



The Amazon, the largest, most biodiverse tract of tropical rainforest in the world, an irreplaceable ecosystem, is being burned, writes Joe Fallon. Set afire intentionally for profits by logging, mining, and agribusiness interests (cattle ranches, soy and palm oil plantations), and by Brazilian colonists who invade indigenous lands to engage in "slash and burn" farming. "The non-indigenous population of the Amazon is exploding. From the 1960's until the late 1990's, this number grew from 2 million to around 20 million." The corporations and the colonists achieve short-term gains that produce long-term losses. The result "...is chaos. Chaos, chaos, chaos," lamented one senior official from Brazil's environmental agency, Ibama" who spoke on the condition of anonymity.

Over the past 50 years, nearly 17% of the Amazon rainforest has been burned and cleared out of existence. Prior to 2019, the annual extent of this deforestation was equal to the size of the US State of Delaware. But that destruction accelerated in 2019.

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As The Guardian reported September 9, 2019, "There have been unprecedented numbers of fires ravaging through Brazil since the start of 2019, more than 74,000 so far, and a noticeable

intensification in August. That is approximately an 80% increase as compared to the same period of 2018 and, sadly, most of those fires have been taking place in the Amazon Rainforest." As a result, deforestation of the Amazon has "spiked by 54%".

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According to Amazon Watch in *Complicity in Destruction II*, the razing of the Amazon has been facilitated by the new administration of President Bolsonaro, whose policies for the "development" of the rainforest include a "roll back of human rights and ecological protections". These have included:

- Dismantling of Environmental Institutions
- Dispensing with Environmental Licensing
- Institutional Attacks on Indigenous Land Rights
- Enabling invasions of Indigenous Territories
- Supporting agribusiness and mining on indigenous territories

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It is not just the continued viability of the rainforest that is threatened by deforestation, it is the continuation of the indigenous population's way of life as well. As The Amazonian Geo-referenced Socio-Environmental Information Network (RAISG), reported between 2009 and 2015, "...10.3 million hectares (39,768 square miles) of Amazon forest was cut down within indigenous areas and protected areas, accounting for 12 percent of the total deforestation in all of Amazonia over that period."

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And direct responsibility for this destruction of indigenous lands is not limited to colonists and corporations. Great damage has been done by the development projects of the Brazilian government. RAISG reported in 2019 "Already completed and proposed infrastructure projects, along with infrastructure investment plans, either directly threaten or put pressure on 68 percent of the indigenous lands and protected natural areas in the Amazon region...of the 6,345 indigenous territories located within the nine Amazonian countries surveyed, that 2,042 (32 percent) are threatened or pressured by two types of infrastructure activities, while 2,584 (41

percent) are threatened or pressured by at least one. Only 8 percent of the total are not threatened or pressured at all."

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Covering an area of 5,500,000 km² (2,100,000 sq. mi), the Amazon accounts for over half of the planet's remaining rainforests. Known as the "lungs of the world", the Amazon spans nine South American countries. Two-thirds lies in Brazil; the rest in Peru, Columbia, Venezuela, Bolivia, Ecuador, Guyana, Suriname, and French Guiana.

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The biodiversity of the Amazon is staggering as The World Wild Life Fund highlights on its website. The rainforest contains:

- One in ten known species on Earth
- 1.4 billion acres of dense forests, half of the planet's remaining tropical forests
- 16,000 tree species
- 40,000 plant species
- 4,100 miles of winding rivers
- 2.6 million square miles in the Amazon basin, about 40 percent of South America.
- It is one of Earth's last refuges for jaguars, harpy eagles and pink dolphins
- It is home to thousands of birds and butterflies
- It is home to southern two-toed sloths, pygmy marmosets, saddleback and emperor tamarins, and Goeldi's monkeys.
- It is home to 3,000 freshwater fish species
- It is home to more than 370 types of reptiles
- It is home to more than 30 million people, including 350 indigenous and ethnic groups
- The rain forests, which contain 90-140 billion metric tons of carbon, help stabilize local and global climate.

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A tropical rainforest's ecosystem is fragile. Once razed, it is problematic that the rainforest will be able to regenerate. It becomes virtually impossible when the land has undergone logging

exploitation. The tree roots of the rainforest hold the soil together and retain water in a unique ecosystem "balance[ing] water availability by absorbing it when it's plentiful and releasing it when it's scarce." Roots of crops cannot replicate this process. The result is soil erosion, which cannot be reversed, leaving the land unusable for almost anything.

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Dams created by flooding rainforests, while disrupting river connectivity, obstructing the range of aquatic species and interfering with subsistence and commercial fisheries, often have a short life expectancy as water is rendered acidic.

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Farming and cattle ranching rarely can be sustained in one place for more than two years. So the colonists move on, "slashing and burning" more of the rainforest to create new - destined to fail - farms and ranches. One definition of insanity is doing the same thing over and over again thinking you will get a different result.

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The burning of the Amazon is not limited to Brazil. As the September 8, 2019 article by The Center on World Indigenous Studies, *Burning for Profit in Brazil*, reported "...it turns out thousands more fires are burning in Bolivia, Colombia, Ecuador, Paraguay, Peru, and Venezuela."

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And the burning of rainforests is not limited to the Amazon. According to a study by the University of Maryland and the World Resource Institute, "The country with the most deforestation is Indonesia. Since the last century, Indonesia has lost at least 39 million acres

(15.79 million hectares) of forest land."

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The problem is global, although the causes are the same as those destroying the Amazon - "logging, agriculture, cattle ranching, mining, oil extraction and dam-building."

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In the past 100 years, half of the world's rainforests have been destroyed. Within the last 40 years, nearly 1 billion hectares of rainforests, equivalent to the size of Europe, were razed. Each year, 18 million hectares of rainforests, an area the size of England and Wales, are being extinguished.

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The long-term loss is greater than the immediate devastation of the rainforests themselves. Rainforests, while accounting for only 6% of the surface area of the earth, produce 40% of the world's oxygen; supply 25% of Western pharmaceuticals ingredients, furnish 80% of developing world's diet, and are home to 50% of the world's animals, 66% of world's plants, and 250 million indigenous people.

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What can be done to save the world's rainforests? Is international military action and/or international sanctions against governments permitting the destruction of rainforests within their borders a viable option?

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In his August 5, 2019 article in Foreign Policy, "Who Will Save the Amazon (and How)? It's only a matter of time until major powers try to stop climate change by any means necessary", Stephen M. Walt wrote.

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As the researchers Bruce Gilley and David Kinsella wrote a few years ago, "it is at least legally feasible that the Security Council could invoke its authority under Article 42, and use military force against states it deemed threats to international peace and security by virtue of their unwillingness or inability to curb destructive activities emanating from their territories....

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But here's a cruel paradox: The countries that are most responsible for climate change are also the least susceptible to coercion, while most of the states that might conceivably be pressured into taking action aren't significant sources of the underlying problem. The top five greenhouse gas emitters are China, the United States, India, Russia, and Japan. Four of them are nuclear weapons states, and Japan is a formidable military power in its own right. Threatening any of them with sanctions isn't likely to work, and threatening serious military action against them is completely unrealistic. Moreover, getting the Security Council to authorize the use of force against much weaker states is unlikely, because the permanent members wouldn't want to establish this precedent and would almost certainly veto the proposal.

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This is what makes the Brazilian case more interesting. Brazil happens to be in possession of a critical global resource—for purely historical reasons—and its destruction would harm many states if not the entire planet. Unlike Belize or Burundi, what Brazil does could have a big impact. But Brazil isn't a true great power, and threatening it with either economic sanctions or even the use of force if it refused to protect the rainforest might be feasible.

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Brazil can be expected to counter criticism not just by citing international law's respect for state sovereignty, but by challenging the reality of global warming and climate change raised in Mr. Walt's article. They will cite experts and statistics to support their contention. The issue of the rainforests will be muddied. Destruction will be defended as development. Saving the rainforest a pretext for the "West" to control Brazil's economic resources.

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But what if we rephrase the wording of the problem? Destruction of the world's rainforests is, first and foremost, a violation of United Nations Declaration on the Rights of Indigenous Peoples, which was adopted by the UN General Assembly on September 13, 2007.

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The Declaration is not international law. But it can be persuasively argued it is international customary law. As defined by Legal Information Institute of Cornell Law School, "Customary international law refers to international obligations arising from established international practices, as opposed to obligations arising from formal written conventions and treaties."

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The destruction of rainforests, therefore, violates international customary law by violating Articles 26, 29, and 32 of United Nations Declaration on the Rights of Indigenous Peoples.

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Article 26

1. Indigenous peoples have the right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired.
2. Indigenous peoples have the right to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired.
3. States shall give legal recognition and protection to these lands, territories and resources. Such recognition shall be conducted with due respect to the customs, traditions and land tenure systems of the indigenous peoples concerned.

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Article 29

1. Indigenous peoples have the right to the conservation and protection of the environment and the productive capacity of their lands or territories and resources. States shall establish and implement assistance programmes for indigenous peoples for such conservation and protection, without discrimination.
2. States shall take effective measures to ensure that no storage or disposal of hazardous materials shall take place in the lands or territories of indigenous peoples without their free, prior and informed consent.

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Article 32

1. Indigenous peoples have the right to determine and develop priorities and strategies for the development or use of their lands or territories and other resources.
2. States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.
3. States shall provide effective mechanisms for just and fair redress for any such activities, and appropriate measures shall be taken to mitigate adverse environmental, economic, social, cultural or spiritual impact.

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The destruction of the rainforests is also destroying the physical existence of indigenous peoples. "As the fires rage on, the Amazon's indigenous groups confront consequences ranging from malaria to mental health issues... Large-scale fires can also cause local rivers to be filled with toxins, poisoning fish and contaminating the water that people use for bathing and drinking, according to Christian Poirier, a program director for Amazon Watch.

"You're essentially poisoning yourself and your family, and you're not able to bathe in this water," he said. And in addition, said Marcia Castro, a professor who studies global health and tropical disease at Harvard University, the deforestation caused by burning creates an ideal set of conditions for mosquito breeding. "Deforestation is directly connected to malaria," she said. The problem is so common that scientists have a term for the cycle of deforestation and outbreak: frontier malaria.

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This violates international law by violating Article II of the Convention on the Prevention and Punishment of the Crime of Genocide.

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Article II In the present Convention, genocide means any of the following acts committed with intent to destroy, in whole or in part, a national, ethnical, racial or religious group, as such:
(b) Causing serious bodily or mental harm to members of the group;
(c) Deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part;

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In Why indigenous people are key to protecting our forests, the World Economic Forum reported "...what all indigenous people have in common is a deep connection to the natural environments in which they live...Preserving the balance of the ecosystem has always been the

indigenous way of life."

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The most effective way to save the rainforests, therefore is to first save the indigenous populations.

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