



# *Global Majority E-Journal*



Volume 14, Number 1  
(June 2023)



# *Global Majority E-Journal*

## **About the *Global Majority E-Journal***

The *Global Majority E-Journal* is published twice a year and freely available online at: <http://www.american.edu/cas/economics/ejournal/>. The journal publishes articles that discuss critical issues for the lives of the global majority. The global majority is defined as the more than 80 percent of the world's population living in low- and middle-income countries. The topics discussed reflect issues that characterize, determine, or influence the lives of the global majority: poverty, inequality, population growth and gender issues, excluded and invisible children, unsustainable urbanization, climate change, lack of access to safe water and sanitation, and unethical trade. The articles are based on research papers written by American University (AU) undergraduate students as one of many course requirements for *Econ-110—The Global Majority*, which is an elective course within the New AU Core.

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**ISSN 2157-1252**

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# **The Dictator's Playbook: Poverty Perpetuating Power Structures in Azerbaijan and Chad**

Ben Calkins

## **Abstract**

*This article looks at poverty in Azerbaijan and Chad, which are both authoritarian states that have been dominated by dictators for years. This is a valuable ethical topic to address widespread poverty in both nations while their dictators, generals, and top bureaucrats enjoy lavish lifestyles. Poverty in Azerbaijan and Chad are at least partly the result of deliberate policy changes designed to keep the population impoverished and the ruling class wealthy. Azerbaijan and Chad also enjoy access to valuable natural resources, yet the dictators prefer to distribute most of the profits to support their own power rather than their people. The goal of this article is to analyze the relationship between dictatorship and poverty in Azerbaijan and Chad, with a focus on poverty ethics, paying close attention to how dictatorship creates and prolongs suffering.*

## **I. Introduction**

In June 2016, the notorious dictator of Chad, Hissene Habre, has been arrested and faced charges of crimes against humanity at an international tribunal. His reign of terror saw the deaths of around 40,000 Chadians and record-high poverty rates. Habre was replaced in December 1990 by Idriss Deby, a man who would go on to rule the country for the next 30 years. Under his reign, the press was suppressed, opponents were subdued, and protestors were quelled. The nation made billions of dollars from oil revenue, yet a fifth of its children died before they turned 5 years old. Azerbaijan sees a similar pattern. Hedar Aliyev ruled the country for 30 years (1993–2003), being replaced after that by his son Ilham Aliyev, who has been president/dictator since 2003. Much like Chad, Azerbaijan enjoyed extensive oil resources, yet half of the nation lived under poverty during the Aliyev regime.

Both Chad and Azerbaijan have been plagued by dictatorship for decades. Corresponding with authoritarian control has been systemic and unaddressed poverty. The populous struggles to stay alive whilst their leaders spend federally controlled oil revenues on paying off political elites and security forces to enshrine their power. These two countries, being on the United Nations (UN) list of Least Developed Countries (LDCs), present an opportunity to explore the link between authoritarian political structures and poverty. What emerges is the understanding that dictators neglect the developmental needs of their populous in favor of maintaining their continued power. Ethical understandings of poverty, through both a utilitarian and rights-based lens, tell us that we

should push for democratization in these and other authoritarian nations as a means of alleviating poverty and inequality.

Following this introduction, Section II provides a brief review of the literature. Section III illustrates the evolution of gross domestic product (GDP) per capita, life expectancy and literacy rates for the two countries. Some of the main facts related to poverty in Chad and Azerbaijan are provided in Section IV, while ethical aspects of poverty and dictatorship are examined in Section V. The last section provides some conclusions.

## **II. Literature Review**

There is ample literature on both Chad and Azerbaijan, and the challenges both have faced in their economic development journeys. Likewise, plenty of literature exists on dictatorships and how they operate. However, only a few specific sources specifically touch on the dimension of poverty as it relates to dictatorships. Aristide and Moundigbaye (2017) cover Chad and its economic journey, whilst Rasizade (2002) explores Azerbaijan. Both Nega and Schneider (2012), and Espuelas (2012) discuss dictatorships and their role in poverty, with Nega and Schneider having a specific focus on Africa.

- Aristide and Moundigbaye (2017) discuss the history of the oil industry in Chad. Their goal was to analyze how oil revenues have been allocated since the discovery of commercially viable oil in the 1990's, and to see if said allocation achieved the Chad's government's commitments to use oil revenues to aid the poor. They consistently rely on and discuss the resource curse theory, and how it creates environmental and political motivations for violence in the country. By comparing economic indicators between different regions in Chad to the ones that produce oil, they found that poverty actually increased in the major oil producing regions, supporting the notion that oil revenues were not allocated properly to support the poor.
- Rasizade (2002) covers Azerbaijan a decade after it gained independence from the USSR. He discusses the role of corruption, poverty, politics, the oil industry, and U.S investment and diplomacy with the country. Key points are that of corruption in the nation, given that it consistently ranked the 3<sup>rd</sup> most corrupt nation in the world at the turn of the century. This is largely due to the system of patronage set up by the Presidential Aliyev family, who consistently funneled money from the state oil company into their own pockets and those of their political patrons. Rasizade (2002) emphasizes that all of this happened whilst the population was experiencing extreme poverty, with 78 percent of Azeris living on less than \$1 a day.
- Espuelas (2012) seeks to examine the relationship between dictatorships and social spending. Their thesis is that dictatorships reduce social spending, particularly on redistributive programs, education, health, and unemployment benefits. He examines Spain, Portugal, and Greece during their periods under dictatorship to gather empirical evidence. Espuelas explains that dictatorships limit the voice and political power of voters and interest groups who want to increase social spending. They do so in the hopes of maintaining the status quo. Finally, social spending that did exist was funded in non-redistributive ways, usually by the direct contributions of poorer workers.

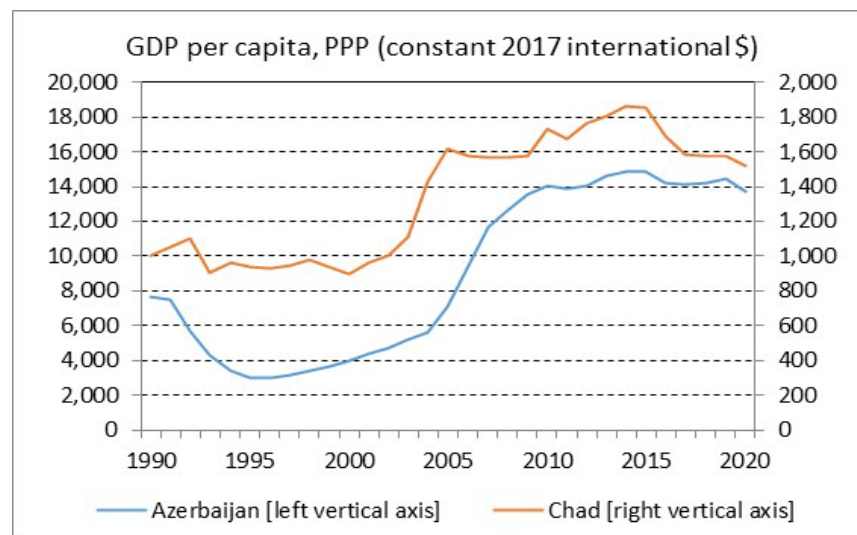
- Nega and Schneider (2012) discuss dictatorships in Africa as a means of demonstrating that dictatorships are not effective at meeting the needs of their people. They attempt to debunk other theories on democratization, namely that democracy is applicable only to certain cultures, a notion the authors argue was disproved by the Arab spring. In reference to dictatorships, they point out that dictatorships are only interested in creating enough economic development to pay themselves, their elite base, and security forces to crush rebellion. Thus, any foreign investment or development efforts should be given to these dictatorships only on the condition they slowly adopt democratization measures.

### III. Socio-Economic Background

Both Chad and Azerbaijan have experienced economic and social setbacks to their development. Azerbaijan's overreliance on oil has meant that its economy and GDP per capita have been volatile.<sup>1</sup> Chad struggles with economic development due to internal and external security threats, and the growing impact of climate change on its largely agrarian economy.<sup>2</sup>

As shown in Figure 1, Azerbaijan's GDP per capita was pitiful following the collapse of the Soviet Union due to economic restructuring and endemic corruption, decreasing from \$7,617 in 1990 to \$2,977 in 1995. It then grew moderately from \$2,985 in 1996 to \$5,610 in 2004, and rapidly from 2004 to 2010, reaching \$14,082 in 2010. However, in 2020, Azerbaijan's GDP per capita was \$355 lower than it was in 2010. Chad's GDP per capita evolution is very similar to that of Azerbaijan except that it has been about one tenth of Azerbaijan's GDP per capita. Some other differences are that Chad's GDP per capita stagnated during the 1990s, and that it grew more rapidly from 2000 to 2005 than that of Azerbaijan. Chad's GDP per capita then stagnated overall during the last 15 years, with Chad's GDP per capita being \$99 lower in 2020 than it was in 2005.

**Figure 1: GDP per capita, PPP, (constant 2017 international \$), 1990–2020**



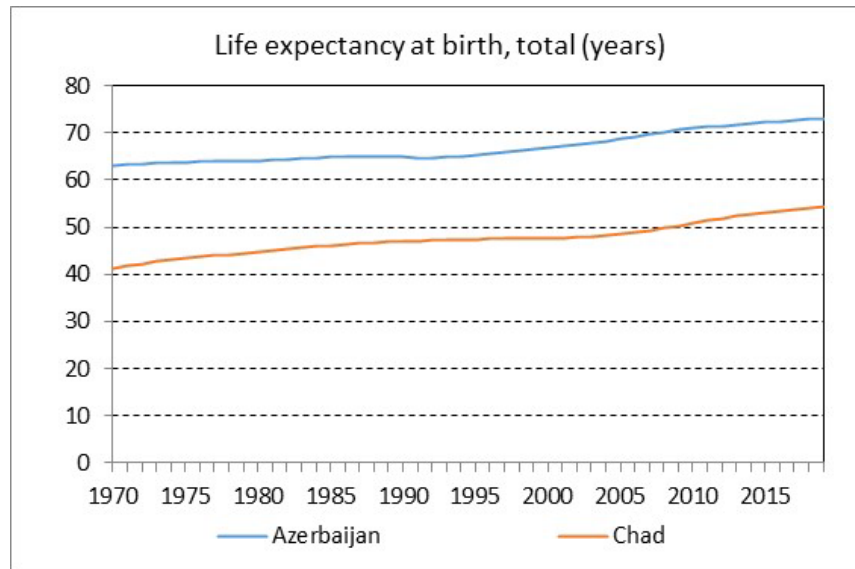
Source: Created by author based on World Bank (2022a).

<sup>1</sup> Asian Development Bank (2018).

<sup>2</sup> World Bank (2022b).

As Figure 2 demonstrates, Azerbaijan and Chad have both seen promising and consistent growth in their populations' life expectancy since 1970. This is partly due to global trends in increased life expectancy due to improved medical technology and immunizations. However, despite rising life expectancy rates, Chad still has a relatively low rate, especially when compared to Azerbaijan, with contributing factors being a growing humanitarian crisis in neighboring countries (which led to over 675,000 refugees fleeing to Chad), high food insecurity, a measles epidemic reported in May 2018, and unfavorable rain amounts which decreased agricultural production in 2017.<sup>3</sup>

**Figure 2: Life Expectancy at Birth, 1970–2018**



Source: Created by author based on World Bank (2022a).

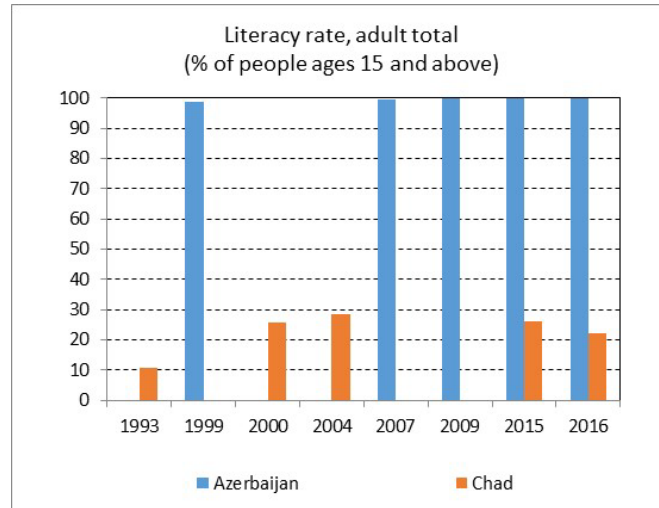
As shown in Figure 3, the countries deviate drastically from each other in their literacy rates. Azerbaijan maintains a nearly 100 percent literacy rate since 1999. This is due to a few reasons. The Soviet education placed a high emphasis on literacy, and as a result produced a very literate population in Azerbaijan. Additionally, the government made large investments into public libraries and its universities starting around 2006.<sup>4</sup> Chad is burdened with several educational issues. Refugees from Sudan, Nigeria, and the Central African Republic put added strain on the education system. There is little to no access to higher education. Most teachers are not educated past a secondary level.<sup>5</sup> Many children are not even able to attend school. These and other factors explain the nation's low literacy rate, which peaked at 28.4 percent in 2004.

<sup>3</sup> UNICEF Chad (2020).

<sup>4</sup> Kniffel (2014).

<sup>5</sup> UNICEF Chad (2019).

**Figure 3: Adult Literacy Rate, all available years**



Source: Created by author based on World Bank (2022a).

## IV. Analysis of Facts

The three indicators from the last section provide a baseline understanding of the socioeconomic context of Chad and Azerbaijan. This section reviews the available data on poverty and poverty-related indicators. Section IV.1. provides the available data on three headcount poverty ratios, which are due to severe data gaps in both countries complemented with two poverty-related indicators in Section IV.2.

### IV.1. Headcount Poverty Ratios

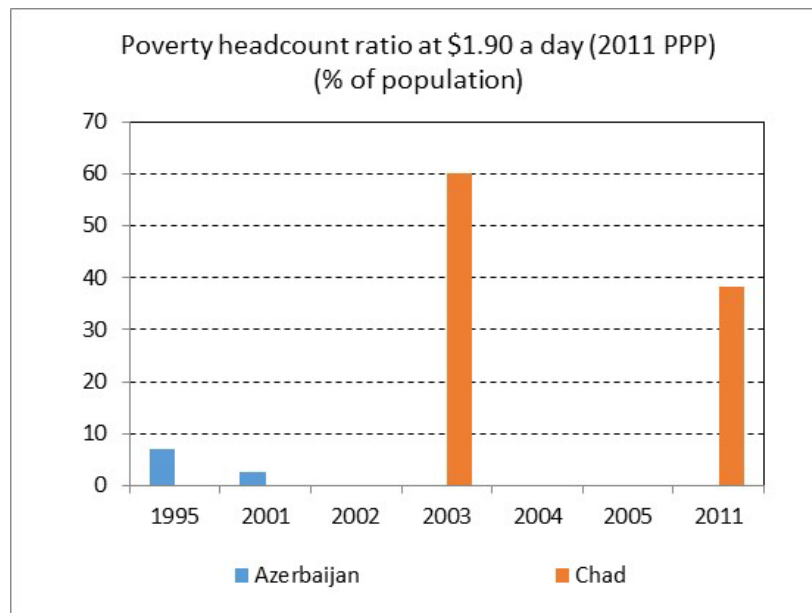
Figures 4 to 6 provide all the available data on poverty headcount ratios, respectively at \$1.90 a day, \$3.20 a day, and \$5.50 a day. Though the World Bank (2022) is missing figures for most years for both nations, the available data nevertheless provide some insight into the states and evolution of poverty in these two countries.

First, poverty is far lower in Azerbaijan than in Chad. As Figure 4 shows, while 7.1 percent of Azerbaijan's population lived below \$1.90 a day in 1995, extreme poverty was eliminated in Azerbaijan by 2002. In Chad, there were still 38.1 percent of their population living in extreme poverty in 2011. Figure 5 shows a similar picture, with moderate poverty (defined as living below \$3.20 a day) having been eliminated in Azerbaijan by 2004, while 66.3 percent of Chad's population lived below \$3.20 in 2011. Figure 6 shows that 7.0 percent of Azerbaijan's population lived below \$5.50 a day in 2005, while 86.2 percent of Chad's population lived below \$5.50 in 2011.

Second, while Chad has reduced extreme poverty from 60 percent in 2003 to 38.1 percent in 2011 (reducing extreme poverty by about one-third), Chad has made relatively little progress with reducing the percentage of population living below \$5.50 a day, which was reduced from 83.7 percent in 2003 to only 66.3 percent in 2011. Azerbaijan also made relatively little progress in reducing the percentage of their population living below \$5.50 a day from 1995 to 2001, but ultimately succeeded to reduce it to 7.0 percent in 2005.



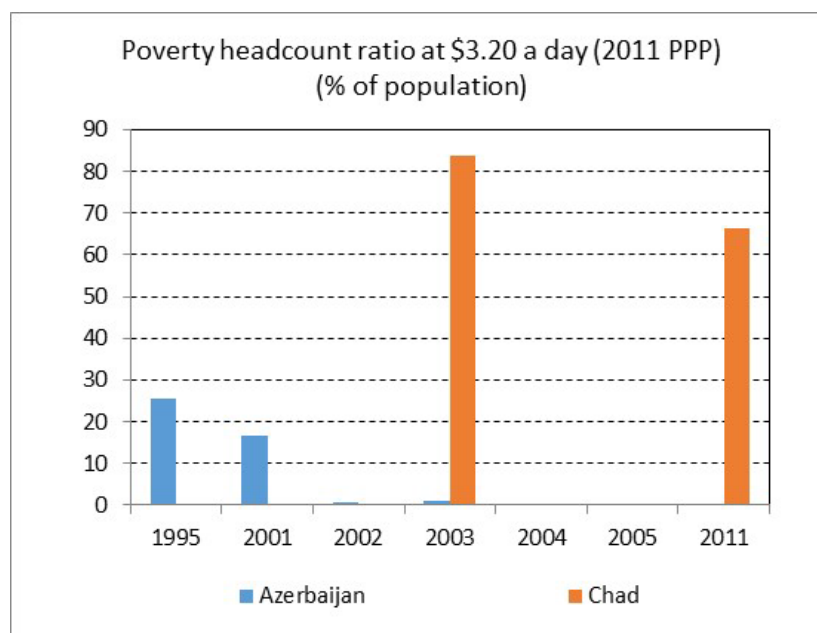
**Figure 4: Poverty Headcount Ratios at \$1.90 a day (percent)**



Source: Created by author based on World Bank (2022a).

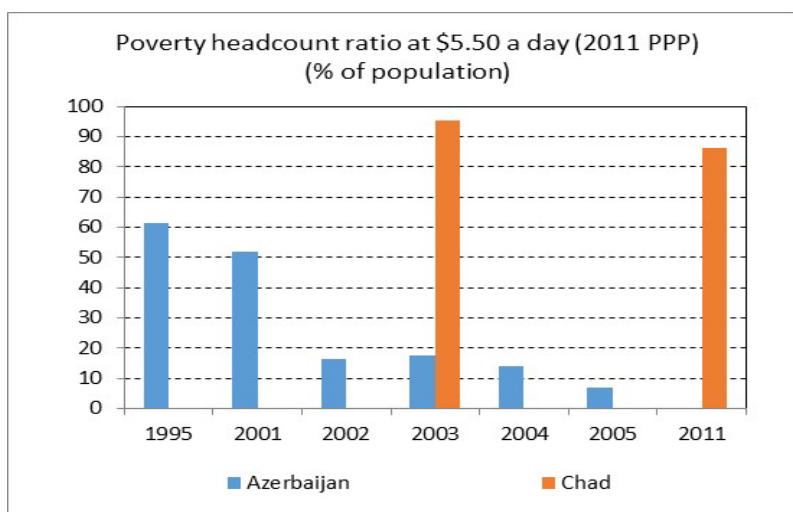
Third, while the only two data points for Chad indicate continuous progress with reducing poverty over time for all three poverty indicators, Azerbaijan has seen an increase in both, the percentage of people living below \$3.20 a day and the percentage of people living below \$5.50 a day from 2002 to 2003.

**Figure 5: Poverty Headcount Ratios at \$3.20 a day (percent)**



Source: Created by author based on World Bank (2022a).

**Figure 6: Poverty Headcount Ratios at \$5.50 a day (percent)**

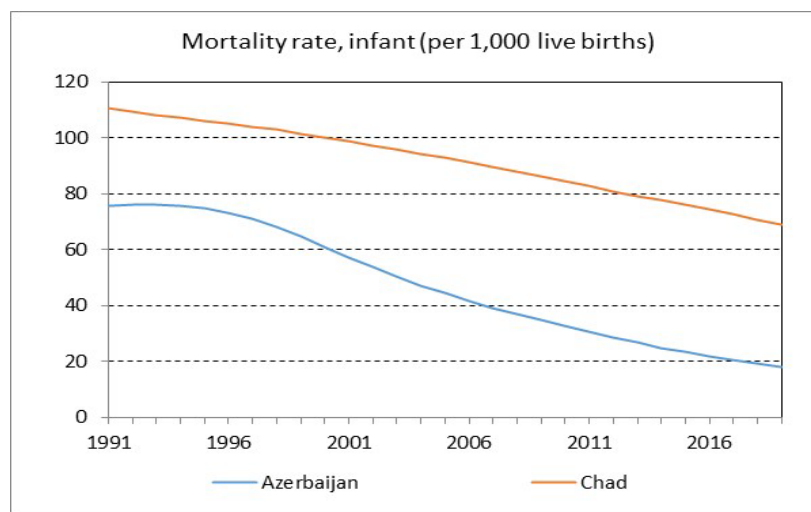


Source: Created by author based on World Bank (2022a).

## IV.2. Other Poverty-Related Indicators

Given the severe data gaps for poverty headcount ratios, this sub-section reviews the available data on infant mortality rates and the prevalence of underweight children. Figure 7 shows the evolution of infant mortality, for which data is available for both countries on an annual basis from 1991 to 2019. Consistent with Chad's far higher poverty rates, infant mortality is higher in Chad than in Azerbaijan. However, the difference between the two countries seems less severe for infant mortality than for poverty. Azerbaijan reduced its infant mortality rate from 75.9 percent in 1991 to percent in 2019, which is a reduction of about three-quarters, while Chad reduced its infant mortality rate from 110.5 percent in 1991 to 69.1 percent in 2019, which is a reduction of slightly more than one-third.

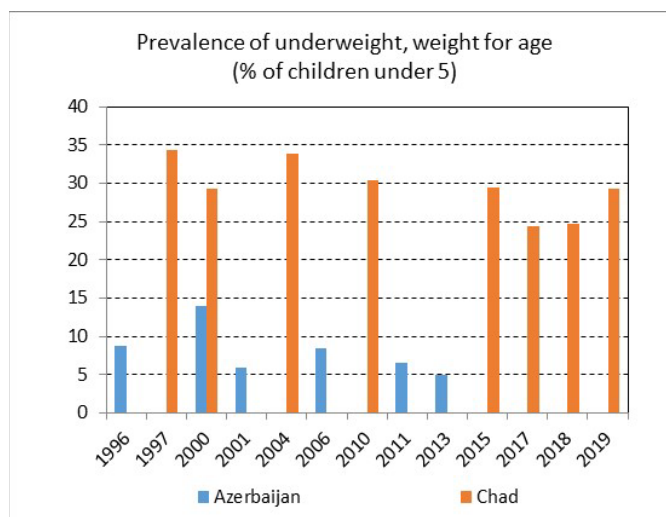
**Figure 7: Infant Mortality (percent), 1991–2019**



Source: Created by author based on World Bank (2022a).

As shown in Figure 8, the prevalence of underweight children is at least four times higher in Chad than in Azerbaijan but comparing the data for this indicator with the headcount poverty ratios shown above, both countries have made relatively little progress. The prevalence of underweight children was reduced from 8.8 percent in 1996 to 4.9 percent in 2013 in Azerbaijan (which is a reduction of only 44.3 percent over nearly 20 years), while it was reduced from 34.3 percent in 1997 to 29.2 percent in 2019 in Chad (which is a reduction of only 14.9 percent over more than 20 years).

**Figure 8: Prevalence of Underweight Children (percent), all available years**



Source: Created by author based on World Bank (2022a).

## V. Ethical Analysis

The figures on poverty and poverty-related indicators in the last section can only paint part of the picture. The story and real-world experiences behind the numbers are those of hardship and exploitation. This section provides an ethical analysis of poverty in Azerbaijan and Chad by first reviewing the relationship between dictatorship and poverty. Based on that, the article will then demonstrate the link between authoritarian structures and poverty. The ethical lens will also provide a basis for speaking out against authoritarianism on a utilitarianist and rights-based approach.

### V.1. Dictatorship and Poverty

Chad and Azerbaijan are authoritarian regimes, (although of varying degree), and have experienced periods under strict dictatorial rule. In Azerbaijan, it was Heydar Aliyev, and his son Ilham after him. In Chad, it was Idriss Deby until his recent murder, leaving Mahamat Deby in his place. Empirical evidence suggests these nation's authoritarian structures make them less inclined to address poverty. Evidence from Espuelas (2012) supports the notion that dictatorships are less likely to implement social spending initiatives, particularly on redistributive programs, education, health, and unemployment benefits.

Nega and Schneider (2012) explain that dictatorships are only interested in creating enough economic development to pay themselves, their elite base, and security forces to crush rebellion. We see evidence of both truths in Chad and Azerbaijan. During the reign of Heydar Aliyev, he was more interested in using public money to pay off the military and political elites than using it for anti-poverty programs.<sup>6</sup> The military is important to these leaders as they serve as a tool to crush rebellion when the untended populous eventually raises their voice against the regime. In Chad, we see the authoritarian government under Idriss Deby neglect their obligation to share oil revenues with the poor, leading to increased poverty in the oil producing regions.<sup>7</sup> In addition to imprisoning opponents and using the military to inflame political conflict, Idriss Deby used oil money to pay patronage to those loyal to him, and no one else.<sup>8</sup> It is clear that in both Chad and Azerbaijan, vital resources were held back from those who needed it (namely the impoverished), so that their dictators could instead use those resources to protect their own power.

### ***V.1.a. Dictatorships and Poverty in Azerbaijan***

Azerbaijan is a nation that has been marred by poverty in the midst of government corruption and profiteering. It is worth discussing Azerbaijan in the context of two eras. The first era is from the 1990s and early 2000s under Heydar Aliyev and the immediate period of Soviet Independence. The second era would be the more modern era. Rasizade (2002) covers the first era in great detail. He describes a rise in poverty, a decline in the standard of living, and increased corruption in the Heydar era. Aliyev was able to consolidate political power because the populous was too busy trying to survive to be invested in politics.

The presidential family's control over petrol dollars also increased their power. As Rasizade (2002, p. 353) explains: "A regime with oil revenue is less accountable to ordinary citizens; it does not have to collect their trifling taxes or meet their tedious demands. A portion of the petrodollars must be spent on the armed forces to keep the masses in line, but the rest can be split among the political elite." This theme of corruption was widespread and served to divert money from the country's poor into the pockets of those who Aliyev needed to keep happy in order to maintain power. The country's vast oil revenues were at the heart of this corruption. There was a grand oil smuggling scheme set up by the presidential family, who held a monopoly on the export and domestic distribution of local petroleum products. The president's son was vice president of the State Oil Company of Azerbaijan Republic (SOCAR), which brought in \$1 billion of unreported oil revenues directly to the presidential family.

At the same time, most Azeris lived below the national poverty line. The government failed to provide any sort of public services or welfare. Its education, health care, and pensions systems are all in distress. Despite such conditions, Aliyev was more than happy to flout that GDP had grown by 66 percent in 2001.<sup>9</sup> In terms of unemployment at the time, in 2002 only 18,000 were employed in Azerbaijan's second largest city of Ganja out of a total population of 300,000. The country saw a different trend after the 2008 financial crisis. The country was and still is ruled by Ilham Aliyev, Heydar's son. It is an authoritarian state, but as the data has indicated, the country has seen drastic

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<sup>6</sup> Rasizade (2002).

<sup>7</sup> Aristide and Moundigbaye (2017).

<sup>8</sup> The Economist (2019).

<sup>9</sup> Rasizade (2002).

declines in poverty rates and rises in the quality of living, largely due to rising oil prices. However, much of the wealth of larger cities like Baku are not extended to its outer suburbs.<sup>10</sup>

### ***V.1.b. Dictatorships and Poverty in Chad***

While Azerbaijan tells the story of a nation improving, despite its continued authoritarian political structures, Chad has not had as much success. Commercially viable oil fields were discovered in Chad in the 1990s. The World Bank agreed in 2000 to tap the undeveloped oil wealth of Chad under the condition that Chad dedicates its earnings from oil to attacking its poverty. However, as reported in Polgreen (2008), the World Bank pulled out of the agreement in 2008 stating that Chad failed to allocate adequate resources critical for poverty reduction. The oil boom also disrupted other industries in the country.

Growth in the oil market led to stagnation in the country's agricultural sector, where poverty was most present. Further, research from Aristide and Moundigbaye (2017) demonstrated that poverty actually increased in the major oil-producing regions, supporting the notion that oil revenues were not allocated properly to support the poor. Instability issues also threaten the poor in Chad. In addition to the aforementioned humanitarian crisis, there is an ongoing conflict between the dictatorial Mahamat Deby's military government, (the CMT), and rebel groups.<sup>11</sup> Political conflict in a state which already lacks many basic social services is sure to lead to further poverty.

## **V.2. Ethical Structures in Chad and Azerbaijan**

Given how systemic the challenge of poverty was and still is in these countries, both have taken efforts to implement better social assistance programs, and other ethical structures to address poverty. As shown by the factual analysis of the previous section, Azerbaijan has had noticeably more success in alleviating poverty than Chad, likely due to a greater range of anti-poverty programs and greater political stability afforded by Ilham Aliyev's growing political consolidation.

In response to endemic poverty rates in the 1990s and early 2000s, the government has implemented several anti-poverty programs and laws. They have social insurance, labor pensions, and social assistance laws for the elderly and disabled per 1997 and 2006 changes. They have sickness and maternity social assistance programs that allow for up to 12 months of earnings being insured by the government, as per 1997 and 1999 laws. They have work accident insurance as of a 2010 law. A new 2017 law updated unemployment insurance, which gives the insured 50 percent of their average wage in the last 12 months for up to 9 months. In terms of direct assistance to the poor, they have several family-based protections, including those for childcare and orphans, and direct allowances to needy families who make below a certain amount.<sup>12</sup>

Most of these programs represent pure income transfer programs that protect Azeri citizens going through difficult circumstances. However, a few of these programs do qualify as asset accumulation programs or integrated poverty reduction programs. Work injury protection, childcare, and certain maternity benefits provide greater access to health care, an essential asset. What is missing are other, grander asset programs, such as universal health care or education programs.

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<sup>10</sup> Parts of his paragraph are based on The Economist (2011).

<sup>11</sup> Economist Intelligence Unit (EIU) (2022).

<sup>12</sup> United States Social Security Administration (2018).

Azerbaijan's rationale for these programs does arise from the genuine need to address their poverty issue, but it also gives greater legitimacy to Ilham, allowing him to further consolidate his political power. Aliyev won 86 percent of the vote in the 2018 election. This election was one that all major opposition parties boycotted over claims it was fraudulent, and one full of fake candidates. A 2009 law scrapped term limits, which were recently increased from 5–7 years. Independent new organizations have been shut down, whilst investigative journalists languish in jails along with protestors. Aliyev's increasingly rapid drive towards authoritarianism is ignored by a politically apathetic population, who are grateful to Aliyev for improving their living standards.<sup>13</sup>

Chad faces ongoing struggles with poverty, with the country falling back into a recession in 2020, due to Covid-19, ongoing political conflict, and a refugee crisis.<sup>14</sup> However, there are still promising initiatives and programs active in Chad that may help lift Chadian citizens out of poverty or alleviate poverty's worst impacts. Reviewing the social security and assistance programs, Chad has among others implemented a.) old age, disability, and survivor pensions, b.) a National Health Insurance Fund and National Social Insurance Fund that help pay for certain health services in addition to employer contributions, and c.) mandatory severance pay laws.<sup>15</sup>

In addition to these programs, there are several international and non-governmental organizations the Chadian has allowed to do poverty alleviation work in the country. The ResEau project is working to solve water scarcity in Chad, an issue which perpetuates poverty. The Chad Education Sector Reform Project (PARSET) is providing primary education to thousands of Chadian children, as well as training for over 13,000 teachers. They have also built and supplied 500 new schools. The Emergency Agriculture Production Support Project is a joint operation with the UN Food and Agriculture Organization (FAO) and the World Food Program (WFP) that gives food vouchers and nutritional supplements to malnourished children.<sup>16</sup> These and other organizations have stepped up in part to the lack of sufficient social services available in Chad, which is evident when compared to those available in Azerbaijan. These organizations provide a stronger integrated poverty reduction approach to poverty alleviation, by providing direct financial support, as well as asset accumulations like education and health services.

In light of the presence of these programs, it is important to remember that poverty and its alleviation is chiefly an ethical issue. If we expect other countries to prioritize poverty alleviation, it is important to present ethical arguments for why it is important. According to Barrientos et al. (2016), ethical perspectives are crucial to influencing poverty reduction policies. He points out that ethical perspectives create shared values and social norms. These in turn influence the political processes of a country, which then leads to poverty reduction programs based on those shared values. In other words, the ethical viewpoint a populous adopts will determine what kinds of poverty initiatives will be adopted if any.

Barrientos et al. (2016) presents five different ethical perspectives related to poverty. They are the egalitarian perspective, the utilitarian perspective, the priority perspective, the sufficiency perspective, and the humanitarian perspective. Each perspective offers a unique argument for why poverty should be reduced, but the most impactful in my view are the egalitarian and humanitarian perspectives. The egalitarian perspective is closely linked to the fairness and justice approach to

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<sup>13</sup> Most of the information provided in this paragraph is based on The Economist (2018).

<sup>14</sup> World Bank (2022b).

<sup>15</sup> United States Social Security Administration (2018).

<sup>16</sup> Wright (2020).

ethical standards and argues that reducing poverty makes societies more just. This certainly applies to Chad and Azerbaijan. It does not seem fair or just that their ruler and political elites should live prosperously whilst the large majority of the people they rule live in squalor. This is especially true when political elites are able to do so because of their exploitation of a supposedly nationally owned resource (oil), which should be shared amongst the citizenries.

The humanitarian perspective makes the case that poverty reduction is required based on humanitarian reasons, (i.e., we are all humans). This perspective relies on human rights, and the notion that poverty threatens the human rights of those under its oppression. Chiefly, poverty deprives people of their human right to be free from want, and to be free from exploitative working conditions. By implementing anti-poverty programs, countries like Chad and Azerbaijan have the opportunity to create fairer and more just conditions, and to provide a good environment for the development of their people's human rights. It is clear that at least in the case of Azerbaijan, this argument is being heard, albeit gradually. Ilham Aliyev has increased the standard of living of his people. However, full realization of the egalitarian perspective still needs to be achieved, as corruption is still endemic under Ilham's rule as it was under his father. As for Chad, they have been unable to consider poverty under these frameworks, and its people have suffered as a result.

One explanation for the reluctance of Chad and Azerbaijan to fully adopt or properly prioritize poverty alleviation may be again linked to regime type. Looking again at Barrientos, he established that social norms impact political processes, however, the case of these two nations may indicate the reverse may be true in some cases, i.e., that political processes influence social norms. In Azerbaijan, the government has cracked down on press freedom, fair political participation, opposing parties, and protests during the reign of the Aliyev family. The result of these authoritarian practices has been the creation of a politically apathetic population, more concerned with survival than anything else.<sup>17</sup> Hence, political practices have impacted social norms in Azerbaijan. It could then be argued that the changed social norms have reduced the space for proper ethical considerations of poverty in the national consciousness, seeing as how Barrientos et al. (2016) have already linked ethical perspectives with social norms.

## **VI. Conclusion**

Chad and Azerbaijan are nations with complex histories. The Azeri people endured years of stagnant GDP per capita growth, poverty, unemployment, and corruption of the Aliyev family. Under the rule of Idriss Deby, Chad was not only plagued by low life expectancy rates, low literacy rates, and crippling poverty, but also by sustained political conflict between rebels who sought to end the Deby rule. As the 21<sup>st</sup> century has progressed, these countries have had varying success in addressing their challenges. Azerbaijan has leveraged its resources to institute more far-reaching and successful poverty alleviation programs which have improved the lives of Azeris, although they still have ways to go. Chad, plagued by political instability has neglected its poor, and as a consequence, the nation has seen little development progress.

What has been the same across both nations is their authoritarian character. Both countries are oil-rich, yet dictators like Deby and Heydar Aliyev refused to use their nation's natural wealth to fund poverty alleviation programs. They and other world dictators do so because they were more

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<sup>17</sup> Rasizade (2002).

concerned with keeping their political support bases and the military happy. This translated to Azeri corruption and Chadian neglect.

Ethics tells us that these countries have an egalitarian and humanitarian obligation to fight poverty. Luckily, in face of government neglect to do so, some international organizations have intervened to help assist the portion of the global majority that live in Chad and Azerbaijan. However, if these countries want to see sustained development improvements, particularly in the case of Chad, its citizens need to recognize that its authoritarian leaders often do not have their interests in mind. Long-term democratization efforts in Chad and Azerbaijan may have the potential to make their governments more accountable to their citizens, and thus more willing to address poverty. If Barrientos is to be believed, a population interested in democracy has the potential to shape the political processes of the state to be more democratic. Perhaps then, the poor of Azerbaijan and Chad can begin to hope for a better future.

## References

- Aristide, Mabali and Mantobaye Moundigbaye (2017). Oil and Regional Development in Chad: Assessment of the Impact of the Doba Oil Project on Poverty in the Host Region. *African Development Review*, Vol. 29, No. S1, pp. 42–55.
- Asian Development Bank (2018). *Economic Development in Azerbaijan*. Asian Development Bank, internet resource; available at: <https://www.adb.org/sites/default/files/linked-documents/cps-aze-2014-2018-sd-02.pdf>.
- Barrientos, Armando et al. (2016). Why Assist People Living in Poverty? The Ethics of Poverty Reduction. UNICEF Office of Research, *Innocenti Working Paper*, No. 2016-27.
- Economist, The (2011). How to Spend It. *The Economist*, internet news story of November 12, 2011; available at: <https://www.economist.com/europe/2011/11/12/how-to-spend-it>.
- Economist, The (2018). Azerbaijan's President Wins Yet Another Term. *The Economist*, internet news story of April 12, 2018; available at: <https://www.economist.com/europe/2018/04/12/azerbaijans-president-wins-yet-another-term>.
- Economist, The (2019). Idriss Déby, Chad's Despot, is Struggling to Stay in Power. *The Economist*, internet news story of July 18, 2019; available at: <https://www.economist.com/middle-east-and-africa/2019/07/18/idriss-deby-chads-despot-is-struggling-to-stay-in-power>.
- Economist Intelligence Unit (2022). One Click Report: Chad. Economist Intelligence Unit, internet resource of September 12, 2022; available at: <https://viewpoint.eiu.com/analysis/geography/XN/TD/reports/one-click-report>.
- Espuelas, Sergio (2012). Are dictatorships less redistributive? A comparative analysis of social spending in Europe, 1950-1980. *European Review of Economic History*, Vol. 16, No. 2, pp. 211–232.
- Kniffel, Leonard (2014). Building a Pipeline to Education in Azerbaijan. *American Libraries Magazine*, Vol. 45, No. 6, pp. 46–49.



- Nega, Berhanu and Geoff Schneider (2012). Things Fall Apart: Dictatorships, Development, and Democracy in Africa. *Journal of Economic Issues*, Vol. 46, No. 2, pp. 371–381.
- Polgreen, Lydia (2008). World Bank Efforts to Help Chad Ease Poverty. *The New York Times*, internet story of September 10, 2008; available at: <https://www.nytimes.com/2008/09/11/world/africa/11chad.html?searchResultPosition=1>.
- Rasizade, Alec (2002). Azerbaijan After a Decade of Independence: Less Oil, More Graft and Poverty. *Central Asian Survey*, Vol. 21, No. 4, pp. 349–370.
- United Nations Children’s Fund (UNICEF) Chad (2019). Education. UNICEF Chad, internet resource; available at: <https://www.unicef.org/chad/education>.
- United Nations Children’s Fund (UNICEF) Chad (2020). Emergencies. UNICEF Chad, internet resource; available at: <https://www.unicef.org/chad/emergencies>.
- United States Social Security Administration (2018). Social Security Programs Throughout the World: Asia and the Pacific, 2018. Washington, DC: United States Social Security Administration, internet resource; available at: <https://www.ssa.gov/policy/docs/progdesc/ssptw/2018-2019/asia/azerbaijan.html>.
- World Bank (2022a). World Development Indicators (Washington, DC: The World Bank); as posted on the World Bank website: <http://data.worldbank.org/data-catalog/> (downloaded on January 3, 2022).
- World Bank (2022b). The World Bank in Chad. Washington, DC: The World Bank, internet resource of April 13, 2022; available at: <https://www.worldbank.org/en/country/chad/overview>.
- Wright, Madalyn (2020). 5 Innovations in Poverty Eradication in Chad. The Borgen Project, internet resource of September 8, 2020; available at: <https://borgenproject.org/poverty-eradication-in-chad/>.

# **Disappearing Forests: Climate Change and Deforestation in the Democratic Republic of the Congo and Brazil**

Willem Ells

## ***Abstract***

*This article looks at climate change and deforestation in the Democratic Republic of the Congo (DRC) and Brazil. Brazil and the DRC are currently the top two countries in terms of destroying the largest area of primary forest annually. Slash-and-burn agriculture—a destructive method of farming that destroys large plots of land—is a major contributor to the deforestation problem in both Brazil and the DRC. Deforestation worsens climate change because large forests are effective at absorbing carbon dioxide from the atmosphere and because it directly releases carbon. While deforestation has destructive effects on the atmosphere, it is a complicated issue because crops harvested on land clearcut for agriculture are the primary source of income for many impoverished people in both these countries. This article will consider the economic effects of deforestation, its relation to climate change more broadly, and the ethical issues necessary to consider when deciding what future policy courses may be appropriate.*

## **I. Introduction**

Climate change, and its various effects, reach the front page of many newspapers today after being ignored for years. Journalists often highlight it when a major natural disaster or other tragedy occurs. While climate change also has many less visible effects, one of the most notable trends of the past ten years is the increase in the burning of forests. Greenberg (2022) reports on the significant burning of the Amazon rainforest in Brazil, perhaps the most well-known rainforest in the world. Images of the fires burning throughout the rainforest help to visualize and emphasize the damage that widespread deforestation does to the environment.

This article focuses on climate change and deforestation in Brazil and the Democratic Republic of the Congo (DRC), the currently two largest contributors to deforestation worldwide.<sup>1</sup> Specifically, it will focus on the driving factors behind deforestation, how governments have responded, and the ethical implications of proposals to stop the practice. It will consider changing trends, the

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<sup>1</sup> Weisse and Goldman (2022) and UNICEF-DRC (2021).

importance of agriculture to the economies of these countries that use deforestation, and ethical structures that can be used to approach solving the problem.

Excluding the introduction and conclusion, this article is structured into four major sections. First, it will provide an outline of existing literature on the dangers of deforestation and various aspects of the practice in Brazil and the DRC. Next, some basic socio-economic background information will be explored. Third, the article will analyze facts and statistics specifically regarding the practice in these two countries, with an additional subsection overviewing how the Brazilian and Congolese governments have responded. Finally, the article will consider ethical structures regarding this issue and examine how these can be applied to the cases of Brazil and the DRC.

## **II. Literature Review**

There is extensive research on the driving forces and effects of deforestation in Brazil, the DRC, and the world. Aguiar, Ometto and Martinelli (2011) review existing scholarship on deforestation in Brazil. Fearnside (2008) examines the actors responsible for deforestation in the Amazon rainforest. Moonen et al. (2016) conduct a localized analysis of deforestation in the DRC. Lawson (2014) argues that illegal logging in the DRC is widespread and critical for the government to combat. Turubanova, Potapov, Tyukavina and Hansen (2018) create a model to map primary forest loss and compare Brazil and the DRC against each other. Finally, Lawrence and Vandecar (2014) examine the broad effects of significant deforestation on the global climate.

- Aguiar, Ometto and Martinelli (2011) overview and synthesize existing scholarship on deforestation in Brazil. They describe how cattle ranchers, subsistence farmers, and commercialized farming primarily drive deforestation in the Amazon rainforest. In particular, they emphasize how agricultural businesses, which grew rapidly in the early 2000s, threaten the relatively untouched western and central areas of the rainforest. The authors point out that the rate of deforestation stabilized and began to fall in the early 21<sup>st</sup> century, largely due to attempts by the Brazilian government to mitigate damage. However, they stress that biodiversity remains threatened and that significant amounts of carbon continue to be released into the atmosphere. Finally, they point out that there are many competing interests and needs to consider when creating policies to combat deforestation.
- Fearnside (2008) focuses on the importance of considering various actors and their roles in Amazonian deforestation. For instance, he argues that landless migrants—farmers who constantly seek new land to cultivate—play a large role both by clearing land and pushing nearby landowners to do the same as a defense against trespassing from landless migrants. Ranchers, according to Fearnside, are responsible for more deforestation than any other group. Additionally, drug traffickers and money launderers clear land that legitimate businesses avoid. Gold miners play a role by encouraging migration to otherwise unpopulated areas. Finally, agribusiness drives deforestation in certain regions, like Mato Grosso, and incentivizes large infrastructure projects. Fearnside argues that it is critical to consider actors and not just spatial models of deforestation when creating policies to address the issue.
- Moonen et al. (2016) analyzed deforestation in the Central Basin of the DRC at a localized level. They focused on causes of variation in deforestation rates at household and village levels, a first for a major study. The authors found that population density and market

access were the primary determinants of whether a village engaged in significant deforestation. Further, families with lengthy ties to a location and those more integrated with markets were more likely to engage in deforestation. Additionally, the authors found that cultural factors affected the likelihood of deforestation. From this research, they concluded that policies to address deforestation, primarily the REDD+ international initiative, must consider local factors as well as global and national contexts.

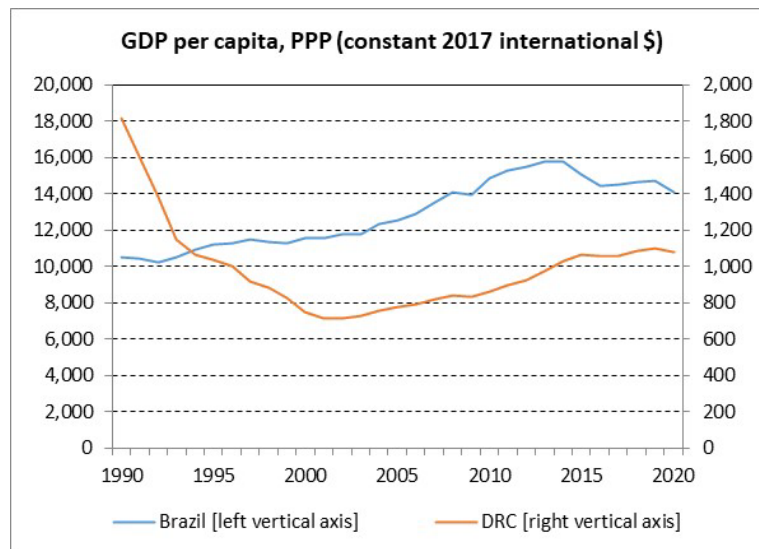
- Lawson (2014) considers illegal logging and trade in the DRC. According to his research, as much as 90 percent of logging in the country is illegal. He argues that most logging is licensed in some way but does not adhere to regulations. The regulatory structure is confusing, and enforcement is scarce. Most of the logging is done for small-scale trade within the country or the region. Progress on reducing illegal logging has been slow because of corruption and a lack of political will. Lawson argues that the government, which instituted a moratorium on new licenses, must keep it in place until a better governing and enforcement structure is created.
- Turubanova, Potapov, Tyukavina and Hansen (2018) demonstrated a method for mapping and monitoring forest loss, an issue they argue deserves attention because of the significant effects of deforestation on the global climate. The authors consider primary forest loss from 2002-2014, focusing on three countries, Brazil, Indonesia, and the DRC. Forest loss in Brazil was five times higher than in the DRC, despite Brazil's success in slowing deforestation along the edge of their forests. The authors emphasize that even though Brazil has made inroads in stopping deforestation, remote areas of the Amazon rainforest remain at risk. Additionally, the DRC faces risks because of an increasing number of small-scale farmers moving closer to intact forests.
- Lawrence and Vandecar (2014) overview the effects of deforestation in the tropics more broadly, without focusing on a specific country. They argue that statistical modeling shows that countries in the tropics will face more warming and less rainfall than other countries. As an extreme example, they show that complete deforestation would have the same global warming effect as all of the fossil fuels burned since 1850. Additionally, they argue that deforestation, which is often done for agriculture, will harm future agricultural productivity. A warming climate will eventually reach a threshold past which rainfall decreases significantly. The warmth and lack of rainfall will increase the frequency of droughts that damage crop production and local economies.

### **III. Socio-Economic Background**

Figure 1 shows purchasing power parity adjusted GDP per capita in constant international dollars in Brazil and the DRC from 1990 to 2020. During this period, Brazil experienced an overall increase in GDP per capita, with small declines in 1997, 2001, 2008, and since 2014. GDP per capita reached a peak in 2013. PPP-adjusted GDP per capita in the DRC over the same period declined slowly but consistently until it began a slow rise in 2010. Additionally, GDP per capita in the DRC is several times lower than in Brazil. On average, it is 13 times lower in the DRC than in Brazil. This reflects the fact that Brazil is more developed than the DRC and enjoys a higher overall standard of living.

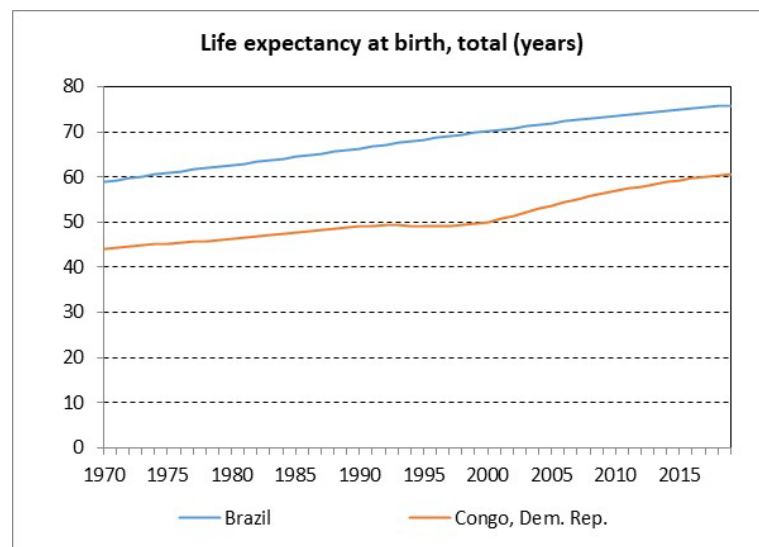
Both Brazil and the DRC have experienced consistent increases in life expectancy at birth. Figure 2 shows this trend from 1970 to 2019. In Brazil, life expectancy at birth has increased from an estimated 59 years in 1970 to 76 years in 2019. In the DRC, life expectancy has increased from about 44 years in 1970 to 61 years in 2019. The DRC experienced a minor decline between 1993 and 1997. Figure 2 shows that for every year between 1970 and 2019, Brazil has had a life expectancy about 34 percent higher than in the DRC.

**Figure 1: GDP Per Capita, PPP (Constant 2017 int. \$) 1990–2020**



Source: Created by author based on World Bank (2022).

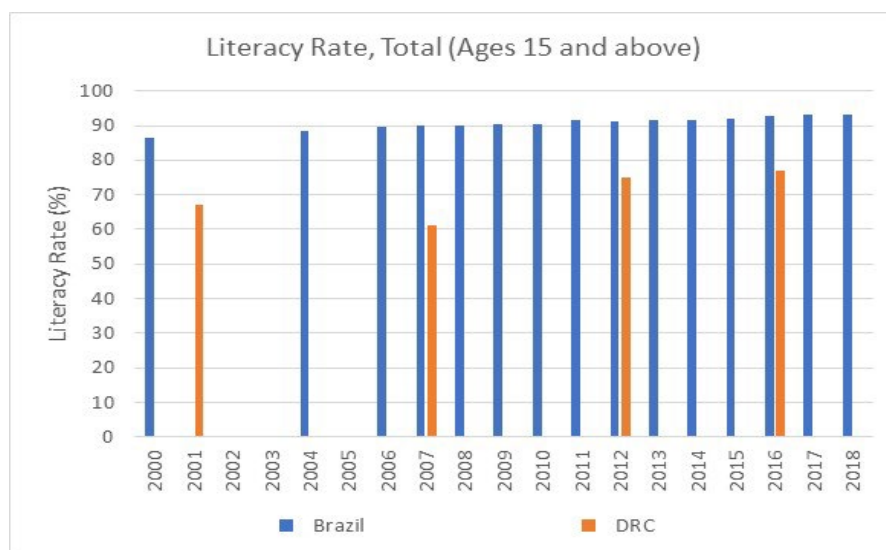
**Figure 2: Life Expectancy at Birth, 1970–2019**



Source: Created by author based on World Bank (2022).

Figure 3 shows the literacy rates in Brazil and the DRC from 2000 to 2018. The World Bank data on literacy rates is sparse and not available every year. The data is more consistently available over this period in Brazil. Brazil has had a relatively high and slowly increasing literacy rate since 2000, rising from about 86 percent to 93 percent. In the DRC, literacy rates were lower in 2007 compared to 2001, but have risen since then to about 77 percent. Across the period, Brazil has had consistently higher literacy rates than the DRC.

**Figure 3: Literacy Rate (ages 15 and above)**



Source: Created by author based on World Bank (2022).

Overall, across all three indicators, Brazil is consistently and significantly higher than the DRC across the entire period. Again, this demonstrates that Brazil is more developed than the DRC and has higher living standards. Further, this indicates that regardless of other facts, Brazil seems to have a stronger overall economy. Additionally, the general decline in GDP per capita in the DRC while Brazil saw increases indicates that Brazil has grown while the DRC has continued to struggle. However, despite the stagnant GDP per capita in the DRC, other indicators, like life expectancy and the literacy rate, have increased.

## IV. Analysis of Facts

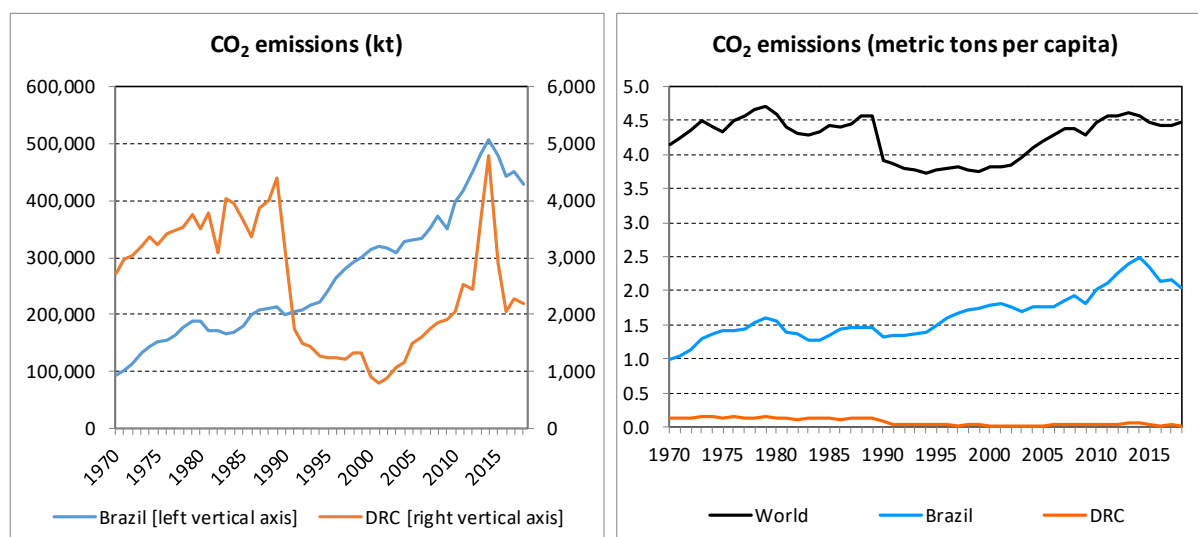
### IV.1. Total and per capita Carbon Dioxide (CO<sub>2</sub>) Emissions

Given that Brazil has with 212.6 million people in 2020 more than twice the population than the DRC (which stood at 89.6 million in 2020), it can be expected that Brazil's total carbon dioxide (CO<sub>2</sub>) emissions are larger than that of the DRC's total CO<sub>2</sub> emissions. Indeed, as Figure 4 shows, during the last five decades, Brazil's total CO<sub>2</sub> emissions have been about 100 to 200 times higher than the DRC's total CO<sub>2</sub> emissions. Despite some volatility, Brazil's total CO<sub>2</sub> emissions have overall increased from 1970 to 2014, and then show a declining trend since 2014. The DRC's total CO<sub>2</sub> emissions have been far more volatile, showing an overall increasing trend from 1970 to 1989, then a very sharp decline from 1989 to 1991, with a further though more moderate decline from

1991 to 2001. The DRC's total CO<sub>2</sub> emissions then increased very sharply from 2001 to 2014, after which they decreased equally sharply from 2014 to 2016, and then stabilized around 2,200 kt in 2016 and 2018.

To correct for the different population sizes across times and the two countries, Figure 5 shows the per capita CO<sub>2</sub> emissions for Brazil and the DRC, which are at least 10 times higher for Brazil than the DRC. As a reference point, Figure 5 also includes the average per capita CO<sub>2</sub> emission for the world, which has been about twice that of Brazil during the last two decades and about 150 times that of the DRC during the last two decades. This is important to keep in mind when we examine some ethical aspects of Brazil's and the DRC deforestation in the next section.

**Figures 4 and 5: Total CO<sub>2</sub> Emissions and per capita CO<sub>2</sub> Emissions, 1970–2018**



Source: Created by author based on World Bank (2022).

According to Ayompe, Davis and Egoh (2020), there is an association between GDPs per capita and CO<sub>2</sub> emissions. In general, a higher GDP per capita is correlated with higher emissions, although there are exceptions. Ayompe, Davis and Egoh (2020) demonstrate an even stronger relationship between low GDP per capita and low CO<sub>2</sub> emissions. Therefore, it is unsurprising that Brazil saw rising emissions while the DRC saw emissions decline. As was shown in Figure 1, GDP per capita has tended to increase in Brazil since 1990 while slowly declining in the DRC. This suggests that Brazil is a larger contributor to climate change than the DRC. Despite this, Paavola, Adger and Huq (2006) argued that less developed countries like the DRC will experience the worst effects of climate change while also having less power to combat it.

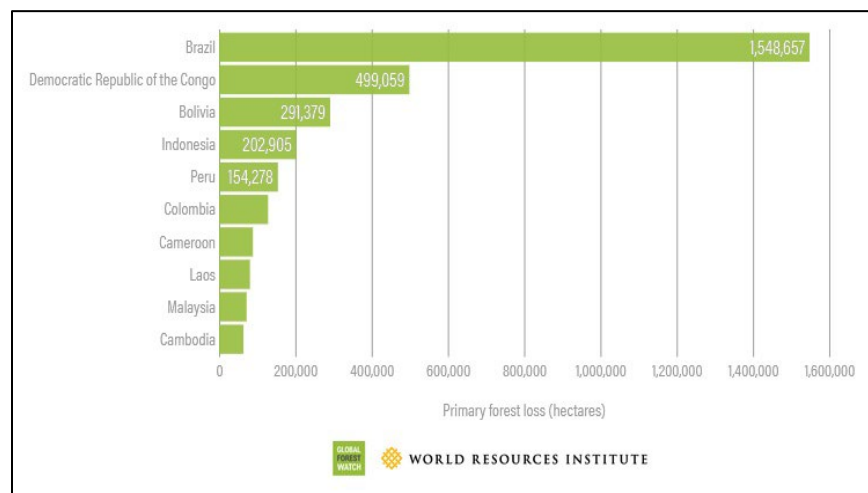
## IV.2. Deforestation and its Effects

As shown in Figure 6, Brazil was the largest contributor to tropical primary forest loss in 2021, followed by the DRC. Brazil lost about 1.5 million hectares of forest due to deforestation, while the DRC lost about half a million hectares in 2021. Figure 7 shows that in both Brazil and the DRC, deforestation has been steady and significant. Between 1990 and 2020, Brazil lost about

31,000 square km per year on average, accumulating to about 920,000 square km across the period. The DRC has lost about 8,160 square km per year since 1990, totaling about 245,000 square km.

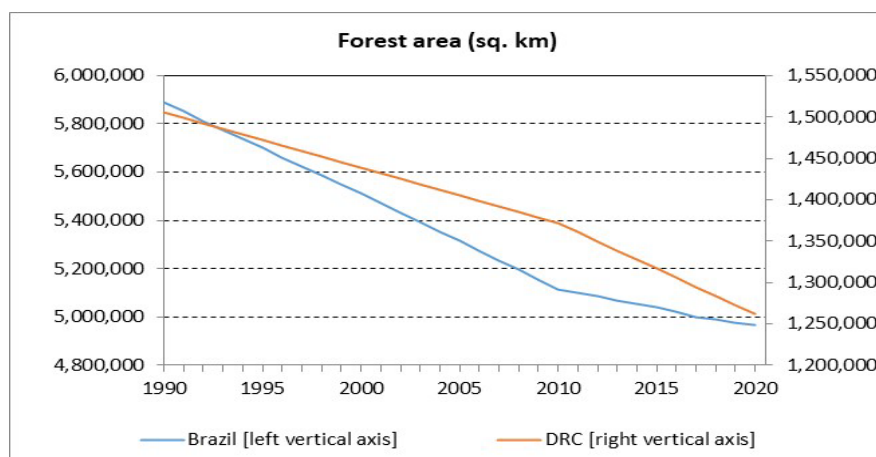
The total area of forest loss in 2021 was lower than the average loss in previous years for both Brazil and the DRC, reflecting the stabilization of deforestation, largely due to government and international attempts to combat the damaging practice. However, Weisse and Goldman (2022) report that since 2016, the amount of forest lost to fires has increased in Brazil while non-fire related loss has slightly declined. While the frequency and intensity of fires are exacerbated by climate change, Greenberg (2022) reports that most fires in the Amazon rainforest are started intentionally to clear land for agriculture. Unlike in Brazil, most deforestation in the DRC is driven by illegal logging and agricultural demands, according to Weisse and Goldman (2022). As Lawson (2014) argues, this is largely because the DRC lacks an effective licensing and regulatory system to encourage legal logging while preventing illegal clearcutting.

**Figure 6: Top 10 Countries for Tropical Primary Forest Loss in 2021 (hectares)**



Source: Weisse and Goldman (2022), Figure 2.

**Figures 7: Forest Area (in square km), 1990–2020**



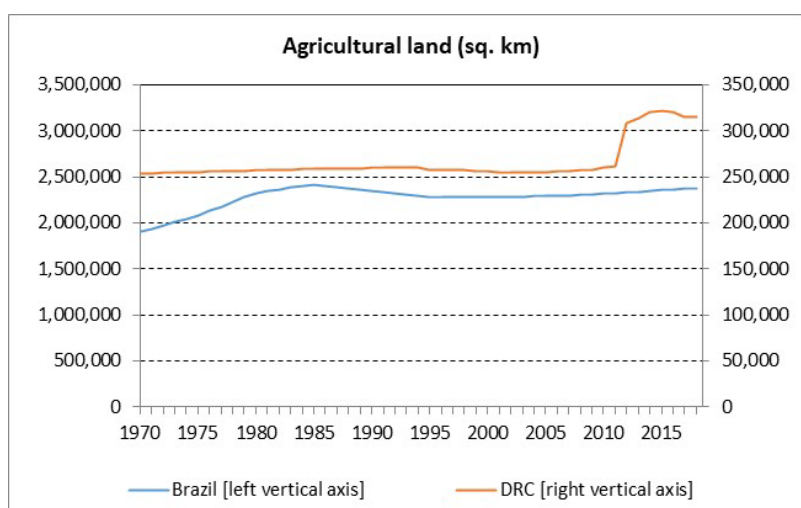
Source: Created by author based on World Bank (2022).



Figure 7 shows the forest areas (in square km) in Brazil and the DRC from 1990 to 2020, using two vertical axes as the forest areas of Brazil are about 4 times the forest areas of the DRC. The Figure shows that the rate of deforestation has declined in Brazil from 2010 to 2020 compared to the previous two decades (1990 to 2010). On the other hand, the rate of deforestation has increased in the DRC from 2010 to 2020, compared to 1990 to 2010. However, “deforestation in Brazil increased in 2020 and 2021, largely due to illegal mining activity and cattle ranching. (...) Without any change to current policies, emissions are expected to continue increasing, again leaving Brazil far from achieving its climate targets.”<sup>2</sup>

Figure 8 shows that the total area of agricultural land has increased in both Brazil and the DRC between 1970 and 2018. Total agricultural land in Brazil has increased by about 24 percent, or 465,000 square km. In the DRC, total agricultural land has increased by about 24 percent as well, totaling 61,500 square km. That total forest loss across both countries is significantly higher than the increase in agricultural land demonstrates the inefficiency of agricultural practices.

**Figure 8: Agricultural Land (in square km), 1970–2018**



Source: Created by author based on World Bank (2022).

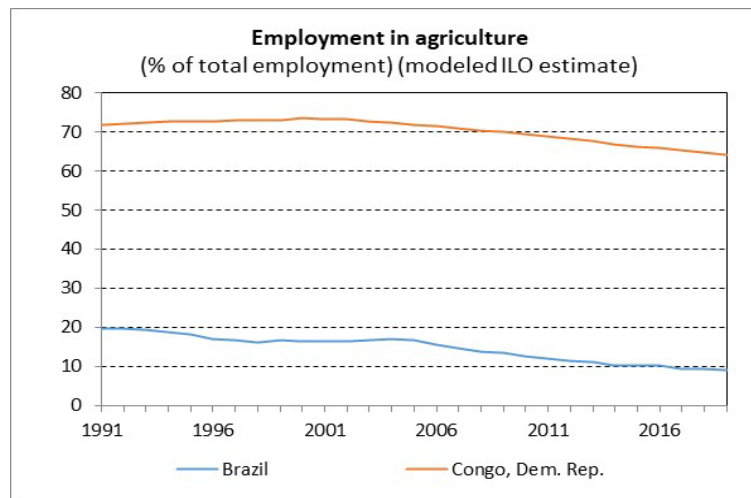
This discrepancy is likely driven by the practice of slash-and-burn agriculture. This method of farming is distinguished by the burning of all vegetation on a patch of land to create a nutrient-rich layer of soil.<sup>3</sup> While this provides quality crop yields for a short period, the nutrients in the soil are quickly exhausted and the land becomes unusable. The widespread use of this practice in countries like Brazil and the DRC helps explain why the increase in agricultural land does not offset the total forest loss. While Kleinman, Pimentel, and Bryant (1995) argue that slash-and-burn agriculture can be sustainable, most farmers fail to or cannot meet sustainability standards. As a result, much of the forest lost—which directly increases CO<sub>2</sub> in the atmosphere and destroys carbon sinks—eventually becomes unusable, driving farmers to continue clearing more forest.

<sup>2</sup> Climate Action Tracker (CAT) (2022), paragraph 4.

<sup>3</sup> EcoLogic Development Fund (2022).

Finally, Figure 9 shows the percent of total employment accounted for by the agricultural sector (including forestry and fishing) in Brazil and the DRC. In the DRC, the percentage of the population employed in agriculture is at about 64 percent in 2019 still very high, even though it declined from about 72 percent in 1991. In Brazil, about 9 percent of the population were employed in agriculture as of 2019, a significant decline from about 20 percent in 1991. Still compared to most industrialized countries, agriculture still provides a lifeline for many people in Brazil and especially in the DRC.

**Figure 9: Employment in Agriculture (percent of total employment) 1991–2019**



Source: Created by author based on World Bank (2022).

## V. Ethical Analysis

### V.1. Ethical Structures and Considerations

Many solutions proposed to combat climate change and deforestation specifically rely on economic rationale and the development of new, sustainable technologies. While these are critical perspectives, they often discount or outright ignore moral and ethical considerations.

Rotman (2013) writes that there is a disconnect between the immediate cost of stopping climate change and the immediate benefits. While climate change has already negatively affected certain parts of the world, as shown for example by the increase in extreme weather events, most of the damage will occur in the future.<sup>4</sup> Yet, the costs of investing in a sustainable future will be borne now. Rotman (2013), in agreement with many economists, suggests the economic practice of “discounting” to balance the immediate cost of a good or service with the value it will provide in the future. Under this framework, significant investments are necessary now to combat climate change, but instead of investing all of the necessary resources immediately, they should be spread out over the coming decades. This makes logical sense, according to Rotman (2013), because an unreasonably high immediate cost would create future costs that counteract the future benefits.

<sup>4</sup> United States Environmental Protection Agency (EPA) (2022).

This framework of utilizing an economic discount rate is an important start, but there are more ethical considerations. Another important question plaguing policymakers and ethicists, according to Paavola, Adger, and Huq (2006), is how the costs of combatting climate change should be distributed among countries. Wealthier, more developed countries contribute the most to greenhouse gas emissions, but less developed countries experience the worst effects. The fact that less developed countries will feel the worst effects of a warming climate incentivizes those countries to invest more to combat it. Similarly, wealthier countries, less affected by the damage they cause, are less motivated to invest in solving the problem. However, Paavola, Adger and Huq (2006), as well as most other ethicists, would agree that those most responsible for creating a problem have a greater responsibility to fix it.

Further complicating the picture, even when considering the damage that less developed countries do to the environment—through practices like deforestation—it is critical to understand the importance of these practices to local economies. Agriculture makes up a significant portion of economic activity in developing countries. Hence, it is a critical tool for raising incomes and ending extreme poverty, and one must consider the hypocrisy of placing the responsibility for ending these damaging practices on those who rely on them as one of a limited number of opportunities to escape poverty. The hypocrisy is further exemplified when considering that wealthier countries often exploit less developed countries (Hickel 2017). This further reduces economic opportunity in developing countries and increases the reliance on agriculture and practices like deforestation.

The many ethical considerations surrounding with whom the responsibility of combatting climate change lies should inform any policy proposals. There is no easy answer, but policymakers must work to find solutions that balance immediate costs with future benefits as well as determine which countries or corporations should be obligated to make the necessary financial investments. Additionally, any proposal that would slow or stop a practice critical to developing economies' development should also emphasize and invest in alternatives to prevent those affected from seeing a decline in their standard of living.

## **V.2. Ethical Analysis of Deforestation in Brazil and the DRC**

This section will now turn to how the ethical concepts analyzed above can be applied to Brazil and the DRC, and how they can inform future government policy responses. First, it is important to reiterate that while neither Brazil nor the DRC are considered developed countries, there are significant differences in the socioeconomic conditions between them. For instance, as was shown in Figure 1, GDP per capita in Brazil is about 13 times higher than in the DRC in 2020. Additionally, as was shown in Figure 9, a much larger proportion (about 64 percent) of the DRC's employed population works currently in the agricultural sector, compared to about 9 percent in Brazil.

Since there are major differences between the economic status of these two countries, a cost-benefit analysis of each will yield different answers. Brazil is wealthier and less dependent on agriculture than the DRC. This would suggest that not only does the government of Brazil possess more resources to combat deforestation, but it can afford to incur more immediate costs to realize more future benefits. The DRC, without foreign investment, likely does not have the funds to implement effective policies. Even though it could improve the licensing and regulatory framework, as Lawson (2014) proposed, many loggers and farmers would suffer. There would be

both significant immediate costs and damaging future costs due to a weakened economy, offsetting some of the benefits provided by protecting the environment. As stated by African Renewal (2021), paragraph 7:

*“Exacerbated by extreme poverty, forest loss in the DRC is mainly due to a growing population lacking livelihood opportunities outside the forest and relying mostly on fuelwood for cooking, all that in the absence of land use planning. Any solution proposed to stem forest loss in the DRC must therefore focus on rural development, poverty reduction, and better food security.”*

To elaborate further, the idea of the immediate costs of stopping deforestation can be extended. Consider a hypothetical. If both Brazil and the DRC stopped deforestation practices immediately, many of the 9 percent and 64 percent, respectively, of the population employed in agriculture would lose their jobs. The effects of this would reverberate through each economy, likely causing an immediate recession in Brazil and leading to the collapse of the economy in the DRC. Further, other countries that trade with these two nations would see a decline in economic activity as well. Therefore, while stopping deforestation quickly and completely is necessary to protect the climate, it is not necessarily ethical. A more measured approach must be taken.

As Aguiar, Ometto and Martinelli (2011) report, the Brazilian government made significant progress in combatting deforestation in the early 2000s. The rate of deforestation in the Amazon decreased by 75 percent between 2004 and 2009. While some of the variations in deforestation rates can be attributed to outside economic forces, the Brazilian government also committed to the UN Framework Convention on Climate Change emission reduction plans. Under this agreement, the government agreed to implement policies to reduce greenhouse gas emissions. However, the rise of Jair Bolsonaro to power in 2019 led to the implementation of anti-environment policies. Greenberg (2022) reports that much of the fault for the recent surge in forest fires and deforestation in the Amazon can be attributed to Bolsonaro’s administration. Despite this, Bolsonaro’s recent electoral loss to Luiz Inácio Lula da Silva could reorient Brazil’s environmental policies back toward protecting the Amazon.<sup>5</sup>

In the DRC, Lawson (2014) writes that the government has largely lacked the political willpower to implement effective, wide-reaching policies to combat deforestation. Further, he argues that government corruption has also hampered progress. In particular, Lawson (2014) argues that the government is unable to effectively manage logging licenses, instead allowing widespread illegal logging. According to Lawson, government officials must work to reformulate a regulatory and licensing framework to combat deforestation in the country more effectively.

Overall, while some progress has been made—as demonstrated above by the declining rates of forest loss—the governments of Brazil and the DRC must do more to stop the destructive practice of deforestation before critical thresholds of climate damage are reached. Greenberg (2022) reports that the Amazon rainforest has lost approximately 17 percent of its total area. If total losses reach 20-25 percent of the total area of the rainforest, it will cause irreversible climate damage and the rainforest ecosystem will collapse.

While it is clear that both Brazil and the DRC are inflicting significant damage with their deforestation, Brazil and especially the DRC contribute little to global CO<sub>2</sub> emissions, in both absolute values as well as in per capita terms, as was shown in Figures 4 and 5 above. Comparing Brazil with the DRC, Brazil’s higher per capita income than that of the DRC suggests that,

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<sup>5</sup> Nicas (2022).

according to the ethical considerations outlined above, Brazil should shoulder more of the burden of combatting climate change than the DRC.

A final ethical consideration will help elucidate a path forward. Brazil's economy was largely built after Portuguese colonizers invaded the country and began extracting timber. The DRC was previously colonized by Belgium. The paths of these countries diverged because, while colonizers stayed in Brazil and grew the local economy through exploitation, the Belgians largely extracted all of the resources and money the country and its people provided. In other words, the money from timber extraction stayed in Brazil, while money from resource extraction in the DRC was sent to Belgium.<sup>6</sup> This difference matters because it is important to consider the full history of a country. In essence, Brazil's history suggests it should bear more of the costs of combatting climate change because the DRC experienced a higher degree of exploitation than Brazil.

These ethical considerations have created a nuanced, but clearer picture. Brazil should be expected to invest more in combatting deforestation because it can better afford immediate costs, will face fewer negative local economic consequences, is responsible for more CO<sub>2</sub> emissions, and has a history of wealth generated through exploitation. While it is critical to stop deforestation in the DRC as well, it may be more ethical—but still potentially problematic—for other countries to invest in the DRC to ease the process. Finally, any proposal to stop deforestation must take a balanced approach, considering climate damage while also not crushing local economies. A positive sign in this regard has been that some of the rich countries agreed at the 26th United Nations Climate Change conference in 2021 to provide \$500 million over the subsequent five years to protect the DRC's forests.<sup>7</sup>

## **VI. Conclusion**

In sum, deforestation is a damaging agricultural practice that directly releases carbon into the atmosphere while also destroying carbon sinks (Lawrence and Vandecar 2014). Countries in the tropics will face more warming and extreme weather than other countries. Additionally, wealthier countries, while contributing more to global climate change, will bear fewer costs and will be better prepared to respond to challenges.<sup>8</sup> Neither Brazil nor the DRC are considered developed countries, but Brazil is significantly wealthier than the DRC. As was shown in Figure 7, both countries have seen significant losses of forest area since 1970 due to intentional deforestation. While the rate of deforestation has stabilized in recent years, burning forests has become a more popular practice in Brazil.<sup>9</sup>

Many ethical aspects must be considered when deciding how to stop deforestation. There is an important disconnect between immediate costs and future benefits. Additionally, wealthier countries like Brazil contribute more to global emissions, suggesting they should pay more to combat climate change. Economic exploitation of less developed countries further weakens their position and opportunities to combat climate change. Finally, both Brazil and the DRC depend on agriculture, but the DRC more so than Brazil.

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<sup>6</sup> This paragraph is based on Maioli et al. (2020) and Elsayed (2010).

<sup>7</sup> Africa Renewal (2021).

<sup>8</sup> Paavola, Adger, and Huq (2006).

<sup>9</sup> Weisse and Goldman (2022).

Looking to the future, policy solutions must consider these ethical frameworks. At a general level, any policy must find a balance between stopping deforestation fast enough to protect the climate while not stopping it so fast that economies are irreparably damaged. This problem can be further mitigated by investing in sustainable agriculture practices and other employment options for farmers. Additionally, while it may be difficult to encourage cooperation from other countries, it seems as though a majority of the costs of ending deforestation in the DRC should be borne by wealthy countries.

Deforestation is widespread and deeply ingrained in the economies of Brazil and the DRC, but it is not impossible to stop. It will require government action and investment both within these countries and from international partners. It will require a commitment to continuing policies to gradually stop deforestation over a period of years. Government officials will have to prevent corruption and outside interests from influencing policy to their benefit. Finally, strong leaders will have to convince their populations that investments to prevent the largely invisible force of climate change that will wreak havoc in the future are critical today.

## References

- Africa Renewal (2021). COP26: Landmark \$500 million Agreement Launched to Protect the DR Congo's Forest. Africa Renewal, internet resource of December 2021; available at: <https://www.un.org/africarenewal/magazine/december-2021/cop26-landmark-500-million-agreement-launched-protect-dr-congo%E2%80%99s-forest>.
- Ayompe, Lacour M.; Steven J. Davis; and Benis N. Egoh (2020). Trends and Drivers of African Fossil Fuel CO<sub>2</sub> Emissions 1990–2017. *Environmental Research Letters*, Vol. 15, No. 12; available at: <https://iopscience.iop.org/article/10.1088/1748-9326/abc64f>.
- Climate Action Tracker (CAT) (2022). Brazil. Country Summary. Climate Action Tracker (CAT), internet resource of September 5, 2022; available at: <https://climateactiontracker.org/countries/brazil/>.
- EcoLogic Development Fund (2022). Our Impact: Slash and Burn Agriculture: Ecologic Development Fund. EcoLogic Development Fund, internet resource; available at: <https://www.ecologic.org/our-impact/challenges/slash-and-burn-agriculture>.
- Elsayed, Samah (2010). Deforestation in the Democratic Republic of the Congo. All African People's Development & Empowerment Project (AAPDEP), internet resource of February 17, 2010; available at: <https://developmentforafrica.org/deforestation-in-the-democratic-republic-of-the-congo/>.
- Fearnside, Philip M. (2008). The Roles and Movements of Actors in the Deforestation of Brazilian Amazonia. *Ecology and Society*, Vol. 13, No. 1; available at: <https://doi.org/10.5751/es-02451-130123>.
- Greenberg, Chris (2022). The Amazon - and Our Future - Is Being Burned for Profit. Greenpeace International, internet resource of October 23, 2022; available at: <https://www.greenpeace.org/international/story/55533/amazon-rainforest-fires-2022-brazil-causes-climate/>.
- Hickel, Jason (2017). Aid in Reverse: How Poor Countries Develop Rich Countries. *The Guardian*, Guardian News and Media, internet resource of January 14, 2017; available at:

<https://www.theguardian.com/global-development-professionals-network/2017/jan/14/aid-in-reverse-how-poor-countries-develop-rich-countries>.

- Kleinman, P. J. A.; D. Pimentel; and R. B. Bryant (1995). The Ecological Sustainability of Slash-and-Burn Agriculture. *Agriculture, Ecosystems & Environment*, Vol. 52, Nos. 2–3, pp. 235–249; available at: [https://doi.org/10.1016/0167-8809\(94\)00531-i](https://doi.org/10.1016/0167-8809(94)00531-i).
- Lawrence, Deborah and Karen Vandecar (2014). Effects of Tropical Deforestation on Climate and Agriculture. *Nature Climate Change*, Vol. 5, No. 1, pp. 27–36; available at: <https://doi.org/10.1038/nclimate2430>.
- Lawson, Sam (2014). Illegal Logging in the Democratic Republic of the Congo. Energy, *Environment and Resources (EER)*, Policy Paper (PP), No. 2014/03 (April); available at: [https://www.chathamhouse.org/sites/default/files/home/chatham/public\\_html/sites/default/files/20140400LoggingDRCLawson.pdf](https://www.chathamhouse.org/sites/default/files/home/chatham/public_html/sites/default/files/20140400LoggingDRCLawson.pdf).
- Maioli, Veronica; Stefanie Belharte; Marcela Stuker Kropf; and Catia Henriques Callado (2020). Timber Exploitation in Colonial Brazil: A Historical Perspective of the Atlantic Forest. *Historia Ambiental, Latinoamericana y Caribeña*, Vol. 10, No. 2, pp. 46–73; available at: [https://www.environmentandsociety.org/sites/default/files/key\\_docs/422-texto\\_del\\_manuscrito-1410-2-10-20200831.pdf](https://www.environmentandsociety.org/sites/default/files/key_docs/422-texto_del_manuscrito-1410-2-10-20200831.pdf).
- Moonen, Pieter C. J.; Bruno Verbist; Jarrik Schaepherders; Marcel Bwama Meyi; Anton Van Rompaey; and Bart Muys (2016). Actor-Based Identification of Deforestation Drivers Paves the Road to Effective REDD+ in DR Congo. *Land Use Policy*, Vol. 58, pp. 123–132; available at: <https://doi.org/10.1016/j.landusepol.2016.07.019>.
- Nicas, Jack (2022). Brazil Ejects Bolsonaro and Brings Back Leftist Former Leader Lula. *The New York Times*, internet resource of October 31, 2022; available at: [https://www.nytimes.com/2022/10/30/world/americas/lula-election-results-brazil-bolsonaro.html?name=styl%20n-brazil-election%20%AEion=TOP\\_BANNER&block=storyline\\_menu\\_recirc&action=click&pgtyp=LegacyCollection&variant=show&is\\_new=false](https://www.nytimes.com/2022/10/30/world/americas/lula-election-results-brazil-bolsonaro.html?name=styl%20n-brazil-election%20%AEion=TOP_BANNER&block=storyline_menu_recirc&action=click&pgtyp=LegacyCollection&variant=show&is_new=false).
- Ometto, Jean Pierre; Ana Paula Aguiar; and Luiz Antonio Martinelli (2011). Amazon Deforestation in Brazil: Effects, Drivers and Challenges. *Carbon Management*, Vol. 2, No. 5, pp. 575–585; available at: <https://doi.org/10.4155/cmt.11.48>.
- Paavola, Jouni; W. Neil Adger; and Saleemul Huq (2006). Multifaceted Justice in Adaptation to Climate Change, in: W. N. Adger, J. Paavola, S. Huq and M. J. Mace (eds.) *Fairness in Adaptation to Climate Change* (Cambridge, MA: The MIT Press), pp. 263–277.
- Turubanova, Svetlana; Peter V. Potapov; Alexandra Tyukavina; and Matthew C. Hansen (2018). Ongoing Primary Forest Loss in Brazil, Democratic Republic of the Congo, and Indonesia. *Environmental Research Letters*, Vol. 13, No. 7, Article 074028; available at: <https://doi.org/10.1088/1748-9326/aacd1c>.
- United Nations Children’s Fund (UNICEF) Democratic Republic of Congo (2021). Children in DRC at ‘Extremely High Risk’ of the Impacts of the Climate Crisis. UNICEF, internet resource of August 20, 2021; available at: <https://www.unicef.org/drcongo/en/press-releases/children-drc-extremely-high-risk-impacts-climate-crisis>.

- United States Environmental Protection Agency (EPA) (2022). Climate Change Indicators: Weather and Climate. United States Environmental Protection Agency (EPA), internet resource of August 1, 2022; available at: <https://www.epa.gov/climate-indicators/weather-climate>.
- Weisse, Mikaela and Elizabeth Goldman (2022). Forest Pulse: The Latest on the World's Forests. World Resource Institute, internet resource; available at: <https://research.wri.org/gfr/latest-analysis-deforestation-trends>.
- World Bank (2022). *World Development Indicators* (Washington, DC: The World Bank); as posted on the World Bank website: <http://data.worldbank.org/data-catalog/> (downloaded on January 3, 2022).



# **Trade in Indonesia and Thailand: A Double-Edged Sword**

Annika Hopkins

## ***Abstract***

*For the past several decades, trade in Indonesia and Thailand have been challenged by China's burgeoning development and trade evolution. Albeit Thailand's open economic attitude and Indonesia's increased participation in East Asian trade the two nations' trade development has remained stagnant as a result of the China-centered trade in the region and beyond. Trade and globalization in Indonesia and Thailand can be characterized using two terms: dependency and competition. Both nations lack a strong economic base and economic policies to rival that of China but both nations face great opportunity to notably improve trade and commerce. Both nations rely heavily on their exports to foreign nations, most notably China and the United States, making for unrealized opportunities in the realm of trade and globalization. This article analyzes the key factors of trade and globalization that have hindered the economic development of Indonesia and Thailand as well as some ethical aspects of trade and globalization that each country faces.*

## **I. Introduction**

Trade has a significant relationship with a nation's development, being one of the main drivers of growth. A nation's economy is dependent on its international trade patterns and can greatly benefit from taking advantage of its many opportunities but also faces grave challenges and setbacks due to its uncontrollable and changing nature. International trade is largely controlled by the principle of comparative advantage, allowing countries to specialize in the goods and services that lead to the most efficient net use of resources, labor, and capital for global trade. Comparative advantage allows a country to consume outside of their own production capabilities and be introduced to other products and goods, creating more diverse options and higher standards of production for all.

With international trade also comes integrated economies. Modern day economies are not self-sustaining, are highly reliant on their trading partners, and the flow of goods and services in global markets. In an integrated world, the ethics of trade and globalization are contested and have various impacts on the economies of the developing countries. Some developing countries are at risk of facing the consequences of international trade at the same rate as they see its benefits, while many

advanced countries continue to see exponential reward from the rigged rules and double standards as Oxfam (2002) referred to the international trading system.

This article compares and contrasts the impacts of international trade between Indonesia and Thailand. The two countries were chosen due not only to their geographic closeness but additionally due to the high level of economic exchange with one another and their membership in regional trade agreements like with the Association of Southeast Asian Nations (ASEAN). Indonesia and Thailand share a similar economic history where both countries were limited to economic growth as a result of colonialism and imperialism but have seen impressive growth in recent decades. While neither country has surpassed its title of being a developing country, the trajectories of both are potentially promising, but, as this article will illustrate, will not be achieved easily.

This article is organized into six sections. Following this introduction, the next section provides an overview of the current literature regarding international trade and alike phenomena in Indonesia and Thailand. Following the literature review is a socio-economic background section that illustrates development over-time in both Indonesia and Thailand according to three indicators. The fourth section is an analysis of facts of trade in both nations that illustrate some of the ramifications of trade that each are facing, which connects to the ethical analysis that will follow. In the ethical analysis section, the issues of trade and their ethical implications related to Thailand and Indonesia. The concluding section will go over the main ideas and issues presented and present a perspective on the future economies and development of Indonesia and Thailand.

## **II. Literature Review**

The general conclusion of the current literature assessing trade in Indonesia and Thailand is positive, but with stipulations. While recent trends have shown a continuing increase in trade, mobility, and its corresponding effect of lowering inequality for the people of Indonesia and Thailand inequality is being perpetuated and sustained through the same practices of trade. Trade has simultaneously lifted the two nations out of severe levels of poverty and created increased levels of inequality for those who were already considered to be living in poverty before both countries saw the benefits of global trade. Among the many publications examining trade in Indonesia and Thailand, this literature review focuses on literature that examines the implications of globalization, especially trade liberalization, and more narrowly the impact of the U.S.-China trade war on Indonesia and Thailand.

### **II.1. Implications of Globalization and Trade Liberalization**

As explained by Hill and Menon (2021), trade policy has followed a consistent pattern of openness in Thailand in the past two decades but this same confidence in globalization and trade liberalization is waning in Indonesia. Despite having deep economic integration with ASEAN protocols and China-centered trade networks, trade policy in Indonesia remains averse to following the trends of globalization while Thailand welcomes and embraces its open policies. Hill and Menon (2021) identify the main drivers of trade policy in both countries as macro trends of supply chains and export destinations. They also point out the key implications of their different stages of development: Indonesia leads the two with a large resource base that drives their economy while Thailand relies heavily on their tourism sector. Within Southeast Asia, the two nations lead in

terms of economic development and power but are not exempt from the trade implications on inequality.

Verico and Pangestu (2020) look at the overall benefits of globalization illustrate the reduced wage inequality, increased female participation in the labor market, and reduced levels of poverty as a direct result of the increase in trade and investment created by globalization. They also identify the importance of the Indonesian tourism industry, a phenomenon that would not be possible without globalization and its consequent technology transfer.

According to Donghyun (2022), Thailand was able to reach upper middle-income status by 2001 because of economic globalization. Donghyun (2022) distinguishes the Thai relationship with globalization from that of Indonesia, explaining that Thailand's development has been largely dependent on their own domestic demands, contributing to their well-diversified economy.

Purwono et al. (2022) argue that trade integration has also led to the establishment of the many regional trade agreements in East Asia, many of which comprise a large share of trade for Thailand and Indonesia. Both are primary members of ASEAN, increasing their access to international markets, lines of credit, and cheaper imports. Indonesia and Thailand play directly into each other's economies by specializing in their respective export industries and exerting pressure on the other, creating increased competition and the need for economic efficiency.

## **II.2. Impact of the U.S.-China Trade War**

The trade war between the United States and China has been manifesting an abundance of trade-related implications for Thailand and Indonesia. The most prominent of these issues, arguably, is the development of an overdependence on China in both nations. The Thailand Development Research Institute (2019) acknowledges that Thai economic dependence has brought upon an inevitable slowdown in their economy but identifies key areas of improvement that the nation can undertake. These measures are meant to turn the trade war between the United States and China into a multitude of opportunities for development, including expanding trade in their largest export market, ASEAN. According to the Thailand Development Research Institute (2019), Thailand relies currently heavily on its exports, 25 percent of which go to ASEAN partners. This overdependence on exports is one of the biggest pitfalls of the Thai economy.

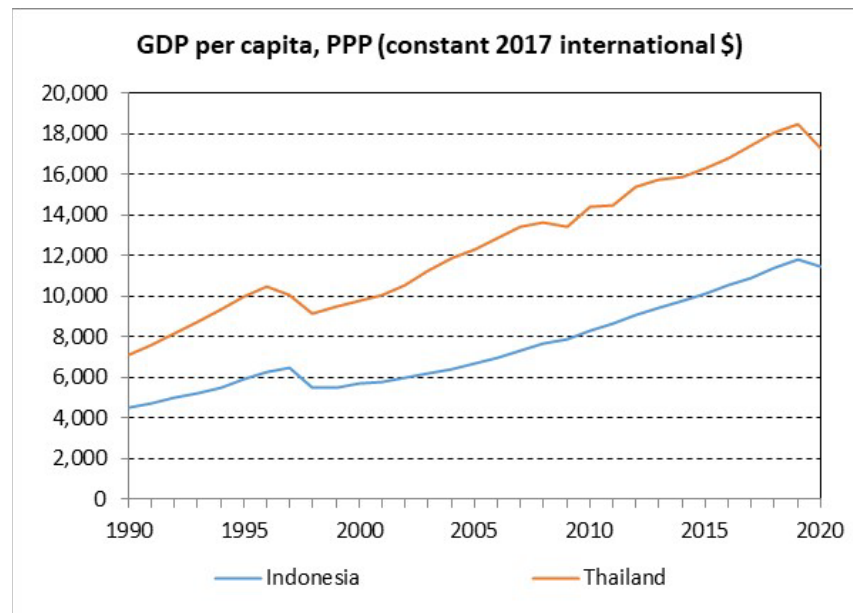
According to Iqbal, Elianda, Akbar and Nurhadiyanti (2020), commodity prices fell as a result of the trade war, which was key to Indonesia's economic development. They also predict that economic growth will continue to increase in Indonesia, though at a slower rate than the recent average of five percent. Lee and Majuca (2019) suggest that the trade war also has multifaceted impacts on Thailand, facing both challenges and opportunities. Lee and Majuca (2019) identify the main consequences being an overall reduction in imports from both China and the United States thus their slowdown in GDP growth. They also identified that certain Thai industries benefited from the conflict as the United States and China began to import substitute products from Thailand during the trade war as a means of getting around tariffs on domestic exports. Industries that focus on final products are winning at the expense of the industries specializing in intermediate goods.

Ing and Vadila (2019) point out that the narrowing of trade liberalization resulting from the U.S.-China trade war has led to the exit of many mobile factors of production out of Indonesia. This movement includes the outward displacement of skilled workers, relocated due to specialization, leaving Indonesia with an abundance of unskilled labor that increased inequality in Indonesia.

### III. Socioeconomic Background

This section reviews the evolution of three socioeconomic indicators to get a better understanding on the progress and current level of development in Indonesia and Thailand. Figure 1 charts GDP per capita, adjusted for purchasing power parity (PPP), in constant international dollars for Indonesia and Thailand. The data starts from 1990 and continues until the most recently collected data in 2020. As Figure 1 shows, Indonesia has consistently surpassed Thailand in terms of GDP per capita. Both countries have seen a general rise in their respective GDP per capita, the fall around the time of the COVID-19 pandemic being the largest outlier in this trend. Important to note is the parallel growth in GDP per capita between Indonesia and Thailand. If put on top of each other, the two GDP per capita lines would be almost identical, except that the one for Indonesia is much smoother, meaning that Thailand had more volatile GDP per capita growth.

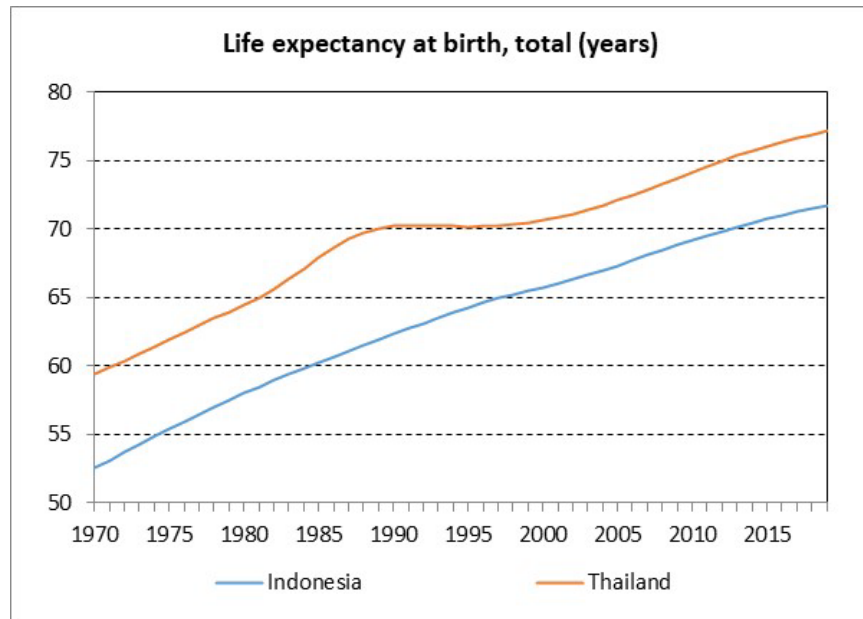
**Figure 1: PPP-Adjusted GDP per capita, 1990–2020**



Source: Created by author based on World Bank (2022).

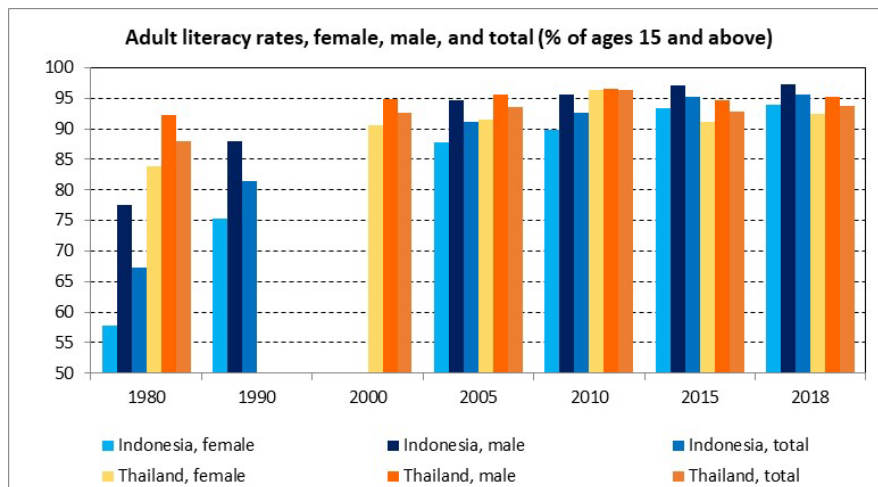
As shown in Figure 2, life expectancy follows overall similar trends as GDP per capita in Indonesia and Thailand shown in Figure 1. Indonesia has a continuous increase in life expectancy since 1970, while saw a stagnation in their life expectancy from 1990 to 1997. Consistent with Thailand's higher GDP per capita, Thailand also leads Indonesia in terms of life expectancy with an average difference of 6.1 years for the 1970 to 2019 period. From 1970-2019, Thailand has seen a growth in life expectancy from 59.4 years to 77.2 years, which is an increase of 17.8 years over the 49 year-time period. For Indonesia, life expectancy advanced from 52.6 years in 1970 to 71.7 in 2019, implying a 19.1 year-increase over the same period.

**Figure 2: Life Expectancy at Birth, 1970–2019**



Source: Created by author based on World Bank (2022).

**Figure 3: Adult Literacy Rate (percent)**



Source: Created by author based on World Bank (2022).

Figure 3 plots the available literacy rates of adults (ages 15 and over) among Indonesia and Thailand for females, males, and total (both, female and male). Indonesia has seen a very meager increase in its literacy rate since 1980 but at a seemingly constant growth rate. In contrast, Thailand sees a bit more fluctuation in its literacy rates, including a drop of 5.2 years for females, a drop of 1.7 years for males, and an overall drop of 3.5 from 2010 to 2015. Omitting 1980, the literacy rates of Thailand and Indonesia are relatively close to each other. In 1980, Indonesia's gender gap was 19.8 years, while Thailand's gender gap was 12.8 years. The gender gap declined over time in both

countries, with Indonesia's gender gap decreasing to 3.5 years in 2018, which Thailand's gender gap was 2.8 years in the same year.

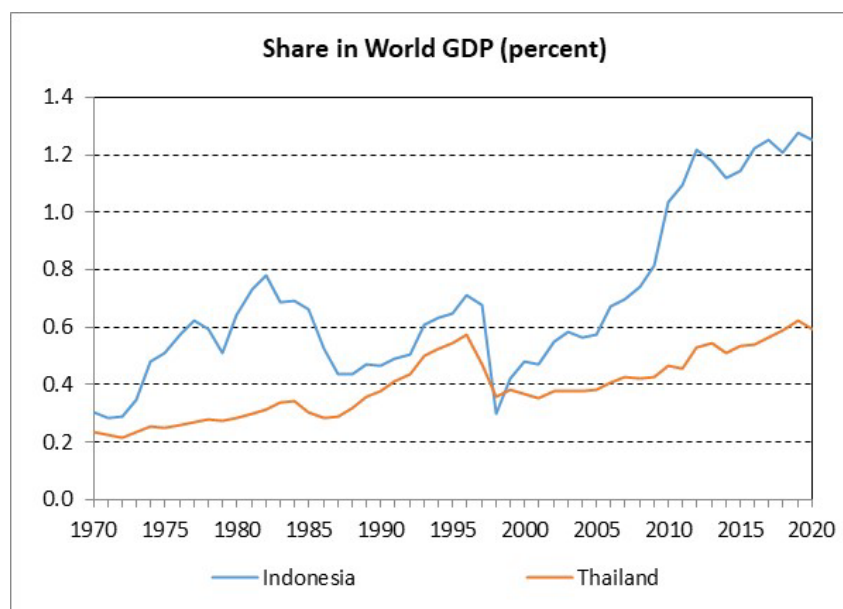
## IV. Analysis of Facts

This section examines the shares of Indonesia and Thailand in world GDP, their shares in world exports, their net inflows of foreign direct investment (as a percent of GDP), and their exports to GDP ratios, all from 1970 until the latest year such data is available, typically 2020.

### IV.1. Share in World GDP

As illustrated in Figure 4, Indonesia and Thailand share the fact that their economies are relatively marginal in the world economy, with both countries never surpassing the 1.3 percentage share in world GDP. However, their shares have grown over time. Indonesia increased its share in world GDP from 0.31 percent in 1970 to 1.25 percent in 2020, which is huge increase of 0.94 percentage points. Thailand also increased its share in world GDP from 0.24 percent in 1970 to 0.59 percent in 2020, which is more moderate increase of 0.36 percentage points. Indonesia's share in world GDP fluctuated from 1970 to 2005, but then increased more steadily from 2005 to 2020. Thailand's share in world GDP fluctuated over the last five decades, reaching a temporary high of 0.57 percent in 1996, but then dropped sharply during the East Asian crisis. It only surpassed its 1996-level more than 20 years later in 2018. The impact of the East Asian crisis is also visible for Indonesia, which experienced an even sharper decline but then also recovered much earlier than Thailand in terms of its share in world GDP.

**Figure 4: Share in World GDP (percent), 1970–2020**



Source: Created by author based on World Bank (2022).

## IV.2. Share in World Exports

Figure 5 shows the share in world exports for Indonesia and Thailand from 1970 to 2020, which is in terms of overall trends the complete opposite to these countries' shares in world GDP. While Indonesia experienced an overall increase in its share of world GDP, Indonesia shows an overall fluctuation in its share of world exports over the last five decades. Modern day Indonesia is sitting at a share level of about the same they had in the mid-1970s. Indonesia has not been able to reach its early 1980s level in terms of world exports. On the other hand, while Thailand's share in world GDP fluctuated overall during the last five decades, Thailand experienced a significant increase in its share of world exports during the last five decades. Indonesia had a higher share than Thailand in world exports from 1970 until 1989, but Thailand then surpassed Indonesia in the early 1990s and stayed above Indonesia ever since.

**Figure 5: Share in World Exports (percent), 1970–2020**



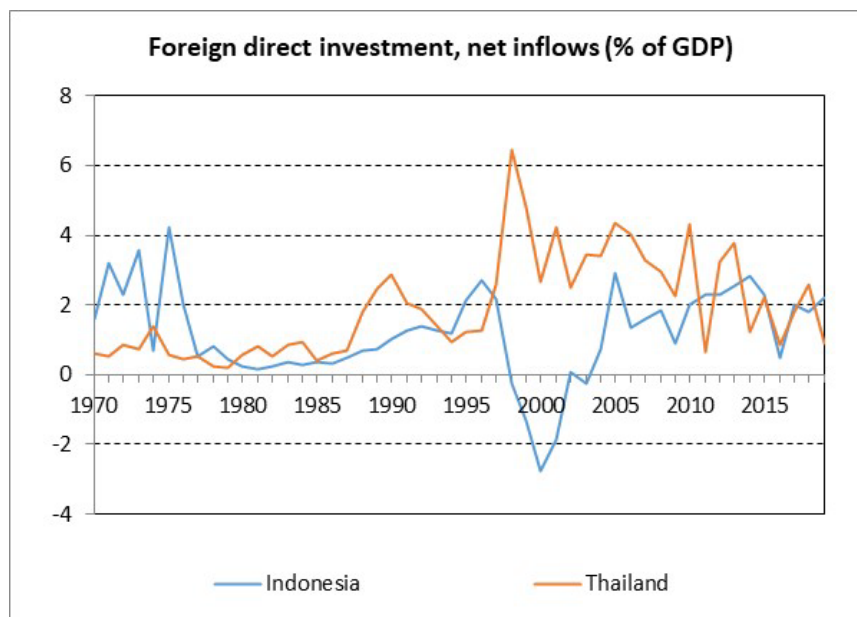
Source: Created by author based on World Bank (2022).

## IV.3. Net Inflows in Foreign Direct Investment

Figure 6 plots the foreign direct investment (FDI) net inflows of Indonesia and Thailand from 1970 to 2020. Since the mid-1990s, the net inflows of FDI have been extremely volatile for both Indonesia and Thailand. Thailand saw a massive jump from 1997-1998 increasing from 2.59 percent to 6.43 percent. On the other hand, Indonesia saw a massive decrease in their FDI net inflow from 1997-2000, starting at 2.17 percent and ending at -2.76 percent. Both countries see a change of almost 4 percentage points within similar time frames but in different directions. Despite the vast divergence in the late 1990s and early 2000s, the two countries have slowly come within fairly equal levels and evolutions of net inflows of FDI inflow during the last five years.

FDI can and has played an important role in the sustainable development priorities of both countries in recent decades, specifically gender equality, productivity, and wages.<sup>1</sup> In the aftermath of the COVID-19 pandemic, both countries have fallen behind on their development goals and have faced forms of social and economic crises. FDI inflows provide a path to getting back on track for these goals. An increase in FDI has been directly linked to higher levels of empowerment amongst women in the nation receiving the FDI, as FDI often expands the number of jobs in an economy through technology spillover.<sup>2</sup>

**Figure 6: Foreign Direct Investment, Net Inflows (percent of GDP) , 1970–2019**



Source: Created by author based on World Bank (2022).

#### IV.4. Evolution of Exports of Goods and Services

Figure 7 illustrates the exports of goods and services as a percentage of GDP for both Indonesia and Thailand from 1970 until 2020. While Indonesia experienced some volatility in its exports to GDP ratio, especially in the late 1990s and early 2000s, Indonesia ended up in 2020 at about the same level it already had in the early 1970s. Thailand also stagnated with its exports to GDP ratio during the 1970s and the early 1980s, but then increased moderately from 1985 to 1996. The East Asian Crisis caused a temporary decline in Thailand's exports to GDP ratio, but it then increased very sharply from 39.0 percent in 1996 to 57.9 percent in 1998. While Thailand's export to GDP ratio decreased slightly from 1998 to 1999, it then increased again sharply in 2000, reaching an export to GDP ratio of 64.8 percent. Thailand's export to GDP ratio has then been relatively volatile during the last two decades.

Thailand has a more open economy than Indonesia because they have a larger percentage of exports to GDP. Thailand specializes in the export of technology and industrial inputs. Currently,

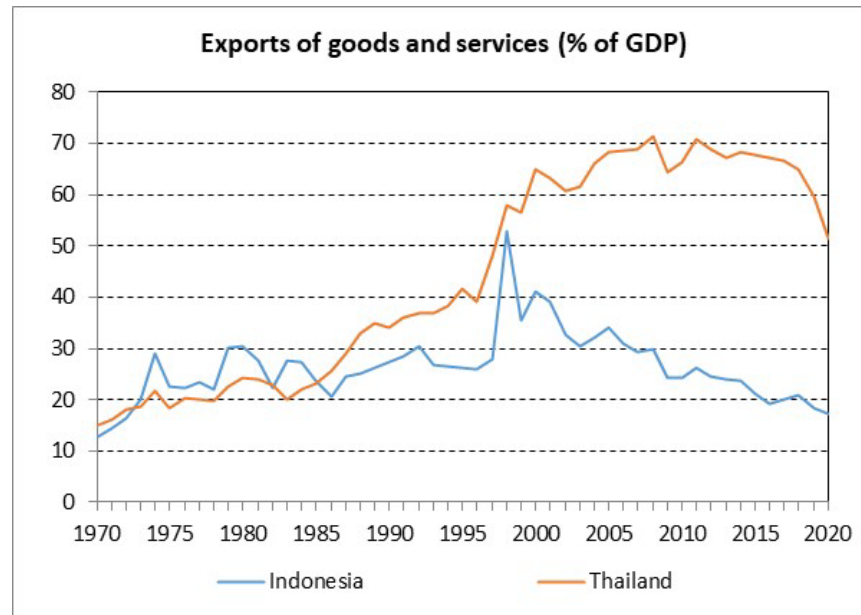
<sup>1</sup> OECD (2021).

<sup>2</sup> Ouedraogo and Marlet (2018).



the main exports of Thailand are office machine parts, gold, integrated circuits, and cars.<sup>3</sup> In contrast to Thailand, Indonesia specializes in the export of natural resources. Indonesia's main exports include steel, palm oil, coal briquettes, gold, petroleum gas, and ferroalloys.<sup>4</sup>

**Figure 7: Exports of Goods and Services (as a percentage of GDP) , 1970–2020**



Source: Created by author based on World Bank (2022).

## V. Ethical Analysis

The state of international trade has been driven by globalization since the early 20th century, though without being a continuous process. Without globalization there would be no international lines of communication, large scale exchange of goods and services, and a lack of foreign investment, all of which are key to the development and trade of Indonesia and Thailand. While globalization has produced a plethora of benefits for the countries of the world it has also produced some ethical dilemmas as detailed by Barry and Wisor (2015). This section examines the ethical complaints related to (1) the process by which trade has come about, and (2) the ethical complaints of trade causing unjustified harm, both applied to Indonesia and Thailand.

### V.1. Process by Which Trade has Come About

In Asia many countries are economically dependent on their exports, making ethical trade an easy bypass if it means that the country will increase their production, thus increasing the amount of goods and services that they are exporting. This means producers may not always prioritize the well-being of their workers and use abusive means to generate their goods and services.

<sup>3</sup> Observatory of Economic Complexity (OEC) (2022b).

<sup>4</sup> Observatory of Economic Complexity (OEC) (2022a).

In Indonesia, many of the workers in the natural resource industry, which is the top export industry of the nation, are migrants and female: 51 percent of the working population are female, and 24.8 percent of the working population are migrant workers.<sup>5</sup> Just within the migrant working population, multiple incidents of traumatic incidents and abusive practices have taken place in the last decade: 73 percent of all workers not being granted overtime allowance, 25 percent reported working long-hours consistently in a year, 36 percent without days off from working, and 28 percent reporting instances of late salary payments within the year.<sup>6</sup>

There have also been extreme cases of gender discrimination amongst workers in Indonesia, specifically within the female population. In 2017, 80 percent of all migrant workers were female. For most of these female workers, their jobs in Indonesia were their first experience of being paid. Because of this lack of previous experience and knowledge of what ethical work and its compensation should look like, there have been many loopholes taken in Indonesia to underpay their workers and extend their working hours beyond legal limits. For women having paying jobs in Indonesia, the majority of them reported experiencing low wages, underemployment, and workplace discrimination.<sup>7</sup>

Thailand faces similar problems in terms of the identified forced labor and trafficking in their agricultural and construction sectors, as outlined in a statement given by the United Nations (UN) in April of 2018. The UN investigation of Thai business engagement and practices found a large number of reported violations of the Thai Chamber of Commerce code of ethics. Workers reported over 10,824 cases of violations, including forced work without pay and dangerous work environments.<sup>8</sup>

## **V.2. Unjustified Harm Caused by Trade**

The results of trade are not always positive and commonly carry negative consequences in developing countries. These can include environmental damage, health issues, and uncompensated elimination of jobs in certain sectors of the economy.

In the case of Thailand, environmental damage, and pollution, forced evictions of entire communities, and lack of public consultation with communities being directly impacted by development projects of large scales are the main causes of the unjustified harm that trade can cause.<sup>9</sup> Consultations for projects that involved communities were reported to be extremely biased with the consultants being in favor of ensuring projects were to be approved no matter the cost to the community. These meetings were conducted in private, often without the consent or approval of the locals and leaders of the projects were hired from outside of the local community to ensure its execution. Individuals in these communities with these large-scale projects were then subjugated to the environmental damages of the project, causing health issues to arise. In 2017, 10 different provinces in Thailand reported communal complaints about decreasing health due to the environmental damage of development projects aimed to increase trade.<sup>10</sup> Of these health concerns were lung cancer, heart diseases, and pneumonia.

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<sup>5</sup> World Bank Jakarta Office (2017).

<sup>6</sup> World Bank Jakarta Office (2017).

<sup>7</sup> World Bank Jakarta Office (2017).

<sup>8</sup> United Nations (2018).

<sup>9</sup> United Nations (2018).

<sup>10</sup> United Nations (2018).

In the case of Indonesia, they face unjustified harm in their manufacturing sector, specifically as a result of steel dumping. Steel dumping occurs when a country, in this case China, exports their steel at significantly lower prices than they do in their own domestic markets. What this process does is makes the steel industry of other nations less competitive. Steel is a main export of Indonesia the Indonesian steel industry's next biggest competitor is China.<sup>11</sup> As a result of the Chinese steel dumping, Indonesian steel manufacturers are forced to lower their prices in order to maintain a competitive price in the international steel market. This takes a toll on the wages of steel workers as they receive wage cuts in order for the manufacturers to reach profit minimums by decreasing costs.<sup>12</sup> These manufacturing jobs are put at risk as a result of the uncontrollable trade patterns of foreign nations.

## **VI. Conclusion**

The 21st century has brought upon a new age of economic development for the nations of Indonesia and Thailand. Increases in GDP per capita, literacy rates, and life expectancy are expected to continue and progress in the next few decades. Shares in world GDP have seen significant increases since 1970 and while they are projected to see a slight decline in the next few years it is expected that in the next decades both will see increases. For both countries to not only see but maintain this increase in world GDP, both will have to find solutions to their recently declining share in world exports. Both countries' economic development and GDP growth are highly dependent on their exports. FDI presents itself as an opportunity for economic growth that is not dependent on finite resources and exports but has seen very little and only gradual success in the past decade. While FDI presents itself as a promising way to improve the gender inequalities of both countries, it represents very little of the GDP of both countries.

The ethical concerns of Indonesia and Thailand share many similarities. The ethical concerns regarding trade in both economies revolve around the unethical means by which trade is conducted and the unjustified harms that are a result of trade. In Indonesia, cases of abuse and unjust compensation are high among their migrant working population and female workers. They face high levels of work in terms of time and are given little if any compensation for it. Thailand faces violations of labor standards, where they have been exposed in many industries of using forced and trafficked labor. The unjustified effects of trade that take form in Indonesia are the harm done to the steel industries as a result of foreign competitors making attempts to make their exports more competitive. Indonesia steel manufacturers are forced to lower their prices below levels that generate enough profit to pay workers fairly. In Thailand, local communities are faced with growing health concerns as a result of development projects meant to better trade and exports in the nation as well as underrepresentation in these projects taken place in their own communities.

Tactical and intense efforts are needed to make trade an ethical practice in both countries as it is the only way to sustain economic growth and development. Social policy innovations along the line described in United Nations Development Program (2013) are needed to better extend the benefits of trade to the population of Indonesia and Thailand as well as more effort to include local communities in development and trade efforts. Tapping into global markets, which has been identified as another driver of development by the United Nations Development Program (2013) is not enough for these countries to see lasting and ethical benefits of engaging in international

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<sup>11</sup> OECD (2021).

<sup>12</sup> World Bank Jakarta Office (2017).

trade. The least privileged groups need to be recognized, represented, and justly compensated for their contributions to the economies of Indonesia and Thailand. Through these measures, Indonesia and Thailand have the potential to become economic leaders in the region of East Asia and take on larger roles in their regional trade agreements and reap further benefits of trade.

## References

- Hill, Hal and Jayant Menon (2021). Trade Policy in Indonesia and Thailand. *The World Economy*, Vol. 44, No. 12 (December), pp. 3492–3506.
- Ing, Lili Yan and Yessi Vadila (2019). U.S.–China Trade Tensions on Indonesia’s Trade and Investment. *Asian Economic Papers*, Vol. 18, No. 3, pp. 95–112.
- Iqbal, Muhammad; Yunita Elianda; Ali Akbar; and Nurhadiyanti (2020). USA–China Trade War: Economic Impact on Indonesia. *Journal of Public Affairs*, Vol. 22, No. 3 (August), Article No. e2543.
- Lee, Jae and Ruperto Majuca (2019). The U.S.–China Trade Conflict and Its Potential Impact on the Thai Economy. ASEAN+3 Macroeconomic Research Office, internet blog of January 8, 2019; available at: <https://www.amro-asia.org/the-u-s-china-trade-conflict-and-its-potential-impact-on-the-thai-economy/>.
- Observatory of Economic Complexity (OEC) (2022a). Indonesia: Exports, Imports, and Trade Partners. OEC Internet Resource, available at: <https://oec.world/en/profile/country/idn>.
- Observatory of Economic Complexity (OEC) (2022b). Thailand: Exports, Imports, and Trade Partners. OEC Internet Resource, available at: <https://oec.world/en/profile/country/tha>.
- Organisation for Economic Co-operation and Development (OECD) (2021). OECD Investment Policy Reviews: Indonesia 2020. OECD internet resource; available at: <https://www.oecd-ilibrary.org/sites/c228dc2f-en/index.html?itemId=/content/component/c228dc2f-en>.
- Ouedraogo, Rasmane and Elodie Marlet (2018). Foreign Direct Investment and Women Empowerment: New Evidence on Developing Countries. *IMF Working Paper*, No. 2018/025; available at: <https://www.imf.org/en/Publications/WP/Issues/2018/01/26/Foreign-Direct-Investment-and-Women-Empowerment-New-Evidence-on-Developing-Countries-45597>.
- Oxfam (2002). *Rigged Rules and Double Standards: Trade, Globalisation, and the Fight against Poverty* (London: Oxfam); available at: <https://oxfamilibrary.openrepository.com/bitstream/handle/10546/112391/cr-rigged-rules-double-standards-010502-en.pdf;jsessionid=AD4A6ECA8D16336C7D8A187555DB8D7A?sequence=18>.
- Park, Donghyun (2022). The Economic Consequences of Globalization on Thailand by Juthathip Jongwanich, Abingdon, Oxon, Routledge, 2022, xii + 288 pp. (Book Review). *The Developing Economies*, Vol. 60, No. 2 (June), pp. 113–116.
- Purwono, Rudi; Lilik Sugiharti; Rossanto Dwi Handoyo; and Miguel Angel Esquivias (2022). Trade Liberalization and Comparative Advantage: Evidence from Indonesia and Asian

- Trade Partners. *Economies*, Vol. 10, No. 4, Article No. 80; available at: <https://doi.org/10.3390/economies10040080>.
- Thailand Development Research Institute (TDRI) (2019). Thailand's Risks and Opportunities under US-China Trade War. Bangkok, Thailand: Thailand Development Research Institute, internet resource of August 19, 2019; available at: <https://tdri.or.th/en/2019/08/thailands-risks-and-opportunities-under-us-china-trade-war/>.
- United Nations (2018). Statement at the End of Visit to Thailand by the United Nations Working Group on Business and Human Rights. New York, United States: United Nations Office of the High Commissioner of Human Rights, internet resource of April 4, 2018; available at: <https://www.ohchr.org/en/statements/2018/04/statement-end-visit-thailand-united-nations-working-group-business-and-human>.
- United Nations Development Program (UNDP) (2013). *Human Development Report 2013: The Rise of the South* (New York, United States: UNDP), Summary, available at: [www.who.int/hdp/publications/4b.pdf](http://www.who.int/hdp/publications/4b.pdf).
- Verico, Kiki and Mari Pangestu (2020). The Economic Impact of Globalisation in Indonesia. *Economic Research Institute for ASEAN and East Asia - ERIA* 330 (August), available at: <https://www.eria.org/publications/the-economic-impact-of-globalisation-in-indonesia/>.
- World Bank Jakarta Office (2017). Indonesia's Global Workers: Juggling Opportunities & Risks. A World Bank Indonesia Report. Jakarta, Indonesia: World Bank Jakarta Office; available at: <https://thedocs.worldbank.org/en/doc/357131511778676366-0070022017/original/IndonesiasGlobalWorkersJugglingOpportunitiesRisks.pdf>.
- World Bank (2022). *World Development Indicators* (Washington, DC: The World Bank); as posted on the World Bank website: <http://data.worldbank.org/data-catalog/> (downloaded on January 3, 2022).

# **Inequality in Brazil and Argentina: Progress and Regress**

Clara Tully

## ***Abstract***

*This article analyzes and compares inequality in Brazil and Argentina, two large and populous countries in Latin America. Both countries have experienced economic growth in recent years but have also suffered from high levels of inequality. In both Argentina and Brazil, income inequality has remained a persistent issue, but inequalities in access to essential services such as education and healthcare have also played an important role. Both countries have also implemented some policies to combat inequality which, though they have had equalizing effects, are generally deemed to have been insufficient.*

## **I. Introduction**

Even as many countries around the world experience economic growth, inequality remains an issue worldwide. In countries such as Argentina and Brazil, economic growth has occurred at the same time that income inequality has increased. Though income inequality is a very important aspect of inequality and will be analyzed extensively in this article, it is not the only aspect. For example, in São Paulo, which is Brazil's wealthiest city, the residents of the worst neighborhood in the city live 23 years fewer than those of the best.<sup>1</sup>

Key factors that contribute to a country's overall inequality are inequalities in access to essential services such as healthcare and education. Gender and racial inequality also play an important role. A recent OECD (2017) economic survey pointed out that high inequalities among provinces and cities in Argentina relate to high informality rates, lack of quality jobs, low skills and poor public services.

This article is structured into six sections: Introduction, Literature Review, Socio-economic Background, Analysis of Inequality in Argentina and Brazil, Ethical Analysis, and Conclusion. The literature review provides information on existing literature about inequality in Argentina and/or Brazil. The socio-economic background examines the evolution of GDP per capita, life expectancy, and literacy rate in both countries. The analysis of inequality in Argentina and Brazil section uses multiple indicators to measure inequality in the two countries. The ethical analysis

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<sup>1</sup> Galarraga Gortázar (2022), paragraph 6.

section summarizes actions that have been taken in Argentina and Brazil in an effort to reduce inequality and also analyzes various perspectives on whether inequality is ethical.

## II. Literature Review

There is a vast array of existing literature on inequality in Argentina and Brazil as Latin America is one of the regions of the world with the highest rates of inequality.<sup>2</sup> Brazil, especially, has garnered interest because it has consistently been one of the most unequal countries in Latin America.<sup>3</sup> Among the many publications examining both countries, two powerful regional studies, one before and one after the emergence of COVID-19, are respectively, Lustig, Lopez-Calva and Ortiz-Juarez (2012) and Lustig, Martinez Pabon, Sanz and Younger (2020). A recent news story by Amnesty International (2022) also addresses inequality in Argentina and Brazil. Among recent country-specific studies, Tornaghi (2021) focuses on Brazil while Pilatti (2022) focuses on Argentina.

- Lustig, Lopez-Calva and Ortiz-Juarez (2012) detail how inequality has been decreasing in Brazil and Argentina throughout the 2000s, despite both countries still having a lot of inequality, specifically Brazil which, according to the Gini coefficient, is one of the top 10 countries with the highest wealth inequality. The report found that the decline in inequality in these countries could be attributed to both labor and non-labor income inequality. They found that increased government spending on education and increased education opportunities had an equalizing effect.
- Lustig, Martinez Pabon, Sanz, and Younger (2020) analyze the impact of COVID-19 lockdown policies on inequality in Brazil and Argentina, and other Latin American countries, as well as the extent to which expanded social assistance measures have been able to offset the negative impacts of those lockdowns. They found that, in Brazil, poverty among those of African descent and indigenous populations was much higher than among white populations, however the offsetting effects of expanded social assistance were also larger for those of African descent and indigenous peoples.
- Amnesty International (2022) examines the disproportionate number of deaths from COVID-19 in Latin America. It finds that countries with the highest rates of inequality and the lowest rates of public spending on health and social protection were hit hardest by the pandemic. It also cites regressive tax systems as a contributing factor to inequality in the region. Many Latin American countries could benefit from increasing taxes for the richest and using that money to redistribute wealth to the poorest in the country.
- Tornaghi (2021) discusses inequality in Brazil which reached a world record high Gini coefficient of 0.674 during the first quarter of 2021 and remains the most unequal country in Latin America. The article cites the gap in scores on the happiness index between Brazil's poorest and richest people. It also points out how, while the stock market has hit record highs and the country overall has seen economic growth, there has also been an increase in extreme poverty.
- Pilatti (2022) details how Argentina has been simultaneously experiencing economic growth and increasing inequality. In terms of economic growth, it cites increases in GDP

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<sup>2</sup> World Bank (2022).

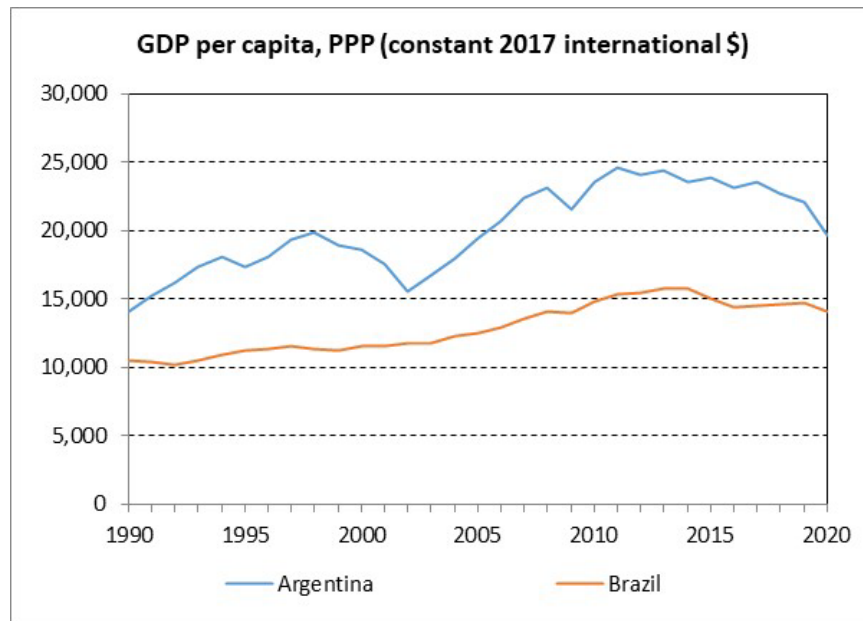
<sup>3</sup> World Bank (2022).

as well as record high levels of exports. However, it also points out that almost 40 percent of Argentina's population lives in poverty and the country has been experiencing its highest rate of inflation in 30 years which contributes to the high poverty rate.

### III. Socio-economic Background

Since 1990, the earliest available data from the World Bank (2022), purchasing power parity (PPP)-adjusted GDP per capita in Brazil has remained at the minimum \$3,621 and at the maximum \$9,324 below that of Argentina. Brazil's GDP per capita has, for the most part, consistently increased during this period, except for a slight decline in 2016 and another decline in 2020 due to the COVID-19 pandemic. Argentina's increase in GDP per capita has been less consistent than Brazil's, with a large decrease in the early 2000s and many smaller drops throughout the 2010s. Additionally, Argentina experienced a greater decrease in GDP per capita due to the COVID-19 pandemic than Brazil did. Overall, Argentina's GDP per capita has increased from \$14,145 in 1990 to \$19,691 in 2020 and Brazil's GDP per capita has increased from \$10,521 in 1990 to \$14,064 in 2020. Thus, though Brazil has experienced more steady growth, Argentina has had the bigger overall increase in GDP per capita in absolute values.

**Figure 1: PPP-adjusted GDP per capita, 1990–2020**

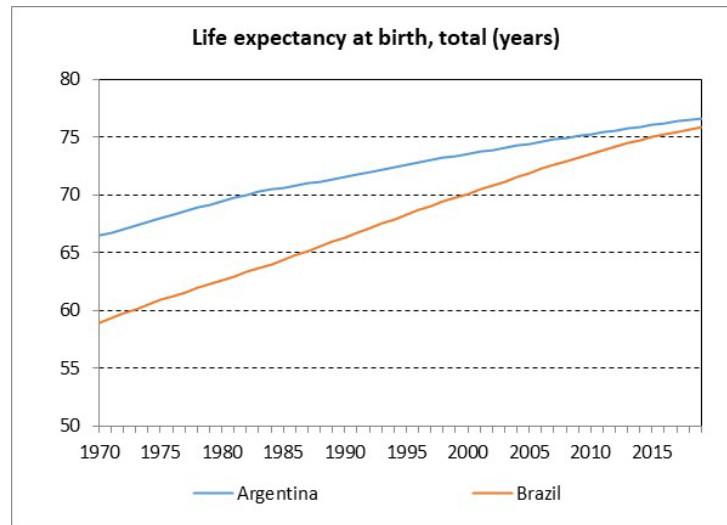


Source: Created by author based on World Bank (2022).

As shown in Figure 2, Argentina has also had a higher life expectancy at birth than Brazil since 1970, however, Brazil has closed the gap quite a lot and the difference between the two is now less than one year. Both countries have seen only increases in life expectancy since 1970, but Brazil's rate of growth has been significantly higher than that of Argentina, moving from 58.9 years in 1970 to 75.9 years in 2019. Argentina, in contrast, had a life expectancy of 66.5 years in 1970, which increased to 76.7 years in 2019.



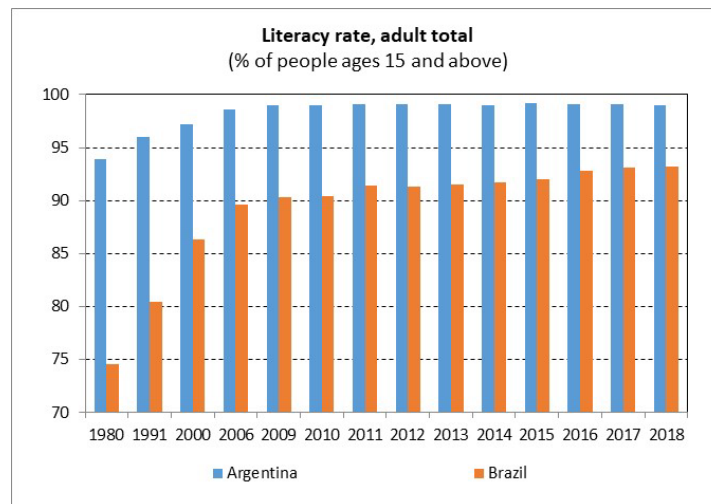
**Figure 2: Life Expectancy at Birth, 1970–2019**



Source: Created by author based on World Bank (2022).

Until 2009, there are very few years for which the World Bank (2022) has data for literacy for both Argentina and Brazil. Figure 3 shows all the years for which such data was either available for both countries or could have been estimated based on close-by years. Despite the limited data, Figure 3 clearly shows that Argentina's literacy rates have always been higher than those of Brazil during 1980 and 2018.

**Figure 3: Adult Literacy (for years with data for both countries)**



Source: Created by author based on World Bank (2022).

Figure 3 also shows that Brazil's literacy rates have improved significantly from 1980 to 1991 (5.9 percentage points), from 1991 to 2000 (also 5.9 percentage points), and once again from 2000 to 2006 (3.2 percentage points), while they have increased by only 2.9 percentage points from 2009 to 2018. Argentina's literacy rates have also increased from 1980 to 1991, from 1991 to 2000, and

once again from 2000 to 2006, though far less than in Brazil. Furthermore, while Brazil still saw some small increases from 2009 to 2018, Argentina's literacy rates have been stagnating during the same period, fluctuating marginally between a minimum of 99.0 percent and a maximum of 99.2 percent within this period.

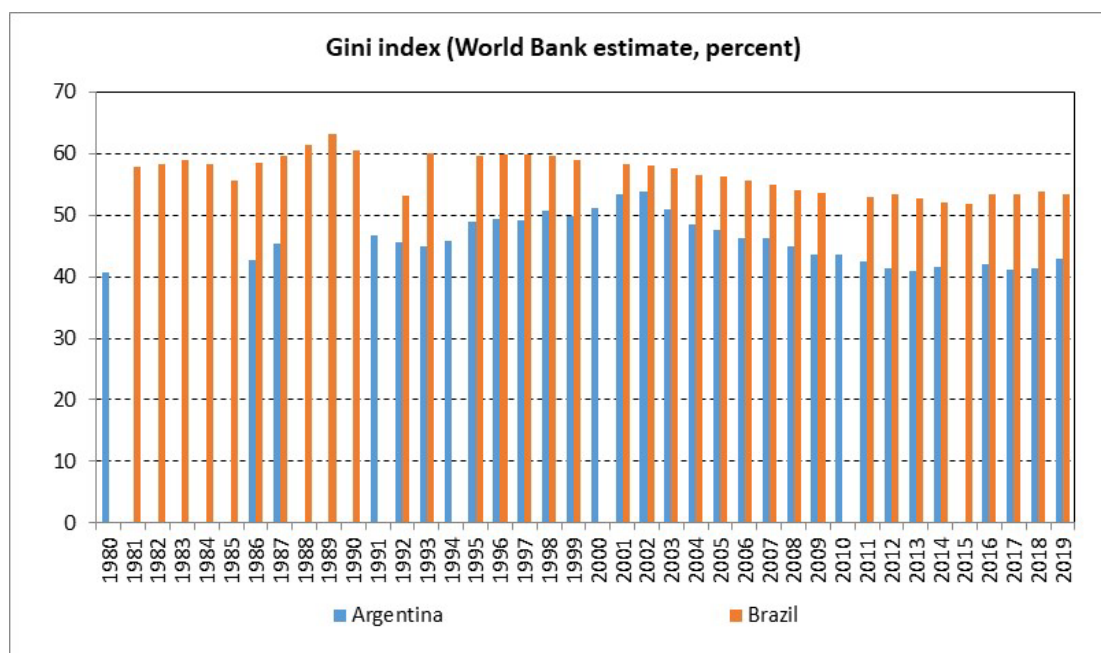
There are numerous other indicators that could be used to determine the development status of these two countries, however, based on these three indicators (GDP per capita, life expectancy, and adult literacy), it is clear that Argentina has a higher level of human development than Brazil as it has a higher GDP per capita, a greater life expectancy, and a higher adult literacy rate. Indeed, based on the latest Human Development Index (HDI) dataset, Argentina has an HDI of 0.842 in 2021 (rank 47 among 191 countries), while Brazil's HDI was 0.754 for the same year (rank 87 among 191 countries).<sup>4</sup>

## IV. Analysis of Inequality in Argentina and Brazil

### IV.1. Gini Index and Income Inequality

Aside from Sub-Saharan Africa, Latin America is the most unequal region in the world. The most popular measure used to determine inequality is the Gini index. A Gini index of 0 equates to perfect equality and a Gini of 1 (or 100 percent) equates to perfect inequality. Brazil has consistently scored among the highest countries on the Gini index, always above 50 percent, and has even scored above 60 percent in the past, making it one of the most unequal countries in one of the most unequal regions.<sup>5</sup>

**Figure 4: Gini Index (all available years)**



Source: Created by author based on World Bank (2022).

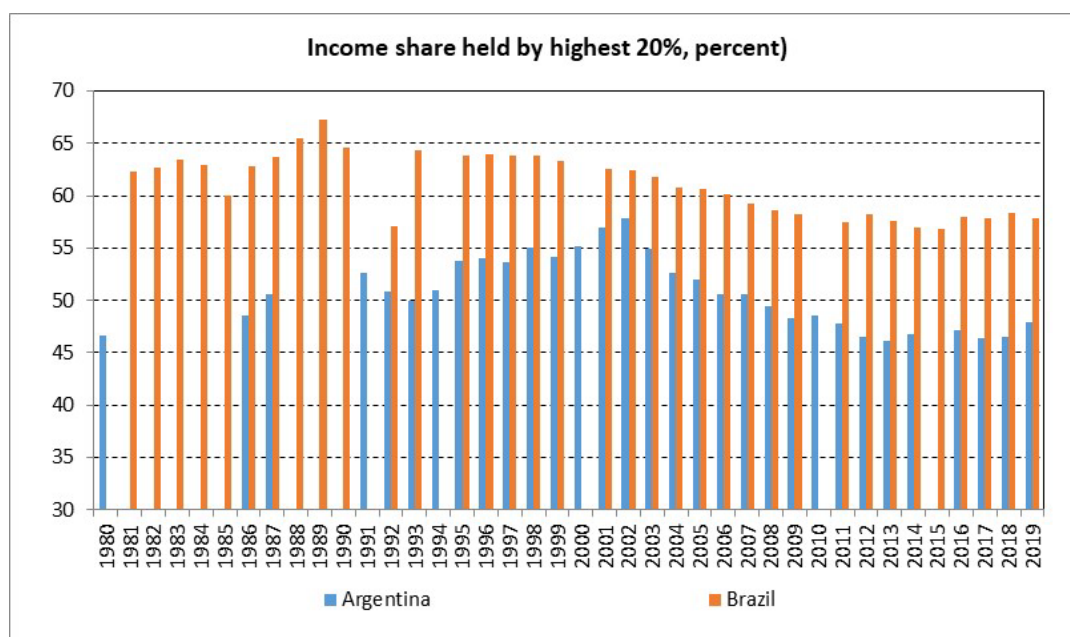
<sup>4</sup> See: <https://hdr.undp.org/data-center/human-development-index#/indicies/HDI>.

<sup>5</sup> World Bank (2022).

Argentina, though not quite as unequal as Brazil and several other Latin American countries, has still scored fairly high on the Gini index compared to all countries worldwide, never achieving a score below 40 percent. As shown in Figure 4, Argentina reached its peak Gini index at 53.8 percent in 2002, while Brazil reached its peak Gini index in 1989 at 63.3 percent. Both Argentina and Brazil enjoyed decreasing inequality throughout the early 2000s, but around 2010 both started to even out and remained relatively constant throughout the 2010s. However, both countries have experienced increases in inequality in more recent years: Argentina saw an increase in the Gini from 41.3 percent in 2018 to 42.9 percent in 2019, while Brazil experienced a significant increase in the Gini from 51.9 percent in 2015 to 53.9 percent in 2018. The COVID-19 pandemic is expected to have increased inequality further in nearly all countries of the world.<sup>6</sup>

Another way to measure income inequality is to compare the shares of income held by a country's richest 20 percent and poorest 20 percent. Figures 5 and 6 show the evolution of these indicators in Argentina and Brazil for all available years between 1992 and 2019. These indicators have followed similar patterns over time in both Argentina and Brazil, however the income shares for the wealthiest 20 percent and the poorest 20 percent have been higher and lower, respectively, in Brazil, demonstrating the greater level of income inequality that exists there. In Brazil, the income share held by the wealthiest 20 percent of the population has fluctuated between a minimum of 57.0 percent and a maximum of 64.3 percent, while the share held by the poorest 20 percent has fluctuated between a minimum of 2.2 percent and a maximum of 3.6 percent. Alternatively, in Argentina, the income share held by the wealthiest 20 percent of the population has fluctuate between a minimum of 46.1 percent and a maximum of 57.8 percent (barely higher than the minimum in Brazil), while the share held by the poorest 20 percent has fluctuated between a minimum of 2.6 percent and a maximum of 5.1 percent.

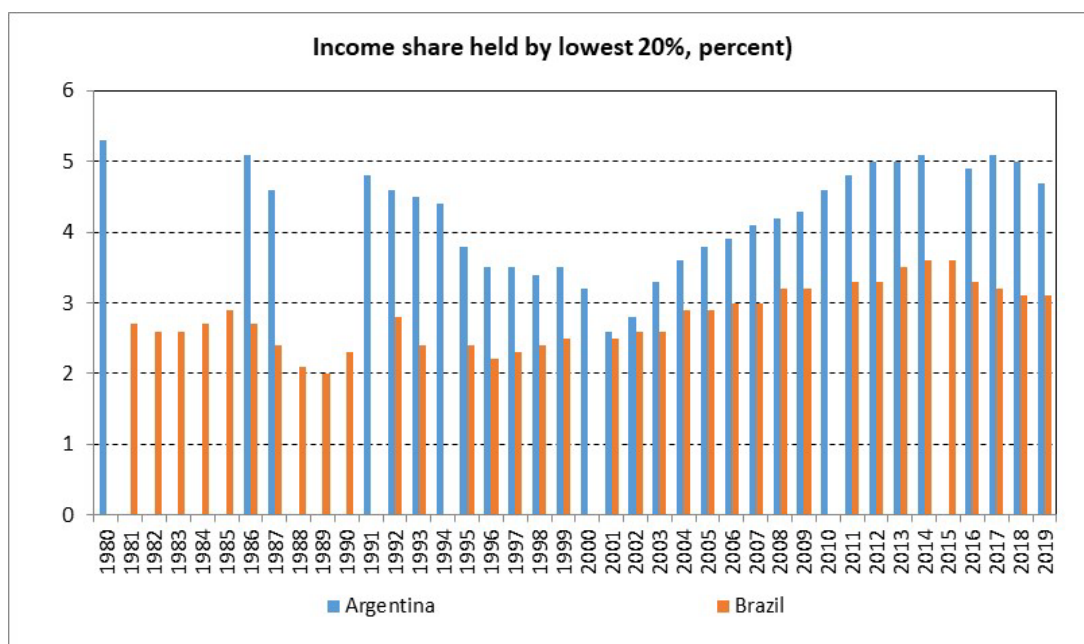
**Figure 5: Income Share Held by the Highest 20 Percent (all available years)**



Source: Created by author based on World Bank (2022).

<sup>6</sup> Stiglitz (2020).

**Figure 6: Income Share Held by the Lowest 20 Percent (all available years)**



Source: Created by author based on World Bank (2022).

Oxfam International (2022) provides important statistics that demonstrate the current culture of inequality in Brazil. A minimum wage worker in Brazil would have to work 19 years to make what an individual in Brazil’s richest 0.1 percent makes in just a month. At Brazil’s current rate of progress, the gender wage gap will not be eliminated until 2047 and the racial wage gap will continue to exist until 2089. The gap between Brazil’s richest and poorest is also substantial, with the richest 5 percent bringing in the same amount of income as the remaining 95 percent of the population. Just the 6 richest individuals in Brazil, all men, have the same amount of wealth as the poorest 50 percent of the population, approximately 100 million people.<sup>7</sup>

While Brazil has made significant progress in recent years in terms of lifting many out of poverty, the extreme inequality that persists in the country is a huge threat to this progress and will likely cause many more to fall back into poverty. The emergence of the COVID-19 pandemic is a big factor in the great inequality in Brazil. In 2020, earnings for Brazil’s poorest 40 percent dropped by one third due to the pandemic, however, earnings for the richest 10 percent dropped by only 3 percent. During this period, however, Brazil’s economy saw significant growth.<sup>8</sup> Marcelo Nery, director of the Center for Social Policies at the Fundação Getúlio Vargas, a higher education institution and think tank in Brazil, said in 2020, “GDP was better than expected, the currency appreciated, the stock market is up. Even formal job creation has improved”<sup>9</sup> but the positive effects of these economic boosts were clearly not felt by the Brazilian population as a whole, in fact circumstances deteriorated during the pandemic for the country’s poorest.

<sup>7</sup> Oxfam International (2022).

<sup>8</sup> Tornaghi (2021).

<sup>9</sup> Tornaghi (2021).

Increasing income inequality has even had an impact on happiness index scores. Between 2019 and 2020, happiness index scores for Brazil's poorest 40 percent decreased significantly, while scores for Brazil's richest 20 percent actually increased slightly. This substantial decrease in happiness scores for the poorest 40 percent in Brazil pulled the average score down so much that, in a study of 40 countries worldwide, Brazil's overall happiness index score fell the greatest amount. Additionally, in 2021 Brazil hit a record high of 14.7 percent unemployment, putting further constraints on Brazil's poorest and exacerbating the already extreme inequality in the country.<sup>10</sup>

Argentina, though not as unequal as Brazil based on the Gini index for income inequality, has experienced a persistent increase in income inequality since 2016, a trend that has been worsened by the COVID-19 pandemic. Argentina has also experienced economic growth, like Brazil, with April 2022 marking a record high for the country's exports. However, nearly 40 percent of the country's population remains in poverty. Additionally, inflation is at 29.3 percent, the highest it has been in 30 years, which disproportionately affects the country's weakest. Furthermore, the concentration of wealth is very high in Argentina, with Argentina's richest 10 percent controlling more wealth than 60 percent of the country and there has been little development of the idea of social responsibility for Argentina's business leaders.<sup>11</sup>

## **IV.2. Government Spending on Education**

Government spending on education has been linked to a decrease in inequality in both Brazil and Argentina.<sup>12</sup> Figures 7 and 8 demonstrate the evolution of government expenditure per student (% of GDP per capita) for primary, secondary, and tertiary education, respectively in Argentina and Brazil. Overall, Argentina shows declining trends in all three education sectors during the late 1990s and early 2000s, followed by relatively sharp increases until 2009, and an overall stagnating trend from 2009 to 2017. Brazil's trends in government spending differ by sector: for tertiary education, government spending having been decreasing from 2002 to 2008, followed by an overall stabilization from 2008 to 2014, and a relative sharp increase from 2014 to 2015; for primary and secondary education, government spending have been increasing during the 2000s, but have overall stabilized during the five years such data is available in the 2010s.

Figure 7 also shows that with the exception of 1998 to 2000, Argentina's government expenditures per student (% of GDP per capita) were the largest for secondary education, while they were (with exception of 2003) the lowest for primary education. Except for a few years, government expenditures per student (% of GDP per capita) for tertiary education were in between those of primary education and secondary education.

Comparing Figure 7 for Argentina with Figure 8 for Brazil, we can see that the ranking of government spending across primary, secondary and tertiary education is very different in Brazil. Brazil's government expenditures per student (% of GDP per capita) were always the largest for tertiary education, while they were about the same for primary and secondary education. Brazil's disproportionately high government expenditures per student (% of GDP per capita) in tertiary education can be considered to worsen inequality, as at least in the past only already wealthy and privileged groups attended tertiary education. Fortunately, Brazil's tertiary school enrollment has

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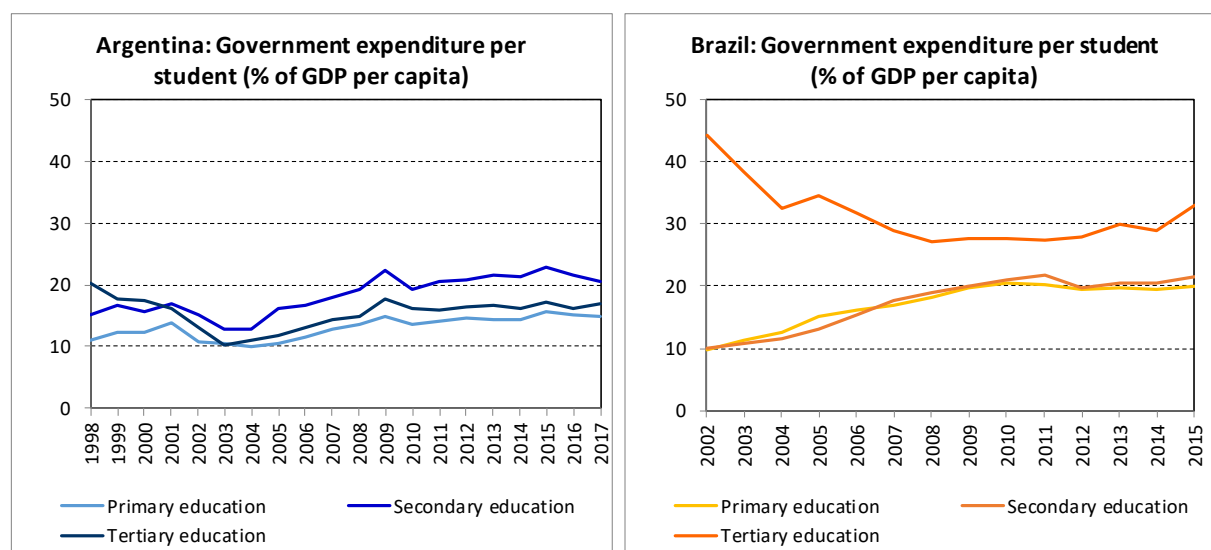
<sup>10</sup> This paragraph is based on information provided by Tornaghi (2021).

<sup>11</sup> This paragraph is based on information provided by Pilatti (2022) and Meschke (2018).

<sup>12</sup> Lustig, Lopez-Calva and Ortiz-Juarez (2012).

increased from 16.1 percent in 1999 to 55.1 percent in 2019. Despite this increase in tertiary school enrollment, Brazil's tertiary school enrollment is still far below that of Argentina, where tertiary school enrollment has increased from 48.8 percent in 1999 to 95.4 percent in 2019.<sup>13</sup>

**Figures 7 and 8: Government Expenditure Per Student (% of GDP per capita) for Primary, Secondary, and Tertiary Education, respectively in Argentina and Brazil**



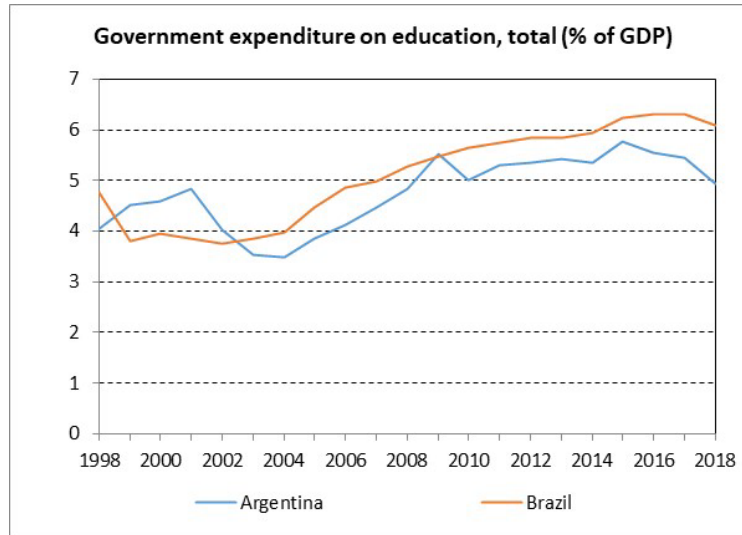
Source: Created by author based on World Bank (2022).

Figure 9 shows total government expenditure on education as percent of GDP from 1998 to 2018, which are the years the World Bank has data for both countries. Excluding the late 1990s and the early 2000s, the overall trend has been increasing for both countries. However, government expenditures on education have (as percent of GDP) been declining in Argentina from 2015 to 2018, while they have overall stabilized during the same period in Brazil. Figure 9 shows that from 2004-2017, Brazil had a slow, but steady increase in spending on education, in terms of percent of GDP, from 4.0 percent to 6.3 percent, with a small drop down to 6.1 percent in 2018. Argentina's trend is less steady. It had a faster growth rate than Brazil from 2004-2009, but then had a sharp decline and experienced only minor increases and decreases since then, bringing it back to 4.9 percent, slightly less than the 5.0 percent of GDP the government spent on education in 2010. With exception of 2009, Brazil had spent more on education than Argentina during the last two decades (as percent of GDP).

While the higher and long-term increase in spending on education may have a positive effect on overall equality in Brazil, more spending may be required, especially as Brazil's literacy rates have stagnated at around 91 to 94 percent during the last ten years such data is available. The stagnating literacy rate also seems to indicate that education spending is not being targeted sufficiently on making sure that everybody can read and write.

<sup>13</sup> The data on tertiary school enrollment have been taken from World Bank (2022).

**Figure 9: Total Government Expenditure on Education (percent of GDP)**



Source: Created by author based on World Bank (2022).

## **V. Ethical Analysis**

As stated by Beghin (2008, p. 2), “in contemporary democracies, inequalities and poverty result from tensions between the ethical requirements related to rights and the imperative of economic efficacy; between the legal order that promises equality and the reality of exclusion brought about by the exercise of power.” This section reviews first some ethical implications of inequality in Argentina and Brazil, and then examines the recent attempts of these two countries to curb inequality.

### **V.1. Ethical Implications of Inequality**

It has been claimed by many that income inequality is morally justified because it is a result of free markets. These claims are especially popular among those in power, as they are typically the ones to benefit from income inequality. One exception to this is Chris Hughes, a facebook cofounder. Hughes actually attributes his financial success mainly to luck.<sup>14</sup> If income equality exists because of luck, it can certainly be argued that income inequality is then inherently unfair - why should some be so much better off than others simply because they have good luck?

Many also argue that financial success is a result of hard work and for that reason income inequality is ethical, however, there are millions of people worldwide who work hard every day and yet still live in poverty which proves this theory untrue. Another justification for inequality is that it maximizes total income. While it may be true that a certain amount of inequality is necessary to encourage hard work which maximizes income, the levels of extreme inequality that exist worldwide today have the potential to be extremely detrimental to economic growth.

Numerous philosophers have reached different conclusions about the ethics of inequality. Kant’s humanist approach believes that, by nature of being human, all humans have an inherent right to

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<sup>14</sup> Basu (2018).



be treated equally, in which case inequality is unethical because it is a breach of one's human rights. Rousseau's idea of a social contract implies equality because people would not "sign" the contract if it involved inequality. A third approach is that of Rawls which states that inequality is justified if the poorest person is better off than they would be with equality. If this idea is applied to the extreme inequality in Brazil and Argentina, then the inequality is not justified because the poorest people there would certainly be better off with equality than they are now with inequality. Libertarians, specifically the 17<sup>th</sup> century philosopher John Locke, believe inequality to be justified as long as wealth is acquired legitimately. There is certainly more controversy on this front, with valid arguments on both sides of the debate over whether people with large amounts of wealth have obtained that wealth legitimately or not. This idea also has to be applied separately to all people with great amounts of wealth as there are innumerable different ways of acquiring wealth, some legitimate and others not.

## **V.2. Attempts to Curb Inequality**

In 2020, Argentina implemented a tax on the wealthiest members of its population. The tax will only apply to those with assets of more than \$2.5 million, or 200 million pesos, which is about 12,000 Argentinians. These people will have to pay up to 3.5 percent on wealth in Argentina, and up to 5.25 percent on wealth anywhere outside the country.<sup>15</sup> Though this tax does not treat all citizens equally, it is still in line with the fairness or justice approach to ethics because it promotes fairness by taxing all citizens equitably. Of the money raised from the new tax, 20 percent will go to medical supplies, 20 percent to relief for small and medium sized businesses, 20 percent to scholarships for students, 15 percent to social developments, and 25 percent to natural gas ventures.<sup>16</sup>

These all have potential to have equalizing effects in Argentina. Some of them also have the potential to increase inequality. For example, scholarships to students from poor households would likely have an equalizing effect but providing scholarships to students from upper class families has the potential to increase education inequality. The same goes for the purchase of medical supplies, depending on who those supplies are given to. The biggest portion of revenue from the new tax will go towards natural gas ventures, which may not seem related to inequality, however, climate change and global warming disproportionately impact poorer communities so any action to curb climate change is likely to have a positive impact on those communities. Overall, the tax is in line with the common good approach to ethics because the money that the country brings in from the tax will be used to benefit society as a whole. However, according to Meschke (2018), there has been little development of the idea of social responsibility for Argentina's business leaders.

Large scale conditional cash transfer programs have also had equalizing effects in Latin America. Despite being a small portion of total government social spending, these cash transfer programs have "remarkable distributive power."<sup>17</sup> In Brazil, the Bolsa Familia program has been successful in reducing inequality and is actually the largest conditional cash transfer program in the world. The program, introduced in 2003, provides cash transfers from the federal government to low-income families as long as they agree to certain conditions. Conditions differ for each family but

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<sup>15</sup> This paragraph is based on information provided in British Broadcasting Corporation (BBC) (2020).

<sup>16</sup> British Broadcasting Corporation (BBC) (2020).

<sup>17</sup> Lustig, Lopez-Calva and Ortiz-Juarez (2012), p. 12.



can include school attendance, immunization, prenatal monitoring, and remedial education. The program has had a very large public impact, reaching 46 million people and 1 in every 4 families in Brazil. Three in four Bolsa Familia beneficiaries are Afro-descendants and more than half are women.<sup>18</sup> Conditional cash transfer programs such as Bolsa Familia are in line with the utilitarian approach to ethics. In addition to combating income inequality with the cash transfers, the conditions that must be met by recipients also work to combat inequalities in health and education, maximizing the net benefit of the program.

## VI. Conclusion

As is evident, inequality is a prominent issue in both Argentina and Brazil, though certainly to a greater extent in Brazil. Despite economic growth, inequality remains persistent. This inequality does not just refer to the income gap, but also differences in access to things such as healthcare and education. There is also gender and racial inequality, as women and Afro-descendants are more likely to lack access to these necessities.

Argentina and Brazil have both taken substantial action to reduce inequality and while the programs implemented have had equalizing effects, it is still not enough as inequality remains prominent. Both countries must take further actions to redistribute wealth from the wealthiest in the country to the poorest who are living in poverty. They must also do more to ensure all people have access to adequate healthcare and education regardless of their gender, race, or economic status.

## References

- Amnesty International (2022). Disproportionate Deaths from Covid in the Americas Are Result of Pre-Existing Inequalities. Amnesty International, internet news story of April 27, 2022; available at: <https://www.amnesty.org/en/latest/news/2022/04/americas-disproportionate-deaths-covid-preexisting-inequalities/>.
- Basu, Kaushik (2018). The Ethics of Reducing Inequality. Washington, DC: Brookings Institution, opinion piece of March 30, 2018; available at: <https://www.brookings.edu/opinions/the-ethics-of-reducing-inequality/>.
- Beghin, Nathalie (2008). Notes on Inequality and Poverty in Brazil: Current Situation and Challenges. Oxfam Background Paper (March); available at: <https://oxfamlibrary.openrepository.com/bitstream/handle/10546/112516/fp2p-bp-notes-inequality-poverty-brazil-current-140608-en.pdf>.
- British Broadcasting Corporation (BBC) (2020). Covid: Argentina Passes Tax on Wealthy to Pay for Virus Measures. *BBC News*, internet news story of December 5, 2020; available at: <https://www.bbc.com/news/world-latin-america-55199058>.
- Ćirković, Stevan (2019). Bolsa Família in Brazil. Centre for Public Impact, internet resource of September 2, 2019; available at: <https://www.centreforpublicimpact.org/case-study/bolsa-familia-in-brazil>.

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<sup>18</sup> Ćirković (2019).

- Galarraga Gortázar, Naiara (2022). Nearly 20 Years on since Famous Snapshot of Inequality in Brazil, Little has Changed. *El País*, news story of January 26, 2022; available at: <https://english.elpais.com/usa/2022-01-26/nearly-20-years-on-since-famous-snapshot-of-inequality-in-brazil-little-has-changed.html>.
- Lustig, Nora; Lopez-Calva, Luis F.; and Eduardo Ortiz-Juarez (2012). Declining Inequality in Latin America in the 2000s: The Cases of Argentina, Brazil, and Mexico. Washington, DC: The World Bank, *Policy Research Working Paper*, No. 6248 (October); available at: <https://documents1.worldbank.org/curated/en/880471468222894906/pdf/wps6248.pdf>.
- Lustig, Nora; Valentina Martinez Pabon; Federico Sanz; and Stephen D. Younger (2020). The Impact of COVID-19 Lockdowns and Expanded Social Assistance on Inequality, Poverty and Mobility in Argentina, Brazil, Colombia and Mexico. Washington, DC: Center for Global Development (CGD), *Working Paper* No. 556 (October); available at: <https://joserobertoafonso.com.br/wp-content/uploads/2021/02/impact-covid-19-lockdowns-and-expanded-social-assistance.pdf>.
- Meschke, Jacob (2018). Argentina's Richest 10% Control More Wealth Than 60% of the Country. *Buenos Aires Times*, news report of January 18, 2018; available at: <https://www.batimes.com.ar/news/argentina/argentinas-richest-10-control-more-wealth-than-60-of-the-country.phtml>.
- Organization for Economic Co-operation (OECD) (2017). *Argentina 2017: Multi-dimensional Economic Survey*. Paris, France: Organization for Economic Co-operation (OECD) (July); available at: [https://doi.org/10.1787/eco\\_surveys-arg-2017-en](https://doi.org/10.1787/eco_surveys-arg-2017-en).
- Oxfam International (2022). Brazil: Extreme Inequality in Numbers. Oxfam International, internet resource of May 25, 2022; available at: <https://www.oxfam.org/en/brazil-extreme-inequality-numbers>.
- Pilatti, Julián (2022). Climbing Inequality in Argentina as Poverty and Inflation Soars. *Peoples Dispatch*, internet resource of June 30, 2022; available at: <https://peoplesdispatch.org/2022/06/30/climbing-inequality-in-argentina-as-poverty-and-inflation-soars/>.
- Stiglitz, Joseph (2020). Conquering the Great Divide. *Finance & Development* (September), pp. 17–19; available at: <https://www.imf.org/external/pubs/ft/fandd/2020/09/COVID19-and-global-inequality-joseph-stiglitz.htm>.
- Tornaghi, Cecilia (2021). Inequality is Brazil's Achilles Heel. *Americas Quarterly*, internet news story of July 19, 2021; available at: <https://www.americasquarterly.org/article/inequality-is-brazils-achilles-heel/>.
- World Bank (2022). *World Development Indicators* (Washington, DC: The World Bank); as posted on the World Bank website: <http://data.worldbank.org/data-catalog/> (downloaded on January 3, 2022).