The Amazon: A territory in the crossfire

Fires in the Amazon are occurring more frequently and with greater intensity. But who is really burning the forests?

The Amazon —which encompasses part of what is now Brazil, Peru, Colombia, Bolivia, Venezuela, Ecuador, Guyana, French Guiana and Suriname—is a living territory in continuous transformation, which coexists with hundreds of peoples and communities who depend on the forests.

Despite the fact that forests under indigenous territory are the best cared-for, the practices and knowledge that safeguard them continue to be marginalized and even criminalized. Fire is a key element.

Who is really burning forests in the Amazon?

Most scientists assumed that large-scale seasonal fires were unlikely in highly humid areas like the Amazon; however, events in recent years have disproven this assumption. Brazil's National Institute for Space Research (INPE by its Portuguese acronym) recorded **over 200,000 forest fires in the Brazilian Amazon in 2017 alone**. (1)

According to one of its researchers, the main reason fires spread so quickly is not the often-blamed "indigenous burning," or the droughts—which indeed are occurring more frequently and for longer periods—but **the so-called "selective logging" or "reduced-impact logging."**

This kind of logging became popular worldwide in the 1990s, as it promised timber extraction without causing the devastating effects of clear-cutting. Under this practice, also called "sustainable forest management," loggers extract only timber considered to be commercially valuable. However, recent studies show that even very low rates of extraction can lead to a loss in biodiversity, since it ends up degrading and fragmenting the forest—due not only to the logging itself but also to the creation of new roads. (2) Selective logging also affects the remaining vegetation as well as the soil, hydrological and erosion processes. (3) It also leaves sticks and other debris in its path which, when dry, become

flammable. **Because this logging fragments the forest, fires spread more and more rapidly in seasons of drought.** Climate change only exacerbates this process.

Additionally, after comparing 12 years of satellite data from five Amazonian countries (Venezuela, Colombia, Ecuador, Peru and Brazil), Dolors Armenteras, a fire and deforestation specialist in Colombia, concluded that **large-scale fires are associated with communication lines in the Amazon.** For example, in Ecuador, **hydrocarbon exploitation and the construction of roads associated with it are strongly linked to fires** and deforestation in the Amazon. (4) Researcher Carlos Porto-Goncalves, in analysing a map of the Amazon that shows roads being constructed, reflects: "traditionally continuous forest area begins to be divided into blocks of forest separated by roads. Until about 20 years ago, the roads were on the edge of the region, but now they are not only advancing upon the Amazon rainforest, they are beginning to fragment it, which causes far-reaching metabolic impacts. **Between these large roads that are fragmenting the region, —or rather, because of them—a myriad of local roads appear; these roads are contributing to a seemingly out-of-control deforestation process,** whose effects are clearly devastating at many levels: locally, regionally, nationally and globally." (5)

Selective logging and roads, however, warn us of a bigger problem.

In the colonization process of the Amazon region, a "developmentalist" intervention emerged. **This is an imposed "development" model that seeks to identify, quantify, exploit and monopolize as many "natural resources" as possible, in order to feed a capitalist market** that is ever intensifying and accelerating. The major destruction and dispossession that this intervention continues to cause in the lives of affected people and areas that are captured and contaminated is part of its inherent injustice and environmental racism. (6) This "development" **underlies the many activities that are often identified as "drivers of deforestation."** These include the timber, agriculture, livestock and pulp industries, as well as the extraction, transport and processing of fossil fuels and minerals and the proliferation of hydroelectric dams. (7) These industries in turn require roads, waterways, ports, workers' camps, etc.

It should be noted that, in many cases, **said "drivers of deforestation" burn huge areas of forest in order to make way for "development."** These fires, which are neither prohibited nor criminalized, are the cheapest and most commonly used mechanism by many of these industries.

It is also important to note that **forest fires are also a threat to indigenous territories of the Amazon**. For example, from October to December 2017, 24,000 hectares of indigenous Kayapó territory were burned in Brazil; meanwhile the indigenous Xikrin do Rio Cateté territory lost around 10,000 hectares. (8) Both territories had already suffered from the illegal logging of mahogany trees, and are still confronting the mining industry. In the case of the Xikrin territory, the logging entailed the construction of 130 kilometres of primary roads and 173 kilometres of secondary roads. (9)

Indigenous fire management

What is known as swidden, shifting or "slash and burn" agriculture, an age-old practice used by forest peoples, is almost always blamed for causing fires and deforestation. However, it is known to preserve and improve soils, stimulate the growth of certain vegetation and contribute to the protection of specific habitats. Opening up clearings in the forest and burning the remaining branches and leaves produces nutrients that enrich the soil, and also prevents larger fires in times of drought. The practice of using spaced-out plots in specific places, scales and time cycles, with long periods of rest to allow for regeneration, demonstrates communities' important ancestral knowledge of how to respect their environment and coexist with it in a sensitive and respectful way.

Fire however plays a role that goes far beyond opening up areas for cultivation. Amazonian peoples know that dense forested areas are not very rich in fauna, and that plots left to rest become a great attraction for game animals. These scattered plots also limit the spread of pests, fungi and insects, and they encourage the growth of certain vegetation. Peoples also use fire to encourage the growth of fruit trees, create sacred spaces, control certain grasslands and fodder for domestic animals, open paths, maintain communal and living spaces, etc. **This wise use of fire has been a crucial element in the historical evolution of Amazonian diversity.**

Nonetheless, for many communities, it is no longer possible to cultivate in their places of origin—either because their lands and/or living spaces were co-opted, contaminated or expropriated under unjust policies, or because they had to escape situations of violence and criminalization. This has forced them to "adapt" cycles of shifting agriculture, rotation schedules, cultivation areas and grazing areas to much shorter time periods and more reduced spaces.

Faced with this, and using a discourse of "stopping deforestation," **conservation policies brand these age-old agricultural practices unproductive. They take**

advantage of the climate crisis to impose programs that claim to make communities' agriculture more "efficient." These policies do not aim to stop logging, new roads or industries that foment the fragmentation of the rainforest. Even less, do they aim to stop the developmentalist intervention. With slogans of "climate-friendly" or "low carbon agriculture," **they seek to prohibit and criminalize the indigenous practice of using fire.** Many programs even seek to assimilate indigenous people as a cheap option in fire suppression projects.

In Roraima, Brazil, government agencies want to replace indigenous fire management practices with the use of tractors, under the slogan "technology is white, not indigenous." (10) In Canaima National Park in Venezuela, many indigenous Pemón youth have criticized the traditional use of fire, due in large part to public-private environmental education programs focused on fire control. This has caused a decline in Pemón communities' use of fire, and thus an accumulation of flammable biomass—since leaf litter is not being burned in the usual cycles. This in turn has led to an increase in large-scale forest fires during the dry season. (11)

In the few cases where the importance of local management is at least recognized, it ends up being undermined; as it is included in market or incentive mechanisms within climate change mitigation programs. In these cases, various local burning practices are included as possible activities that generate benefits on the carbon market. (12)

Failure to recognize the important role that fire plays in forests has crucial implications on the regeneration, conservation and maintenance of forests, as well as on the people who depend on them. In a respectful coexistence, fire always was and continues to be a part of life in the Amazon rainforests.

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