ELEVEN

Sustainable Development Reconsidered

The Left Turn's Legacies in the Amazon

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As leftist leadership gained political power in the early 2000s in Latin America, environmental protection—and nature itself—became a more prominent regional political issue than ever before. The Ecuadorean and Bolivian constitutions embraced the rights to nature, and atop Machu Picchu, Peru's newly inaugurated President Alejandro Toledo symbolically gave an offering to Pachamama, the Andean divinity of Mother Earth. El Salvador issued a ban on gold mining, confronting the mining giant Pacific Rim corporation's interests. In Brazil, the environmentalist turn involved a measured but positive prognosis, with President Luiz Inácio Lula da Silva of the Partido dos Trabalhadores (Workers' Party, PT) appointing a former rubber tapper, Marina Silva, minister of the environment. These moves all suggested to observers that conservation, Indigenous rights, and forest people's concerns would be championed as priorities.

At the same time, however, the new developmentalist economic orientation embraced by these same governments led to positioning environmental needs as subservient to national and international imperatives for industry-led economic growth and commodity production based largely on resource extraction (Haarstad 2011). Under the left's leadership in many parts of Latin America, this revived developmentalist approach reinvigorated an emphasis on energy and infrastructure while still actively engaging in the global economy (Amado and Mollo 2015; Baletti 2012; Ban 2012; Bresser-Pereira 2011; Hochstetler and Kostka 2015; Klein 2015; Morais and Saad-Filho 2012; Sikkink 1991; Zhouri 2010). Was sacrificing ecosystem health the inevitable cost of these economic growth models? Contradictions generally marked the Left turn's environmental politics, despite the conceptual harmony offered through the three-pillared model of sustainable development, wherein economic, social, and environmental factors would be harmonized for mutual benefit.

This chapter focuses on the environmental legacy of the left in the Amazon basin by examining a few key issue areas and interrogating the ways in which environmental policies varied over time. I specifically give attention to divergences in practice from governmentally articulated environmental discourses of sustainable development. Given that two-thirds of the Amazon basin is within Brazilian territory, this chapter primarily focuses on that country's track record on environmental issues while also offering some comparative analysis of Brazil with Ecuador and Bolivia. I interrogate how the Left turn governments approached deforestation, mining, and energy production in the Amazon region. Many of these issues intersect with human rights, justice, and land rights issues rather than a more narrow understanding of environmental policies and impacts per se. Other pertinent environmental issues, including climate change policies, water, soil, and air quality, are beyond the scope of this chapter.

A central theme of this book concerns how the New Left in Latin America expanded its reach by granting rights and empowering some groups that had previously not been a mainstay of the traditional left—environmental activists being a key constituency. As citizenship claims and expressions of rights became more central to social movement activism and mobilization in Latin America in the 1990s, claims to citizenship

expanded into the more pluralistic identity-based groupings of gender, religion, sexual orientation, and Indigeneity, among many increasingly active groups (Montambault, Balán, and Oxhorn, this volume). An even more expansive approach to the notion of citizenship was the push by some leftist leaders to expand the sphere of rights beyond humans and their identity groups to nature itself. This, among other multiscalar and intersectional dimensions of citizenship regimes, figures prominently in the legacy of the leftist governments on environmental issues. The environmental legacy of the left should be assessed not only by evaluating how expansions of rights took shape, but also how, in practice, legal and political norms relating to environmental issues transformed social and ecological relationships.

The field of environmental citizenship begins with an ethical starting point that concentrates on the types of responsibilities that people have as stewards of the earth and in relation to whole communities of life on the planet (Hargove 1989; Rozzi et al. 2012). Environmental citizenship theorization focuses on the relationships between democracy, space, place, and the kinds of rights and responsibilities involved in contesting and upholding environmental values (Dobson 2006). While the citizens of any liberal democratic state can exercise basic political rights, including voting, freedom of expression, free association, and legal procedural pursuits, green movement actors may be left at a disadvantage because ecological concerns are often ignored. Environmental well-being frequently involves externalized costs and foci of concern that are beyond the scope of civil and political rights. Ecological welfare concerns are also often traded off against the immediate demands that are better represented in politics through capital and labor (Eckersley 1996). This strengthening of ecological concerns may be bolstered by the adoption of an environmental rights framework and an understanding of environmental rights as consistent with a co-constituted relationship between ecological and social beings (Benton 1993; Eckersley 1992; Sagoff 2008). Ecological and democratic concerns can be connected through this line of thinking but are not necessarily intuitive allies; some green political theorists looked to eco-authoritarian solutions (Hardin 1972; Heilbroner [1974] 1991; Ophuls and Boyan 1992), but by the late 1970s, green political theory tended to embrace fuller participatory engagement as a central part of its approach (Eckersley 1996).

This chapter especially concerns the environmental politics of the Brazilian Amazon, which comprises around 70 percent of the region, although examples are also drawn from other countries in the region. I begin by noting several important contextual and theoretical dimensions regarding environmental issues and the environmental movement in the Amazon as a whole. Subsequently, an empirically grounded discussion of the legacy of environmental policies of leftist governments is presented, followed by analysis and some general conclusions about the meanings of environmental citizenship and environmental policies in present-day Amazonia.

BACKGROUND: AMAZONIAN SOCIO-ENVIRONMENTALISM AND LEFTIST POLITICS

The Amazon is arguably the world's most symbolically charged landscape for environmental conservation issues. Since the time of colonization and early explorations by people of European descent, the Amazon has alternately been represented by explorers, writers, conservationists, politicians, and the media as a fragile rainforest ecosystem in need of protection or as a wild jungle, which, if tamed, promised wealth and a civilizational triumph (Slater 2002, 2015). These competing visions were navigated most prominently through the discourse of sustainable development. In the late 1980s and early 1990s, sustainable development was a concept that involved the tandem aim to protect the earth for future generations without compromising on the economic and social aspirations embodied in the shorter-term development agenda. Brazil's role as host to the Rio Earth Summit in 1992 and the Rio+20 Summit in 2012 shed a spotlight on Amazonian forest protection in the arena of global environmental politics and cast the region as playing a central role in political debates over how best to manage the challenges of biodiversity losses, deforestation, and climate change.

Beyond the symbolic level, the Amazon's role as an ecosystem of global importance is physically and materially significant. As the world's largest tropical rainforest, the carbon captured by Amazonian forests could significantly mitigate global warming by being a carbon sink. Research estimates that if the Amazonian mature forest biomass was

increased by just 0.3 percent, the absorption of greenhouse gases would be equal to the entire yearly fossil fuel emissions of Western Europe (Phillips and Lewis 2014). Deforestation in the Amazon, meanwhile, can also have significant effects in terms of global climate change, because significant amounts of greenhouse gases are released through the burning and decomposition of vegetation in rainforest ecosystems. The Amazon River accounts for one-fifth of the world's freshwater, and Amazonian precipitation patterns are linked to precipitation patterns as far away as Argentina and California (Medvigy et al. 2013).

Historically, environmental issues have not been an especially strong current of leftist politics in Latin America. While there is affinity with the left's agenda for environmental issues in Latin American contexts, the left is dominated by labor and class analysis more than anything else. Labor groups often express a sympathetic concern for environmental issues, but the relationship between class analysis and environmental politics is generally undertheorized in the literature (Bull and Aguilar-Støen 2015; Terhorst, Olivera, and Dwinell 2013; Veiga and Martin 2012). A "traditional" environmentalism embodies a conservationist orientation, which tends to view the protection of parks for the purposes of plant, soil, and wildlife protection as a priority, regardless of social concerns. Most common in the Amazon region among "greens" is a more integrative analysis of the relationship between issues of social justice and environmental protection, which tends to fall into the domain of environmental justice and socio-environmentalism. These approaches begin with the idea that people's issues are inextricably linked with nature itself. Socio-environmentalism focuses on the interconnections of human needs and livelihoods with environmental concerns, while environmental justice tends to center on the fair treatment of all people with regard to facing the burdens of negative environmental consequences.

Given the robustness of socio-environmentalism in the Amazon region, the traditionally "red" leftists showing an alliance with the "green" environmentalists is relatively unsurprising, particularly on issues of social accountability and the coupling of forest people's movements with conservation goals (Hochstetler and Keck 2007). Using a socio-environmental framework, critiques of capitalism were leveraged to draw affinity and broad bases of mobilization among environmental

groups, land reform activists, union leaders, and a wide range of human rights issues. Illustrative of this is that the Movimento dos Trabalhadores Rurais Sem Terra (Brazilian Landless Workers Movement, MST) and the larger peasant movement, La Via Campesina, positioned itself against genetically modified organisms and pesticide use in the late 1990s, linking land reform and inequality directly to critiques of agribusiness and environmental protection. Another example derives from the Movimento dos Atingidos por Barragens (Movement of People Affected by Dams, MAB), which took aim at hydroelectric projects and their associated human displacements as part of a broader critique of industrial capital and privatization of energy. As neoliberal democracies established in Latin America after authoritarian regimes lost their hold, social rights and reduced access to the inclusive rights of citizenship tended to take shape in the form of market-based incentives, consumption, and access to personal resources (Oxhorn 2011). In response to the confines of market-led and export-oriented growth strategies of the postneoliberal period, the argument that citizenship should not be confined to one's consumption and wealth was strengthened across Latin American social movements. As a result, social movements were able to articulate broader messaging on equality, inclusion, and cultural recognition, and the array of social movement actors became more heterogeneous and engaged in identity-based politics (Grugel and Riggirozzi 2012; Ruckert, Macdonald, and Proulx 2016).

These broader tensions with neoliberalism notwithstanding, a certain irony prevailed during the Latin American Pink Tide with regard to environmental issues. Socio-environmental groups coalesced around their common opposition to neoliberal economic reforms, agribusiness, and privatization of natural resources, but the respect for Indigeneity and nature that were prevalent in the postneoliberal order became problematically intertwined with liberal concepts of citizenship that had assimilationist tendencies (Ettlinger and Hartmann 2015). In what some scholars refer to as the "not-quite-neoliberal natures" approach, a mix of heavy state spending channeled wealth from extractive activities into social spending (Brannstrom 2009; De Freitas, Marston, and Bakker 2015; Ettlinger and Hartmann 2015; Nel 2015; Sawyer 2005). Driving such spending, resource extraction became paired with dispossessions of

land and resources, in the name of economic growth. The consequences especially affected Indigenous communities, who were displaced and frequently lost possession and control of their lands (De Freitas, Marston, and Bakker 2015). Land grabbing has problematic environmental consequences, including increases in fossil fuel drilling, deforestation, and land conversions. Simultaneously, "green grabs," illustrated by attempts to privatize and commodify nature while private or state investors frequently expropriate land and resources from smallholders, commonly leads to an increase in pipelines, highways, plantations, and tourist developments (Hall et al. 2015).

Illustrative of how state spending came at the expense of environmental concerns is the case of Bolivia under Evo Morales and the Movimiento al Socialismo (Movement toward Socialism, MAS), which used oil and gas programs to fund the bulk of its social redistribution programs, despite the direct conflicts that arose with Indigenous, environmental, and other civil society organizations. Notably, Brazil's contributions to funding the highway that would run through Bolivia's Territorio Indígena y Parque Nacional Isiboro Sécure (Indigenous Territory and Isiboro Sécure National Park, TIPNIS) is also illustrative of this tension, manifested as a broader geopolitical prioritization of infrastructure development over environmental conservation throughout the region. Despite the gains for Indigenous consultation that were won in the Bolivian 2009 Constitution, the protests against the highway construction in 2011 suggested that the approach was neither distinctively one of dispossession-through-neoliberalism nor one of postneoliberal inclusion and social welfare policies. It also revealed the complexity of social movement alliances and dynamics, given that Indigenous groups did not have a unanimous position in relation to extractivism but rathe, a complex and long history with regard to the use of their natural resources and the economic gains that could be made from extractive activities (De Freitas, Marston, and Bakker 2015; McNeish 2013). As far as social movement dynamics were concerned, some friction with the more industrial base of workers that centrally worked to defend workers' rights and other social concerns diverged from Indigenous groups and conservationists over these issues. While "red" and "green" alliances may have been present and social movements more heterogeneous under the left's leadership in Brazil and Bolivia, such affinities were easily fractured.

It is worth noting briefly the linkage of environmental and rule-of-law issues more broadly in the Amazonian context. Environmental human rights defenders are easily more threatened in Latin America than any other part of the world at present (Article 19, CIEL, and Vermont Law School 2016), and this was also the case under the Left turn governments. The struggle to defend environmental defenders' rights often conflicts with national extractive sector projects, which, on the whole, were increasing in the Amazon under the Left turn governments. A report coauthored by the Center for International Environmental Law notes:

> In Colombia, coal extraction between 2000 and 2010 nearly doubled and the number of mining concessions has similarly maintained an accelerated pace. This has resulted in a substantial increase in attacks across the region. According to the Guatemalan Human Rights Commission/USA, in the decade between 2000 and 2010, 118 environmental human rights defenders in Guatemala were murdered and over 2,000 assaults occurred against groups of protesters. . . . [T]he majority of environmental killings in Peru were being perpetrated by the State and private security forces, and most were related to extractive sector projects. (Article 19, CIEL, and Vermont Law School 2016)

In addition to the statistics above, environmental rights defenders were subject to worrisome levels of violence, including assassinations, disappearances, torture, and violent attacks. In the 2003–13 period, nearly 2,500 rural workers received death threats in Brazil (Human Rights Watch 2014). The year 2015 was the worst on record for environmental and land defenders around the world, with Brazil ranked as the worst (Global Witness 2016).[1]

The interlinked notions of labor rights, forest preservation, and economic opportunity for forest peoples were most prominently articulated by the Amazonian rubber tapper Chico Mendes, who reflected in 1988 on the alliances that the rubber tappers formed with international environmental lobby groups, the Brazilian PT, Indigenous groups, and urban students as key contributors to their broader success (Mendes 1989). In no small measure, these sorts of intersectional alliances and

approaches to forest conservation and economic development influenced the formation of Amazonian socio-environmental activism. The debate—especially among the international environmental community—largely shifted after Chico Mendes's assassination in December 1988. The stance that was skeptical of forest peoples as viable allies in rainforest protection that was largely held by traditional conservationists became more marginal, and the perspective that forest peoples' abilities to live and work within the region was compatible with ecological balance became increasingly mainstreamed. The shift was not instantaneous or directly linked to Chico Mendes's martyrdom, but the connections between Indigenous groups, anti–hydroelectric dam activism, rubber tappers, riverine peasants, and land reform did become more proximate during the late 1980s and early 1990s. These groups remained a strong part of the left's political base, and many of Brazil's socio-environmental activists were affiliated with the PT nearly from the time of the party's inception.

The Pink Tide did notably involve stepping into leadership on environmental issues in other Amazonian nations, actively embracing a more expansive notion of environmental citizenship through participatory politics and granting rights for nature in the Ecuadorean and Bolivian constitutions. The rights for nature idea considerably extends the notion of rights and protections beyond environmental defenders and beyond socio-environmentalism into a broader conception of nonhuman rights and ontological relationships (Youatt 2017). Ecuador and Bolivia are the most prominent Latin American nations to support the idea of environmental human rights and the rights of nature and have engaged this idea within the United Nations and other international forums (Conca 2015). Ecuador's Indigenous communities, in fact, largely led the global governance reforms that pushed the notion of *sumak kawsay* into globally institutionalized watershed management regimes (Kauffman 2017; Kauffman and Martin 2014).[2] The incorporation of rights of nature in practice, however, suggests that while a robust discourse of sustainable development is being reimagined, it is being done in such a way that the initiatives look like "cheap talk" because of a lack of enforcement, at least until the norms and jurisprudence associated with them become strengthened (Kauffman and Martin 2017).

DEFORESTATION, CONSERVATION AREAS, AND REFORESTATION

The Pink Tide governments were under considerable scrutiny in terms of their environmental policies, especially in the beginning years of the leftist leadership and particularly in the Amazon, as a region that holds long-standing global symbolic and ecological importance. Squaring environmental conservation with the need to secure and strengthen the economic goals that Latin America's Left turn articulated was a formidable challenge, particularly given the diversity and complex histories of Amazonian populations. In Brazil, environmental attention—and a desire to be recognized as a leader in global environmental politics especially because of its share of Amazonian rainforest lands—predated the rise of the Left turn governments by over a decade (Ferreira et al. 2014; Loyola 2014).

From the time of the country's new democratic constitution in 1988 until 2003, the Brazilian government became increasingly friendly toward and more proactive about environmental issues. Under the centrist leadership of Fernando Henrique Cardoso (president of Brazil, 1995–2002), a federal environmental agency was established, along with a host of new environmental policies and a national system for parks and conservation areas. Brazil hosted the 1992 Earth Summit and that same year gained US$428 million in funding to launch the PPG7, or Pilot Program to Conserve the Amazon Rainforest, which funded and promoted the creation of new conservation areas and demonstration projects for community-based agroecological and agroforestry production.

During Brazilian president Lula's first term, from 2003 to 2006, the outlook for strong environmental policies seemed to some observers to offer game-changing prospects for rainforest protection. Deforestation rates precipitously declined in this period, as shown in figure 11.1. The reductions in deforestation were so significant that President Lula committed in December 2008 to cutting the rate of gross Amazonian deforestation by 80 percent from historical levels (1996–2005) by 2020 as part of its national climate change action policy (Federative Republic of Brazil 2010). In the Bolivian, Colombian, and Peruvian Amazon, in contrast, deforestation increased from 2000 to 2011 (Song et al. 2015). In Brazil, the scientific community's deforestation models predicted that

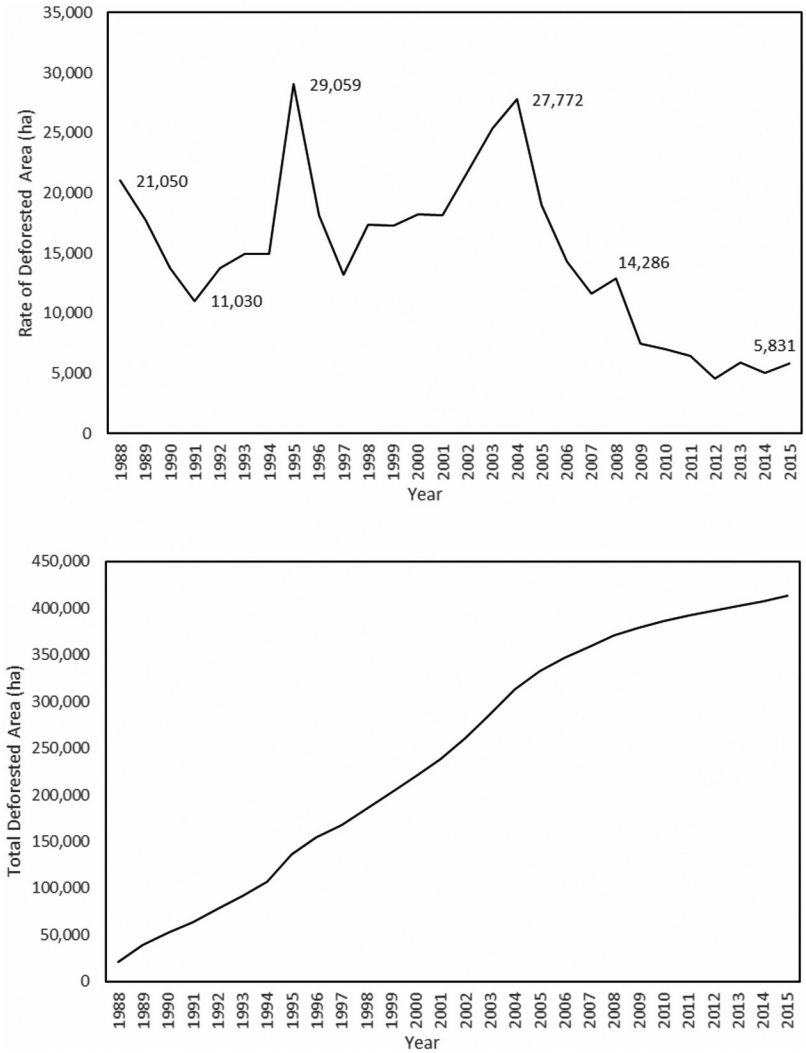

FIGURE 11.1. Deforestation in the Brazilian Amazon, 1988–2015. *Source*: Ministério do Meio Ambiente (Ministry of the Environment, MMA).

significant amounts of rainforest (30 percent and more in some Brazilian states) would be lost by 2050 if major policy changes were not undertaken (Nepstad et al. 2008; Soares-Filho et al. 2005). The aforementioned red-green alliances exerted political pressure, while a series of environmental governance proposals that blended market-based approaches for

conservation, such as payment for ecosystem services and carbon credits, offered economic incentives for rainforest protection.

The antideforestation gains of Latin America's Pink Tide were achieved largely by setting aside significant amounts of Amazonian lands for conservation purposes during the 2003–8 interval. Marina Silva, who oversaw and spurred many of these areas as the Brazilian minister of the environment from 2003 to 2008, was a former rubber tapper, friend of and collaborator with Chico Mendes in the state of Acre, and a founder of the local rural workers' union. With the creation of a variety of new extractive reserves, national parks, and national forests, among other types of conservation areas, the Brazilian Amazon saw a 35 percent increase in conservation areas (MMA 2007). The basis of such policies was that regularizing landholdings and achieving forest protection could be achieved in tandem with improved livelihoods for small-scale farmers, rubber tappers, fishermen, and other Amazonian peasants (Duchelle et al. 1995; Wunder 2007).

Yet contradictions marked the sustainable development politics of the day, more than coherency. Even as deforestation rates dropped substantially during this time, infrastructure plans of the Initiative for the Integration of the Regional Infrastructure of South America (IIRSA) and Brazil's Plans for Accelerated Growth (PAC), along with the commodities boom, raised concern among many observers that infrastructure and export-centered development strategies would lead to further forest losses (Baletti 2014; Hecht 2005; Lilley 2004; Nepstad et al. 2014). The strong correlation that scientists observed between road projects and forest losses (Barber et al. 2014; Fearnside 2008; Godar, Tizado, and Pokorny 2012; Goodland and Irwin 1975; Walker and Arima 2011) therefore raised concerns that the Lula administration was essentially updating the national integration plans and developmental logics that characterized the 1970s and 1980s strategy for Amazonian development, with similarly concerning environmental ramifications. Ultimately, the environment and development politics was one of trying to have it both ways, with national economic modernization and small-scale livelihood and land protection happening in tandem within the Amazon region.

The results of such policies were highly uneven and somewhat schizophrenic. Rates of deforestation remained low even as significant

safety issues remained for environmental defenders; socio-environmental activists continued to be persecuted and assassinated for defending the standing forest, including, most prominently, the assassination of Dorothy Stang in 2005 and Jose Claudio Ribeiro and his wife, Maria do Espirito Santo.[3] Such killings received high-profile media attention, thrusting Brazil into an embarrassing spotlight. They were sometimes met with gains for conservation, such as the creation of a mega-corridor mosaic of conservation areas that followed Dorothy Stang's assassination (Bratman 2011), but at other times, Brazil was more oriented toward accounting for deforestation than taking strong policy steps to counteract it, illustrated by the DETER real-time deforestation monitoring system that was installed in 2007. Meanwhile, high commodity prices and deforestation were strongly correlated and went relatively unchecked by policy measures aiming to quell the spread of soybean or cattle-related agriculture into Amazonian rainforests. An emergency decree, Federal Decree 6321/07, did block access to credit and land speculation for landowners in the thirty-six rural counties that were the hot spot locations for deforestation. The measure helped to attenuate the commodity price–deforestation link, even if it did not break it entirely (EDF 2009). Several NGO–private sector initiatives, including the Roundtable for Responsible Soy and the Roundtable for Sustainable Livestock, also helped industry players such as McDonald's, Walmart, and Cargill engage in Amazonian business with greater environmental commitments. Additional measures, such as the establishment of a rural lands registry, aimed to control illegal land-grabbing. Yet these supply-chain voluntary measures faced leakage and challenges of broadening participation in practice (Meijer 2015), and environmental and human rights norms showed some regressions during this same period (Bratman 2014).

The idea that forest protection is compatible with Brazil's commodity-oriented growth strategy was belied by the middle of President Dilma Rousseff's administration, in 2011, as deforestation reached new highs. Several factors were at work, contributing to the increases. First, President Rousseff, who in 2002 was minister for energy under President Lula, was deeply committed to bolstering national infrastructure plans, especially in the form of Amazonian hydroelectric dam construction and encouraging mining investments. The second Plan for Accelerated Growth (PAC II, 2010–14) was a R$1.59 trillion plan (around US$485

billion), up nearly threefold from PAC I. Second, the political power of the rural agribusiness lobby (*ruralistas*) had by that point increased in the Brazilian Senate and Congress, overshadowing environmental conservation drastically in terms of political influence. The Chamber of Deputies and the Senate passed a bill that revised the federal Forest Code in 2012. While Rousseff vetoed many of the most problematic components of the new law, Greenpeace bemoaned the dilution of Brazil's formerly robust Forest Code, calling it "another instrument for farmers to turn on their chainsaws" (Greenpeace 2011). The law, even in its stronger earlier iteration, was not much enforced. Nearly half of Brazil's greenhouse gas emissions stem from Amazonian deforestation, and very few of the fines and penalties for illegal deforestation were ever actually paid (Soares-Filho et al. 2014). Kátia Abreu, a ruralista strongly opposed to agricultural subsidies and the main proponent of the Forest Code revisions, was appointed minister of agriculture in 2014. Generally, the Rousseff administration favored commodity-driven agricultural development and major infrastructure improvements, with environmental protection as a tertiary concern.

Amazonian protection measures did, notably, also involve some significant market-based mechanisms that sought to pair forest protection with income-generating livelihoods for Amazonian residents, including Indigenous populations and small-scale farmers. While the nascent Proambiente program, originally proposed to introduce payment for ecosystem services for smallholders, was adopted into President Lula's Ministry of the Environment in 2004, the program was frequently plagued by inconsistent financing, administrative challenges, and legal hurdles (Hall 2008). An important UN-based program of financing known as Reduced Gas Emissions from Deforestation and Forest Degradation (REDD and REDD+) channeled incentives to landholders through the Amazon Fund, established in 2008. The fund, to which the government of Norway was committed to contributing around US$1 billion between 2008 and 2015, was established to help reduce deforestation and thereby further global climate change emissions reduction goals.

While these funding programs do suggest substantial possibilities for antideforestation efforts in the Amazon, it is important to observe that their approach to forest protection involves little by way of direct domestic financial commitments and policy actions. The assumption

embedded in these approaches is fundamentally that economic incentives are an adequate means of generating rainforest protection. These market mechanisms frequently lack adequate local participation (Cromberg, Duchelle, and Oliveira Rocha 2014) and also tend to ignore the causes of deforestation in the first place. The economist Alain Karsenty has noted that REDD financing also can be gamed to steer funding based on baseline scenarios: "Despite its very low deforestation rates to date, Guyana presented a baseline scenario in August 2009 that anticipated the conversion of 90% of its forests into industrial crops over the next 25 years; this was in order to maximize its chances of being paid for any deforestation rate below this figure" (2009, 4). Another potential perverse effect is known as environmental blackmailing, whereby farmers with intact forests may let their forests be destroyed unless they are paid (Wunder 2007). Still, funding to address the issue is a positive start, and certainly preferable to inaction.

Even when these shortcomings are considered, there is strong potential for these programs to notably mitigate the effects of climate change and to shift the long-standing legacy of perverse incentives for deforestation in the Amazon into positive incentives for forest protection. The actual implementation of these programs and their longer-term reliance on neoliberal approaches ultimately also indicates that to a large extent the Latin American left's legacy on deforestation issues is that of a decentralized, market-led reliance, coupled with heavy state investments. These dynamics ultimately led to the triumph of extraction-oriented developmental strategies over the more small-scale, livelihoods-based approaches that had appeared more viable as models for the region's development in the earlier years of the Pink Tide.

RESOURCE EXTRACTION OVER SUSTAINABLE USE AND *BUEN VIVIR* DEVELOPMENT

The new developmental economic strategy embraced by Latin America's leftist governments was one of the most distinctive features of their leadership, and one of its most distinctive features was commodity-driven growth and natural resource extraction. Paradoxically, this traditional growth and development model was championed at the same

time as alternatives to the modern paradigm of economic development, articulated by social movements and embraced in Ecuadorean and Bolivian constitutions that were rewritten under the Left turn governments through the idea of *buen vivir*, that is, living well in community (Gudynas 2011).

In Ecuador, the 2007–8 decision to grant rights to nature in its highly participatory process of constitutional rewriting established nature's legal *right to exist, persist, maintain, and regenerate its vital cycles*. The people were granted legal authority to enforce these rights on behalf of ecosystems, with ecosystem(s) able to be named as a defendant in cases brought to the courts. Granting nature rights illustrates an expanding notion of citizenship insofar as nature becomes a rights-bearing subject. It also involves considerably more participatory processes, though it is arguable whether the basis of expanding rights to nature encodes a variety of progressive liberalism in governance (Nash 1989; Stone 1974) or whether it entrenches a paradigm of market-based environmental governance, in which nature is commodified and controlled instrumentally according to human desires (Arsel and Büscher 2012). In empirical practice, neither view has entirely triumphed. In any case, there are significant ramifications for legal and sociological theory as nature is granted increasing personhood status (Akchurin 2015; Colon-Rios 2015; Youatt 2017). It is also important to remember that despite the possibilities for more widespread public participation as defenders of rights to nature, the most successful rights to nature lawsuits are not those led by civil society (Kauffman and Martin 2017).

Ecuador's contradictions in terms of environment and development conflicts are especially illustrative of these challenges. By the late 1990s, half of Ecuador's national budget was made up from oil revenues, and this continued into the early 2000s. As the anthropologist Suzanna Sawyer explains, the strong presence of multinational oil companies and liberal logics that resulted "intruded ever more intensely into local people's lives and shifted the terms of debate around identity, rights, and representation" (2005, 9). An economic irony also marked the nation's crude oil dependency; Ecuador's reliance on export markets and foreign financial and technological investments were accentuated instead of achieving their national social and economic developmental aspirations (Kimerling 2013).

Moreover, as protests emerged over oil development in the Yasuní National Park, President Correa's response was rooted in a hard-nosed economic deal, known as Yasuní-ITT: if the international community could muster half of the sum of the expected oil revenues from the region (a whopping US$3.6 billion) through voluntary contributions, then operations for the Ishpingo-Tambococha-Tiputini (ITT) oil project would be suspended indefinitely. Within three years of being proposed, however, the initiative had gained only US$200 million, or 0.37 percent of the target, in funding commitments, and so by 2013 the government decided to turn the two hundred thousand hectares of the Yasuní territory into oil concessions (Davidsen and Kiff 2013).[4] The disjuncture between natural resource exploitation and the language of alternative development and Indigenous knowledge sought to articulate a commitment to alternative development trajectories while simultaneously masking strong priorities for short-term economic gain.

Mineral mining activities also grew considerably during the left's leadership in Peru, as a boom in gold in the Madre de Dios region made the country the Amazonian leader in mining and the world's sixth leading producer of gold. As in the Peruvian Andes, this boom led to significant cultural shifts and environmental justice concerns. The ramifications involved mercury poisonings and malaria increases (Sanchez et al. 2017; Yard et al. 2012), in addition to changes in the cultural rituals that grant permission and legitimacy for extracting value out of certain forms of land uses amid transformations of local economies into mining towns that seek to balance local entrepreneurship with the temporal and spatial pressures of massive state and private enterprise investments in mining activities (Hirsch 2017). In the Upper Beni region of the Bolivian Amazon, serious environmental health consequences of small-scale gold mining took a measurable toll on communities living directly near the mines and in their vicinity; environmental effects extend as far as 150 kilometers downstream from the mining activities (Sponsel 2016). Moreover, Evo Morales drastically expanded oil and gas operations in Bolivia between 2007 and 2012, increasing oil concessions from 7.2 million acres to 59.3 million (Achtenberg 2015). Conflicts between small-scale gold miners and Indigenous groups in isolated parts of the entire Amazon basin continue to cause concern that mercury contamination and human encroachments are threatening the very survival of several

tribes and causing severe environmental destruction (Cremers, Kolen, and Theije 2013).

Even in countries more moderate in their embrace of alternative development models, such as Brazil, the discourse of sustainable development was pervasive even as extraction-oriented developmental economies were championed. The social movements that once were the base of leftist support tried to offer an Amazonian development alternative, in the form of renewable resource–based activities (rubber tapping, nut gathering, fishing, agroforestry, for example) as the basis for economic and development policies in the Amazon. This entailed channeling funding for rural credits for smallholders and expansion of the extractivist reserve model as a means of creating viable livelihoods for rubber tappers, nut gatherers, and riverine fishing communities and creating strong environmental enforcement policies (Bebbington and Bebbington 2012; Campos and Nepstad 2006; Hall 2004; Hecht 2007; Pokorny 2013). Put succinctly, despite laudable international commitments on environmental issues, "in terms of national policy, the Brazilian government is consistently making decisions that go against the global policies it ratifies" (Loyola 2014, 1365). While there were a few successes in terms of new conservation areas being created, as earlier noted, by the end of 2014, the pressure on existing conservation areas increased at the same time that the government began downsizing and diminishing the size of other protected areas (Bernard, Penna, and Araújo 2014). Brazil's general approach to curbing deforestation in the Amazon relies on a command-and-control model, while the economic basis for Amazonian land uses continues to privilege export-oriented commodities such as soybeans, cattle, and timber over protecting the standing forest (Nobre et al. 2016).

Heavy investments in mining activities in the Brazilian Amazon are also important for understanding how the Amazon landscapes were reshaped while the Left turn governments were in power. Between 2000 and 2011, mining grew from 1.6 percent of Brazil's gross domestic product (GDP) to 4.1 percent, and production is expected to at least triple that amount again by 2030 (Ferreira et al. 2014). Brazil's increased greenhouse gas emissions, highway paving, and mining in the Brazilian Amazon are specifically linked to the paving of the Interoceanic Highway, new timber concessions, and gold mining (Monteiro, Seixas, and Vieira 2014). A case in point is the Volta Grande gold mine near the

Xingu River; run by a Canadian company called the Belo Sun Mining Corporation, the open-pit mine will be located in the area between two Indigenous reserves, where the Xingu River ran before its course was altered by the Belo Monte hydroelectric dam project, which was built between 2011 and 2016. The project is slated to become Brazil's largest gold mine, and would have an active life span of twelve years. It would yield a posttax net present value of US$665 million per year for the company, or US$7.98 billion, over the course of the mine's active life (Belo Sun Mining Corporation 2016). Brazil would accrue US$270 million (R$850 million) over the course of the mine's installation and operation through state and federal taxes and royalties.[5] As with the case of the nearby Belo Monte hydroelectric dam, the lack of Indigenous free, prior, and informed consent and governmental coordination problems have plagued the licensing process for the mine, yet it continues to proceed through the bureaucratically complicated processes of licensing at a relatively swift pace (Bratman and Dias 2018; Dias 2017). The recent growth of the mining industry include expanding allowances for mining within protected areas, including Indigenous reserves and national parks. The "multiple and severe" consequences include loss of forests and native habitat and species extinctions, as well as a host of indirect consequences (Ferreira et al. 2014). The ramifications for environmental citizenship suggest a tendency to limiti rather than expand the protections and Indigenous rights framework.

Coupled with the risks of expanded mining activities, the lack of oversight for existing environmental protection infrastructures is deeply concerning from both human welfare and ecological perspectives. A non-Amazonian example compellingly portrays the reason for consternation. On November 5, 2015, as President Dilma Rousseff was in the last months of her corruption-worn second term, the bucolic town of Bento Rodrigues in Minas Gerais was inundated by a monumental tidal wave of mud—the sludge of iron ore mine tailings—from the Fundão dam. The dam was run by a company called Samarco—a joint venture of Brazil's Vale and Australia's BHP Bilton. The Fundão dam burst was Brazil's largest environmental disaster ever, and an entirely man-made tragedy. Nineteen people died, and countless livelihoods were ruined as the toxic sludge covered homes in their entirety, washed away local farms, and stirred up mercury deposits that had long settled in the Rio

Doce and some five thousand nearby streams, ruining fishing and agricultural productivity for the 500 kilometers of river downstream of the dam. Despite the legal frameworks that establish environmental licensing for these tailings dams and other infrastructure projects, monitoring and enforcement continue to be a major challenge in Brazil. This is also the case with other mine tailings dams around the world, where more accidents are predicted to occur, especially as the commodity prices of metals drop (Keirnan 2015). Brazilian proposals to reform environmental licensing procedures and the mining laws notwithstanding, few close observers have confidence that the reforms will ultimately strengthen environmental governance and enforcement, while others are concerned that the existing frameworks will become further diluted (Fearnside 2016).

INFRASTRUCTURE AND ENERGY

In the Brazilian Amazon, the drive for economic growth was most clearly specified in infrastructure plans for the region, many of which had been in place prior to the PT's leadership of the country. Under Avança Brazil (Forward Brazil), established in 2000, transportation networks were planned to span across environmental corridors, leaving many observers skeptical as to whether the environmental protection policies would be undermined (Carvalho 2006; De Sartre and Taravella 2009; Kanai and da Silva Oliveira 2014; Monteiro, Seixas, and Vieira 2014; Zimmerer 2011). Coupled with the domestic strategy, PAC I and PAC II (2007–10 and 2011–14, respectively) proposed considerable investments by the Brazilian state in projects that ultimately spur economic growth through major civil construction projects for highways, energy infrastructure, and support of industrial zones. IIRSA, was also established that year, with commitments of over US$69 billion in road building, hydroelectric dams, and other major infrastructure projects throughout South America, including in the Amazon region.[6] There are 348 projects that are being contemplated as part of this massive continental infrastructure strategy.

Illustrative of the Amazonian infrastructure-based strategy for growth was a plan to pave the BR-163 highway (Cuiabá-Santarém). The highway paving was spurred in the early 2000s by the boom in soybean

production, largely driven by massive agribusiness operations in the *cerrado* region in the state of Mato Grosso. Soybean production increased steadily, and in the 2005–7 period Brazil began rivaling the United States as the global export leader of the commodity (Masuda and Goldsmith 2009). Instead of transporting agricultural products south to ports near São Paulo, a paved BR-163 would provide a reliable northern route, with eventual export out of the new US$20 million port on the Amazon River built by the Cargill corporation in Santarém. Other roads, too, including BR-319, BR-230, and AM-174, were slated for paving, both through IIRSA and Brazil's domestic program for infrastructure development, Avança Brasil. The prospect of the paving was highly symbolically charged, given that when Amazonian highways were first cut under the military dictatorship, deforestation followed, and the roads led to new settlers, land speculation, and unregulated ranching and logging activities. The Amazonian researcher Philip Fearnside (2002) estimated that of the US$43 billion in projects over the eight-year period of Avança Brasil, some US$20 billion were allocated to projects causing environmental damage. By emphatically continuing the IIRSA programs through national plans for accelerated growth and direct investments, the PT gave primacy to modernization-oriented development priorities as a matter of policy while making Amazonian lands more vulnerable to uncontrolled development. Simultaneously, the cerrado began being transformed from a biodiversity hot spot into a region largely consisting of soybean monocultures.[7] Still, the discourse behind IIRSA planning was distinctively couched in the language of sustainable development.

> IIRSA's comprehensive approach to projects places a priority on environmental protection and is responsive to a growing awareness of its importance by the people of the region. . . . The IIRSA approach of applying the concept of hubs helps address environmental issues in a structured way and offers planners and other stakeholders a vision of development opportunities, alternatives and needs to ensure effective and balanced regional integration. (IDB, October 2006, 17, quoted in Van Dijck 2008, 101)

The environment-development conflict was attenuated through emphasis on road building and integration that fundamentally was oriented

around the economic opportunities in each hub of IIRSA infrastructure development projects.[8] The proposed highway through Bolivia's Isiboro Sécure National Park and Indigenous Territory (TIPNIS), is a prominent example of this tension. The TIPNIS highway would connect the Amazon to the Andes, and it is motivated largely by the possibility of transporting Brazilian soybeans, which would be shipped from the Pacific ports to China. Oil exploration rights near the TIPNIS park are also held by the Brazilian oil giant Petrobras (Friedman-Rudovsky 2012). The result was an exacerbated pattern of uneven development and a system of investments that indicated priority to benefits to multinational firms, well above environmental protection and social equity considerations (Castro 2012; Kanai 2016).

The political doubling down on infrastructure in the name of "sustainable development" priorities was also significant in the case of hydroelectric dams. Brazilian energy planners forecasted that the country would need to substantially increase energy production in order to keep pace with economic growth rates (Empresa de Pesquisa Energética 2012; Ministério de Minas e Energia 2011). These studies, coupled with President Lula's Luz para Todos (Energy for All) program and major energy crises in 2001, 2002, and 2010, established a clear governmental priority for dam building to strengthen energy infrastructure and combat energy poverty (Giannini Pereira, Vasconcelos Freitas, and Fidelis da Silva 2011). The plans ultimately hinged on new hydroelectric dam construction in the Amazon, with major Chinese investments in building the electrical grid to stabilize and strengthen transmission. Around 80 percent of Brazilian energy comes from the renewable energy source of hydroelectric dams. While technically considered a viable mode of clean energy development, Amazonian dams present substantial environmental challenges, most notably because they are historically and even at present known for involving serious social and environmental consequences. There are over four hundred dams planned for the Amazon basin, making the region subject to massive ecological changes and social problems if these mega-projects are carried forward (Little 2014).

Perhaps the most symbolically important, if not also the most ecologically significant, project of Brazilian hydroelectric development in the past thirty years is the case of the Belo Monte dam. Located on the

Xingu River, Belo Monte is a run-of-river-type dam that is the world's third-largest hydroelectric project in terms of its energetic potential. The dam, a project that totaled some US$16 billion in construction costs, was promoted as a cornerstone of Brazilian "green energy" development and was emphatically promoted by President Rousseff as a signature project. It was a source of diplomatic insistence even at the Rio+20 Earth Summit that the dam represented an exemplar of Brazilian green development (Bratman 2014). The concerns about the dam, which have been well documented by scholars,[9] include doubts about its true costs and energetic yields, irregularities in environmental licensing, social impacts for Indigenous groups, urban dislocations and displacements, Indigenous human rights abuses, substantial losses to biodiversity, and a whole host of related environmental concerns. Much of the energy from Belo Monte was slated to be bought for the explicit use of the bauxite and iron ore mines present in the state of Pará, and the rerouting of the Xingu River also literally laid the ground bare for the aforementioned Belo Sun gold mining operation to become feasible.

As if damming the river in order to capitalize on natural resources was not environmental harm enough, the social and political implications of the Belo Monte dam involved substantial corruption. Just as the dam's final turbines were being installed (and despite court orders that repeatedly suspended the dam's operating license due to unfulfilled obligations), Operation Car Wash (Lava Jato) corruption investigations pointed to a host of bribes associated with the dam's construction consortium and campaign kickbacks to politicians; plea bargain testimonies released from the investigations suggest that the construction companies contributed around 1 percent of contract values to the PT and the Partido do Movimento Democrático Brasileiro (Brazilian Democratic Movement Party, PMDB) in 2010, 2012, and 2014 (Haidar and Gorczeski 2016). The twenty-two legal actions filed by the Ministério Público were never acted on due to judicial system delays and conflicts of interest and are now irrelevant (Da Fonseca and Bourgoignie 2011). While the dam will be operable, the damage is already done, and its energetic yields are not likely to be as bountiful as originally anticipated by governmental planners due to increased droughts and deforestation affecting the region (Stickler et al. 2013).

LEFT BEHIND: THE ENVIRONMENTAL LEGACY OF THE LEFT

Taken as a whole, the left's legacy on environmental issues in Latin America is fraught with contradictions between a discursive emphasis on sustainable development and rights to nature and practices that are largely environmentally destructive. Despite emphasis on "clean" and "renewable" energy and environmental protection, simultaneous forest policy dilutions, gold and oil mining, and hydroelectric dam construction projects in the Amazon directly conflicted with environmental goals. These projects, in Brazil as well as in Bolivia and Ecuador, were the basis of significantly more financial investments and monumental landscape changes relative to conservation-oriented policies and projects. Such interventions brought about significant human consequences, which included violence against activists and displacement of local communities, in addition to deforestation, biodiversity losses, and other ecological harms. In the context of the Amazon, the disjuncture between sustainable development discourses and practice is profound.

Deforestation in the Amazon declined but then began rising significantly during the latter part of Latin America's Pink Tide, largely because of a lack of deeper political commitments and failures to embed policies with consistent enforcement in practice. Throughout the region social and environmental considerations were sidelined to larger logics of extractivism and economic growth, bolstered by the global boom in commodities prices. Brazilian infrastructure investments in other Amazonian countries fueled such infrastructure developments, as did electrification and mining investments from Chinese, Canadian, and other foreign powers throughout the region. Energy investments based on oil production ramped up, as did a new emphasis on developing energy infrastructure, roads, and massive hydroelectric projects.

In their mutual embrace of participatory approaches, green politics and the participation-oriented, inclusionary social agenda of the leftist governments in Latin America found an affinity, but this was more an ideational convergence than one manifested in political practice. In large part, the variation over time is attributable to the different backgrounds and political and economic opportunity structures that Lula and Dilma faced. In other parts, however, it is also important to recognize that sustainable development discourses always embodied a conflict, involving

the contradiction between conservation and economic growth. In the broader context of Bolivia and Ecuadorean Indigenous politics and environmental policies, moreover, the tension of balancing a strongly environmentalist, indigenously oriented, and rights to nature approach markedly contrasted with the desire to fund social programs and maintain economic growth through the extraction of natural resources. As a result, the legacy of selective and uneven attempts to incorporate environmental issues in the Amazon under the left governments involved significant reconfigurations of societal actors and ecological phenomena, with generally deteriorating—and at times catastrophically disappointing—results in terms of socio-environmental outcomes. While strengthened on some counts, overall, the legal frameworks for environmental protection were stronger on paper and symbolically than in practice. The materialist explanations of neoliberal economic integration, neodevelopmental state investments, and short-term resource extractive motives go a long way toward explaining why this mismatch ruled the day.

Ultimately, the Left turn governments managed to signal left but then turned right on environmental issues in the Amazon. This took activists somewhat by surprise, and undermined what might otherwise have been stronger civil society resistance to specific policies that ultimately hitched the left's legacy to the power of corporate influence and export-oriented economic approaches through the new developmental strategies they adopted. For the most part, a mutually beneficial relationship between socio-environmental and development interests was a fleeting feature of the Left turn governments, instrumentally leveraged in combating deforestation or creating new conservation areas, and conveniently ignored when substantially more financial gain could be achieved, even at high environmental costs.

Despite the promise of expanding environmental rights and progressive discourses that challenge the typical growth narrative of development, the legacy of Latin America's Left turn evokes new understandings of what environmental citizenship looks like. Articulations of the environment as having a different legal stature accorded nicely with most Indigenous traditions and brought many more stakeholders into the political process, but close empirical study indicates the risk of undermining those interests as they become encoded in policy and weak practice. Subsumed within the state-led discourses of green

development, little legal traction was given to the more revolutionary concepts of buen vivir and rights to nature, while their utility as discourses of opposition and resistance lost some power. Instead, strong "green states" emerged for a time, that is, states aiming to govern markets, land, people, and global political relations in new and sometimes authoritarian ways (Death 2015). Yet there was a transformation during the Left turn decade and a half, as "deep green" policies turned into lighter green approaches to environmental protection and the Left regimes weakened politically and economically, becoming less able to govern as the strong states they once were.

While the left-leaning social movements of Latin America were once at the forefront of articulating that development and conservation goals were ostensibly not in contradiction with each other, by the end of the "left" period, the debate between conservation and development was ultimately reignited. This was exemplified as Bolivia, Ecuador, and Brazil approved mining, road building, oil drilling, and hydroelectric projects throughout the region. The neodevelopmental models ruled the day, encoding a sustainable development paradigm rooted in older, modernization-oriented economic models. Skeptical though this view may be, the question of what's next does not leave much room for optimism about greater environmental protection in the region. As the decade's progress and environmental issues become ever more pressing, the imperative to adopt new logics of political governance and economic models is ever more urgent. At present, however, the political turn to the right that marks the end of the Pink Tide in Latin America appears to have little interest in managing present-day environmental challenges, let alone investing in ecological restoration.

NOTES

1. The situation of rural land conflict is gravest in the Amazon, and worst specifically in the state of Pará. In the aforementioned 2003–13 statistic, 692 took place in the state of Pará. The Pastoral Land Commission, which collects data on these death threats as well as related slave labor conditions, also reported in 2011 that twelve of twenty-nine assassinations in the country occurred in Pará. The International Labor Organization estimates that there

are over twenty-five thousand people experiencing slavery at any given time in Brazil, although no one has been jailed for perpetrating such oppression (Bevins 2012; Human Rights Watch 2014).

2. *Sumak kawsay* is a variant of Living Well, or *buen vivir*, and is the traditionally used term of Andean communities to describe an alternative model for development.

3. These are just the most high-profile cases. Between 2010 and 2015, Brazil ranked worst in the world in its cumulative number of assassinations of land and environmental defenders, at over two hundred killings. See

4. While Ecuadorean officials blamed the lackluster funding on the international community, some close observers also noted that Ecuador's commitment did not indefinitely leave the oil in the ground for subsequent administrations and was disingenuous because the government was continuously preparing for the eleventh round of oil negotiations. See, e.g., www.pachamama.org/news/a-deeper-perspective-on-the-end-of-the-yasuni-itt-initiative.

5. The royalties estimates are R$5 million per year, totaling around R$60 million over the twelve years of operation. An estimated R$130 in national, state, and local taxes will be collected during installation and thereafter R$55 million per year. Based on my own calculations from corporate presentations, over twelve years, the Brazilian government (state and federal) would thus receive US$270 million in taxes in royalties from the Belo Sun project. For the Canadian Belo Sun company, the estimates are a twelve-year yield of US$7.98 billion, based on earnings of US$665 million per year in net present value (NPV), after taxes, with an internal rate of return (IRR) of between 20 percent and 32 percent. Some employment benefits are also notable, totaling 2,100 construction jobs and 526 longer-term positions. See Belo Sun Mining Corporation 2016; Melo 2017.

6. The US$69 billion figure is for the thirty-one IIRSA projects completed by 2010. For more on IIRSA, see www.iirsa.org/ and www.bankinformationcenter.org/regions/latin-america/biceca/.

7. Associated with the increased power of Brazilian agribusiness but wary of the long-standing legacy of agrarian inequality in Brazil, the modernization in the Brazilian agricultural sector has spurred land grabbing and a transplanting of Brazilian firms and technical expertise to Mozambique. See, for more, Clements and Fernandes 2013.

8. Three quarters of the IIRSA Consensus Agenda was devoted to road infrastructure from 2005 to 2010.

9. See, e.g., Berchin et al. 2015; Bingham 2010; Bratman 2015; Da Fonseca and Bourgoignie 2011; Experts Panel 2009; Haidar and Gorczeski 2016; Hall and Branford 2012; Randell 2016.

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