12

Conclusions

Being in proximity to the destruction of old-growth forests has been a heavy experience for me over the past few years. Whether I am in the Amazon or in Finland, there are threats to the forests coming from many different angles, yet life continues. On a beach in the Amazon, I see fire and breathe smoke, yet the other people on the beach swirl around me swimming as if the forest were not on fire on the other side of the shore (see Figure 12.1). When I am in the countryside in Finland, I see so many people silently absorb sadness, anger, loss, and futility as they see another remnant of the shattered and fragmented forest being clearcut, trucked away log by log. The pace is astounding as the world walks toward the flames, drought, floods, storms, and unforeseen havoc that most people do not even want to hear about.

To connect with nature in the midst of all of this, I have often gone to forests for walks, but nowadays this gets harder and harder to do. I hope someday in the future I can return and see the forests, which at the moment are clearcut, thriving without the fear of also losing them. I know I am not alone in these feelings, I see a new wave of people, around the world, who are gathering the strength to use their skills to improve the situation in myriad ways. Humans can find ways forwards from here. By working together to protect the other beings in the web of life, one can make the world even a tiny bit more habitable for the humans and other-than-humans here now and for generations to come.

Political Economies of Deforestation in Contemporary Brazil, Peru, and Finland

There are several different lessons that can be learned through the study of Brazil, Peru, and Finland, to be able to make remarks on what causes deforestation.

Brazilian Amazon

In Brazil, the study of deforestation dynamics has helped me to develop a deeper understanding about the relationship between a very strong cattle capitalism,

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Figure 12.1 Swimmers on the Green Lake of Alter do Chão in the Brazilian Amazon, disregarding the burning of the forest on the other side of the lake. November 2023. Photo by author.

perhaps Brazil's strongest variety of extractive capitalism, and rampant deforestation that does not eschew the use of uncontrollable fires as a tool of expansion. Cattle capitalism appears to be such a strong political economy that it is currently expanding even within the formal and in the past also de facto conservation areas, such as the CMER, an iconic multiple-use conservation area. In addition to spreading into conservations area, Indigenous lands and the INCRA settlement lands are under pressure by the power of this cattle capitalism, which pushes for rural-dwellers to adopt cattle ranching and make way for ranching at the cost of forest cover and other economic activities.

Prior studies on the relationship between cattle ranching and deforestation in the Amazon have argued that the global or regional demand for beef by consumers is the key cause of deforestation. However, Acre is mostly a case of a local consumption, which has legitimacy despite the continued environmental damages (Hoelle, 2017). This observation complements these kinds of analyses that emphasize the responsibility of the consumer and the magic of fetishized commoditization to hide the link between consumption and damages. My research differs because it looks in detail at the underlying cattle capitalism as a system with its local and broader-scale power. Markets are not created out of nothing, but the establishment of commodity networks requires many political economic maneuvers, which cannot be explained simply by the demand for beef.

In the case of the current deforestation in the Brazilian Amazon, the key impetus is the land speculation business, wherein it is expected that the much more

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profitable soybean/corn/cotton plantation sector will buy the land areas that are first cleared by ranching, even within conservation areas. This process can lead to doubling of land prices in as little as a year, as I documented in 2022 during my ranch visits in Acre and my interviews with large ranchers. These ranches were among the first to adopt putting soybean and corn plantations on old pasture sites and displacing herds to the neighboring conservation areas, where incomers from Rondônia state were illegally buying the *colocação* lots of ex-rubber tappers. The soybean consultants that I traveled with emphasized that the best, flattest, and most fertile lands for soybean planting lay in the RESEX, which they wanted to open to these activities both by de facto buying the lots illegally and by pushing for a change in the conservation status of those lands.

While most studies on deforestation typically focus on documenting the extent of the deforestation and studying the proximate causes, it is the ultimate causes that often remain understudied. In most cases these are the powerful political economic groups and interests behind the policies and actual practices. Due to these causes being understudied, I specifically investigated the different varieties of deforesting capitalisms (or political economies). To extrapolate the reasons for the relatively different impacts of cattle–land speculation capitalism within the same polity, I compared Acre with the state of Pará. During my field research I identified several important substate differences. The Tapajós-Arapiuns RESEX forms a nice point of comparison with the Chico Mendes RESEX in Acre, as they are both very large (750,000–1,000,000 hectares), but since 2005 they have been on quite different deforestation trajectories, with Acre showing far more dangerous tendencies of deforestation. Based on my ethnographic research, the reasons for such differences include:

(1) the proximity of major highways (in Acre);
(2) differences in tenure systems (family-based *colocações* in Acre, large commons in Pará);
(3) access to river-based livelihoods and proximity of major urban centers offering wages and services (in Santarém, not available to such extent in Acre);
(4) presence of a major ranching frontier and capitalist class (in Acre); and
(5) well-formed and continued resistance, contentious agency (in the Santarém region), but a splintered resistance and even acceptance of deforestation by ranching among former forest activists (in Acre).

Besides the Santarém region, many of Pará's other regions form globally significant arcs of deforestation, which help when trying to understand the role of violence in major contemporary deforestation moves. For example, this has been visible since 2019 through the fires set by land grabbers along the BR-163 highway in the Amazon to support the policies put in place by the Bolsonaro government.

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These fires were set to extend pastures and plantations. This phenomenon was driven by large landholders and speculators – many who were criminals – crossing the political-economic elites' lines, but also included many smaller players who enabled the expansions of illegalities. These driving, enabling (and possibly resisting) dynamics are important to understand different capitalist systems of extractivist expansions that deforest. For example, the internal logics of cattle capitalism, wherein Pereira et al. (2016) have assessed how smallholders in many parts of Pará show little interest in anything but cattle. The same sole interest in cattle is true elsewhere in Brazil, but not everywhere, as shown by the Tapajós-Arapiuns RESEX case. Yet, while they are seemingly only interested in cattle, this positions them within a set of exploitative terms of trade with large ranchers, which makes these smallholder operations a subtype of land rush (referred to as "contract farming" land grabs).

Peruvian Amazon and Inter-Amazonian Dynamics

Peru's Madre de Dios province in the Amazon clarifies how a rampant informal and illicit gold-mining boom and the construction of roads and other infrastructure that service this industry leads to increased deforestation, especially alongside rivers and the new roads. For example, the construction of the new Interoceanic Highway allowed much easier access to the places where mining is occurring. These changes expose the relation(s) between small- and medium-scale gold-mining operations, infrastructure projects (like continental highways), and deforestation. It should be noted that under this set of relations the landscape changes at a relatively smaller scale compared to how it changes under the influence of cattle capitalism in neighboring Brazil.

Peru is also an important example of how the overall extractivist push places communities – especially Indigenous communities – under enormous pressure and internal conflict. This often happens when a part of the community begins to mine (sometimes as a measure to prevent others or outsiders from mining within their territory), while others resist deforestation. There are complex ethno-territorial politics at play here, including identity, territorial rights, and absence of rule of law, affecting how politics play out in practice. Peru's mining, including Amazonian gold mining, is closely tied to the political elites in Lima and the regional capitals, who do not have an incentive to try to effectively govern the situation, as they benefit from and make up a part of the gold-mining RDPE. This sector is also linked to global machinery providers and especially and increasingly to international drug trade and money-laundering schemes, which means mafia-type organizations are penetrating the gold-mining business. It is a mutually beneficial relationship, as those in charge of mining gain a way to export illegal gold, while the drug

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traffickers get a way to launder their cash coming from abroad. These dynamics are not bound only to Peru, as the route of illegal gold and laundering can quickly change between Amazon regions and countries if a particular place is faced with international regulation. The problem here is not only the devastation of social, cultural, and labor rights due to the spread of all sorts of wanton illegalities in the gold-mining frontiers, including murders and violence and human rights abuses, but also a longer-term and far-spread health crisis caused by using mercury in gold-mining activities. In addition, the excavation of deep pits and the mining side-waste that is left along the rivers are huge problems that cause natural reforestation to cease. These activities leave the land unavailable for other uses, destroying the potable water sources and causing habitat losses for Indigenous populations and other-than-humans near and far. However, there has also been resistance to this expansion of gold mining across the Amazon, by both progressive state actors as well as by active Indigenous organizations, with notable results in barring the expansion of mining. While more could be done, significant regulatory improvements are already underway to improve the situation, for example, in Brazil there are many moves to undo the extreme havoc caused during the Bolsonaro era.

The investment in infrastructure has major impacts on the increase of deforestation, as prior studies have established; focusing, for example, on the key role of Chinese financing (Creutzfeldt, 2016) and particularly the financing of the Interoceanic Highway (Dammert, 2018). Major infrastructural projects of neoextractivist regimes like the Interoceanic Highway, which was built between 2006 and 2012, were key in enabling the expansion of Peru's gold-mining RDPE. The highway's planning and execution were central to the Brazilian Odebrecht company and Lula's South–South and Pan-Amazonian corruption-filled infrastructural projects that aimed to increase commodity exports to China. The role of extractivist infrastructures is therefore strongly correlated with increases in deforestation, but this mostly has to do with the existence of deforesting extractivist RDPEs that push for and abuse the road networks created.

In 2022, I interviewed Elsa Mendoza, a Peruvian consultant who had been part of the Interoceanic Highway project from its inception, doing participatory baseline and impact studies in 2001 and 2009 for the whole road, on both sides of the border (Mendoza, 2012). When she started this project, she said there was not as much deforestation as in 2017, or gold mining. However, in 2009–2010 they started to see the potential for deforestation, not from cattle, but from gold mining. While gold continues to be the main cause, the highway has also led to some ranching expansion coming from Brazil, pushed by certain interregion families, which also increased deforesting ranching in Peru, according to Malu from CPI in Acre (interview, 2022). Malu told me, "Today it [the roadsides] are equal with the side of Brazil and they are spreading the cattle-raising … they are bringing

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the worst in Brazil … this experience of cattle-raising to there as well." Mendoza explained that this was a similar situation as the case of Pando in Bolivia, which was also done primarily by Brazilians, who also brought the habit to Peru of opening huge areas by clearcutting ranching. However, she saw that the large conservation areas make ranching and plantation expansion hard in Madre de Dios and that there ranching cannot really compete with the powerful cattle sector in Acre, which exports to Peru and manages to produce and sell much cheaper beef. In this way, paradoxically, a strong extractivist RDPE on the other side of a polity line can support, by its relative competitiveness, in the presence of a competing RDPE on the other side (gold in Peru), the efforts stifling interregional and international expansion of a particular RDPE. This is an important point, since this situation created state–extractivist sector competitiveness in political economy, by subsidies and preferential territorial access. This also helps to explain the path dependencies and inter-RDPE dynamics, where, for example, the very efficient palm oil plantation sector in Indonesia does not jump to Mato Grosso to compete with the soybean sector for the land use.

In comparison to Acre and Madre de Dios, Mendoza saw that Evo Morales has opened Pando, on the Bolivian side, more to ranching than the Peruvian side, where mining is the "predominant activity" in Madre de Dios. She continued, "They are entering by all the rivers there … where they find traces of gold, they are entering, there is no way to slow down this, the landscape changes." In her words, the region's landscape has changed "totally." "When we passed there in 2001, by the Highway," there was "no mining along the highway that today is asphalted, but in 2015 when we returned it was already a 'boom,' it was fast, the highway was asphalted and it did not take even 2 or 3 years" for "them to come and start to open, and they come heavily, with heavy machinery, it is not that artisanal activity they call it." The arrival of roads is the key factor to explain how the dominant extractivist sector has enabled a further expansion to forests. This is something that the neodevelopmentalist regimes do not seem to understand, as they think the issue could be controlled by good governance and the creation of set-aside zones. First, the economies of deforestation need to be curbed and divested of their current social, symbolic, and physical control of space. Only then can nondeforesting sectors' valuations and networks retake these spaces.

Finland

Lastly, the Nordic setting of Finland, in comparison to the Peruvian and Brazilian versions of deforestation, offered nuances on how deforestation takes place in a supposedly modern forestry extractivist sector, which replaces seminatural forests with single-species (mostly spruce) tree plantations at an astonishingly rapid

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pace given the context. While in the case of Peru and Brazil deforestation occurs mostly due to the activities of nonforest industry users of forestland, in the case of Finland, the highly industrialized and modern forest industry, with major ongoing pulp and bioenergy investments, is a main driver and pusher of deforestation, utilizing forestry practices that seriously change the landscape and ecosystem of the forest. The bioeconomy hype and policies, with many new investments that need increased wood inputs, are pushing to increase deforestation (Kröger & Raitio, 2017). Finland is a key global case to understand what could happen in other areas around the globe that might adopt the model of building new pulp and bioenergy facilities that source their inputs from trees (Kröger, 2016).

Finland was used as a case study of how industrial forestry has become a nationally dominant political economy because it has the most power in defining forest land usage and steers the land usage to its own interests. I argue that this situation is possible due to a specific kind of forestry extractivism perpetrated by the paper and pulp industry, whose demand and sourcing of pulpwood (fiber wood) determines the bulk of Finnish land use. Due to the prevalence and power of this industry, old-growth forests are very rare in Finland, especially in the southern part of the country. Additionally, while forestry is a longstanding industry, since the mid 1990s there has been a marked increase in harvesting rates. The so-called bioeconomy boom has ushered in a new wave of government-sanctioned increases in logging and a boom in mega pulp mills. Simultaneously, these mills are marketed as biorefineries or bioproduct mills, while in practice most of the products are not replacements for plastic or other fossil-fuel products but are bulk products in the form of pulp. Most of this pulp is then exported, increasingly to China, which is currently in the process of replacing Finland as the development hub of the global industrial forestry and paper industry, as it leads in general processing and innovation in the global political economy of trees.

The widespread use of clearcutting is a perceptible sign of the supremacy of the pulp and paper industry and the role of wood-fiber-based capitalism in the Finnish economy, politics, and the key forest owners' moral economy. These political economic interests are seldom raised in public discussions on clearcutting, which is often framed as the only wise, possible, and profitable way to manage a forest. This messaging can be found in popular television programs, newspapers, and political debates. This is a sign of a deeply transformed moral economy that supports the interests of the pulp industry by creating "truths" about forestry that directly benefit the interests of the forestry sector. These interests are hidden under the moral economic guise of what is best for forest stewardship. These industry views have been incorporated by thousands of forest owners who mostly assume that the interests of the pulp and paper industry are also their interests. This false alignment of interests has developed after decades of propaganda by the state and the whole

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pulping RDPE apparatus. Outside of the city, few even dare to openly criticize this pulping and clearcutting hegemony.

The 1980s and 1990s saw activism grow, including blocking logging sites. This resulted in some large conservation areas in Northern Finland (Kauppinen, 2021), but there was a gap in direct action until the 2020s, when the effect of post-2015 bioeconomy boom started to show. A new forest movement Metsäliike, linked to XR, began to vehemently question and actively resist by protesting these assumptions. Longer-term forest activists, such as Yrjö Haverinen, linked for about 15 years to SLL, which uses more conventional resistance tactics, saw the actions of XR and other new similar movements with their radical acts "as good awakeners. So that people are woken to see that forest has also other than wood growth value.… Awakenings are really needed to maintain and protect the biodiversity." In terms of forest activism, in comparison to some other places like the Amazon, Finland is not currently a forerunner but a place where people are slowly waking up, or more precisely, where some courageous youth are calling for the bulk of population to wake up, to speak up, and to stand up for the remaining forests, propositions that were previously considered not possible under the pressure of the pulping RDPE hegemony.

The doxa of the pulp dominance in Finland has been questioned in recent years, but not unilaterally across the country. This building of heterodox voices has been focused especially on the capital region and some other bigger cities such as Tampere and Turku. However, despite this movement, many regions have remained mostly under doxa, especially the pulp and paper production bulwarks such as South Karelia and much of the countryside.

Global Extractivist Sectors

These studies also offered crucial insights on the characteristics of global, financialized extractivist sectors – ranching, mining, forestry – and how they are related to specific contextual deforestations. This is crucial for understanding the dynamics between driving and enabling factors, which can aid in identifying these dynamics in other contexts. This allows one to see how ranching–land speculation, illegal and dispersed gold mining, and tree-based bioeconomy as extractive systems – each with their own logics and economies – can influence deforestation and the political dynamics through which this deforestation happens.

My political ethnographic studies also highlighted regional variations, such as the case of Acre, Brazil, where a supposedly benign and even green PT government not only witnessed but promulgated an increase in deforestation even inside conservation areas, based on the principles of neodevelopmentalism. Nationally, the PT government overruled court orders to discontinue building the destructive

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Belo Monte Dam, which resulted in opening large parts of the Amazon to further deforestation, downgrading the effectiveness of state's regulatory and inspection functions. The dam was built largely due to corrupt relationships between construction companies and the government, without real benefits for electricity generation or development. Research has shown that environmental monitoring and law enforcement, which reduce deforestation, are not inimical to local economic development, but stricter monitoring improves economic performance and conditions (Merkus, 2024). Yet, the PT allocated even more public money on expanding deforesting extractivisms in different parts of Brazil, which bolstered the power of extractivist sectors and corporations. These decisions paved the way for the rise of Bolsonaro and his allies. In Acre, a literal cutting away of the forests that had sustained socioenvironmentalist movements before their forest-based existence began to be eroded by the neodevelopmentalist agendas of so-called progressive governments, happened. This yielded an understanding that extractive capitalisms are systems, with their accompanying impacts and territorial reaches.

In all the studied cases there were expressions of extractivist capitalist expansions of different types and degrees, and resistance and other types of responses among the local populations, including internal divisions, conflicts, and enabling participation in the extractivist pressures. Yet I have only included some examples from my rich ethnographic material, which is comprised of hundreds of pages of transcribed interviews. In each case, the lesson learned at the regional and sectorial levels were reflected in the global and international systems; thus, uniting the analyses.

These findings underline the hypothesis that the Peruvian Amazon has an illegal gold-mining RDPE, while in Brazil there are several different deforesting RDPEs, including gold mining, ranching-grabbing, and soybean/corn monocultures in the Amazon. In other parts of Brazil, deforestation is driven by other sectors, which are also RDPEs in their respective regions. A clear example is the eucalyptus monoculture plantations for pulp production that are owned and operated by a few corporations in the Três Lagoas region of Mato Grosso do Sul state, making this Cerrado biome region the largest pulp-producing region. In the Atlantic Rainforest biome, which is in the extreme southern part of the state of Bahia and in the Espírito Santo state, there are also pulping RDPEs that cause deforestation. This said, not all of Brazil – or the other countries discussed herein – are completely covered by deforesting or other kinds of RDPEs.

Changes may be forthcoming as localities start to face the new realities of excessive deforestation. This is especially apparent in those nations whose existence, stability, and strength rely on continued raw material production, such as Brazil with its agroextractivist enclaves for plantations reliant on rainfall and stable climatic conditions. While most of these changes may come too late, due to the

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dynamics of tipping points, forests may start to become more important. Such a change in the role given to forests would entail altering a very old and established set of dynamics through which forests are treated as nonissues within the current international political economy. The interstate system, with its competition for power and the resulting wars, has been the ultimate driver that explains why forests have been so wantonly destroyed for thousands of years and especially during the past 550 years. This type of analysis challenges prior notions on nation-state centrality, offering regionally dominant and globally tied extractivist sectors as the key units of explanation.

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