destroyed – it is the same working poor who will suffer in place of the economic elites, global and local, who enabled it.

5. The Challenge We Face

What the above has shown is that the international community cannot stand by while a significant risk of transboundary harm is being created. International law mandates that Brazil and Indonesia cannot undertake acts within their territory to clear their forests as it will undoubtedly lead to harm beyond their borders. Likewise, the precautionary principle, as a norm of customary international law mandates that these governments are under a due diligence obligation to prevent transboundary harm, and that they must give the environment the benefit of the doubt when attempting to exploit their own natural resources, especially when scientific consensus is clear that deforestation will have adverse economic and ecological consequences.

The principles of *sic utere* and precaution should not be confined to harm or risks of harm to neighbouring states. They should apply when there is a risk of *global* harm, that is, to the prevention or mitigation of climate change. The Amazon and other global rainforests are clearly key to the survival of humankind and the maintenance of the global ecosystem. Their destruction would make the Paris Agreement an empty commitment, and runaway climate change a certainty.⁴¹ Not to mention the destruction of untold thousands of rare and endangered species and the potential for advances in biological and medical research. Eliminating these resources is a setback for humankind, and a harm suffered by all. Therefore, in the same way that transboundary air pollution from *Trail Smelter* can by analogy prohibit nuclear tests, the undeniable effects on climate change from the destruction of humankind's rainforests should be another legal argument in favour of their immediate cessation.

6. Effective Targeted Action

The current actions of the Governments not just of Brazil, but also states such as Indonesia and Malaysia fall far short of what is required under international law. Their conduct will not only harm their sovereign neighbours, but their own citizens as well as actors in the

global community who are committed to combating the climate crisis. A breach of an international obligation involves a responsibility to put right the damage that has been caused.⁴² Not only should states such as Brazil immediately cease their deforestation conduct, but aggrieved states are justified in resorting to countermeasures as well as economic sanctions.

The international community has begun to react, but not enough is being done. Pledges to stop using Brazilian leather or beef are encouraging, but the pledges do not go far enough – especially in polities like Hong Kong – and the consideration of sanctions should be intensified. Additionally, more focus should be turned to individuals. Not just the individuals in the developed world who consume these products and are under an undeniable moral obligation to cease doing so, but also the individuals who are responsible for the deforestation. Targeting economic elites – rather than general populations – can be an excellent strategy. After the Skripal affair in the United Kingdom, the Government targeted president Vladimir Putin's key supporters, Russia's oligarchs. Visa crackdowns were implemented and calls to freeze assets in London were made.⁴³ The same and more should be done to those individuals who lead deforestation, in particular individuals who have made a fortune on logging or palm oil plantations established in deforested areas. These individuals should be named and shamed, and their bank accounts should be targeted. If wealth is their goal, then they should be excluded from the legitimate global financial system. That may make them more amenable to calls to protect the Earth's rainforests.

But that may not be enough. Maybe the protests for more political participation and equality in cities such as Baghdad, Beirut, Hong Kong and Santiago will inspire similarly radical action by young planetary citizens seeking to protect the Earth's forests and ensure a better future for us all. Maybe their anger will target consulates and embassies of Brazil, Indonesia and Malaysia, scaring their Governments to finally take long-awaited steps to protect our forests.

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TOAEP-PURL: <http://www.toaep.org/pbs-pdf/99-deforestation/>.

LTD-PURL: <https://legal-tools.org/doc/m8g16i>.

³⁹ See above notes 34-36.

⁴⁰ Anna Lappé, "Follow the Money to the Amazon", *The Atlantic*, 4 September 2019.

⁴¹ Welch, 27 August 2019, above note 9.

⁴² Permanent Court of International Justice, *Chorzów Factory Case (Germany v. Poland)*, 1927, PCIJ Ser A No. 9 (<https://legal-tools.org/doc/54d3bc>).

⁴³ Jamie Doward, "Wealthy Russians in Britain face new visa crackdown after Salisbury", *The Guardian*, 9 September 2019.