

Colonialism's Legacy and Impact on Forest Ecosystems: Case Studies in Brazil and the Democratic Republic of Congo

By Mai Dabeec¹

ABSTRACT:

The deforestation of the Amazon rainforest in Brazil and the illegal copper and cobalt mines in the Democratic Republic of Congo (DRC) are two of the direst environmental crises of the 21st century. Through a historical analysis, this paper determines how the colonial histories of both countries affect the modern-day policy and economic choices that exacerbate these crises. This paper finds that institutions put in place by European powers during colonialism remain and continue to determine the role of both countries in the international political economy. Brazil's government continues the conquest of the Amazon and extermination of indigenous communities that began under Portugal in pursuit of economic exploits, and the DRC continues to rely on foreign-owned mines within the country and the export of minerals to support itself. This aligns with the theory of path dependency by indicating that colonial powers determine a country's long-term roles in the global economy long after independence.

Keywords: environmental sustainability, socioeconomics, developing countries, global environmental policy, deforestation, colonialism, neocolonialism

1. Introduction

This paper looks to understand how the legacy of colonial extraction informs the modern-day policy choices of developing states that affect their forest ecosystems. Environmental policy in developing countries is an essential aspect of the study of political science because not only are their inhabitants the global majority, but because the effects of climate change disproportionately impact people living in developing countries (Campbell-Lendrum, Corvalán, 2007). Developing countries as a whole are behind the rest of the world in environmental policy and score remarkably low in the Environmental Performance Index (Block, et al., 2024). It is important to understand what causes these states to underperform in environmental policy in order to understand how to implement new environmental policies that are more effective.

In order to analyse the relationship between colonial history and modern environmental policy, I am examining case studies in Brazil and the Democratic Republic of Congo (DRC). Both states are sites of major environmental crises: the deforestation of the Amazon in Brazil, and the mass environmental destruction and pollution surrounding cobalt mines in the DRC. Both states are also major players in the global economy. Brazil is a founding member of BRICS, a group of countries with growing economies that hope

¹Bryn Mawr College, USA.

to counter Western influence in the global economy (Ferragamo, 2024). The DRC is the world's largest exporter of cobalt, a mineral necessary in the production of electronic devices (Anderson, 2023). These countries are pivotal in the conversation about environmental policy and the international global economy. After Brazilian independence, the Brazilian government continued what Portugal started by destroying vast expanses of the Amazon rainforest for agriculture and mining. These modes of extraction strengthened the economy at the expense of its natural ecosystems and local populations (Bunker, 1985). The DRC also continues to rely on extraction to support its economy, allowing foreign corporations to engage in illegal mining practices for cobalt in exchange for assistance in infrastructure and other developments (Gross, 2023). Brazil's government continues to exploit the Amazon rainforest out of a national strive for self-reliance, and the impoverished DRC allows foreign corporations to exploit the Congolese land and people for profit. Both policy choices uphold the extractive economic structures put in place during the colonial era and favour economic gain over the state of the country's natural ecosystems.

2. Theoretical Framework

This paper is part of a conversation about path dependency. The basic premise of the theory of path dependency is that events in a region's past affect its future. More specifically, in the words of Margaret Levi, "once a country or region has started down a track, the costs of reversal are very high. There will be other choice points, but the entrenchments of certain institutional arrangements obstruct an easy reversal of the initial choice." (Levi, 1997, pg. 28). This dependence is caused by increasing returns, also referred to as self-reinforcing or positive feedback processes. Increasing returns refers to the increase in relative benefits of current activity compared with other possible options. As time progresses, the costs of switching to an alternate path rise (Pierson, 2000). While path dependency can be an economic theory, Paul Pierson points to four aspects of politics that make it conducive to this phenomenon of increasing returns: the role of collective activism in politics, the high density of institutions in political systems, the possibilities of using political authority to increase a feedback loop exacerbating asymmetries of power, and the intrinsic complexity and opacity of politics (Pierson, 2000). First, in politics the consequences of one's actions are highly dependent on the actions of others. Many types of collective action involve high startup costs. Considerable material or cultural resources must be expended on organizing before a group becomes self-financing. Second, politics is based on authority rather than on exchange. Formal institutions and public policies place extensive and legally binding constraints on human behaviour. This is how the persistence of institutions perpetuates the status quo established under colonialism. Third, political authority enhances power imbalances. Increasing returns processes transform situations of relatively balanced conflicts into situations in which uneven power relations make open political conflict unnecessary. Finally, the realm of politics is far more complex than economics.

Pierson explains that politics in settings characterized by path dependent processes are likely to be marked by four features: multiple equilibria, contingency, a critical role for sequencing, and inertia. First, under a set of initial conditions conducive to increasing returns, a number of outcomes are generally possible. Second, relatively small

events can have large and enduring consequences if they occur at the right moment in history. Third, earlier parts of a sequence matter more than later parts. An event that happened “too late” may have a lesser effect than it would if it had happened earlier. Finally, once an increasing returns process is established, positive feedback loops may lead to a single equilibrium, which in turn will be resistant to change (Pierson, 2000).

My paper seeks to understand how the legacy of colonial extraction informs the modern-day policy choices of developing states that affect the state of their forest ecosystems. Thus, the model of path dependency lays the groundwork to explain what ideologies and institutions remain when a nation expels its metropole. Using this model, I will demonstrate the ways in which the destruction of natural ecosystems in Brazil and the Democratic Republic of Congo in pursuit of each country’s economic goals are tied to its colonial foundation. Western imperialism initiated modern-day capitalism, and it follows that the global economy is shaped by exploitative international relations forged in the aftermath of colonialism. It forged the modern global economy by establishing colonies for agriculture and resource extraction. Upon the independence of these colonies, the newly formed independent states rely on the extraction-based economies that had previously been established in order to sustain themselves.

Institutional theory seeks to explain the elaboration of rules and requirements to which organizations must conform in order to receive support and legitimacy (Lammers et al., 2014). Observing the developments of institutions over time allows for a better understanding of path dependency. Kathleen Thelen refers to institutions as collective outcomes that are socially constructed. Thelen argues that specific organizations may change, but emergent institutional forms will resemble existing ones because political actors extract designations from the world around them. Thus, even when policy makers set out to redesign institutions, their conceptions are held back by cultural constraints (Thelen, 1999). In her later work, Thelen remarks that the increasing returns argument tells only part of the story, and that institutional survival is essential in understanding path dependency (Thelen, 2003). Analysing the survival of institutions in developing countries allows for a comprehensive understanding of their colonial legacy and its long-term impacts.

Path dependency should not be regarded like a conveyor belt that only moves in one direction. Colonialism does not set any state on an irreversible path that cannot be changed. Instead, this theory can be likened to the growth of tree branches: new branches grow from old ones and are likely to follow a similar direction. While a new branch may shoot off in the opposite direction of its predecessor, it is unlikely. Additionally, extraneous factors in the tree’s environment also affect the direction in which its branches grow. Likewise, any political actor may be compelled to take a course of action by a multitude of factors.

3. Justification of Case Studies

The Amazon is often referred to as the “lungs of the earth,” accounting for over half of the Earth’s remaining rainforests (BBC, 2014). The preservation of the rainforest ecosystem is of utmost importance. While Brazil is no longer dependent on Portugal, it continues to rely on extractive economic practices akin to those employed during the colonial era. Additionally, Brazil’s relationship with the United States, while not as blatantly

exploitative as its previous relationship with Portugal, is a prime example of neocolonial relations in the modern global economy. The United States' involvement in influencing Brazilian elections (Mier, et al., 2023), as well as American lobbyists' involvement in creating Brazilian environmental policy (Fang, 2019), is a contemporary form of controlling Brazil's state apparatus and economy in order to benefit American business.

The Democratic Republic of Congo is the world's largest supplier of cobalt, one of the world's most sought-after materials. Cobalt is used in all electronic products, including batteries, cell phones and computers. The entire global economy and standard of living, which relies on electronics in the modern age, depends on the extraction processes employed in Congolese cobalt mines. Like in the case of Brazil and Portugal, the Democratic Republic of Congo is no longer dependent on Belgium. However, it has not had Brazil's national push for economic independence, and its relations with other states is more blatantly exploitative. The Congolese government accepts deals from corporations based in China, allowing them to exploit Congolese land and people in the mining process. The role of Chinese companies in Congolese mines indicates that the exploitation of developing states is not exclusively at the hands of developed Western states.

These two case studies in particular focus on two important states in the global economy, one a BRICS country with a thriving economy, and the other an impoverished global supplier of cobalt. Additionally, these two states represent major environmental crises that demand the world's attention. However, these states have vastly different circumstances surrounding their independence and roles in the international political economy. The primary common factor affecting their economic and environmental policies is their colonial history. Thus, the study of these two cases assesses the role that this colonial history has in the environmental policy choices employed in developing countries.

4. Brazil

4.1 Colonialism

The 1494 Treaty of Tordesillas between Spain and Portugal determined that Brazil was within Portugal's sphere of influence, allowing Portugal to claim it as a colony. Portuguese settlement in Brazil began in 1532 at São Vicente. In 1549, the Portuguese Crown made Brazil an official colony and established its capital at Salvador da Bahia (Cartwright, 2021). The colony was subsequently transformed into a system of large sugar plantations. By 1570, Brazil had become the world's largest producer of sugar and the Americas' largest importer of enslaved Africans. In addition to sugar, manioc and tobacco had become major crops in colonial Brazil. Although the Brazilian economy was primarily agrarian, Brazil began producing diamonds and gold in the early 1730s, all of which was exported to Portugal in order to reduce state deficits (Cartwright, 2021).

Brazil gained independence from Portugal on September 7th, 1822, but this did not emancipate the country from Portugal's sphere of influence. The Portuguese took Brazilian political offices and continued to rely on the Brazilian economy for government revenues (Ipsen, 2007). While this intervention fostered stability by providing the country with a globally recognized centre of power, it also secured European control over the country. In addition to remaining under Portugal's influence, Brazil was placed under

British influence as well. In the decade prior to Brazilian independence, King João VI declared all Brazilian ports open to trade with “friendly nations,” which primarily meant Great Britain (Ipsen, 2007, pg. 147), and a subsequent treaty between Brazil and Great Britain gave special trading privileges to Great Britain, granting the country jurisdiction over British merchants living in Brazil and installing a maximum tariff of 15 percent on British merchandise (as opposed to the 24 percent tariff on imports from other nations (Ipsen, 2007, pg. 147).

Great Britain retained these privileges until the treaty expired in 1844, and even then, Brazil’s economy primarily retained its colonial structure. The export of primary goods to Western Europe remained the central component of Brazil’s economy, as did the practice of slavery. Large plantations for export crops continued to dominate the economy, leaving Brazil at the whim of world market prices for its exports and dependent on the import of manufactured goods (Ipsen, 2007, pg. 147).

Brazil’s first constitution in 1891 implemented a new democratic system with direct elections. In spite of this, the agrarian elite remained in a position of political hegemony, allowing them to exclude impoverished and illiterate populations from their political rights. Despite the abolition of slavery in 1888, marginalized groups in Brazil saw no significant advances in civil and political rights. Consortium among elites and fraudulent elections allowed for the social and political exclusion of a majority of the Brazilian people (Duarte, 2018, pg. 5). Between 1891 and 1930, Brazil delegated much political and economic autonomy to its federated states. This was greatly welcomed by states producing export commodities, such as São Paulo, a global producer of coffee, as well as Pará and Amazonas, which benefitted from the Amazon’s rubber boom. Brazil’s Republic also promoted large infrastructural projects, such as the development of railways, river navigation, and ports, all of which altered Brazil’s natural landscapes and biomes and placed pressures on the local vegetation and wildlife (Duarte, 2018, pg. 6). The absence of legislation for the control of forest exploration intensified the unchecked felling and burning of forests for expansion and timber. It also allowed for the occupation and legalization of vacant lands by wealthy farmers, deepening poverty for rural populations, increasing the extermination of indigenous communities, and increasing the exploration of mineral wealth in the rainforest’s subsoil (Duarte, 2018, pg. 6).

Brazil’s economic dependency on agriculture proved to be unsustainable during the Great Depression, when global demand for Brazilian agricultural products diminished. In 1930, a coup d’etat installed a new, centralized government with Getulio Vargas as president (Duarte, 2018, pg. 9). In the early 1930s, President Vargas began the push towards Brazilian self-sufficiency (Martinez-Diaz & Brainard, 2009, pg. 5). This led to an expansion of Brazil’s manufacturing industry and a campaign to diminish reliance on foreign suppliers of food and oil. The massive public financing of key sectors in the following decades led to chronic inflation, which came at the expense of Brazil’s lower and middle classes (Martinez-Diaz & Brainard, 2009, pg. 6). In 1937, Vargas began the “March to the West” campaign, which aimed to expand the agricultural, commercial, and industrial frontiers. This allowed for the conquering of inlands and nationalization of the whole territory. The “unknown and ‘empty’ lands would be finally explored and effectively integrated into Brazil.” (Duarte, 2018, pg. 13). The conquest of the Amazon deepened conflicts and increased threats to the indigenous communities and their ways of life

(Duarte, 2018, pg. 14). Indigenous populations struggling to protect their territories were seen by the state as obstacles to the occupation of the Amazon.

The 1940s saw a return to democracy, and the 1950s were known as the “developmentalist decade” (Duarte, 2018, pg. 14). President Juscelino Kubitschek, elected in 1955, proposed the “Targets Plan,” which emphasized foreign capital, infrastructure construction, and industrialization. This plan was intended to achieve development through the exercise of trusteeship over society (Duarte, 2018, pg. 14).

Beginning in the late 1980s, the Brazilian government began to liberalize its trade economy through a series of tariff reductions. In the 1990s, President Fernando Cardoso’s administration began a privatization campaign. Between 1991 and 2001, the Brazilian government sold about \$110 billion worth of assets, earning the nickname “privatization’s poster child” (Martinez-Diaz & Brainard, 2009, pg. 6). All of these policies helped to stimulate the agribusiness and biofuel sectors, as well as the emerging manufacturing industry.

4.2 Self-Reliance

After independence, the legacy of colonialism could still be felt in Brazil. Even when acting independently, the state’s plan for expansion followed a similar system of extraction to its Portuguese predecessors. 20th century modes of extraction in the Amazon were able to strengthen the economy, but at the expense of its ecological and human systems due to the structural remnants of colonialism. The centre-south region of the country shifted its economic focus from agricultural exports towards vertically unintegrated industrialization based largely on foreign capital (Bunker, 1985). During this period of industrialization, the state created new institutions and agencies in order to articulate the increasingly interdependent sectors of the economy. (Bunker, 1985, pg. 79). “Such agencies emerged and functioned in modes of production which were increasingly modern and capitalistic.” (Bunker, 1985, pg. 81). The new institutions reorganized relations of production and exchange in methods that were compatible with the development of capitalist modes of production. These processes led to a close relationship between the state and both international and national capitalist sectors, a governing system that responded to both the needs of the developing industrial base in the Brazilian centre and to the needs of the state, and expanded intervention of the state to subordinate agriculture to the needs of industry (Bunker, 1985, pg. 80). While Brazil was out of Portugal and Britain’s direct sphere of influence, its government administration was continuing to prioritize economic development over the needs of the Brazilian people and the state of Brazil’s ecosystems.

While manufacturing began to develop in the centre-south region of Brazil in the 1950s, the rest of the country continued to develop for the core economic sector, dependent on agriculture and extraction like colonial Brazil. Discoveries of extensive iron and bauxite reserves incited an increase in mining in the 1960s and 1970s. In 1970, minerals directly contributed Cr\$375,169,000 in regional income (Bunker, 1985, pg. 87). The development of mines led to additional infrastructure of docks, railroads, residences, and hydroelectric dams to provide energy for mineral reduction, which also contributed to regional income. (Bunker, 1985).

Roads were also being built for the government's development plans for the Amazon rainforest. The completion of the Belém-Brasília highway in 1959 provided access to lowland forest land, opening it to the market economy (Bunker, 1985). Thus, the extraction-based primary economic sector expanded into the forest in the form of lumbering and ranching. Large lumbering and ranching enterprises were able to use a combination of violence and political and economic power to take control of the land and labour reserves, pushing peasant migrants farther into the rainforest (Bunker, 1985). Such tactics included fraudulently registering deeds, buying state lands, and colluding with local police and military detachments in order to force peasants out of the land. Some displaced peasants remained as employees for the clearing of land for pastures. Others pushed farther into the jungle, continuing the clearing process and disrupting indigenous groups inhabiting the rainforest. Still others settled in the towns that sprang up along the highways and joined the labour force in the primary sector (Bunker, 1985). In all of these cases, Brazilian peasants had little choice but to perpetuate the unsustainable system exploiting the Amazon.

This process, which would continue through the rest of the 20th century, created irreversible damage. Cattle ranches devastated vast tracts of forest, compacted and eroded the soil, and created new microclimates in certain areas. Pastures quickly deteriorated, and ranchers overstocked and overgrazed, preventing recolonization by plant species capable of recovering the soil. These ranches caused irreversible damage to the soil (Bunker, 1985, pg. 92). The soil eroded from these pastures and was deposited in the slower waters of the Amazon's tributaries. This created a damming effect, which increased flood levels and delayed the river's fall, impeding cultivation, reducing growing seasons, and flooding riverside settlements (Bunker, 1985, pg. 92).

Throughout the 20th century, studies of government management of the Amazon referred to the rainforest as a frontier, which inherently has colonial implications (Bunker, 1985). This language implies that the Amazon is an expanse of land that is to be further developed and exploited for extraction of resources and participation in the global economy. Despite all of Brazil's efforts to promote self-sufficiency, it was never able to escape its colonial mindset, continuing to promote economic growth and development over the interests of the Brazilian people and the preservation of the country's natural resources.

4.3 American Influence

The election of Worker' Party candidate President Lula da Silva in 2003 indicated a shift towards the left for Brazilian politics. Increased federal control over the rainforest during President Lula da Silva's presidency led to a drop in deforestation between 2004 and 2012, but this change was undone in during the following presidencies of Dilma Rousseff (2011 – 2016), Michel Temer (2016 – 2019), and Jair Bolsonaro (2019 – 2023) (Pereira, 2019). Upon taking office in 2019, Bolsonaro immediately cut funding to the Ministry of Environment and Climate Change by 24% (Fang, 2019). In 2021, Brazil's Environment and Climate Change budget reached a 21-year low and deforestation in the Amazon reached a 15-year high (Roy, 2022). That year also saw a massive increase in forest fires, which are not naturally occurring in the Amazon. Such forest fires are deliberately set to clear felled trees and plants to make way for crops and cattle (Kimbrough, 2021).

76% of the Amazon fires in 2021 occurred in Brazil (13% occurred in Peru, and 11% in Bolivia) (Kimbrough, 2021). Additionally, Bolsonaro passed measures reducing citizen representation on environmental policy councils and replaced existing environmental policymakers with military officials (Roy, 2022).

There is increasing evidence that United States politicians are influencing such policies, as well as the election of the Brazilian politicians in support of such policies. During the Bolsonaro presidency, Interamerica Group, an American lobbying firm, worked closely with Wilson Lima, the governor of Amazonas. Amazonas governs “approximately a third of the Amazon, including the epicentre of the current forest fire crisis.” (Fang, 2019). Interamerica Group promotes the Amazon region for its development potential, not unlike those who referred to the rainforest as a new frontier in the past century. An informational packet they had assembled in 2019 on behalf of Governor Lima listed mining, agribusiness, and the gas chemical industry as opportunities for American business. Jerry Pierce Sr, the founder of Interamerica Group, has written extensively on the ways in which presidents Trump and Bolsonaro are beneficial for increased American business in Brazil (Fang, 2019). This applies the same extractive colonial lens to Brazil’s natural resources that colonial Portugal and Britain had employed.

4.4 Anti-Western Sentiment

In 2009, Russia formed the BRIC (now BRICS with the inclusion of South Africa) coalition with Brazil, India, and China. BRICS was founded on the premise that international institutions were dominated by Western powers and did not serve peripheral countries (Ferragamo, 2024). While BRICS is not a formal organization, it is an indication of increasing influence from peripheral states. However, symbolic displays of solidarity will not free Brazil from the Western world’s sphere of influence.

Exploitation of the Amazon is not the only way that the western world can impose its will on Brazil. In fact, many Brazilians view western preservation efforts as another form of colonialism. As American journalist Glenn Greenwald posted on X (formerly Twitter), “One valid grievance the Brazilian Right has about the Amazon is anger over other countries – the US and in Western Europe – who already developed industrially and are destroying the planet, now demanding Brazil save them by not exploiting its own internal resources.” (Hunt, 2019).

This is a longstanding sentiment held by many developing countries ravaged by colonialism. The destruction of the Amazon rainforest was questioned during the Conference on the Human Environment, hosted by the United Nations in 1972 in Stockholm, Sweden. During this conference, Brazilian representatives attacked the prospect of international regulations as a threat to national sovereignty and argued with the international community that the environmental issue was only a concern for rich nations. These representatives, along with representatives from India, China, Iraq, Pakistan, Egypt, and Cuba, denounced the imperialist bias behind the propositions made at the conference (Duarte, 2018, pg. 18).

Every country in the developed world reached its current level of development by exploiting another country’s natural resources. It follows that a country using its own natural resources as a means for development decades later would not want this

development stifled by the same Western nations that had razed their land decades ago. However, this sentiment allows for the continuation of the Amazon's demise.

5. Democratic Republic of Congo

5.1 Colonialism

On July 19, 1885, King Leopold II of Belgium was proclaimed sovereign over the Congo Free State (Lippens, 1939). The Congo Free State was established by Leopold and presented to Europe as a humanitarian enterprise with the goals of abolishing slavery and introducing Christianity to African populations (Vanthemsche, 2007, pg. 126). Establishing an administrative body and waging military campaigns in Congo exhausted Belgian expenses, and so starting in 1895, the Congo Free State began to supply the global demand for rubber. The Belgian government instated a harsh labour regime over Congolese populations in order to extort large amounts of wild rubber. However, this gained unwanted attention from the British. Protest campaigns were launched against the Congo Free State for their failure to achieve Belgium's initial goals of the abolition of slavery and the introduction of Western civilization to Africans. In response, the Belgian Parliament abolished the Congo Free State and accepted Congo as a colony in 1908 in order to avoid international intervention (Vanthemsche, 2007, pg. 127).

The charter of 1908 established the Belgian colonial system, which in theory included separation between the budgets of the colony and the state of Belgium, as well as parliamentary control of executive power. In practice, the Belgian government showed little interest in Congolese matters. Colonial policy was determined by a small group of people. The colony of Congo, which was inhabited by eleven million Africans, was administrated by 44 thousand white civil servants. Local indigenous authorities were under the strict control of Belgian officials, and Protestant and Catholic missionaries served primary roles in education and health services (Vanthemsche, 2007, pg. 127).

Under Belgian rule, most Congolese were part of the primary economic sector. The rural masses were engaged in subsistence farming and facing increasing difficulties feeding the colony's growing population. Colonial authorities required farmers to export crops such as cotton, rendering their livelihoods vulnerable to the fluctuation of the global economy. Export crops also came from large-scale plantations, such as palm oil plantations founded by the British (Vanthemsche, 2007, pg. 127). Additionally, the Belgian regime instated huge mining industries in Congo. Copper mines were developed in the province of Katanga, and diamond mines in the Kansai region. Beginning in the 1920s, Congo became a major actor in the global economy due to investments in the exploitation of its mineral resources (Vanthemsche, 2007, pg. 127).

5.1 Independence

The former Belgian Congo gained independence on June 30, 1960 (Office of the Historian, 2017). Congo quickly abandoned the centralized governing system instated by Belgium. The newly independent state's provisional constitution provided for a significant degree of provincial autonomy, and provinces had their own elected governments. Thus, the rural administration of the country was in the hands of Congo's provinces. In 1962, the country's six provinces were broken down into twenty-one new ones, resulting in further decentralization of the government (Young, 1966, pg. 26).

In June 1960, Congo elected President Joseph Kasavubu and Prime Minister Patrice Lumumba, in addition to a senate and assembly, and similar bodies in Congolese provinces. This elected government did not last long. On July 5th, Congolese soldiers in Force Publique mutinied against white Belgian commanders at Thysville military base, and the nation quickly broke out into violence. Belgium brought troops into Congo to restore order, and Congo appealed to the United Nations for their removal. In response, the UN created the intervention force ONUC and called for a withdrawal of Belgian troops. This led to a period of political instability in which President Kasavubu and Prime Minister Lumumba tried to dismiss each other from the government. Colonel Joseph Mobutu of the Congolese National Army orchestrated a coup and ordered the Soviets out of the country on September 14th. Prime Minister Lumumba was arrested and killed on January 17th of the following year. Over the next four years, Congo installed a series of prime ministers. The United States attempted to use this period of instability as an opportunity to create a pro-western regime through vote buying and financial support for pro-western candidates (Office of the Historian, 2017). Colonel Mobutu ruled Congo as president from the 1960s until the mid-1990s.

5.2 Government

Joseph Mobutu's thirty-two-year long presidency had a long-term impact on Congolese history and politics, beginning the tradition of corruption and patronage that has plagued the country's government from 1965 to the present day. During Mobutu's regime, large volumes of state revenue went to Mobutu's supporters rather than being reinvested back into the nation. In 1982, ten percent of the country's official budget was dedicated to health and education services. By 1992, that number had dropped to zero percent. The primary concern of the ruling elite was remaining in power in order to reap the benefits associated with Mobutu's clientele. (Matti, 2010, pg. 49). This administration established corruption and patronage as socially accepted cornerstones of the Congolese political tradition.

During Mobutu's early years, the administration profited from high levels of export earnings based on the country's natural resources. Decades after Belgian colonization, mining continued to be central to the Congolese economy. However, the late 1980s saw a significant decrease in state revenue due to falling copper prices, an increasingly corrupt and inefficient nationalized mining sector, and the expansion of the informal mining sector (Matti, 2010, pg. 50). The decrease in revenue undermined Mobutu's capability to reward loyalty among his entourage. By the early 1990s, Congo was in a state of political collapse.

On May 17, 1997, Laurent Kabila, with backing from Rwandan and Ugandan forces, was able to take over Kinshasa, the nation's capital, and declare himself president (Nzongola-Ntalaja, 2002, pg. 225). Despite this change in leadership, corruption and patronage continued to pervade the Congolese political system. In 2008, President Joseph Kabila, the son of Laurent Kabila, replaced the heads of thirty-seven state enterprises with his own clients, allowing him to increase economic power and political patronage (Matti, 2010, pg. 50). In 2014, Transparency International gave the Democratic Republic of Congo a score of 22/100 on the Corruption Perception Index, indicating rampant corruption. In 2024, under Félix Tshisekedi's administration, this number dropped slightly

to 20/100 (Transparency International, 2024). Since independence, patronage networks have continued to dictate the allocation of key positions within the administration and facilitate corruption at every level of the government.

5.3 Foreign Corporations

Since independence, the Democratic Republic of the Congo has been dependent on foreign aid to fund its development and reconstruction from colonization. In 2007, then-President Kabila announced that fourteen billion US dollars would be needed over the next five years to rebuild the economy, reduce poverty, and improve the country's infrastructure. Half of this funding was expected to come from international donors. However, beginning in 2006, the United Nations no longer classified the DRC as "emerging from conflict." This meant that the Congolese government would have to observe normal standards of expenditure in order to qualify for the same level of foreign aid they had been previously receiving. The Kabila administration, anticipating a decline in foreign aid, entered a structured mining project with a group of Chinese enterprises worth 9.25 billion US dollars (Matti, 2010, pg. 55).

Rechargeable batteries in smartphones and other electronics are powered by cobalt, which is often obtained from small-scale mines in the Democratic Republic of Congo (Gross, 2023). Although this form of small-scale manual mining is illegal in the DRC, 255 thousand Congolese citizens, including 40,000 children, are forced to labor in cobalt mines every day for less than two dollars a day (Audi, 2023). Historically, cobalt was not as valuable as other raw materials found in Congo, and it was typically a by-product of copper mining (Anderson, 2023). However, demand has surged as cobalt became a central component of lithium batteries, upon which technological products rely heavily.

Over 200 thousand artisanal miners work in cobalt deposits in Congo, and more than a million others are directly economically dependent on their activity. Although these miners face unsafe conditions and lack fair pay, they will often attempt to sneak into copper-cobalt mines at night out of necessity and to make a higher profit (Anderson, 2023). These miners, including children, face injury and death by shaft collapses, cave-ins, subterranean pockets of flammable gas, or extreme heat. According to a 2023 report from the US Department of Labor, workers face continuous abusive treatment, systematic violence, racism, ethnic violence, a dangerous work environment, and a lack of basic health provisions (Department of Labor, 2023).

This large reliance on the informal sector, and the allowance of such inhumane working conditions, are made possible by corruption within the Congolese government. In 2009, President Kabila signed a deal with the Chinese government for access to mining concessions in exchange for assistance in the construction of roads, public health clinics, schools, hospitals, and other developments (Gross, 2023). As a result, Chinese companies now own fifteen of the nineteen primary industrial copper-cobalt mining concessions in the Democratic Republic of Congo. Chinese state-run and private corporations control 70% of all copper and 50% of all cobalt mined in the DRC. This has disastrous effects on the Congolese landscape. Millions of trees have been cut down, the water is contaminated, and the exposure to toxic cobalt is poisoning the Congolese people. Additionally, collapsing pit walls and tunnels result in labourers getting crushed or buried alive (Gross,

2023). Up to two thousand people die from cobalt mining accidents in the Democratic Republic of Congo every year (Rush, 2023).

The mining process requires the destruction of Congolese forests in order to clear space for mines. A 2024 study done in eastern Congo found that artisanal mining triggers deforestation at least five kilometres from mining sites. Within this radius, mining causes an additional four percentage points of forest loss after ten years. Deforestation in surrounding areas is actually twenty-eight times larger than the area directly cleared for mining (Ladewig, et al., 2024, pg. 1452).

This deforestation threatens indigenous Pygmy populations, who depend on the forest ecosystems for food and traditional medicine (McNeil, 2016). Pygmies do not live sedentary lifestyles; they live by hunting, gathering, fishing, and garden-plot farming deep in the rainforest, and the current biggest threat to their traditional lifestyle is deforestation and habitat fragmentation (McNeil, 2016). The DRC is home to roughly 60% of the Congo Basin forests (IUCN, 2022). Many Pygmies have abandoned the forests and assimilated into life in shanty towns as a result of this deforestation, in addition to other forces such as the Mobutu regime in the 1970s (IUCN, 2022) and war in eastern DRC in the 2000s (The New Humanitarian, 2010). However, cities are not safe from mine expansions either. A mine that was reopened in 2015 has been expanding into the city of Kolwezi, forcing hundreds of residents to leave their homes (Amnesty International, 2023). In 2022, the DRC passed the law on the Promotion and Protection of the Rights of the Indigenous Pygmy Peoples, the country's first legislation to formally recognize and protect the land rights of Indigenous Peoples (IUCN, 2022). The law went into effect beginning in 2023, but displacement continued to be a major concern in the eastern DRC. Thousands of Pygmies are still forced to flee their homes and live in camps with little assistance due to the expansion of national parks and protected areas as well as the granting of titles to artisanal and industrial companies in the mining, timber, and agricultural industries (IWGIA, 2024). The DRC has yet to see long-term impacts of this new legislation. If it can be effectively implemented in future years, it has the potential to bring indigenous populations back to their homelands and allow them to sustainably live off the land and integrate their traditional knowledge into Congolese conservation projects.

The Democratic Republic of Congo has had five presidents and two civil wars since its independence. While administrations may change, the institutions of corruption and patronage prevail, as does the country's extraction-based economy, which currently employs hundreds of thousands of Congolese citizens, including forty thousand children (Audu, 2023).

6. Analysis

Brazil and the Democratic Republic of Congo differ greatly in their colonial pasts, as well as in their economic development following their independence. Portuguese Brazil began as a plantation-based colony reliant on export crops. Following its independence in 1822, Brazil quickly industrialized. Its economy, which once relied on the agricultural sector, now obtains nearly sixty percent of its GDP from the services sector (World Bank, 2024). Destruction of forest ecosystems in the Amazon comes from Brazil's centralized government in combination with influence from foreign corporations and governments.

On the contrary, Belgian Congo began as an extraction-based colony reliant on the vast mineral wealth of the land. The land and people of Congo were heavily impoverished and exploited, and the country is still in the process of development. To this day, the DRC's economy remains extraction based. Cobalt, refined copper, unwrought alloys, unrefined copper, copper ores, and crude oil make up 92% of the country's exports by value (International Trade Administration, 2024). The DRC remains one of the five poorest countries in the world (World Bank, 2025).

The common factor in both cases is path dependency. In both countries, the role they play in the global economy was initially determined during colonial rule. Thelen's explanation of path dependency and institutional theory explain that the forces behind the creation of a particular institution may be quite different from the forces that sustain it over time. While Brazil is no longer an agriculture-based economy controlled by Portugal, power remains in the hands of the wealthy elite, and the conquest of land and extermination of indigenous communities remain as a means to maintain a successful economy. The failure of Brazil's agricultural-based economy during the Great Depression motivated the country to industrialize, ushering in a new era for the country. While Brazil was able to shift its role in the global economy, it did not change the means by which it supported its economy. Industrialization, just like agribusiness, required the conquest and destruction of Brazil's rainforests and extermination of indigenous communities trying to defend their territories. This follows the same colonial practice employed by the Portuguese.

In the Democratic Republic of Congo, the consistent institutions maintaining the country's role in the global economy are corruption and patronage within an unstable government structure. The main priority of government officials is maintaining the favor of the current administration, rather than any policy. Furthermore, when the administration spends its funding on rewarding its clientele rather than on infrastructure and development, it must continue to rely on foreign corporations to invest in infrastructure instead. Thus, the DRC remains an extraction-based economy through deals with Chinese technology companies, who develop infrastructure in exchange for access to the DRC's cobalt and copper mines. While the Congolese government can benefit from these arrangements, financial benefits do not reach much of the Congolese people. An estimated 73.5% of Congolese people lived on less than \$2.15 a day in 2024 (World Bank, 2025). Additionally, many Congolese men, women, and children are forced to mine in inhumane conditions for meagre wages.

Brazil's shift from the agricultural sector to the services sector indicates that a state's role in the global economy is not predetermined by its colonial past. Brazil's push towards development allowed it to become a global leader in the world economy, having the tenth highest GDP in the world as of 2024 (World Bank, 2024). The DRC's static position in the primary economic sector can be attributed to multiple factors. First, the global economy and distribution of mineral resources. Electronic devices made with cobalt have become part of the global standard of living, and production of these devices depends on the continued mining of these minerals in Congolese mines. This is an example of an equilibrium reached by path dependent processes. As long as the global economy relies on mineral resources from Congolese mines to support the current standard of living, it will be increasingly difficult to shift the DRC's role in the global political economy.

Additionally, the sustained presence of political instability, armed conflict, and government corruption has prevented the Congolese government from investing resources into making such a shift.

7. Conclusion

This paper uses path dependency theory and institutional theory to explain environmental crises in Brazil and the Democratic Republic of Congo. Through a historical analysis of each country's colonial past and post-colonial development, I have found that the prevalence of longstanding institutions — conquest of undeveloped land and the extermination of indigenous populations in Brazil, and government corruption and foreign ownership of mines in the DRC — prevents both states from shifting its economic exploits and public policy. And so, exploitative measures that devastate forest ecosystems continue.

The relationship between environmental destruction and anti-colonialism remains unexplored in this analysis. A myriad of studies have connected colonialism with environmental degradation and the exacerbation of climate change. Brazil has resisted Western environmentalists' urges to preserve the Amazon rainforest due to this history. Exploitative measures have historically been a means of industrialization and development, and Brazil's government feels that they are just as entitled to it as nations that industrialized before it. This is the paradox that must be faced in any discussion of development. Development and environmental preservation are contradictory goals for developing countries. In order to create practical solutions, political scientists cannot rely on the development of Western states as a model for development in a postmodern world. Future research should embrace post-development theory's rejection of Western ideals of development to explore beyond the constraints of a capitalist global economy if the goals of sustainability and development are to converge.

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