

Rachel Carson Center Perspectives

How to cite:

Leal, Claudia. "Rainforest Frontiers." In: "New Environmental Histories of Latin America and the Caribbean," edited by Claudia Leal, José Augusto Pádua, and John Soluri, *RCC Perspectives* 2013, no. 7, 51–57.

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Rachel Carson Center for Environment and Society
Leopoldstrasse 11a, 80802 Munich, GERMANY

ISSN 2190-8087

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Rainforest Frontiers¹

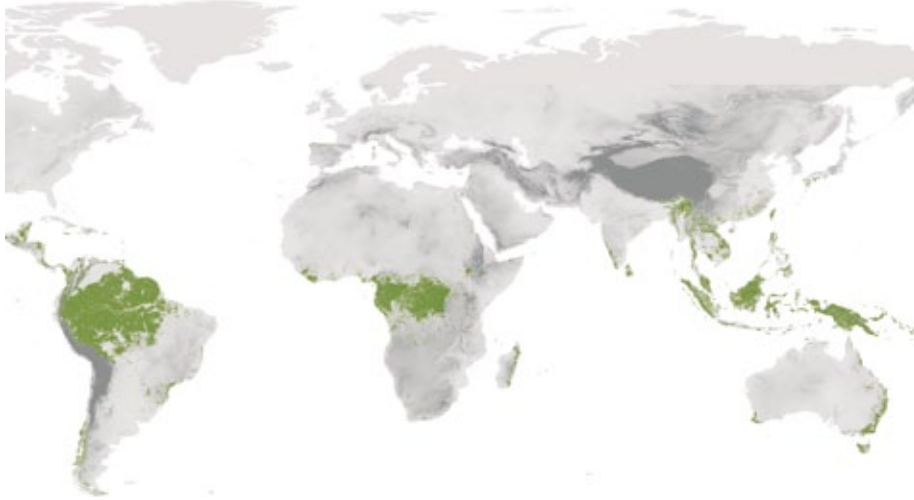


Figure 1: Tropical Rainforest Cover. Based on The Global Mapping Project (Land Cover Data). Cartography by Paola Luna.

Humid tropical forests cover two-fifths of Latin America and the Caribbean, representing almost half of the world's total of this biome (see Figure 1). Although significant tracts of these forests have disappeared, their history goes well beyond the much discussed deforestation that gathered such momentum starting in the 1960s and 70s. The extraction of timber and other resources, such as rubber, has altered the structure of some forests by depleting the species of precious woods and multiplying rubber trees (*Hevea spp.*). The search for valuable natural resources lured settlers into areas once populated only by ancestral indigenous groups, drawing these territories closer to the societies that laid claim to them. Since Independence, the formation of nation-states in Latin America has advanced, to a large degree, by incorporating territories that the Spanish and Portuguese empires did not control. The resulting spread of plantations and peasant plots, of railroads and trails, has dramatically altered local landscapes. Tropical rainforests are the last frontier in this long process of expansion, the only place where so-called “uncontacted” groups of people still exist. But despite efforts to nationalize these vast forested domains, as shown by the proliferation of towns and local governments, their incorporation remains elusive. Partly because of their exuberant vegetation and the existence of exotic

1 English translation by Shawn Van Ausdal.

indigenous groups, they endure as regions considered distant and alien. These humid forests appear to be perpetual frontiers, territories defined by their marginality.

Among these rainforest frontiers, the Amazon stands out as the world's largest. Nine countries share this vast territory, 60 percent of which is located in Brazil. There is a second bloc of tropical rainforests, much more fragmented, that starts from the Pacific coast of northern South America, crosses Central America, and reaches into southern Mexico. The largest tracts of this forest are found in the Yucatan peninsula and in the so-called Biogeographic Chocó (that is, the Pacific coast of Colombia and parts of Panama and Ecuador). Latin America's third bloc of humid forest is the *mata atlántica* (Atlantic Forest). Originally extending along the Brazilian coast from the northeast to Uruguay, only 8.5 percent of the forest remains today. Its southern tract, where araucaria trees dominate, is considered semitropical since it tolerates cooler temperatures as well as lower levels of precipitation.

Today about 85 percent of the forests in the region are tropical rainforests. The remaining 15 percent are either found in the Andes at an altitude of over 1,000 meters, in temperate areas (in Chile, Argentina, and Mexico), or are dry tropical forests. The latter are the rarest and include, among others, the remnants of the Brazilian *Caatinga*, characterized by short, deciduous trees and spiny shrubs. By contrast, tall evergreen trees predominate in rainforests. This biome is found in the lowland tropics where annual rainfall is high (between 2,000 and 3,000 mm) and the dry season is short (between one and four months). In the Upper Chocó, though, it rains more than 10,000 mm per annum, making it one of the rainiest places in the world. Such variations in rainfall, as well as soil types and dominant tree species, characterize the differences that exist between one rainforest and another.

Rainforest regions have a long history, starting well before 1800. Occupied by humans for millennia, they experienced important changes as a consequence of European colonialism. The demographic collapse of Amerindian populations caused profound social ruptures and contributed to changes in vegetation. In some parts, such as the lower Amazon River Basin, a few relatively marginal plantation economies developed and the extraction of natural resources for external markets got underway. These forest products, known as *drogas do sertão*, varied enormously: sarsaparilla, vanilla, cinnamon, manatee meat and oil, turtle shells, and feathers were among the most

important. While this trade did not cause significant deforestation, it did have other environmental consequences, such as the sharp decline in turtle and manatee populations. In a similar fashion, economies based on natural resource extraction developed in other rainforest regions. For example, in 1750, the Caribbean coast of what is today Nicaragua also exported sarsaparilla and turtle shells in addition to mahogany. To the south, the alluvial mines of Colombia's Pacific region became the principal source of New Granada's gold exports during the eighteenth century, well anticipating the recent wave of mining prospecting and exploitation.

The extractive economy, which began timidly during the colonial period, burgeoned during the second half of the nineteenth century and the first half of the twentieth century. The industrial revolution generated demand for raw materials, some of which could be derived from rainforest plants. The rubber boom, which took place primarily in the Amazon but also extended through the forests of Central America, is the quintessential example. There were other important booms, though they tended to affect very specific regions, such as that created by the demand for tagua, or vegetable ivory—the seed of various palm trees that grow in the forests of the Pacific coast between Panama and Ecuador—which was used to make buttons before the invention of plastic. In the case of the Petén Basin of Guatemala, the tapping of chicle, once the principal ingredient in chewing gum, also illustrates how natural resource extraction restructured regions during the boom period and, following the development of industrial substitutes, dramatically declined. In the forests of Central America's Caribbean coast, as exemplified by the case of Belize, logging precious woods and dyewoods was of great importance. But even more significant during the first half of the twentieth century was the expansion of banana plantations in old-growth rainforests.

Many of these activities did not generate widespread deforestation. Rubber offers a case in point. Rubber tappers in the Amazon cleared trails through the forest to connect one or two hundred *Hevea* trees that produced white rubber, the finest on the market. Every day they collected the latex excreted from incisions made on the trunk the day before. These tappers improved their trails by caring for *Hevea* saplings they found and occasionally planting new ones. The case of black rubber, however, was quite different. This rubber was derived from the latex of the *Castilla* genus, which is found both in the Amazon and in the forests of the Pacific coast and Central America. But because this latex dries upon contact with the air, rubber gatherers cut down the

trees to “bleed” them all at once. In short order, therefore, the population of black rubber trees declined dramatically in various regions. Given the sustained rise in prices, peasants and entrepreneurs in Mexico, Central America, and Colombia planted trees that produced this type of rubber. Although the price crash in 1913, caused by the development of rubber plantations in Asia, ended such initiatives, many of their trees survived.

The incorporation of all these regions into the global economy through the extraction of natural resources also had social and political consequences. The arrival of frontier settlers in areas previously inhabited only by indigenous groups altered the latter’s subsistence practices and initiated a new wave of mortal epidemics. In the wake of these *colonos* came the establishment of state institutions, such as municipal authorities, and national ones, and the diffusion of the Spanish and Portuguese languages. The conquest of these spaces generated disputes between countries as they sought to define the location of international borders. These years also saw the growth of cities in the middle of the jungle. While Manaus is the best-known case, there were various others, such as Iquitos, in the Peruvian Amazon, and Tumaco, a maritime port in Colombia. Another intriguing aspect of rainforest settlement during this period, especially in the Pacific region of Colombia and Ecuador and the lower Amazon River Basin, was the creation of “territories of freedom,” in which ex-slaves and their descendants, as well as maroons, remade their lives.

The “discovery” of these frontier regions by coastal and Andean societies strengthened the imaginaries that permitted their symbolic appropriation. The forests, with their exuberant vegetation, have been considered to epitomize the natural realm. Ideas of tropical nature also frequently crystallize around their image. Perceived as awe-inspiring, rainforests were either a source of infinite riches or a land of ruin. Nineteenth-century naturalists, inspired by romanticism and science, saw these spaces as sublime and endowed with uncountable plant and animal species. The extensive trade in some of their resources encouraged this idea of abundance. But such views did not diminish the parallel perception of the jungle as a place where barbarism reigned. In the latter, nature’s overwhelming presence trumped the power of human rationality to impose order and spur on progress. Rainforests have been seen as places of backwardness, disease, violence, and death. Arturo Cova, the protagonist of *The Vortex* (1924), captures this impression—and foretells his own fate traveling into the Amazon during the

rubber boom—in the novel’s opening line: “I gambled my heart with Destiny and it was won by Violence.”

Starting roughly from the mid-twentieth century, the colonization of tropical forests has been associated with large-scale deforestation. For economic, social, and political reasons, rainforest frontiers acquired a novel importance at this time. After the 1964 coup, the Brazilian military made the Amazon Basin strategic to their plans for national development, inaugurating an era of road building and granting subsidies to stimulate settlement. The 1960s and 70s were also the period in which the Alliance for Progress encouraged land reform initiatives in much of the region. Many governments saw these vast territories as a safety valve that could help resolve the acute problem of land concentration without needing to significantly alter the existing agrarian structure. For example, between 1963 and 1980, the Colombian state encouraged peasants



Figure 2:
José María
Polanco and his
daughters,
El Tapir,
La Macarena
(Colombia), 1993.
Photo: Claudia
Leal

to migrate into the jungle as part of the *Caquetá 1* and *Caquetá 2* projects, which had an impact on three million hectares of forest. On these frontiers, nominally the property of the state, many other peasants also found spaces where they could establish themselves on an independent basis. In addition, mining entrepreneurs and cattle

ranchers took advantage of state subsidies and new infrastructure, frequently buying out the “improvements” or farms that the previous wave of colonos had established. In most cases, these diverse processes have ended in the establishment of pastures for extensive ranching. In the case of the Amazon, this deforestation has been concentrated along the outer rim of the basin: on its southeastern front, in Brazil, and on its western flank, bordering the mountains, in the Andean countries.

The ideology of civilization’s triumph over an intractable nature and wild population has been instrumental in the conquest of rainforest frontiers. But dreams of development have only been partially fulfilled in these regions, which are still largely considered frontier territories, or spaces only partially integrated into the nation-state. In Colombia, the presence of guerillas and cocaine cultivation demonstrate the marginal character of its jungles. By contrast, the dramatic deforestation of the Atlantic Forest between 1850 and 1950, which helped in the radical transformation of this tract of coastal territory into the economic heart of Brazil, is an exception to this general tendency.

Environmental and indigenous movements have pushed people to imagine these spaces in new ways. Faced with alarming rates of rainforest destruction, notions of biological diversity, which modifies the old idea of infinite riches, and the inherently wise environmental stewardship of indigenous groups, have gained in strength. In response, protected areas and ethnic territories have altered the map of tropical forests. Since the 1980s, national parks have sprouted up throughout the Amazon Basin. Given the sheer size of the forest, plus the conservation scientists’ insistence on protecting large areas to maintain biodiversity, the total extension of these new parks has far surpassed that of previous national parks. The 1980s were also marked by the multiplication of indigenous reserves, as well as the creation of communal lands for black communities, such as those of Colombia’s Pacific region and the *quilombolas* in Brazil, whose largest territories are found in the Amazonian states of Pará and Maranhão. Since the practices of these ethnic groups are assumed to be environmentally sustainable, the formal recognition of their territorial rights can also be seen as part of a larger conservation strategy. Brazil has also instituted a new form of land tenure, the extractive reserve, associated with peasant communities who depend on the extraction of forest products. All told, these efforts have diminished the rate of deforestation in recent years, at least in the greater Amazon basin, though they have neither stopped the transformation of the forests nor halted the problematic effects of such processes on their original inhabitants.

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