



Global Majority E-Journal



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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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The Poor Majority: Inequality in Mexico and Peru

Sofia Casamassa

Abstract

This article reviews inequality in Mexico and Peru. Despite various social assistance programs in Mexico and Peru, inequality remains high compared to most other countries. Income inequality has plagued Mexico and Peru for years. In both countries, income and wealth are concentrated by a small fraction of ultra-rich people, while the poor majority is left with small percentages of national income to fight over. Geographic disparities, class division, and underlying racial and gender discriminations perpetuate overall inequality in Mexico and Peru. This article analyzes the causes of inequality in both Mexico and Peru regarding socioeconomic policies and geography, along with how the two countries have attempted to become more equitable yet failed to do so at a significant level. In order to reduce inequality in the long-term, Mexico and Peru must restructure their socioeconomic policies as well as their governance system.

I. Introduction

Oxfam International (2014) reports that contrary to the traditional view, extreme inequality undermines economic growth. Oxfam International (2014) also states that inequality is a serious issue that is driven by market fundamentalism and the capture of power by economic elites. As a result, inequality within most countries has generally increased (Oxfam International, 2014). Over the past few decades, inequality has gained a central role in terms of analysis and measurement. Inequality may be defined by different dimensions such as income, wealth, education, capabilities, and more. We differentiate between horizontal inequality (i.e., inequality across different groups such as ethnic groups) and vertical inequality (i.e., inequality within a group).¹

This article examines vertical inequality in Mexico and Peru (i.e., inequality across individuals within each country) as well as horizontal inequality by comparing inequality across Mexico and Peru. It focuses on income inequality, geographical inequality, class inequality, and educational inequality. In both countries, these inequalities are also heavily influenced by racial and gender discrimination, especially towards indigenous populations. These subsets of inequality are all intertwined with each other and perpetuate high levels of overall inequality in both countries.

¹ Unless otherwise stated, this paragraph is based on Stewart and Samman (2014).

This article is structured into six sections. Following this Introduction, Section II provides a literature review that discusses two articles related to each country and one article related to both countries. Section III summarizes the socioeconomic background of the two countries, which is followed by an analysis of inequality in Mexico and Peru in Section IV. Section V lays out an ethical discussion on the origins of inequality in general and ties it to both countries. Section V also outlines some differences and similarities between each country, and the way forward for a more equitable future. The final section (Section VI), offers conclusions.

II. Literature Review

The literature surrounding inequality in Mexico and Peru is extensive. It has become exceedingly more prevalent in recent years as researchers conduct more studies on the underlying causes of persistent inequality despite supposedly helpful socioeconomic policy initiatives. The literature compiled shows that both countries suffer from inequality and its effects, but the causes differ regarding policy, geography, race, and education. Ramos, Gibaja-Romero and Ochoa (2020), along with Delajara and Graña (2017), focus on inequality in Mexico. Meanwhile, Crabtree and Durand (2017), along with Pasquier-Doumer and Risso Brandon (2015), focus on inequality in Peru. Telles, Flores and Urrea-Giraldo (2015) analyze inequality in diverging contexts in both nations. In each of these publications, the authors look at inequality, its breadth of causes, and why it has remained a persistent issue in Mexico and Peru.

- Ramos, Gibaja-Romero and Ochoa (2020) describe how the public policies implemented fail to reduce poverty and income inequality in Mexico, a nation with one of the highest inequality levels globally. The highest levels of inequality are found in the South of Mexico. In the North, inequality is significantly lower. Additionally, geographical locations with higher inequality have higher gender-based inequality in Mexico. Ramos, Gibaja-Romero and Ochoa (2020) conclude that the income concentrated on the wealthiest 10 percent in Mexico is 2.25 times higher than the income of the poorest 40 percent of the population. The authors found that women in Mexico are the most vulnerable group regarding economic issues. The authors suggest that new public policy should focus on salaried and self-employed workers to improve these issues. Diminishing income inequality in these groups has a significant impact on decreasing inequality and poverty.
- Delajara and Graña (2017) also find that inequality is concentrated in the Southern region of Mexico. They notice that social mobility in terms of wealth occurs more frequently in the Northern and Central regions of Mexico than in the South. Additionally, they discuss the impact of social mobility in education on inequality and conclude that there is lower social mobility in education in the Southern and North-Central regions of Mexico. This indicates that education inequality is slightly correlated to inequality. Delajara and Graña (2017) claim that there is less data on regional entities in Mexico than at the federal level; thus, more research is required to fully understand how geography plays a role in perpetuating inequality at higher levels in some regions than in others.
- Crabtree and Durand (2017) discuss how the political agenda failed to satisfy the needs of the poor majority in Peru and only serves the few wealthy's interests. Despite campaign promises to end the legacy of wealthy investors determining the political agenda, most presidents have continued to appoint key economic elites to the highest government positions. As a result, wealthy elites have dominated decision-making processes in terms of

social and economic policies. This, in turn, mainly reflects the interests of an elite who owns the highest concentration of income and wealth, while the political system is unable to defend the interests of the wider Peruvian society. Additionally, the authors conclude that due to widespread political apathy in Peru, excluded social groups' interests are not represented in government.

- Pasquier-Doumer and Risso Brandon (2015) claim that aspirations are a channel of inequality especially prevalent between ethnic groups of Peru. They conclude that non-indigenous children in poverty do not limit their aspirations, while impoverished indigenous children are more likely to limit their ambition. According to the article, aspiration is linked to unequal socioeconomic status and unequal educational achievements. This may result in a niche version of racial inequality found within the greater context of Peruvian society. Aspiration failure commonly found among indigenous children in Peru is a contributing factor to the permanence of poverty, lack of social mobility, and thus overall inequality.
- Telles, Flores and Urrea-Giraldo (2015) discuss how both class and race play a role in perpetuating and predicting inequality not only in Mexico and Peru but in the whole of Latin America. Race and class are often intertwined in Latin America because the effects of class origins are often the result of racial privileges favoring Whites and Mestizos, while discriminating against indigenous communities and people of color. The researchers concluded that class origins and skin color powerfully shape life outcomes and inequality in Mexico. In Peru, however, the authors conclude that national ideologies and class origins play a more significant role in shaping identification and income than privileges based on skin color. While non-indigenous communities in Peru experience less inequality than indigenous populations, national ideologies are the most powerful identity builders. According to the authors, the focus on national ideology indirectly disguises inequality and its causes in Peru.

The literature presented above only presents a brief snapshot of inequality in Mexico and Peru. Yet, it is evident that inequality has a plethora of underlying causes, including class origins, race, gender, education, geography, and policy, which can be summarized as follows:

In Mexico, inequality is linked to geography, as inequality is primarily concentrated in its Southern region. Mexican women are the most vulnerable group to adverse economic outcomes. Additionally, education inequality plays a role in the persistence of widespread inequality in Mexico. Race inequality and class origins are very powerful instigators of inequality as well in Mexico. Racial privileges favoring Mestizos and Whites in Mexico have contributed to higher class origins and status.

In Peru, white privilege and geography play less of a role in inequality than national ideology and policy. Indigenous populations are more likely to limit their social mobility aspirations and experience more inequality than non-indigenous communities. However, white privilege takes a backseat to national ideologies and class origins in influencing inequality and identity in Peru. Additionally, the government in Peru fails to represent and preserve society's wider interests, focusing only on the few wealthy elites.

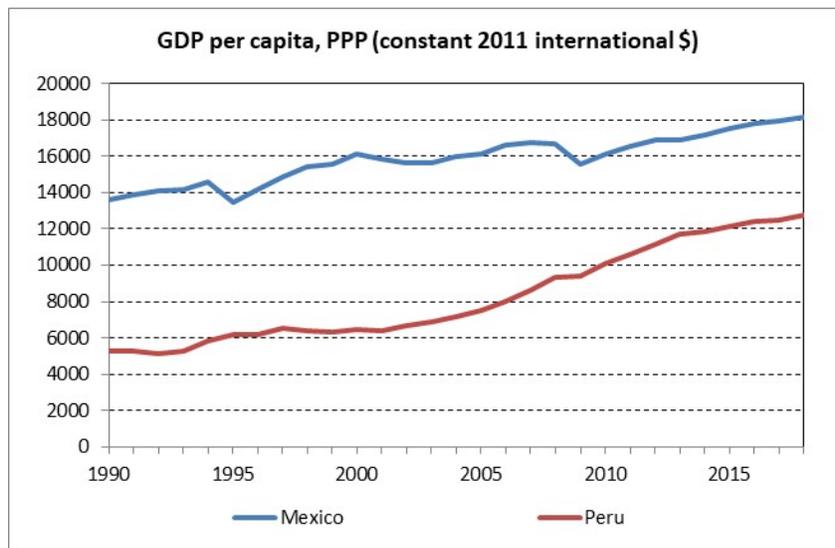
In any case, despite these diverging causes of inequality, they need to be adequately addressed by the Mexican and Peruvian governments.

III. Socioeconomic Background

Mexico and Peru became independent nations, respectively, in 1810 and 1821. In the past two centuries, Mexico and Peru have developed into upper-middle-income countries. In the following paragraphs, three key indicators of socioeconomic development (GDP per capita, life expectancy and literacy rates) will be presented and examined for both countries.

Figure 1 displays GDP per capita in constant international dollars (purchasing power parity (PPP) adjusted) for Mexico and Peru from 1990 to 2018. During this period, Mexico's GDP per capita has experienced periods of growth as well as declines. In 1990, Mexico's GDP per capita stood at \$13,580 and steadily increased to \$14,595 in 1994. However, Mexico's GDP per capita declined sharply in 1995 due to the Mexican financial crisis (also called the "Tequila Crisis") after Mexico devalued the peso in December 1994.² Between 1996 and 2000, GDP per capita continued to grow steadily until it fell slightly to \$15,840 in 2001. After 2001, Mexico's GDP per capita increased steadily until the great recession of 2008, but then increased again, reaching \$18,134 in 2018, which is \$4,354 higher than it was in 1990. While increasing significantly from 1990-2018, Peru's GDP per capita is significantly lower than Mexico's. In 1990, Peru's GDP per capita was \$5,254, and by 2011, it had doubled to \$10,626. After 2011, it steadily increased each year, and as of 2018, Peru's GDP per capita was \$12,793, which is \$7,539 higher than it was in 1990.

Figure 1: GDP per capita, PPP (constant 2011 international \$), 1990-2018



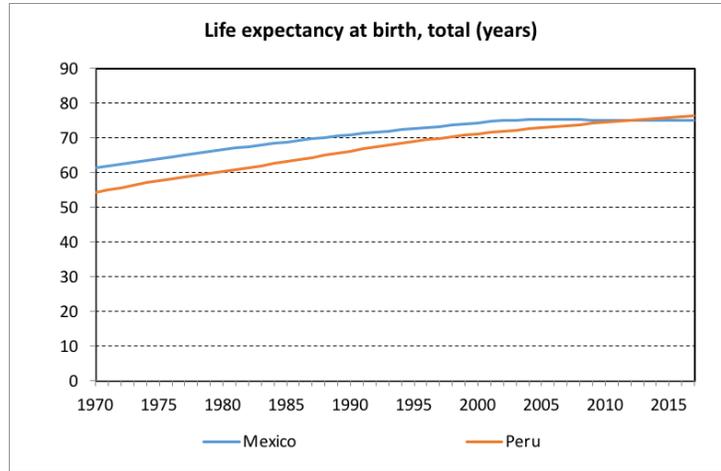
Source: Created by the author based on World Bank (2020).

As displayed in Figure 2, in 1970, Mexico had a higher life expectancy (at birth) than Peru, respectively, 61 years and 54 years. Both Mexico and Peru's life expectancy increased steadily into the 2000s. However, in 2008, Mexico's life expectancy began to decrease slightly and hence, in 2012, life expectancy in both countries were the same: 75 years. After 2012, Mexico's life expectancy continued to slightly decrease, while Peru's continued to increase steadily. In 2017

² Musacchio (2012).

(which is the last year such data is available), Peru’s life expectancy at birth was 76.2 years, while Mexico’s was 74.9 years.

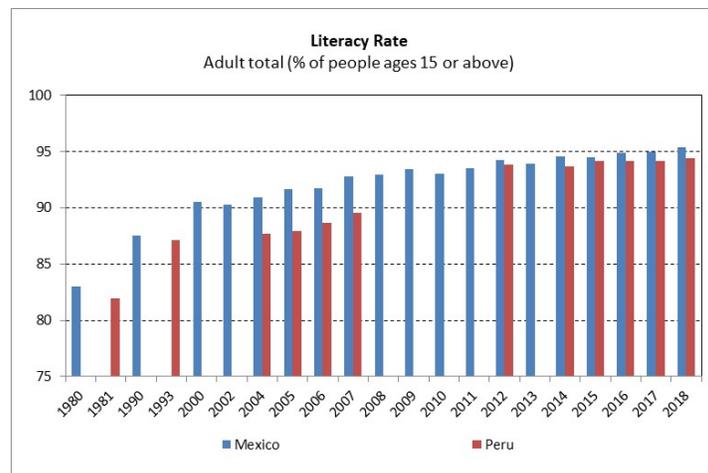
Figure 2: Life Expectancy at Birth (years), 1970-2017



Source: Created by the author based on World Bank (2020).

As is evident in Figure 3, reliable data for literacy rates has been limited, especially for Peru. However, it is clear that Mexico’s literacy rates have always been higher than Peru’s. The first year such data is available for Mexico is 1980, when the literacy rate was 83.0 percent, about one percent higher than for the first year (1981) such data is available for Peru. Both countries’ literacy increased during the 1980s, reaching 87.6 percent in 1990 in Mexico, and 87.2 percent in 1993 in Peru. While Mexico’s literacy rate continued to increase to 90.5 percent in 2000, Peru’s literacy rate stayed nearly the same during 1993 and 2004, hence, creating a significant gap between the two countries during the early 2000s. However, by 2012, Peru had nearly caught up with Mexico, and literacy rates remained close to each other subsequently, reaching 95.4 percent in Mexico and 94.5 percent in Peru in 2018.

Figure 3: Adult Literacy Rates (percent of population over age 15), all available years



Source: Created by the author based on World Bank (2020).

There are some interesting observations that emerge from comparing the three figures above to each other. First, Peru’s GDP per capita remains lower than Mexico’s despite Mexico experiencing three periods of declining GDP per capita. Hence, based on GDP per capita, one would argue that Mexico is the more developed country. However, based on Peru’s now slightly higher life expectancy, Peru could be considered the more developed country. Finally, while Mexico’s literacy rates have been consistently higher than Peru’s, Peru’s literacy rates are nearly equal to Mexico’s in recent years, and hence, the two countries could be considered to be at the same level of development.

IV. Analysis of Inequality in Peru and Mexico

IV.1. Income Inequality

Although income inequality has generally fallen in both countries in recent years, Latin America remains one of the most unequal regions in the world according to Ibarria and Byanyima (2016). Figure 4 shows the Gini coefficient for income inequality for most countries in Latin America and the Caribbean in 2016 (data for the white-colored countries were unavailable). This map shows that Mexico and Peru are highlighted in the darkest blue shade, indicating the highest level of inequality (a Gini above 43.7 percent).

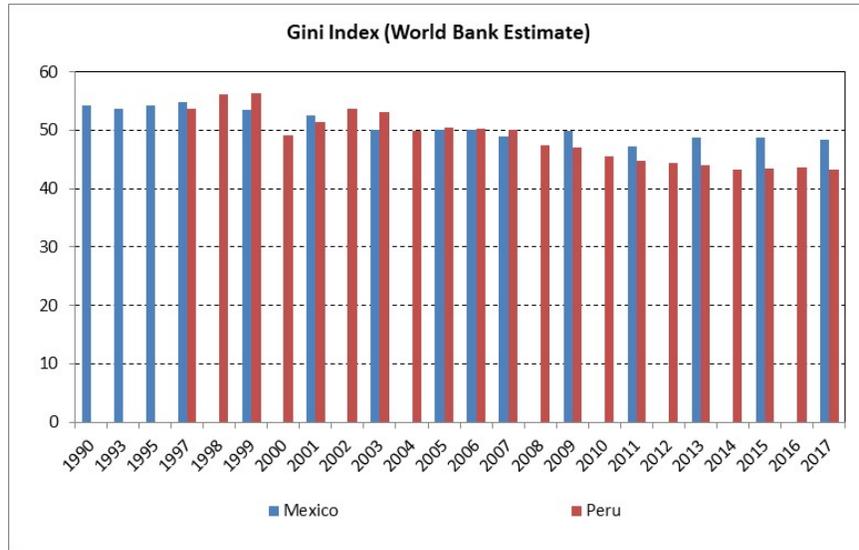
Figure 4: Mapping Inequality in Latin America and the Caribbean, 2016



Source: World Bank (2016), country names for Mexico and Peru added by author.

Despite limited data available for income inequality, Figure 5 shows that while inequality in Mexico and Peru have somewhat declined since the 1990s, inequality in Mexico has increased since 2011. From 2011 to 2012, Mexico’s Gini coefficient jumped 1.5 percentage points (from 47.2 percent to 48.7 percent), and then decreased marginally to 48 percent as of 2017. Mexico and Peru had similar Gini coefficient levels in 1997 (53.7 percent in Peru and 54.8 percent in Mexico), but from 1997 to 2007, Peru had higher levels of inequality than Mexico based on this indicator. Starting in 2009, however, Mexico’s Gini coefficient has been higher than Peru’s, indicating higher levels of income inequality.

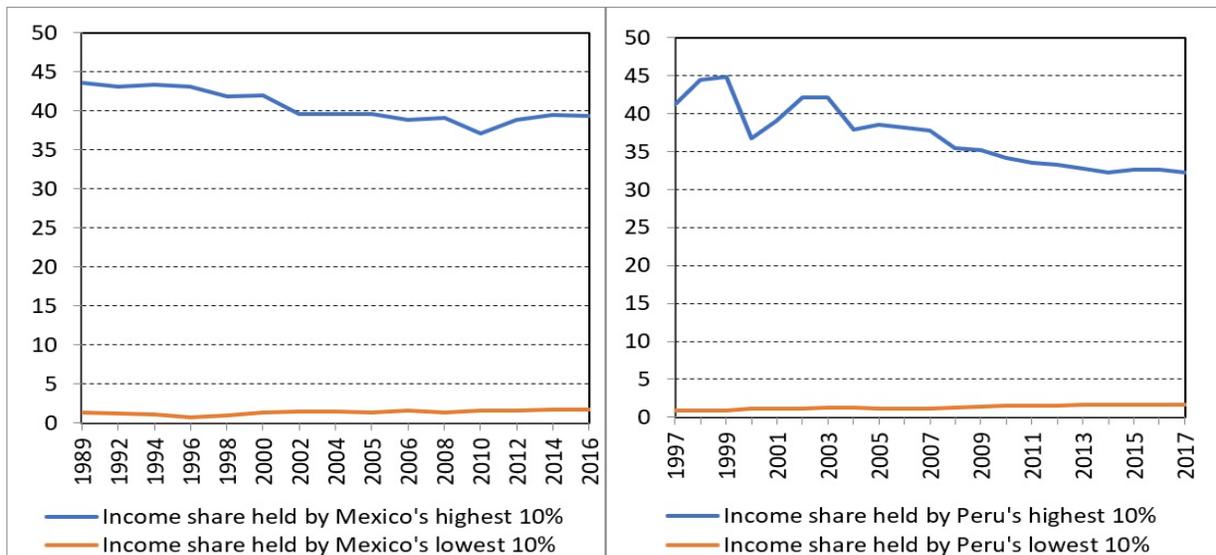
Figure 5: Gini Coefficient for Mexico and Peru, all available years



Source: Created by author based on World Bank (2020).

Figures 6 and 7 show the income shares of the richest and poorest 10 percent of the population for Mexico and Peru, respectively. This data highlights the fact that there is a clear disparity between the wealthy and poor classes in both countries. In fact, the income shares of the lowest 10 percent in both countries were never higher than two percent. Figure 6 shows that income disparity has slightly increased in Mexico since 2010, after a period of relatively steady declines from 1998 to 2008. In 2016 (the most recent year with available data), the highest 10 percent earned 39.3 percent of the total income, while the lowest 10 percent earned 1.8 percent of the total income.

Figures 6 and 7: Income Shares of the Richest and Poorest Ten Percent, all available years



Source: Created by author based on World Bank (2020).

Figure 7 shows an interesting trend for the income shares held by Peru's highest and lowest 10 percent. From 1999 to 2001, the income share held by the highest 10 percent drastically decreased, and then jumped up in 2003. However, despite fluctuations in the income share held by Peru's highest 10 percent, the income share held by the lowest 10 percent has remained relatively stable during 1997 to 2017, though it increased from 0.9 percent to 1.6 percent. As of 2017, the income share of the richest 10 percent was 32.3 percent.

While income disparity is a serious issue in both countries, the data indicate that the highest ten percent in Mexico have typically held a higher percentage of income than Peru's highest 10 percent. Meanwhile, Peru's lowest 10 percent generally have slightly lower income shares than the lowest 10 percent in Mexico.

IV.2. Mexico's and Peru's Rural-Urban Divide

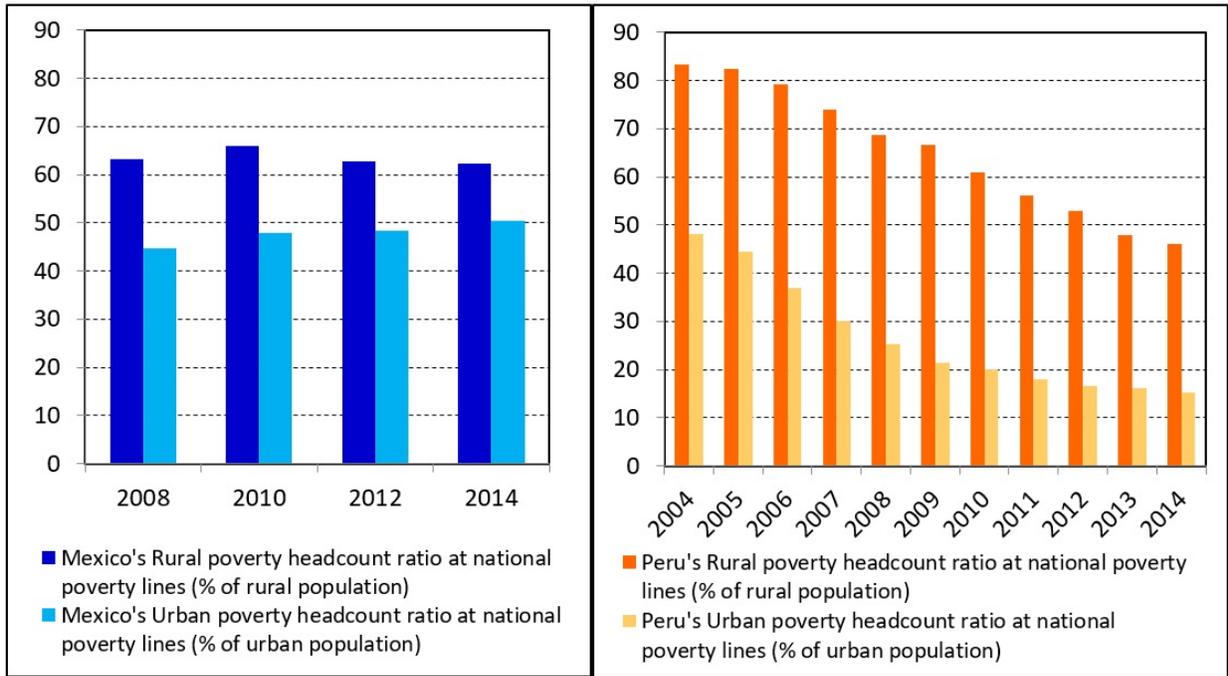
Inequality in both countries is partially attributed to high levels of rural poverty in Mexico and Peru. In both countries, rural poverty is significantly higher than urban poverty. This is supported by Figures 8 and 9, which highlight the rural and urban poverty headcount ratios at national poverty lines for all available years in Mexico and Peru, respectively.

Inequality at the rural level is a serious issue in Mexico, as the data of Figure 8 show that a majority of those in rural communities are living in poverty. Despite the limited data available comparing Figure 8 (for Mexico) with Figure 9 (for Peru) shows that Mexico's rural poverty headcount ratio has been much higher than Peru's in recent years. Interestingly, from 2008 to 2010, the rural poverty headcount ratio in Mexico jumped from 63.3 percent to 65.9 percent. Mexico's rural poverty headcount ratio then decreased to 62.8 percent in 2012 and to 62.4 percent in 2014. Meanwhile, the urban poverty headcount ratio in Mexico has been steadily increasing during all available years. In 2008, the urban poverty headcount ratio was at 44.8 percent, and jumped to 47.8 percent and 48.3 percent in 2010 and 2012, respectively. In 2014, the urban poverty headcount ratio reached 50.5 percent.

Figure 9 shows that Peru's rural poverty headcount ratio has decreased by nearly half in ten years, from 83.4 percent in 2004 to 46 percent in 2014. However, despite this promising decline, income inequality and rural poverty in Peru is still a serious issue, since nearly half of the rural community lives impoverished. Meanwhile, the urban poverty headcount ratio followed a similar decline from 48.2 percent in 2004 to 15.3 percent in 2014. However, for all years available, the urban poverty headcount ratio remained significantly lower than the rural poverty headcount ratio. In 2014, the most recently available year, the urban poverty headcount ratio was approximately three times lower than the rural poverty headcount ratio. This data indicates that inequality in Peru is more concentrated in the rural parts of the country, highlighting a rural-urban divide.

Despite the increase in the urban poverty headcount ratio and a decrease in the rural poverty headcount ratio, the rural poverty headcount ratio remained significantly higher than the urban poverty headcount ratio for all four years such data is available for Mexico. This data indicate that rural poverty is still a significant issue in Mexico; however, urban poverty is also becoming a more prevalent issue in the country, with more than half of Mexicans in urban areas living in poverty in 2014.

Figures 8 and 9: Rural and Urban Poverty Headcount Ratios at National Poverty Lines (percent of rural and urban population) (all available years)



Source: Created by author based on World Bank (2019) for Mexico and World Bank (2020) for Peru.³

There are some interesting conclusions to draw from comparing the rural and urban poverty headcount ratios at national poverty lines in Mexico and Peru. In Peru, there is a larger gap between the urban and rural poverty headcount ratios. This data indicates that the rural-urban divide is starker in Peru than Mexico. However, for all available years, both variables remain lower than Mexico's. The gap between rural and urban poverty in Mexico is closing. As of 2014, there was only a 12 percent difference between the two indicators. The fact that Mexico's overall poverty rates are higher than Peru's indicate that urban and rural poverty are both significant factors of inequality in the country.

IV.3. Inequality in Educational Attainment

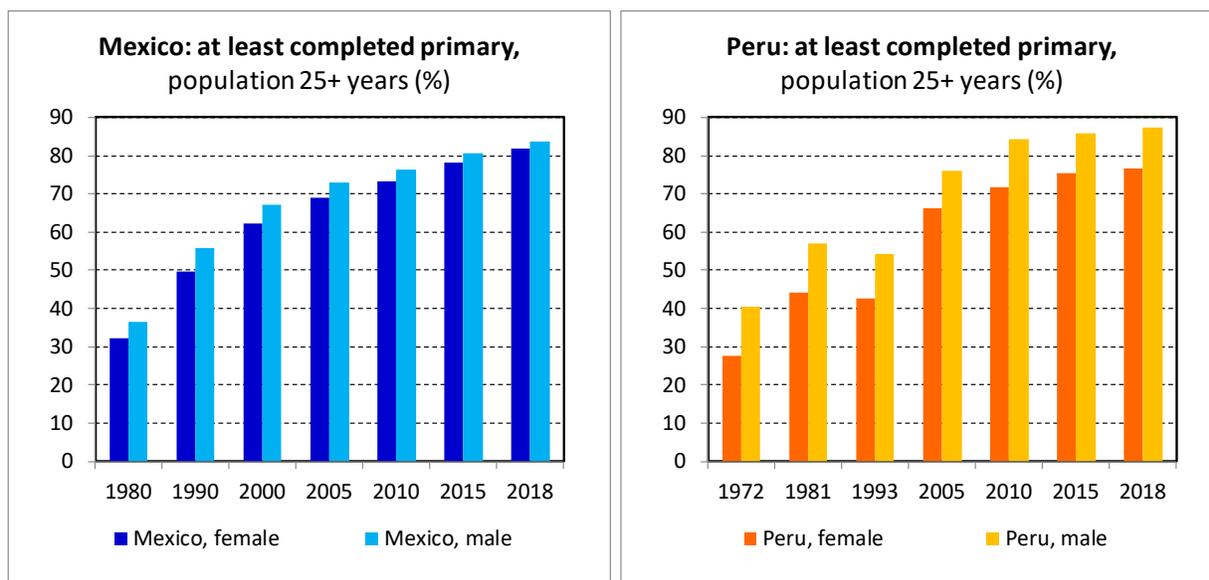
Figures 10 and 11 explore gender inequality for educational attainment, at least completed primary for men and women 25 years and older for selected years, respectively in Mexico and Peru. While both countries have experienced high growth in educational attainment and fairly high rates for both genders, it is important to acknowledge various gender disparities. Both graphs indicate that more men in each country completed their primary education than women.

In Mexico, the percentage of women who completed their primary education rose from 32.2 percent in 1980 to 81.8 percent in 2018, while the percentage of men who completed their primary education rose from 36.7 percent in 1980 to 83.8 percent in 2018. Hence, the primary education completion gap in 2018 is half of what it was in 1980, indicating a positive shift towards gender

³ The World Bank's (2019) data was used for Mexico as the World Bank (2020) did not report any data on rural or urban poverty for Mexico.

equality in the context of primary education in Mexico. Peru has been on a similar upward trend for both genders when it comes to primary education attainment. The percentage of women who completed their primary education rose from 27.6 percent in 1972 to 76.8 percent in 2018, while the percentage of men who completed their primary education rose from 40.6 percent in 1972 to 87.2 percent in 2018. Hence, Peru's primary education completion gap was lower in 2018 than it was in 1972, though the reduction of the gender gap has been far lower than in Mexico. With still 10.4 percent more men than women having completed their primary education in Peru in 2018, gender inequities in education are a perpetuator of overall gender inequality.

Figures 10 and 11: Educational attainment, at least completed primary, population 25+ years, male and female (percent) cumulative, respectively in Mexico and Peru



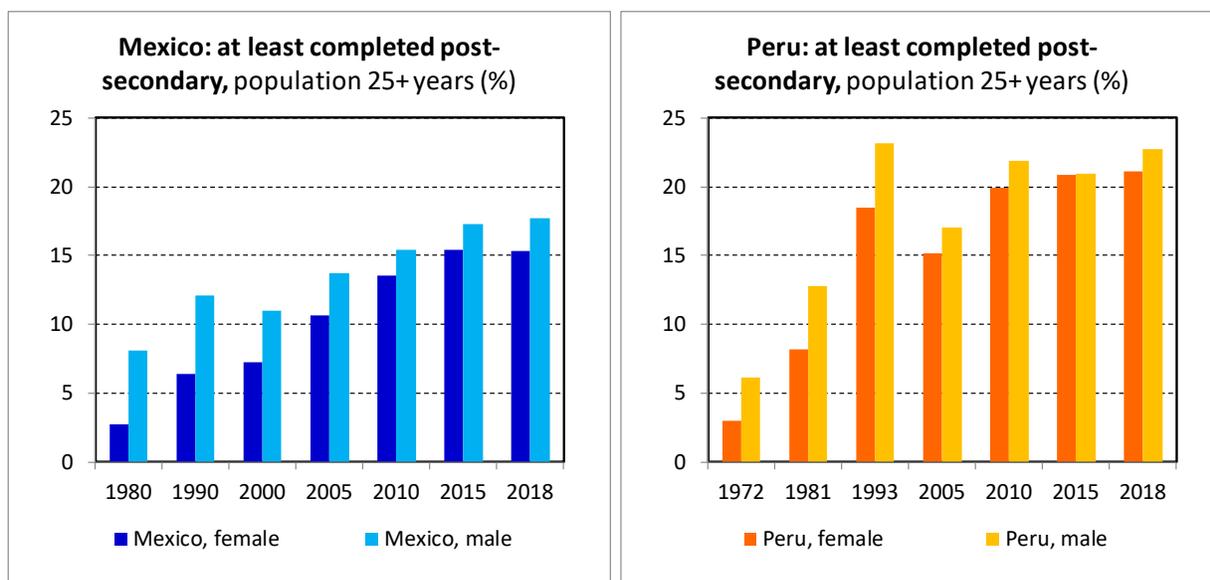
Source: Created by the author based on World Bank (2020).

Like the two previous figures, Figures 12 and 13 also explore educational attainment for men and women in Mexico and Peru, respectively, but this time looking at women and men having completed at least post-secondary education. These figures highlight some interesting trends.

- First, these percentages are fairly low in both countries, especially in Mexico, where only 15.3 percent of the women and only 17.7 percent of the men had completed at least secondary education in 2018 (compared to 21.1 percent of Peru's women and 22.7 percent of Peru's men).
- Second, as was the case for primary education, there are considerable gender gaps between women and men having completed at least secondary education, with the gender gaps becoming smaller over time. However, while Mexico was more successful than Peru in reducing the gender gap in primary education, Peru has been far more successful than Mexico in reducing the gender gap in at least secondary education. Indeed, in 2015, Peru had basically eliminated the gender gap in at least secondary education, though it then reemerged in 2018.

- Third, though Mexico’s level of at least completed post-secondary education is overall lower than Peru’s Mexico displays more steady progress for both genders, while Peru’s evolution has been more volatile, especially for Peruvian men. Indeed, based on the available data, the highest percentage of Peru’s men completing at least post-secondary education was in 1993.
- Forth, comparing the latest available data of 2018 with the data for 2015, we can see that the educational attainment has stagnated for women in both countries, while the numbers for men improved, hence, increasing the gender gap for completing at least post-secondary education from 2015 to 2018 in both countries, which is inconsistent (and disappointing) to what we have seen for the narrowing gender gap in having completed at least primary education in Figures 10 and 11.

Figures 12 and 13: Educational attainment, at least completed post-secondary, population 25+ years, male and female (percent) cumulative, respectively in Mexico and Peru



Source: Created by the author based on World Bank (2020).

V. Ethical Discussion

The first subsection of this ethical discussion lays out the origins of inequality in general and then specifically in Mexico and Peru. The second subsection analyzes inequality in both countries, noting the similarities and differences as well, and summarizes the efforts to eradicate inequality. The third and final subsection provides a brief overview of how Mexico and Peru can accomplish a more equitable future through financial and institutional reform.

V.1. Ethical Origins of Inequality

Several famous philosophers have reached diverging conclusions about inequality. Stewart and Samman (2014) provide a snapshot of several claims John Locke, John Rawls, Immanuel Kant, and Jean-Jacques Rousseau make regarding inequality. John Locke, for instance, argues that inequality is justified as long as wealth is acquired legitimately. On the other hand, John Rawls

concludes that inequality is justified if the poorest in society are doing better than they would with equality. Meanwhile, Immanuel Kant's approach argues that all humans share the right to be treated equally by virtue of being human beings. Additionally, Jean-Jacques Rousseau's *Social Contract* offers an interesting approach to the question of inequality. He claims that the *Social Contract* implies equality since people would not sign up to it if it involved inequality.

In terms of economics and ethics, economists usually justify inequality if it maximizes the total utility, output, or income of a country. The traditional efficiency argument adopted by most economists is that a certain amount of vertical inequality may be necessary to encourage people to work hard and use their talents in a way that maximizes the output of society. However, too much inequality is bad because it reduces societal human capital. Therefore, the size of domestic markets is reduced, which leads to under-consumption and unemployment, diminishing society's output.⁴

Based on this information, one conclusion to the question of inequality's consequences is that the objective of equalizing initiatives should not center around equality of outcomes but equality of opportunities. Nonetheless, less progress has been made in identifying equalizing policies and even less progress has been made in obtaining political support for equality. In short, extreme inequality is bad for economic growth. To use the words of Oxfam International (2014, p. 7), "today's extremes of economic inequality undermine growth and progress, and fail to invest in the potential of hundreds of millions of people." Thus, there is a moral obligation for the global order and domestic countries alike to eliminate inequality.

Solutions to end inequality range from simply working hard to more complex policy initiatives. It is important to note, however, that the world's poorest people cannot escape poverty just by working hard.⁵ Therefore, it is imperative for the global order as well as each country to amend inequality globally and within each country's borders. The two most common policies to reduce vertical inequality are those that affect primary distribution and policies directed towards secondary distribution.⁶ There are several policy options for eliminating inequality countries can explore. Some of these solutions include implementing a universal social protection floor, limiting executive's salaries, promoting women's rights, and filling holes in tax governance.⁷ In Mexico and Peru, there are limited options for eliminating inequality via existing minimum wage laws:

- In 2020, the minimum wage in Mexico increased by 20 percent to 123.22 pesos (US\$6.85) per day, which is still less than US\$1 per hour. Additionally, the minimum wage does not take into account the fact that 60 percent of the Mexican workforce is not in the formal economy. Therefore, the increase will unlikely change things for workers who cannot find jobs in Mexico's large informal economy. The minimum wage increase, while directly benefitting 3.4 million Mexicans, will not improve poverty rates. To improve worker's conditions in Mexico, it is necessary to complete structural improvements such as shifting more people from the informal economy to the formal economy, requiring them to pay social security taxes, and enhancing education.⁸
- Peru increased its minimum wage to 930 soles (approximately US\$284) per month in 2018. Similar to Mexico, however, a large amount of Peru's workforce is represented in the

⁴ This and the next paragraph are based on Stewart and Samman (2014) and Oxfam International (2014).

⁵ Oxfam International (2014).

⁶ Stewart and Samman (2014).

⁷ Oxfam International (2014).

⁸ Most of this paragraph is based on information provided in Sheridan and Agren (2020).

informal sector. Therefore, many employers are able to circumvent the minimum wage. As a result, the number of Peruvians who actually benefit from a rise in the minimum wage is highly subjective and most likely minimal at best.⁹

Neither Mexico nor Peru offer unemployment insurance, however, they do offer limited social protection programs:

- The most effective anti-poverty policy directed at eradicating inequality is Mexico's *Prospera*, which is a conditional cash transfer program targeted at poor families (World Politics Review, 2017). The Mexican government requires employers in the formal sector to pay dismissed employees a lump sum of three months per year of service (Office of Retirement and Disability Policy, 2017). Additionally, the Mexican Social Security Institute (IMSS) provides pensions to unemployed workers in the formal sector depending on the number of years they have worked (Office of Retirement and Disability Policy, 2017). However, IMSS fails to support the majority of the Mexican workforce since they are in the informal economic sector.
- Similarly, in Peru, unemployment benefits are not legally required.¹⁰ However, severance pay is distributed in the event of wrongful labor contract termination that are usually funded by the employers.¹¹ Peru also has a program known as Compensation for Time of Service (CTS).¹² Other forms of social protection that Peru offers to the formal sector include pensions and cash transfers through the program called JUNTOS, which serves 37,000 impoverished families in need.¹³

Despite the availability of minimum wage laws and some social protection programs, inequality in both countries remains high. Additional analysis of inequality in both countries and the inefficiency of solutions to eradicate it at a structural level will be analyzed in the following subsection.

V.2. Further Analysis of Inequality in Mexico and Peru and its Causes

Latin America is one of the most unequal regions in the world. In Peru, extreme inequality is exacerbated by lack of services, poor roads, and inadequate educational opportunities.¹⁴ According to Kyriacou (2009), a lack of access to these critical public services perpetuate economic disparities. Additionally, inequality in Peru is based on geography and race. For instance, in the coastal region of Ica 15 percent of people live below the poverty line; meanwhile, in the adjacent region of Huancavelica, a region where many indigenous populations of color live, 85 percent of the people live below the poverty line.¹⁵

The MDG Achievement Fund (MDG-F), an organization funded by the United Nations system working to eradicate inequality to help advance the Millennium Development Goals (MDGs), is

⁹ Most of this paragraph is based on information provided in Dunnell (2018).

¹⁰ Office of Retirement and Disability Policy (2011).

¹¹ As detailed in de Yzaguirre, Sanz Bas and Cebolla (2015), CTS is a method of forced savings or funds put away by employers that hire workers to work four or more hours a day; it is distributed as the result of termination.

¹² As detailed in de Yzaguirre, Sanz Bas and Cebolla (2015), CTS is a method of forced savings or funds put away by employers that hire workers to work four or more hours a day; it is distributed as the result of termination.

¹³ United Nations Children's Fund (UNICEF) (2012).

¹⁴ MDG Achievement Fund (2020).

¹⁵ MDG Achievement Fund (2020).

currently working in Peru to decrease inequality. The MDG Achievement Fund implemented a program called “*Improving Nutrition and Food Security for the Peruvian Child: A Capacity Building Approach*” to assist the Peruvian government in meeting anti-poverty MDGs. To help decrease inequality in Peru, the MDG Achievement Fund finances Peruvian programs to improve nutrition, manage climate change, increase youth employment, and develop culture and gender equality in order to boost household incomes. It is no secret that gender inequality has an effect on inequality in the nation as well.¹⁶

Despite Peru’s economy progressing tremendously with regards to GDP per capita within the last two decades, socioeconomic inequality continues to plague the nation. The Peruvian government’s exclusive institutions that guide its branches, political parties, and military also perpetuate extreme inequality in the nation. One of the two most powerful drivers of inequality, the capture of power by economic elites,¹⁷ is maintaining Peru’s unequal income and wealth distribution. According to Crabtree and Durand (2017), corporate interests have gained formidable power in Peruvian politics through processes of economic deregulation and privatization.

Kyriacou (2009) finds that the corruption that plagues the government and limited access to resources by the Peruvian population at large, perpetuate inequality. The capture of power by economic elites in Peru has resulted in the maintenance of policies of exclusion that benefit solely the interests of the nation’s wealthiest. As a result of this phenomenon in Peru’s state institutions, socially representative political parties cannot gain enough traction to pressure the government to be more representative of Peruvians’ interests at the level necessary.¹⁸ Essentially, the capture of political elites maintains extreme inequality in Peru. The corruption of the Peruvian government, along with a lack of institutional reform accomplished at the state level, are responsible for maintaining inequality at an intersectional level.

Meanwhile in Mexico, policies directed towards secondary distribution in the form of cash transfers such as *Prospera*, while contributing to the country’s macroeconomic stability and decline in general inequality, failed to eliminate income inequality (Ramos, Gibaja-Romero and Ochoa, 2020). As of 2016, Mexico is one of the ten countries with the highest inequality index globally and is also the country with the highest inequality level within the OECD (Ramos, Gibaja-Romero and Ochoa, 2020). According to Ramos, Gibaja-Romero and Ochoa, inequality affects women much more than men. The lowest inequality for women, the report finds, is greater than the lowest inequality for men, which supports the fact that women are the most vulnerable group concerning economic issues (Telles, Flores and Urrea-Giraldo, 2020). These factors indicate that gender inequality is an underlying factor in overall inequality in Mexico, despite the relatively small gender gaps in educational attainment shown in Figures 10 and 12 above.

There are some interesting similarities and differences observed when comparing Mexico and Peru to each other. One similarity is the fact that rural poverty and inequality is significantly higher than urban poverty and inequality in both countries. Geographic disparities worsen the unequal state Peru is currently in, as was shown in Figure 9 above. The rural and urban divide in Peru is a serious contributor to inequality in the nation. The concentration of poverty and inequality in Peru’s most rural regions has contributed to immigration that has perpetuated underdevelopment and thus, inequality (Kyriacou, 2009). Similarly, in Mexico, low-skilled immigration to the United States of

¹⁶ Most of this paragraph is based on MDG Achievement Fund (2020).

¹⁷ Oxfam International (2014).

¹⁸ Crabtree and Durand (2017).

much of its citizenry have played a role in rising inequality in the nation (Orrenius and Zavodny, 2018). According to Ramos, Gibaja-Romero and Ochoa (2020), inequality is much higher in the poorer, rural Southern region of Mexico than in the wealthier, more urbanized federal states in the North. Geography shapes class origins in Mexico, and it is difficult to escape one's station in life from birth (Telles, Flores and Urrea-Giraldo, 2015).

Racial inequality is also a serious problem in both countries that perpetuates overall inequality. Racial humor reinforces systems of domination and inequality in Mexican and Peruvian society. Citizens in both countries allow racist humor towards those with darker skin, and through this 'acceptance,' they allow these attitudes to remain commonplace. As a result, eradicating racial inequality is not a high priority on the political agenda, and systems of racial domination favoring light-skinned Mexicans and Peruvians persist.¹⁹

Indigenous groups in Peru were highly disadvantaged in relation to whites, and attitudes towards dark skin color largely account for these disadvantages. Meanwhile, in Mexico, skin color has a powerful effect on educational attainment. Indigenous populations of color have lower primary and secondary educational attainment in both countries.²⁰ Interestingly, in Mexico, racial inequality is more heavily tied to class inequality than in Peru. Whiteness is a valued source of symbolic capital in Mexico as a result of pro-mestizo (mixed) and white rhetoric in the 20th century. Mestizo is generally used throughout Latin America to describe people of mixed ancestry with a white European and an indigenous background. Light-skinned mestizos were often placed on nearly the same level of white Spaniards and granted economic advantages such as inheriting property that dark-skinned natives were excluded from.²¹ Lower status people in Mexico still tend to identify as white or mestizo in efforts to gain socioeconomic capital. Additionally, indigenous and non-indigenous populations are highly segregated, mainly based on geography, while racial inequality is tied to educational inequality (Villarreal, 2014). This is perpetuated by the rural-urban divide of poverty shown in Figure 8 above.

While racial inequality does persist in Peru, national ideologies indirectly disguise these issues. National ideologies shape identification and as a result, racial inequality cannot be accurately recorded. Although indigenous groups experience more inequality at all levels in Peru, including educational attainment, national identification and attitudes influenced by humor and the absence of representative political parties indirectly disguise racism's role as a perpetrator of inequality. Current solutions have failed to do enough to eradicate inequality in Mexico and Peru based on societal issues of class origin, white domination, and political apathy.

V.3. A More Equitable Future for Mexico and Peru

Despite internationally financed relief programs in Peru and cash transfers in Mexico, widespread inequality persists in both countries. The democratization of Peru and deregulated economic systems did not provide economic inclusion to Peruvian citizens. The existing government corruption, due to the capture of power by economic elites, suggests that complete institutional reform is necessary for equality to be achieved. To fundamentally eradicate inequality in Peru, political parties must be required to have a national presence to make them more representative of

¹⁹ This paragraph is based on Sue and Golash-Boza (2013).

²⁰ Unless otherwise noted, this and the subsequent paragraph are based on Telles, Flores and Urrea-Giraldo (2015).

²¹ Bruhl, Henderson, Marvin and Morgan (2020).

excluded groups. Furthermore, corrective legislation for corruption in the government and military as well as broad judicial reforms are necessary.²²

Meanwhile, in Mexico, wage restrictions and the government's limited redistributive role through tax policies perpetuate income inequality. While Mexico's *Prospera* program has had short-term success, the limitations of conditional cash transfer programs fail to eradicate inequality and poverty in the long-term. Therefore, a more progressive fiscal regime based on higher taxation is necessary, although extremely unpopular. Many Mexicans believe that tax reforms will put government resources in the pockets of corrupt politicians and drug lords, and hence refuse to support the necessary taxation to help alleviate widespread poverty and inequality.²³

However, in order for redistributive economic policies and an increase in social spending to succeed, tax reform is necessary, and its priority on the political agenda is essential.²⁴ Additionally, according to Ramos, Gibaja-Romero and Ochoa (2020), new public policy should focus on salaried and self-employed workers, who experience the most income inequality. Diminishing income inequality in these groups has a significant impact on decreasing inequality and poverty.²⁵ Overall, structural and institutional economic reforms are necessary to reduce inequality for the long-term in both countries. The currently existing domestic and international initiatives have not done enough to reduce inequality in Mexico and Peru to acceptable levels.

VI. Conclusion

This article analyzed inequality in Mexico and Peru, two countries located in Latin America, one of the world's most unequal regions. Inequality in both countries are derivative of long-standing social class inequalities and severe geographical disparities. Racial inequality has underlying tones in both countries, and contribute to overall inequality, but are more subtle compared to other forms of inequality.

In Peru, inequality is largely perpetuated by a government that does not protect the interests of all Peruvians. This trend often masks sources of inequality such as race, class, gender, geography, and education. Similarly, in Mexico, geographical, gender, racial, class, and educational inequality run rampant. By looking at income inequality through the lenses of geography, class, and educational attainment between males and females in both countries, it is clear that the division between the rich and the poor is vast. This is also made evident when observing the incomes shares of the wealthiest 10 percent and poorest 10 percent in each country outlined in Figures 6 and 7 above.

There are a variety of social policies in Mexico and Peru aimed at decreasing inequalities, but they have not been effective in the long-term. Both countries offer cash transfer programs. Mexico's *Prospera* and Peru's JUNTOS program reduce poverty through cash dispersion with the goal to ultimately eradicate generational poverty. However, based on the evidence and literature, poverty and class inequality, which can be linked to racial discrimination in some cases, highly perpetuate overall inequality in Mexico and Peru.

Additionally, in Mexico, socioeconomic policies fail to recognize and support the majority of its workforce in the informal sector. Peru also has a large informal sector, whose participants are

²² This paragraph is mostly based on information provided in Kyriacou (2009).

²³ This paragraph is mostly based on information provided in World Politics Review (2017).

²⁴ World Politics Review (2017).

²⁵ Ramos, Gibaja-Romero and Ochoa (2020).

largely unaccounted for. Thus, it is clear that much more can be done for Mexicans and Peruvians to gain more equality in all aspects of their lives. The several inequalities each country faces are intersectional with overall inequality. As a result of the inefficiency of current solutions, structural change in both countries, especially economically, is necessary to decrease inequality in Mexico and Peru.

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Universal or Targeted? A Comparative Analysis of Anti-Poverty Programs in Argentina and Indonesia

Shihui Huang

Abstract

This article explores some key causes of poverty and the impacts of national-level interventions in Argentina and Indonesia. It compares the evolution of poverty between the two countries, and analyses major anti-poverty interventions implemented over the past few decades to compare redistribution mechanisms for social assistance. Differences in informal tax systems and public understanding of poverty have strong implications for national-level anti-poverty programs. Rather than focusing on the efficiency and effectiveness, this article draws from human rights principles to analyze the legitimacy of universal and transfer programs: First is the principles that regulates the political and economic cooperation in each country (e.g. health insurance, pension schemes, tax systems), and second is the principles that govern redistribution of benefits and burdens within a society (e.g. human rights principle). It is argued that the ethical grounding of social assistance should derive not only from universal ethical theories but also from the public understanding of poverty intertwined with the structure of society. Through the analysis of specific tactics undertaken during in the growth and expansion of social assistant programs in each country, the article aims to reveal the link between the public support for assisting the least advantaged and the design of specific instruments, and to evaluate whether these instruments are grounded on social justice.

I. Introduction

The eradication of poverty remains the top priority for the Sustainable Development Goals (SDGs), which were adopted in September 2015 at the United Nations' Sustainable Development Summit. While it is essential to point to poverty eradication for realizing social and economic rights, the concepts of assisting people in poverty are grounded on deeper ethical principles of human rights. The narrowing division between the human development and human rights agenda calls for a more comprehensive framework in addition to analysis of efficiency and effectiveness regarding pre-defined objectives. Inadequate nutrition, education, health care, and other barriers

to sustainable livelihood violate basic human rights that makes human development impossible.¹

Although the proposal that ethical perspectives should guide poverty eradication strategies is not new, evolving threats to the earth's ecosystem pose strategic challenges to the implementation and sustainability of anti-poverty programs in poorer countries. In less developed countries, resource limitations raise important question regarding the responsibility of the government to take domestic ownership of designing social assistance programs suitable to address country specific challenges, including supportive legislation, accountable public agencies, etc. Important questions about the main objectives of social assistance programs and the source of ethical legitimacy will be explored through major economic and political processes that have shaped and expanded social assistance programs in Argentina and Indonesia. Following this Introduction (Section I), Section II presents some of the literature depicting characteristics of poverty and poverty reduction programs in Argentina and Indonesia. Section III provides some socio-economic background of the two countries. Section IV reviews the evolution of poverty and poverty-related indicators for both countries over the past few decades. Section V analyzes the major political decisions made to address poverty in Argentina and Indonesia to capture how ethical perspectives influence the scope and priority of poverty reduction. The last section provides some conclusions.

II. Brief Literature Review

Constructing a robust poverty profile that capture comprehensive dimensions of poverty across subgroups of a population typically maximize the specificity of anti-poverty programs compared to fixed measures of standard living. This specificity with respect to the local needs is systematically related to the characteristics of people and consensus of what constitutes poverty in the subgroup. In the last few decades, numerous studies have analyzed Argentina and Indonesia's poverty profiles and social welfare improvements using parameters that are more sensitive to relative inequalities than absolute standards of living. This literature review summarizes six studies that examine poverty profiles and impacts of national-level interventions in Argentina and Indonesia.

- Battiston et al. (2013) presents a multidimensional analysis of poverty using Bourguignon and Chakravarty (BC) and the Unsatisfied Basic Needs index (UBN) to elucidate the diverse experience of poverty reduction in Argentina and five other Latin American countries. Deprivation of sanitation and education of the household head are the heaviest contributors to the multidimensional poverty in all six countries. In addition, Argentina experienced a rapid increase of income poverty from 1992 to 2006, but improvement in other dimensions (such as shelter and water) had compensated for the increase in income poverty and mildly reduced the overall multidimensional poverty in Argentina. The relatively stable evolution of the multidimensional measures in Argentina contrasted non-adjusted measures, indicating that increased deprivation of income, shelter, and sanitation. Cross-country comparison demonstrated that Argentina has a smaller fraction of urban population experiencing simultaneous multidimensional deprivation, meaning that if someone in the urban Argentina were deprived in one indicator of poverty, the same person is less likely to be deprived in other indicators.
- Durán and Condorí (2019) constructed a deprivation index for measuring relative deprivation in Argentina to conceptualize the structural aspects of the urban and rural populations. The

¹ This paragraph is mostly based on United Nations Development Programme (UNDP) (2000).

authors reviewed the impact of political and institutional instability on poverty levels in the 1980s and the economic crisis in 2001-2002, which marginalized agricultural dependent rural workers and created downward mobility for the middle-class urban population. The economic background and geographical configuration of poverty levels provide the basis for the study's deprivation index formulation. The study demonstrates large inequalities of material and social deprivation between rural and urban Argentina, with the deprivation being the highest in rural areas and marginal urban areas.

- Lustig and Pessino (2014) examine the redistributive impacts and sustainability of social spending on inequality and poverty in Argentina using a standard benefit incidence analysis of urban household survey data for 2003, 2006, and 2009. The authors also evaluated the marginal effects of social policy changes introduced in this period and how the Argentinean government financed a rapid expansion of public spending. The results reveal that, following a peak of inequality and poverty in 2003, income poverty and inequality declined overall, but redistributive programs expanded during this period exerted a stronger impact on reducing poverty than inequality. Specifically, the dramatic reduction of poverty between 2006 and 2009 was accounted for by the rapid expansion of spending and beneficiaries in social transfer programs. The authors point out that the rapid expansion of public spending has generated unfair losses for lower-middle-income households and increased education inequality. Furthermore, the rapid expansion of social transfers relied exclusively on increasing social security taxes, export taxes, and the financial transactions tax, resulting in considerable distortions. The conclusion remarked that this financing process is not sustainable as it discourages investment decisions and potential growth.
- Mai and Mahadevan (2016) conduct a case study of Indonesia to decompose poverty into chronic and transient poverty with the emphasis that chronic and transient poverty impact a person's poverty prospects in distinctive ways. Given that a static poverty measure cannot capture this specificity, policies must consider the depth, duration, and intensity of poverty. Using an equally distributed equivalent poverty gap method, the study found three main results. First, the prevalence of chronic poverty was higher than previous studies have indicated and more robust in more developed provinces. Second, chronic and transient poverty declined as a function of formal educational level. Third, the cost of inequality accounted for more than 70 percent of chronic poverty and impacted more educated groups to a greater extent. These findings call for a closer policy analysis to incorporate empirical evidence that has indicated that long-term income growth promotion and human capital endowments have more powerful chronic poverty-reducing efficacy, whereas social insurance and income-stabilization programs are more effective to reduce transient poverty.
- Hanna and Olken (2018) examine the trade-offs between universal basic income programs and targeted transfer programs in Indonesia and Peru. The study demonstrates better welfare outcomes from targeted transfers in both countries compared to universal programs. Although Indonesia and Peru have substantial income tax revenues, which enables the financing of small universal programs, transfer interventions are executed using proxy measures to target the poor beyond the formal income tax system. Given that Indonesia conducts national-level censuses every three years to increase targeting accuracy, the authors administered a cost-benefit analysis. The results demonstrate that, although inclusion/exclusion errors and per-capita transfers are inherent trade-offs in transfer programs, inclusion accuracy could be increased by administering effective targeting

methods without impeding the overall benefit. Hanna and Olken (2018) conclude that targeted programs could substantially improve the overall social welfare insofar as careful consideration are given to the tradeoffs such as inclusion/exclusion errors, horizontal equity, and labor market distortions.

- Olken (2019) provides a detailed analysis of the transition of Indonesian social protection programs in the past two decades from universal subsidies to targeted programs that utilize proxy-mean tests (PMTs), community-based targeting, and self-targeting approach. The outcomes were comparable between PMTs, community-based, and hybrid targeting in Indonesia with little distortionary effects. Nevertheless, community-based targeting produced higher satisfaction and inclusion of self-reported poverty, which is likely due to community members' considerations of earning abilities and variant definition of poverty compared to a national definition based on predicted per-capita consumption. Self-targeting approaches showed a higher probability of distributing aid to the very poor and a lower inclusion error. These programs have substantially improved social welfare compared to universal basic income programs. Indonesia also implemented community-based targeting programs that incentivize education and health. Those programs are more effective in stimulating service demand in areas with thicker markets than in more isolated areas with thin markets. Overall, the evidence shows that targeted programs could deliver substantial improvements of human capital and a reduction of stunting.

Overall, the disturbing impact of poverty on the development process of a country and on the deprivation of human development is well recognized in the literature. Most studies recognize the multidimensionality and persistence of poverty that necessitate a deeper understanding of the dynamics and determinants over time. More specifically, the literature has theorized mechanisms in which education relates to economic material opportunities.

III. Socioeconomic Background

The Republic of Indonesia is the world's largest archipelago, consisting of 17,000 islands. With an estimated population of 274 million, Indonesia is the fourth most populous country in the world. However, the vast majority of its population concentrates in the western regions that are much more developed and prosperous than the eastern regions. Despite the disparity between Eastern and Western Indonesia, the country has maintained stable economic growth and reduced the poverty rate by more than half since 1999.²

The socioeconomic context of Argentina (which had an estimated population of 45 million in 2018) is largely influenced by its long history of economic and political instability.³ Similar to Indonesia, development in Argentina is unequally distributed geographically. As detailed in Lustig and Pessino (2014), Argentina's rural areas (e.g. the Norte Grande region) have a history of high poverty and inequality subsequent to low yield farms, the technification and centralization of soy monoculture that have depleted lands for the indigenous community and expelled many peasant communities to the urban slums (Lustig and Pessino, 2014).

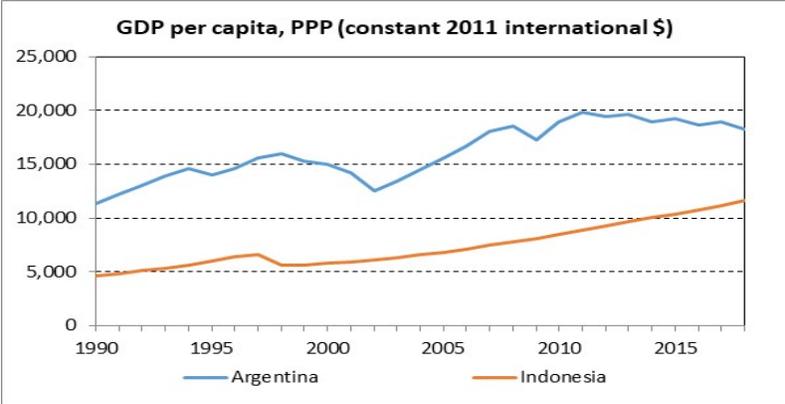
The evolution of purchasing power parity (PPP)-adjusted GDP per capita, as shown in Figure 1, exhibits stable economic growth in Indonesia from 1990 to 2018, excluding the period of the Asian Crisis. According to Elias and Noone (2011), Indonesia experienced relatively stable inflation rates

² This paragraph is based on information provided in Sihombing (2019) and World Bank (2020).

³ World Bank (2020).

as the Indonesian economy diversified away from agricultural and oil exports toward manufactured exports. Argentina’s economy also grew robustly from 2003 to 2008 due to the growth of public revenue and the reduction of public debt during this period, but it had experienced frequent economic fluctuations with the most recent recession starting in 2013. The Argentine government’s spending has been continuously exceeding public revenue, which, according to Lustig and Pessino (2014), depressed Argentina’s economic environment.

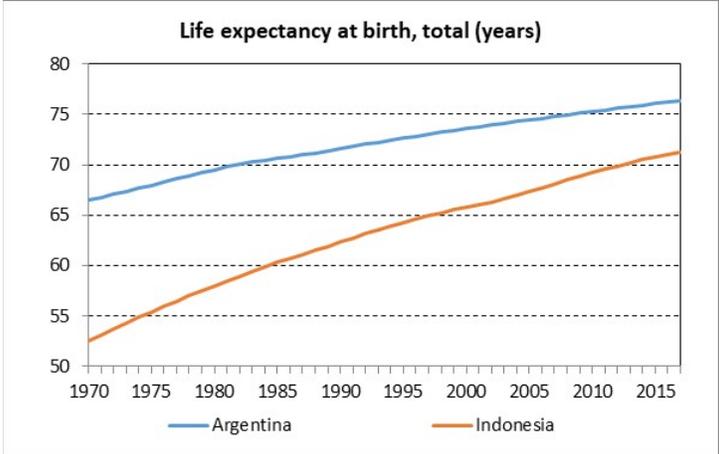
Figure 1: PPP-adjusted GDP per capita (constant 2011 international dollars), 1990-2018



Source: Created by author based on World Bank (2020).

Figure 2 shows that both countries steadily increased their life expectancy at birth. In Indonesia, life expectancy increased from 52.6 years in 1970 to 71.3 years in 2017. In Argentina, life expectancy increased from 66.5 years in 1970 to 76.4 years in 2017. Hence, the difference in life expectancy between the two countries was reduced from 13.9 years in 1970 to 5.1 years in 2017.

Figure 2: Life Expectancy at Birth, Total (years), 1970-2017

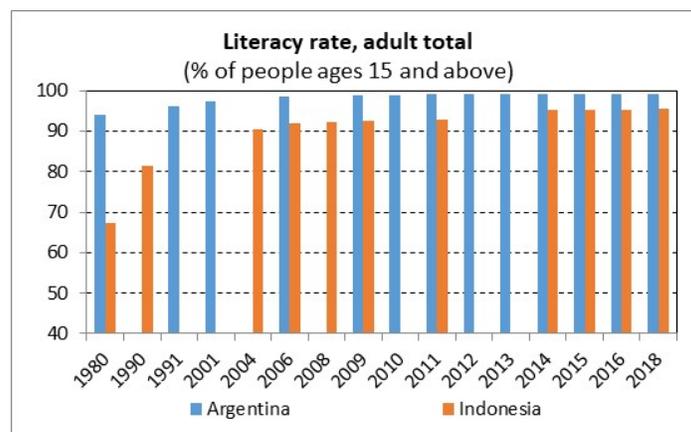


Source: Created by author based on World Bank (2020).

Figure 3 shows that Argentina’s adult literacy rate was higher than that of Indonesia for all the

years such data is available. While Indonesia’s literacy rate was only 67.3 percent in 1980, Argentina already reached 95.6 percent in the same year. By 2006, Argentina had achieved nearly universal literacy, while Indonesia’s literacy rate increased considerably to 92.0 percent. While Argentina’s adult literacy rate remained close to 100 percent since 2006, Indonesia’s literacy rate increased relatively little since 2006, reaching 95.7 percent in 2018.

Figure 3: Adult Literacy Rate (% of people ages 15 and above), all available years



Source: Created by author based on World Bank (2020).

IV. Analysis of Facts

This section reviews the evolution of poverty in Argentina and Indonesia over the past decades, focusing first on the prevalence of income poverty and second on non-income indicators of poverty to capture its multidimensional nature.

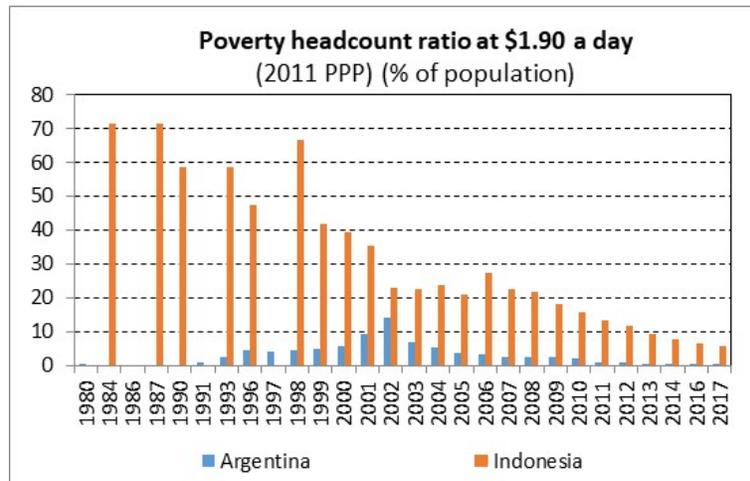
IV.1. Prevalence of Poverty

Figure 4 displays the transition of the percentage of people living below the extreme poverty line (\$1.90 per day) for all the years such data is available for Argentina and Indonesia. It first of all shows that poverty is a far smaller issue in Argentina than in Indonesia. Second, the evolution of poverty was very different for the two countries. While extreme poverty was basically non-existing in Argentina in the 1980s, it started to creep up during the 1990s, reaching a maximum of 14.0 percent in 2002, after which it decreased again, reaching 0.5 percent in 2017.

In Indonesia, extreme poverty was stable at 71.4 percent during 1984 to 1987. It then decreased by 12.6 percentage points to 58.8 percent in 1990. It increased only very marginally from 1990 to 1993, but then declined very drastically to 47.4 percent in 1996, after which it sky-rocketed to 66.7 percent in 1998, reaching nearly the levels of the 1980s.⁴ Fortunately, only one year later, it reduced even more drastically to 41.7 percent. Despite some further volatility during the first few years of the new millennium, extreme poverty declined steadily from 27.4 percent in 2006 to 5.7 percent in 2017, with Indonesia’s poorest population mostly inhabiting regions in rural areas (Sihombing, 2019).

⁴ This reflects the rapid economic contraction during the Asian financial crisis in 1997-1998.

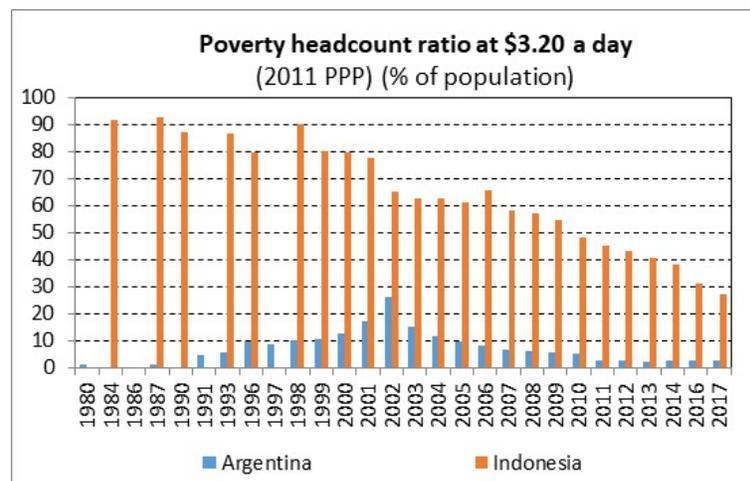
Figure 4: Poverty Headcount Ratio at \$1.90 (2011 PPP), all available years



Source: Created by author based on World Bank (2020).

Figures 5 and 6 show, respectively, the percentage of population living below the lower middle-income International Poverty Line (\$3.20-a-day) and the percentage of populations living below the upper middle-income International Poverty Line (\$ 5.50 per day). Given these higher poverty lines, all poverty levels of Figure 5 are higher than in Figure 4, and all poverty levels of Figure 6 are higher than in Figure 5. But the evolution of poverty is basically identical for all three poverty lines, with Argentina seeing first an increase in poverty from 1980 to 2002, and then a decline from 2002 to 2017;⁵ while Indonesia’s evolution of poverty shown in Figures 5 and 6 mirrors the evolution described above for Figure 4.

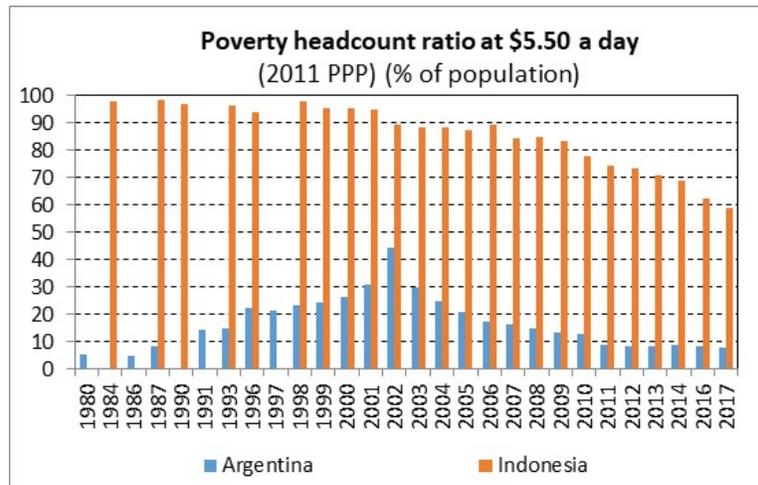
Figure 5: Poverty Headcount Ratio at \$3. 20 (2011 PPP), all available years



Source: Created by author based on World Bank (2020).

⁵ According to Lustig and Pessino (2014), Argentina’s evolution of poverty reflects the aggregated impacts of economic instabilities, which can be traced back to the hyperinflation in the 1980s, followed by a series of economic shocks including currency devaluation. In 2002, aggregated economic shocks eventually led Argentina’s government to terminate the convertibility plan adopted in 1991, which resulted in the Argentine peso losing nearly 70 percent of value against the U.S. dollar, unleashing a severe banking, currency, and national debt crisis.

Figure 6: Poverty Headcount Ratio at \$5. 50 (2011 PPP), all available years



Source: Created by author based on World Bank (2020).

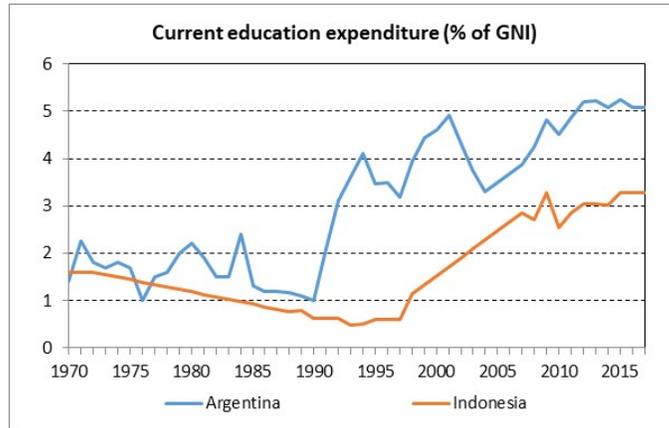
IV.2. Non-income Dimensions of Poverty

It is important to acknowledge the multidimensional nature of poverty that goes far beyond income poverty. One specific aspect of multidimensional poverty emphasizes human capital and other basic needs (e.g., education, health, access to safe water, sanitation facilities). This sub-section explores non-income dimensions of poverty.

Argentina and Indonesia have prioritized investment in education but continued to struggle to establish a sufficient education system. Figure 7 shows the annual operating expenditures in education for both countries, including wages and salaries but excluding capital investments in buildings and equipment, henceforth referred to as current education expenditure (CEE). As a percent of Gross National Income (GNI), Argentina had higher CEEs than Indonesia, except in 1970 and 1976, and there is a sharp increase following the year of 1990 that maximized the difference in CEEs between the two countries in 1994. Argentina’s CEE fluctuated between 1990 and 2004, but then shows some more steady increases from 2004 to 2016, which can be attributed to the National Education Finance Law passed in 2006 that mandated a minimum of 6 percent of GDP to be invested in education (Monroy, 2018).

Compared to Argentina, Indonesia had lower and less volatile CEEs. CEEs in Indonesia gradually decreased between 1970 and 1994 from 1.6 percent to 0.5 percent of GNI, and then stabilized at 0.6 percent in the following three years. Between 1997 and 2007, Indonesia had a steady increase of CEEs from 0.6 percent to 2.9 percent of GNI. During the last decade, both countries have maintained relatively consistent CEEs as percent of GNI. However, Indonesia’s educational spending is still below recommended amount for emerging economies (Dilas et al., 2019), and Argentina still needs to increase them to meet the goal in the National Education Finance law.

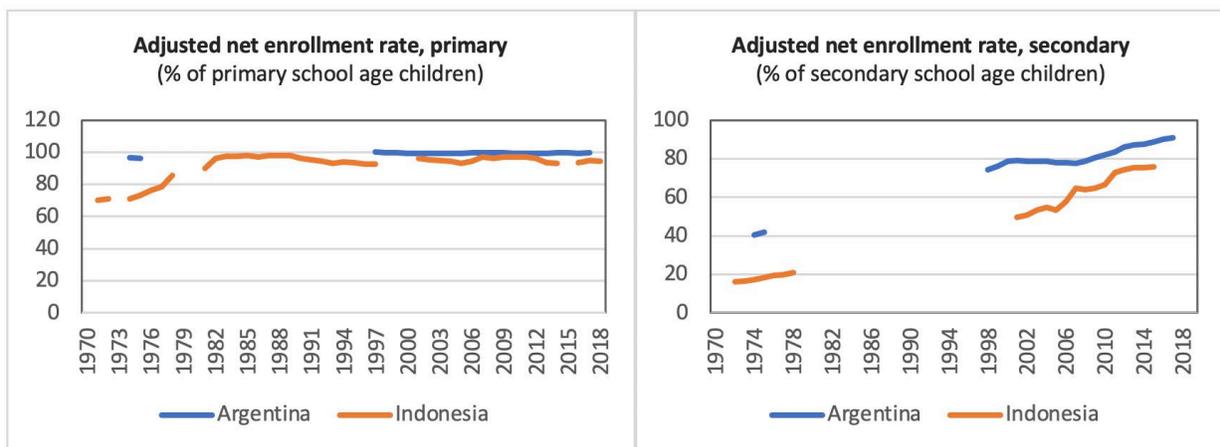
Figure 7: Current Education Expenditure (percent of GNI), 1970-2017



Source: Created by author based on World Bank (2020).

Figures 8 and 9 show the adjusted net enrolment ratios for primary and secondary education for children of corresponding school age between 1970 and 2018. Argentina has maintained an enrolment ratio for primary education above 99 percent since 1997, while Indonesia started with a 71.2 percent primary education enrolment ratio in 1971, which then improved to 97.7 percent in 1982, and has remained at that percentage thereafter. Looking at secondary education enrolment shows an overall upward trend since 1970 in both countries, despite considerable data gaps. The gap between the two countries' secondary education enrolment ratios is larger than in the primary education. While the primary education enrolment ratios are promising in both countries, the higher primary education enrolment ratios have not yet translated into significantly improved secondary enrolment ratios and the discontinuity between primary and secondary education is greater in Indonesia than in Argentina.

Figures 8 and 9: Adjusted Net Primary and Secondary Enrolment Rate, 1970-2018

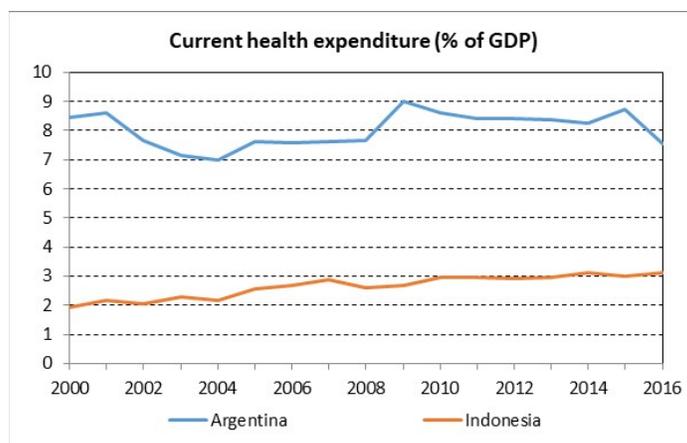


Source: Created by author based on World Bank (2020).

Health is another vital component of human capital and intimately correlated with increases in social wellbeing and increased productivity. Health also influences education, intellectual and

physical capability. Therefore, expanding the availability of health facilities and services is of prime importance. Figure 10 shows the current health expenditure measured as percent of GDP in Argentina and Indonesia between 2000 and 2017. Argentina’s spending on health has always been more than three times higher than Indonesia’s, despite a greater fluctuation. Compared to its education expenditure, Argentina designates a greater share of income to health care than education. Indonesia’s health spending is much lower than Argentina but had increased to 3 percent of GDP in 2010 and maintained nearly the same level of spending for subsequent years.

Figure 10: Current Health Expenditure (percent of GDP)



Source: Created by author based on World Bank (2020).

V. Ethical Origins and Ethical Perspectives

To capture how ethical perspectives influence the priority and scope of poverty and poverty reduction, this section analyzes the major political decisions that address poverty in Argentina and Indonesia. Sub-section V.1. discusses how political objectives in the two countries cultivated social arrangements and paved the way for expanding inclusion of social assistance programs to assist vulnerable individuals. Sub-section V.2. presents various social assistance programs in more detail and discusses the embedded ethical principles as well as the implication of human rights and development.

V.1. Ethical Perspectives of Government Objectives

Ethical perspectives are the shared values that define the social arrangements and institutions of a society, therefore underlining public understanding of societal events (Barrientos et al., 2016). As such, ethical perspectives provide standards for assessing whether policies associated with social assistance are guided by just rationales relevant to the targeted population. There is no doubt that the interrelationship between the underlining ethical perspectives and poverty reduction is mediated by epistemic, social, and political processes, but ethical perspectives determine the deeper justification of all the ingredients involved in understanding of poverty and designing poverty eradication policies. The logic begins with the proposition that ethical perspectives underlie social norms, which closely modulate the shared values regarding the root causes of poverty, forging indigenous consensus of what constitutes the priorities for the design of anti-poverty programs.

To illustrate, the priority of the New Order Indonesian government in the 1960s was to restore monetary stability and rehabilitate dilapidated infrastructure and productive apparatus (Aspinall and Fealy, 2010). There is no doubt that the New Order reduced national poverty and improved social welfare, but little political capital was devoted explicitly to design programs that target the poor. As assisting the poor was considered secondary to the development of the nation's economy and infrastructures, most of the regional development grants were allocated to construct infrastructure rather than reduce regional poverty, even in regions where half of the rural population lived below the poverty line.⁶

Nevertheless, the stabilization policies brought about a stronger government capable of building effective institutions that established stable programs to improve human development, as demonstrated in the positive increase of adult literacy rate, primary and secondary school enrollment, reduced infant mortality rate, etc. This illustrates important ethical implications of nonspecific, national-level interventions on stimulating opportunities for human development. While productive and satisfying livelihoods provide people the mean to seek out goods and services, the stabilization policies also increased agricultural production and dissemination of technologies that created more employment. Those developments in the economic and social dimension were important parts of human development as they expanded choices and opportunities for people to enhance their human capabilities (UNDP, 2000).

These achievements in economic and human development came with constraints of individual autonomy, as the New Order regime tied Indonesian society to inflexible conservatism that emphasized harmony, tradition, and passive obedience, obliterating a conceptual division between the nation and society (Aspinall and Fealy, 2010). The conservative doctrine encouraged people to believe that personal interests came subordinate to the greater value of the nation. Such ideology legitimized the repressive political and social arrangements to disregard transparency and accountability, resulting in naturalization of corruption and misdeeds. As political decisions were made behind closed doors, Indonesians were denied political participation, and the regime's inflexibility to adapt social forces stifled initiative and creativity necessary for robust economy (UNDP, 2000).

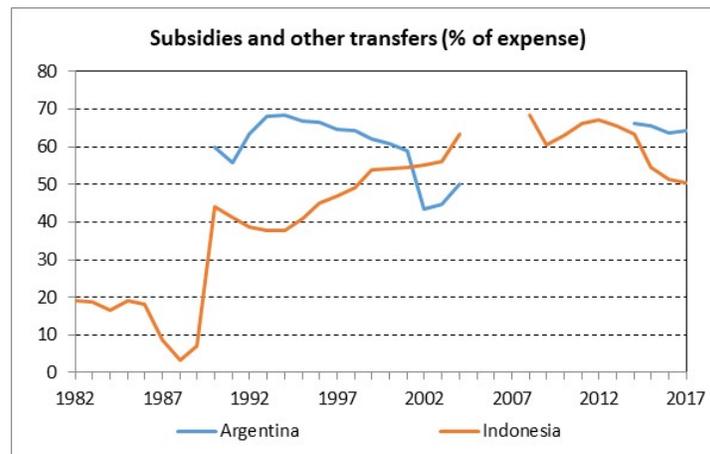
Violations of people's right to appeal and to political transparency was also experienced by Argentinians, again demonstrating that poverty reduction programs without incorporating human rights principles impedes sustainable development. During the 1990s, the government deregulated agriculture and privatized state companies despite corruption and hyperinflation that had already increased the unemployment rate. Privatizing state companies without adequate regulations of monopoly and supervision unleashed instability (Duran and Condorí, 2019). Reduction of small farms affecting the agricultural-dependent rural workers and declining income and employment affecting the urban middle-class forced the two initially distinct sectors to comeingle at the urban margins. The average value of labor between high and low salary groups increased to a 30 times difference, worsening the precarious living conditions in the low-income sectors. A severe consequence of this unsustainable political decision that lacks ethical consideration was that the government confiscated nearly US\$30 billion of assets belonging to individual pensions of the state-run social security administration in 2008 (Lustig and Pessino, 2014).

The examples from Argentina and Indonesia demonstrate the tradeoffs between fulfilling national policies and protecting vulnerable individuals in poverty. The unethical consequence of

⁶ Most of this and the next paragraph is based on Wie (2007) and Aspinall and Fealy (2010).

prioritizing national objectives over assisting the disadvantaged may be justified on the basis that it is perceived to be optimal for the specific social structure. For example, low subsidies and low transfers to disadvantaged people may reflect a consensus that prioritizing national development paves the way for optimal resource allocation in the future, hence the benefit of delaying targeted assistance to the most vulnerable outweighs the harm of inequality.

Figure 11: Subsidies and Other Transfers (percent of expense)



Source: Created by author based on World Bank (2020).

Figure 11 shows the subsidies and other transfers in terms of percent of expense in both countries. Indonesia had a sharp increase in public spending for subsidies and transfer programs in 1988, but the upward trend did not continue until 1994 and reached the highest level in 2008 (68.4 percent). In recent years, Indonesia’s spending has declined to 50 percent. Argentina had higher subsidies and transfer spending than Indonesia until 2001. The upward trend indicates that Argentinian government increased spending following 2001, although it is difficult to interpret the change in spending considering the missing data.

To illuminate ways in which ethical perspectives justify assisting people in poverty, Barrientos et al. (2016) suggest five ethical perspectives that provide different sources of standards to help understand the concept, magnitude, and significance of poverty and poverty reduction. They are the egalitarian, utilitarian, priority, sufficiency, and humanitarian perspectives. In this context, prioritizing national economy is justified by the utilitarian perspective that emphasizes maximizing good and minimizing evil. Prioritizing economic and infrastructure development can be interpreted as instruments to stimulate opportunities and construct a society where people in poverty can develop their potentials.

The justification for investing in public sectors is also demonstrated in the spending trend of formal education. The Argentinian government implemented a compulsory primary school system with free provision through tertiary education in the early 20th century. Between 1960 and 1991, the Argentinian state rapidly expanded formal schooling. The Indonesian government in the late 1990s expanded public expenditure at several levels of education, including facilities, subsidies for students, and encouraging parental demand for education (Hanna and Olken, 2018). In the aftermath of the Asian Crisis in 1997-98, Indonesian government initiated several social protection policies, particularly of health and education, and called attention to constructing unified database

(UDB) of people's socioeconomic information to improve targeting accuracy (Booth et al., 2019). Although implementation problems such as shortage of trained teachers, expansion of formal schooling reflects one of the major endeavors by the government to reduce poverty through education, which is a crucial determinant of people's earning potential and social mobility.

Although impossible to conclude why the Indonesian government enormously expanded public expenditure for education, it is safe to assume that the political decision involved the moral obligation to design effective poverty reduction strategies. Such moral obligation was strengthened by studies of Indonesia which reported that chronic and transient poverty declined as a function of formal educational level (Mai and Mahadevan, 2016). The goal to eradicate poverty through education is reflected in the public subsidies for students enrolled in primary education. Those public subsidies were reported to be pro-poor and showed less disparities across income levels as compared to secondary and tertiary education (King, 1997). However, systemic reform to fulfil children's right to education can sometimes be complicated by parent's right to determine what education their children should obtain, according to Article 26 of the Universal Declaration of Human Rights. Many parents decide to discontinue their children's secondary education due to its substantial cost to family income given plentiful low-skilled employment opportunities. The disparity of enrollment in higher education remains an important factor of inequalities between the lower and the upper incomes (Monroy, 2018).

Primary education is an essential part of anti-poverty strategies because it establishes basic capabilities necessary for human development and provides people a foundation of literacy and numeracy to be more productive and innovative. However, extensive regional inequality in access to education persists, and disparities across income levels have become an even more critical issue of injustice. Base on either the principle of effectiveness or social justice, to alleviate inequality requires the government to include vulnerable individuals who are considered dispensable to the economic production processes. Furthermore, reducing inequality justifies targeted programs on the basis of the priority perspective, the proposition that poverty reduction should aim to redistribute resources because benefiting the worst-off has greater ethical value than assisting the better-off. By extension, the priority perspective would call for policies that increase resources reaching the most disadvantaged groups.

Egalitarian perspectives also justify assisting people living in poverty. Proposing that social assistance should create equal access to resources, egalitarians would call for policies that make resources equally accessible. The important ethical consideration is to what extent should redistribution be made to address inequality without furthering injustice. In practice, these ethical propositions are contingent upon political support for targeting the right beneficiary, financing the programs, and establishing supportive legislation (Barrientos et al., 2016).

V.2. Ethical Perspectives of Social Assistance Programs

The idea of assisting the poor is not new but the instruments have been amended. In both countries, social assistance programs have transitioned from subsidizing basic commodities to targeted programs for eligible households. The reason for this transition is that distribution of subsidies is generally less efficient and often ends up in the middle or upper classes, and the price distortions associated with subsidies are usually higher than transfer programs. With the primary concern being reducing poverty and inequality, delivering assistance to the better-off or distorting prices of basic commodities that disproportionately harm the poor is neither rational nor practical.

Political selection of anti-poverty program types reflects the iterative process of government objective, political processes, and technical considerations as the selection of programs and targeting approach involves important trade-offs. The challenges in selecting transfer programs had led some to advocate for universal basic income (UBI) programs. It is important to note that substantial redistribution to the poor may still be achieved with UBI programs financed through progressive or proportional taxation (Hanna and Olken, 2018). However, most developing countries have a fixed budget, so ethics of poverty reduction may not justify UBI programs because the transfer per individual mechanically decreases with small budgets or large population, both of which are common reality in developing countries.

In addition, inequalities segregated by geographical barriers, as seen between east and west Indonesia or central and peripheral Argentina, pose important questions of whether universal transfers can reach everyone and have impact on reducing poverty in the poorer areas. For instance, unequal distributions of economic management and productive resources have segregated the central and peripheral zone of Argentina. The structural segregation has ingrained into the public perception a concrete social exclusion perceived on daily basis, which is likely to render a universal scheme effective. If universal transfers result in unequal treatment or insufficient impacts on the welfare of the poor, such programs should obviously be avoided to make space for integrated poverty reduction programs that are more effective for addressing social exclusion.

Compared to UBI programs, universal health coverage is more ethical because health coverage increases inclusion of people who were previously excluded with less negative budget per individual impact. Indonesia's national health insurance (introduced in 2014) has made emblematic progress, covering more than three quarters of the population by 2019 (OECD, 2019). The universal coverage for health care is grounded in the humanitarian perspective by protecting the fundamental right to wellbeing. It is also justified by utilitarian perspective by safeguarding health care access and increasing the use of medical service. Indeed, selection of targeted transfer programs should base on ethical principles, scientific studies can nevertheless inform the decision. Hanna and Olken (2018) conducted a stimulation to quantify key trade-offs between targeted and universal programs with considerations of inclusion and exclusion error. The results indicated that transfer programs designed to target a narrow number of beneficiaries could transfer a larger amount of benefit and achieve a greater level of welfare than universal programs.

To expand inclusion of social assistance, Indonesia and Argentina have expanded transfer programs directly targeting poor households. The scaling up of targeted transfer programs improved the government's efficacy to ensure that the assistance reaches the eligible beneficiaries while preventing price distortions associated with subsidies. The Argentinian state expanded the existing social safety net, such as the Male and Female Heads of Unemployed Households Program (PJJJ), reformed the Social Insurance System, and introduced several other programs, including the Universal pre-natal benefit and Universal Child Allowance (AUH) (Rabi, 2011). Indonesia has implemented a number of targeted transfer programs, including unconditional cash transfers, conditional cash transfers, scholarship for poor students, and the recently commenced Bright and Healthy Generation (Generasi) program (Olken, 2019).

Each type of assistance has trade-offs between the degree of restriction placed on how transfers can be used vs. the freedom of choice. For instance, unconditional transfer programs such as BLT and BLSM are flexible but not effective if the goal is to encourage people to invest the money in human development such as education and nutrition. The extent to which cash transfers are able to address other key determinants of poverty depends on the cooperation of monetary assistance

with other sectors of social welfare. This is the rationale behind conditioned cash transfer in the context that incentivizing education and health may increase the use of those services. The *Generasi* program introduced in 2007 in Indonesia was found to effectively stimulate the use of maternal and child medical care service and to reduce of malnutrition (Olken, 2019).

Another way to think about targeting transfer programs on the basis of the utilitarian perspective is as follows: targeting programs could provide more insurance for individuals to make risky decisions, including investment in business and human capital. Because greater accumulation of human capital optimizes productivity and innovation, targeting programs is more beneficial than universal transfers by reducing the risk of human capital investment in lower income families. This is important because the perceived risk of missing the booming employment opportunities was widely shared by lower-income parents with respect to enrolling their children in secondary education.

To incorporate human development agenda into poverty reduction programs, Indonesia and Argentina also run conditioned transfer programs to incentivize human capital investment by linking cash transfer to public service. Argentina's AUH launched in 2009 provides conditioned cash transfer to parents unemployed or working in the informal sectors with children under age 18. Conditions of AUH include regular health examination, vaccination records, and school attendance. The PJJ program, requiring a minimum 20 hours per week community work, provides monthly benefit to unemployed household heads with dependents (Rabi, 2011). Indonesia's CCT program has been reported to stimulate demands for medical care and midwives within two years of implementation. And the community-driven development program, *Generasi*, which provides block grants to communities for activities in child and maternal health, as well as education, has also demonstrated to deliver sustainable impact (Olken, 2019).

The concept of conditioned programs is rooted in the notion that the state is responsible to support vulnerable individual to improve their welfare, according to the sufficiency perspective as members of the society share this responsibility to maximize human capital investment. This means that social accountability and community engagement are key contributors to improve education or health-related performance. *Generasi's* sustained impacts indeed sprout from its design that stimulates mobilization of communities, multisectoral coordination and national-level partnership with the World Bank. The lesson of *Generasi* is not only an ethical one about assigning greater social value to assisting disadvantaged people, but also a practical one about how to optimize human capital investment.

Although demonstrated effective, conditioned programs might systematically exclude the most vulnerable people. For instance, studies that compared the effects of conditioned vs. unconditioned programs in Indonesia have found that unconditioned programs are more effective in reducing teen pregnancy. The plausible explanation to this result is that girls who drop out of school would become ineligible for conditioned transfers that incentivize schooling despite having higher risk of pregnancy. Unconditioned transfers could mitigate the increased risk of pregnancy for girls not enrolled in school (Baird, McIntosh and Özler, 2011). From the priority perspective, conditioned transfer programs that incentivize schooling may not be justified because these programs do not always protect the most vulnerable individuals. One size may not fit all, and different programs may be more effective depending on the priority of the issue. The Indonesian government took a risk-benefit analysis into consideration and scaled up *Generasi* in the more remote areas where services are less accessible, signifying that incentivizing health care and education could effectively stimulate services in the long term.

VI. Conclusion

Expenditures in education and other public sectors reveal that the Argentinian and Indonesian governments prioritized policies expedient to stabilizing economy and restoring political order. The trend of public expenditures on non-income dimensions of poverty have demonstrated to deliver substantial improvement in human development (e.g., mortality and literacy rate), but it should be noted that the social and economic opportunities were by-product of national economic objectives that were founded not on specific principles to protect people's right to economic, political, and social equality. This is evident in the government's greater tolerance for the worse-off people to share more burden of inequality and violation of autonomy. This unnecessary burden might eventually be justified by utilitarian principles given that the greater good could ultimately outweigh the harm, but the human rights sacrificed could easily become forgotten under the disguise of social gain without incorporating human rights principles in political priorities. It is only possible for social assistance programs to reflect humanistic values if human rights are incorporated into the political processes associated with social assistance. Justice-based social assistance should ensure economic, political, and social inclusion of disadvantaged groups, especially the invisible poor such as people who fall in and out of the poverty line.

This article has shown that the systematic expansion of social assistance programs could lead to increasing disparities if principles of human rights are not incorporated to safeguard the delicate balance of a healthy level of inequality. While a reasonable amount of inequality motivates people to pursue a more satisfying life, excessive inequality worsens relative poverty, as in the case of Argentina and Indonesia. The key message is that poverty eradication is not limited to fulfilling basic living standards of food and shelter but also to maximize life-prospect through participation in social life. In this sense, conceptualizing poverty in terms of deprivation might be more suitable because people in poverty often live an impoverished life that constraints capability. Aware of the bias in utilizing income indicators to profile poverty, researchers have attempted to broaden the framework in poverty research by converting multiple indicators into income-equivalent sums to be included in poverty calculations.

This analytic clarity indeed has transited poverty research into a more general framework in which a comprehensive matrix of deprivation is considered, but the matrix still retains the general concept that poverty is defined as lacking financial opportunities. There is a clear strength in retaining this concept of poverty as economic rights are causally linked to civil and political rights, but it could divert political urgency away from its moral responsibility in ensuring social justice, including accountable and inclusive policies and institutions, supportive legislation, publicity, right of appeal, etc. In other words, the moral responsibility of political processes associated with social assistance program necessitates human development assistance to improve the overall wellbeing of the disadvantaged to the extent that they can build a productive life. Clearly, cash transfer programs alone would not be substantial to influence human development. Particularly in countries that are concerned with transient and relative poverty, including Argentina and Indonesia, the outcome of life-prospect of the invisible poor should be at stake in designs of social assistance programs. Expectedly, a shift of emphasis on life-prospect would require stable programs and permanent welfare institutions to deliver influence sustainable enough to change life prospects.

All this leads to the conclusion that targeted programs are necessary to address relative poverty, but the challenging features of targeted programs are to determine how, or more importantly by whom, the burden of financing transfer programs are shared. Furthermore, the story does not end at decreased poverty levels. As more people live above the poverty line and the cost of fitting into

society's typical life increases, the main objectives of social assistance should adjust to ensure that the remaining people in poverty, typically minorities, are integrated into society. Further research can contribute to answering many of the hidden questions outside of financial policies. One important research question would be to investigate how the Argentinian and Indonesian governments could alleviate the expanding inequality to a level that sustains motivation of the advantaged people to contribute to the collective good and of the disadvantaged to pursue a fuller life.

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The Unavoidable Crisis: Climate Change in China and Mexico

Brandon Novick

Abstract

This article examines the realities of climate change in China and Mexico along with its ethical characteristics and implications. The changing climate does not just affect individual countries, but it threatens humanity across the globe. This analysis delves into how two developing countries from both the Western and Eastern hemispheres are impacted by and addressing climate change. Although this analysis shows differences between China and Mexico in terms of sheer size and contributions to climate change, it does not mean that these two countries have significantly different ethical decisions to make when addressing the issue. In fact, both nations must augment their climate-response policies to further cut carbon emissions in order to meet requirements set by the scientific community and to avoid significant consequences not just for their own countries but the whole globe.

I. Introduction

The nature of the Earth's climate makes it habitable for life, making the planet unique amongst all others in its solar system and most planets in the known universe. However, due to human activity, changes in the Earth's climate will cause 250,000 human deaths each year from 2030 to 2050 according to a conservative estimate.¹ Unlike many political issues facing individual nations, climate change impacts the entirety of human existence, as it threatens the very planet that allows humanity to exist. In order to combat the negative effects of climate change, scientific experts from across the world agree that greenhouse gas emissions should reach net zero by 2050, translating to a 50 percent cut by 2030.²

This article analyzes China and Mexico's contribution to climate change along with their adaptation policies through an ethical lens. While China and Mexico are both developing countries, they are respectively, the world's leading and 12th highest emitters of carbon dioxide (CO₂).³ While climate change threatens human life, its impacts do not occur in a vacuum. Thus, this

¹ Rettner (2019).

² Stanford Woods Institute for the Environment (2019).

³ Union of Concerned Scientists (2020).

analysis keeps socioeconomic realities in mind when examining the ethical approaches and implications of climate policies for the developing nations.

After this introduction, Section II provides a review of previous literature regarding China and Mexico's carbon emissions, the impact of climate change on each nation, and the scientific consensus on necessary steps to combat climate change. The third section details the socioeconomic background of each nation, providing context to their climate realities and policies. Section IV analyzes the facts regarding China and Mexico's carbon emissions along with the resulting temperature increases. The fifth section reviews the ethical origins of each country's policies in response to climate change along with the overall ethical approaches to addressing the crisis. Lastly, Section VI summarizes the findings along with noting necessary steps for China and Mexico to combat climate change.

II. Literature Review

As the most significant dangers of climate change are in the future, there are a multiplicity of scientific studies and forecasts of the potential impacts of increasing temperatures and other resulting environmental changes. Esperón-Rodríguez, Bonifacio-Bautista and Barradas (2015) and Estrada et al. (2020) specifically examine the vulnerability of the Mexican economy and its urban centers as a result of climate change. Fang et al. (2018) and Zheng et al. (2019) examine the causes of China's contribution regarding carbon emissions along with the impacts of climate change on the nation. The United Nations Environment Programme (UNEP) (2019) identifies the current state of the global fight against climate change and notes the minimum standards that nations need to meet in order to mitigate future damages.

- Esperón-Rodríguez, Bonifacio-Bautista and Barradas (2015) investigate how climate change would affect the socio-economic realities in different regions and cities of Mexico. More specifically, they find that increases in temperature and decreases in precipitation will likely significantly reduce crop yields, harming Mexico's large agricultural sector. The authors suggest that Mexico will need to dramatically alter the focus of their agricultural sector towards crops better suited to higher temperatures and less precipitation in order to mitigate the economic damage. Additionally, the article notes that Mexican poverty will likely be exacerbated by climate change due to the degradation of local, agricultural economies.
- Estrada et al. (2020) study the vulnerability of Mexican cities to climate change and recommend strategies for dealing with the various issues. They find that the impact of climate change on Mexican cities will be severe in terms of overall health, the environment, and the economy due to the geographical location of many population centers and the lack of sufficient urban sustainability infrastructure. In response, the authors advise Mexican policymakers to invest in reducing water consumption, expanding public transport systems, and maintaining urban green centers and water bodies, which will reduce the climate change's impact on urban centers.
- Fang et al. (2018) summarize the Chinese government's efforts to reduce their carbon emissions along with investigating the ability of China's terrestrial ecosystems to act as carbon sinks. They explain how, in 2009, China promised to reduce carbon emissions by 40-45 percent by 2020, and in 2015, the government planned to decrease emissions by 60-65 percent from its 2005 level. To further this effort, the Chinese government has started multiple ecological restoration projects along with energy-wasting factories and businesses.

Moreover, the authors find that China's terrestrial ecosystems are significant carbon sinks, thus, further Chinese efforts to combat climate change and promote ecological protection and restoration can substantially reduce emissions.

- Zheng et al. (2019) investigate the primary causes of the significant augmentation in China's carbon emissions since 1978. The study finds that Chinese population expansion stimulated immense economic growth which correlated with augmented carbon emissions. In addition, China has relied on coal for primary energy consumption since 1978, even comprising 59.0 percent of it in 2018. The authors also note that each time China expanded the market aspect of its economy, transitioning away from a command economy in 1978 and joining the World Trade Organization (WTO) in 2001, increased foreign investment and domestic consumption perpetuated greater carbon emissions.
- The United Nations Environment Programme (UNEP) (2019) focuses on the progress of the global community in reducing greenhouse gas (GHG) emissions along with highlighting the necessary changes that nations need to make to their policy agendas in order to meet environmental goals. The report finds that in contrast with the promises of most nations, GHG emissions continue to rise with no sign of peaking or decline without dramatic changes in energy consumption in the immediate future. The members of the Group of 20 (G20) produce 78 percent of global GHG emissions. In order to keep global temperatures from increasing less than 2°Celsius or 1.5°Celsius by the end of the century, global emissions must decrease by 2.7 percent and 7.6 percent for each respective goal.

III. Socioeconomic Background

Due to major market-based reforms, China has grown from a poor command economy to the second largest economy in the world behind the United States over the last five decades. Under the leadership of Chairman Mao Zedong, the vast majority of economic activity in China was controlled by the state. Following Mao's passing in 1976, the Chinese government began to institute major reforms, starting in 1978. Most of the reforms constituted a decentralization of the Chinese economy along with market and trade liberalization.⁴ According to the World Bank Group (2020a), China experienced the fastest sustained expansion by a major economy in history, which lifted 850 million people out of poverty between 1979 and 2020.

Mexico had the 15th largest GDP in the world, growing at around 2 percent per year during 1980-2018, which represents an underperformance compared to similar countries.⁵ Although Mexico has not experienced a dramatic reconstruction of its economy, it did implement some market and trade liberalization reforms during the 1980s and 1990s.⁶ Mexican poverty has fallen over the last thirty years. In 2018, Mexico's poverty headcount ratio at \$5.50-a-day was around 23 percent, compared to almost 40 percent in 1989.⁷

Figure 1 illustrates purchasing-power-parity (PPP)-adjusted GDP per capita in constant international dollars from 1990 to 2018. China's GDP per capita has continuously increased over the last three decades at a significant rate. In 1990, China's PPP-adjusted GDP per capita was \$1,522, which increased to \$3,690 in 2000, \$9,498 in 2010, and \$16,182 in 2018. The rate of GDP

⁴ This paragraph is based on Congressional Research Service (2019), pp. 2-5.

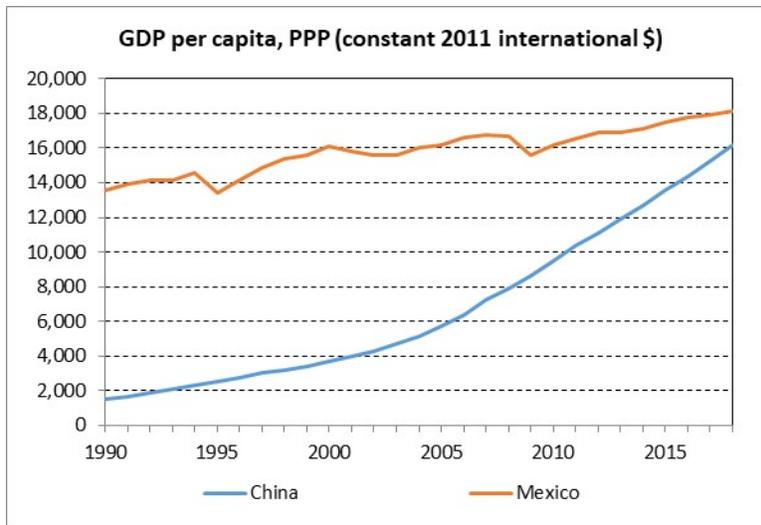
⁵ World Bank Group (2020b).

⁶ Central Intelligence Agency (2020).

⁷ World Bank (2020).

per capita growth for China significantly shifted in the early 2000s, which was at least partially caused by China’s further opening up to the global economy through joining the WTO. At no point did China’s GDP per capita decrease from 1990 to 2018. In contrast, Mexico’s GDP per capita increased only marginally, from \$13,580 in 1990 to \$18,134 in 2018. Mexico’s GDP per capita dipped three times: from 1994-1995, from 2000-2003, and again from 2008-2009 due to recessions caused by the 1994 Mexican Peso Crisis, the so-called early 2000s recession, and the 2008 Great Recession, respectively.⁸

Figure 1: GDP per capita, PPP (constant 2011 international \$), 1990-2018



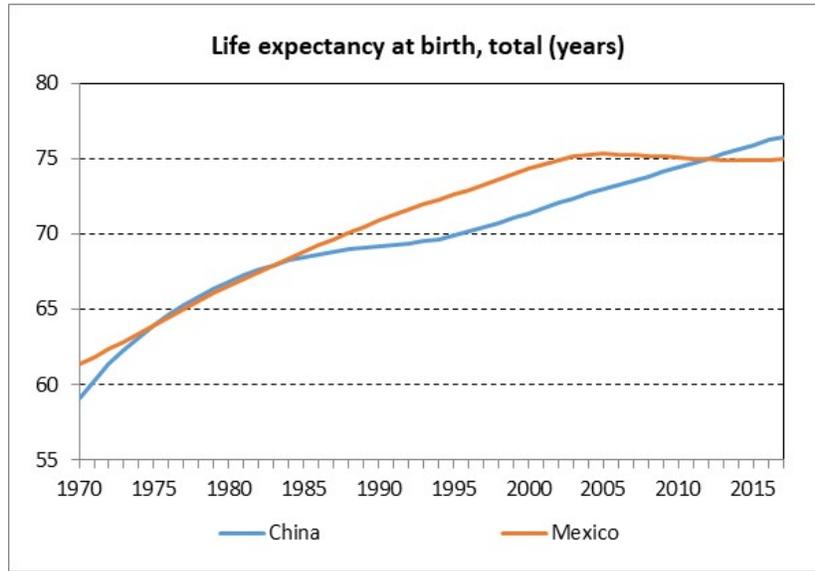
Source: Created by author based on World Bank (2020).

In dissimilar fashion to GDP per capita, life expectancy at birth has not changed at dramatically different rates across the two countries. Figure 2 highlights the life expectancy at birth in years from 1970 to 2017 for China and Mexico. In China, the life expectancy at birth was roughly 59 years in 1970, and this statistic increased at a consistent rate until the early-mid 1980s, where it began to stagnate; however, from around 1995 to 2018, life expectancy increased at a consistent rate again, albeit at a lower rate than during the 1970s. According to Babiartz et al. (2014, p. 39), the high increase in life expectancy during the 1970s was part of an overall trend from 1950 to 1980, due to augmentations in educational attainment and public health campaigns.

As shown in Figure 2, the life expectancy at birth for a Chinese individual increased sharply from 59 years in 1970 to 67 years in 1980, which implied that China’s life expectancy was marginally higher in 1980 than that of Mexico. In 1990, China’s life expectancy of 69.1 years was again lower than that of Mexico’s, which stood at 70.9 years. Overall, China’s life expectancy has been growing a bit more uneven than Mexico from 1970 to 2000. After 2000, China’s life expectancy growth became steadier, while Mexico’s life expectancy began to stagnate and even to decrease slightly. Aburto et al. (2016, p. 88) explain that the stagnation in Mexico’s life expectancy largely occurred due to increases in homicides. This led to China overtaking Mexico in terms of life expectancy by 1.5 years in 2017.

⁸ Congressional Research Service (2010).

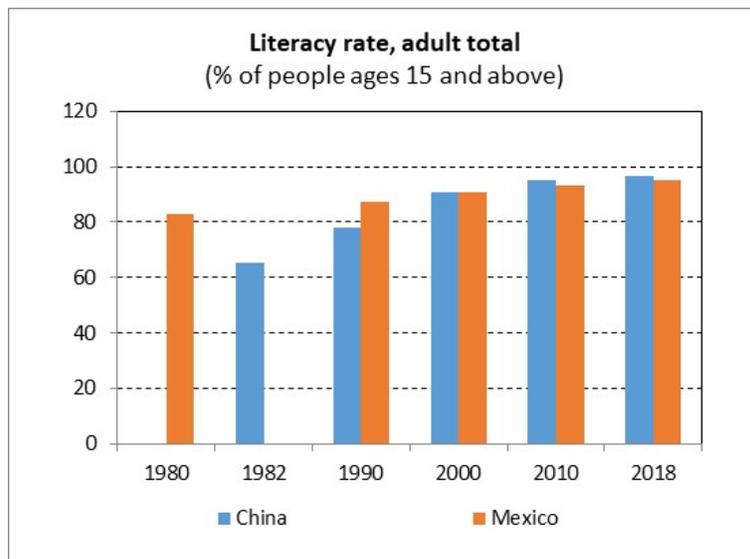
Figure 2: Life Expectancy at Birth, Total (male and female, years), 1970-2017



Source: Created by author based on World Bank (2020).

Figure 3 displays the adult literacy rates in China and Mexico from 1980 to 2018 for all years with publicly available data for Mexico and the corresponding data for China. Despite the limited data, we can see that Mexico had lower literacy rates than China until 2000. China's literacy rate was 83.0 percent in 1980, while Mexico's was only 65.5 percent. By 1990, China's literacy rate increased to 87.6 percent, while Mexico's increased to 77.8 percent. By 2000, Mexico (90.5 percent) had nearly caught up with China (90.9 percent), and for 2010 and 2018, Mexico's literacy rates slightly surpassed those of China.

Figure 3: Adult Literacy Rates, all available years for Mexico, selected years for China



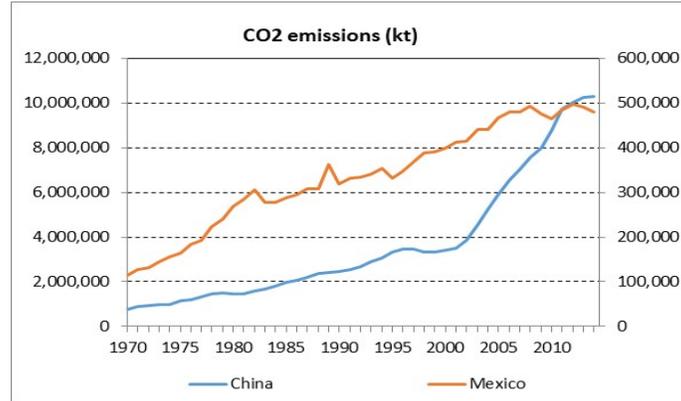
Source: Created by author based on World Bank (2020).

IV. Analysis of Facts

IV.1. Total and per capita CO₂ Emissions

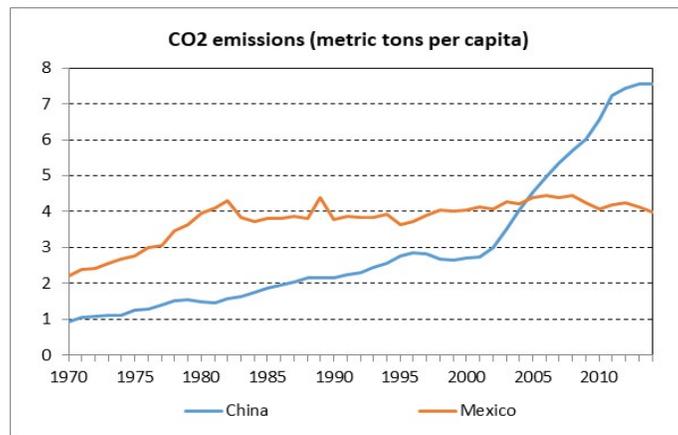
As shown in Figure 4, though starting with very different levels of CO₂ emissions in 1970 (China emitted 771,617 kt of CO₂ while Mexico emitted 114,073 kt of CO₂), the growth rates (in percent) were overall lower in China than in Mexico until 2001, which is when China's CO₂ emissions started to grow exponentially. This sharp increase in China's CO₂ emissions coincides with China entering the WTO in December of 2001 and a subsequent increase in manufacturing production, mostly for exports.⁹ While China's CO₂ emissions continued to increase from 2012 to 2014, the growth rate decreased considerably compared to the previous three decades. Despite some volatility, Mexico's CO₂ emissions grew at about the same rate from 1970 to 2008. From 2008 to 2014, Mexico's CO₂ emissions became more volatile, though Figure 4 shows some overall stagnation in Mexico's CO₂ emissions.

Figure 4: CO₂ Emission (kt), 1970-2014



Source: Created by author based on World Bank (2020).

Figure 5: CO₂ Emission (metric tons per capita), 1970-2014



Source: Created by author based on World Bank (2020).

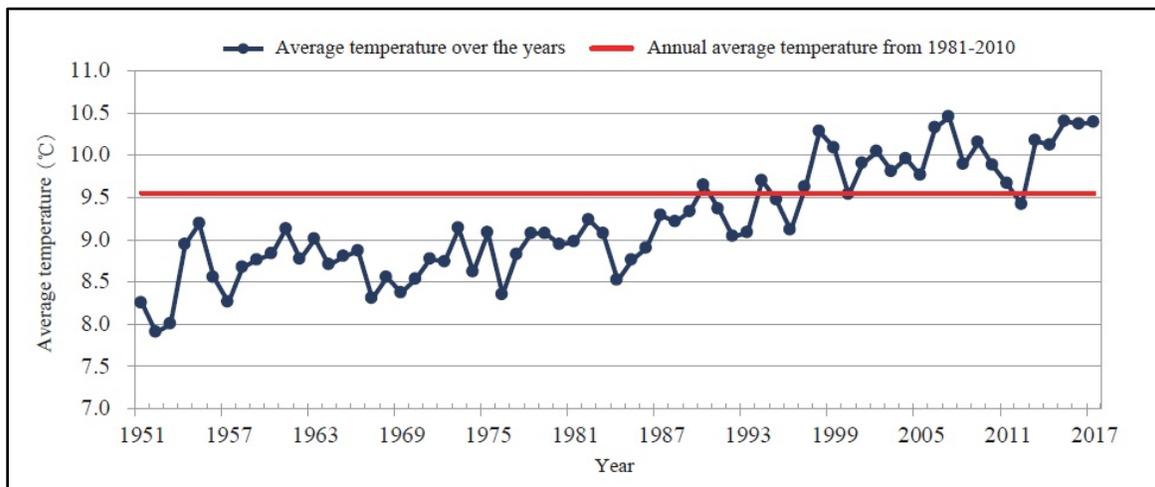
⁹ Shan et al. (2018).

Figure 5 accounts for differences in China’s and Mexico’s population sizes by measuring CO₂ emissions in metric tons per capita from 1970-2014. It shows that Mexico emitted more CO₂ per capita than China from 1970-2004. However, starting in 2005, China overtook Mexico in terms of CO₂ emissions per capita, and in 2014, China emitted 7.5 metric tons of CO₂ per capita compared to 4.0 metric tons per capita for Mexico. Similar to what was noted for Figure 4, the time at which China’s per capita CO₂ emissions began to increase in the early 2000s corresponds to when China joined the WTO.

IV.2. Rising Temperatures

While China and Mexico are contributing to climate change through carbon emissions at significantly different absolute amounts, the resulting impacts of climate change do not discriminate based on what country emits the most CO₂. As human-caused carbon emissions have caused global temperatures to rise, the same holds true for both China and Mexico.¹⁰ Figure 6 shows the annual temperature in China from 1951-2017. Over this 66 year-long-period, annual temperatures rose from around 8.3 degrees Celsius to 10.4 degrees Celsius, representing an increase of 2.1 degrees Celsius.¹¹

Figure 6: China’s Average Annual Temperature (in Celsius), 1951-2017



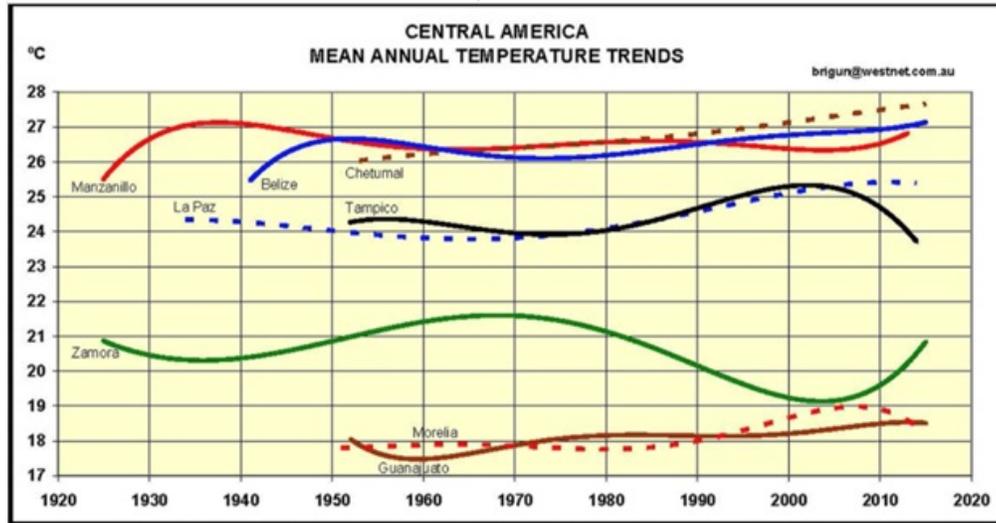
Source: Ministry of Ecology and Environment (2017), p. 46.

Similarly, Figure 7 shows the average temperature temperatures for seven cities in Mexico along with the bordering country of Belize. The data starts as early as 1925 and the most recent numbers represent 2015. In every Mexican city and Belize, except for Tampico and Zamora, the average annual temperature increased from the early-mid 20th century to 2015 by less than 2.0 degrees Celsius, which is slightly less than the 2.1 degrees increase in China’s average annual temperatures from 1951-2017.

¹⁰ NASA Goddard Space Flight Center (2011).

¹¹ Ministry of Ecology and Environment (2017), p. 46.

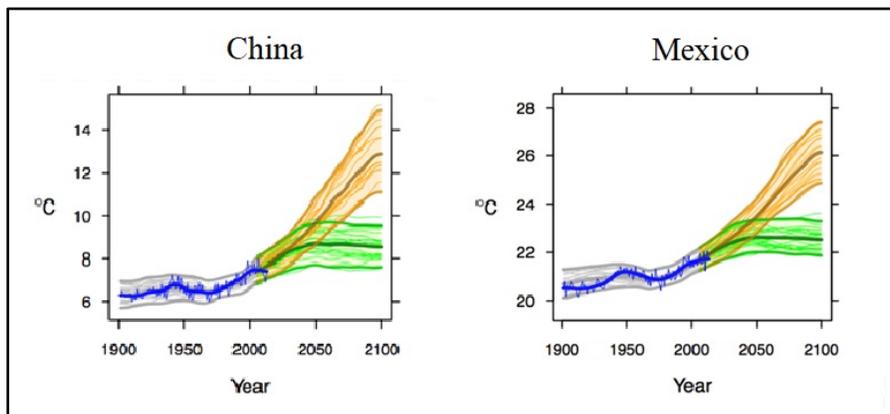
Figure 7: Central American Mean Annual Temperature Trends (in Celsius), 1920-2015



Source: Gunter (2016), based on Royal Netherlands Meteorological Institute data.

Figures 8 and 9 show the World Health Organization’s estimates of mean annual temperatures from 1900 to 2100, respectively in China and Mexico. The blue line represents the actual recorded mean annual temperatures in China and Mexico from 1900 to 2015. The orange line represents the estimated mean annual temperatures in a high CO₂ emissions scenario, while the green line represents the estimated mean annual temperatures in a low CO₂ emissions scenario. There are three observations we can make: First, Figures 8 and 9 corroborate the information in Figures 6 and 7, which show that there were modest annual temperature increases in China and Mexico from the early-mid 20th century to the early 21st century. Second, both figures show that in a high emissions scenario, mean annual temperatures will increase at an exponential rate in both China and Mexico. Third, both figures demonstrate that if global CO₂ emissions are reduced so that there is a low emissions scenario, then mean annual temperatures will rise through 2050 and then stabilize.

Figures 8 and 9: Estimated Mean Annual Temperature (degrees Celsius), 1900-2100, respectively for China and Mexico



Source: World Health Organization (2016a for China; 20016b for Mexico).

Disregarding future temperature increases, there have already been negative effects of higher temperatures on China and Mexico. More specifically, rising temperatures have caused glaciers to melt, which has increased flooding in China.¹² In particular, glacial melting causes higher water levels in the Yangtze river, threatening the major cities that exist along it, such as Shanghai.¹³ In addition to flooding, there was an inverted-U-shaped relationship between Chinese agricultural production and temperature.¹⁴ While initial temperature increases increased production, continued temperature increases in China have hurt crop yields, and this trend will only continue if temperatures keep rising.¹⁵

Similar impacts of higher temperatures have been found in Mexico. Over the last decade, the cultivation of certain Mexican crops has begun to decrease. From 2015 to 2019, there was a 4 percent decrease in national corn cultivation and a 18 percent decrease in the city of Tehuacan.¹⁶ Tehuacan represents what may happen to the national Mexican agricultural industry in the future, as many farmers have had to change crops in response to global warming.¹⁷ In addition, higher temperatures have caused more intense draughts. In 2011, Mexico experienced a major drought, resulting in the death of 1.7 million cattle and the withering 2.2 million acres of crops.¹⁸

Even though China and Mexico have already experienced negative repercussions from higher temperatures, future estimates are far worse than the current realities. According to the World Health Organization (WHO) (2016a, p. 3), under a high emissions scenario, 23 million people in China are projected to be affected by flooding annually from 2070 to 2100. The WHO also estimates that there will be increases in diseases transmission (particularly malaria and dengue fever), heat-related mortality, and undernutrition. In China, the WHO also notes that increases in heat stress will decrease labor productivity. The World Health Organization (WHO) (2016b) projects the same general consequences for Mexico, except that far less people will be affected in Mexico as Mexico's population (126 million in 2018) is less than one tenth of China's population (1.39 billion in 2018).¹⁹

Moreover, both China and Mexico will experience sharp decreases in agricultural production. Chen and Chen (2018, p. 585) state that the "average rice yield in China is projected to decrease by 10–19 per cent by 2050 and 11–33 per cent by 2070" with temperature increases being the "dominant factors" driving the decrease in agricultural production, Mexico could experience a 40–70 percent reduction in its cropland suitability by 2030 and an 80–100 percent decrease by 2100.²⁰ Thus, based on the projections by the Climate Reality Leadership Corps (2018), Mexico would have nearly zero usable farmland by the end of the 21st century. These projections assume that no corrective actions are taken, which will hopefully not be the case. Still, these projections based on current trajectories are powerful to illustrate the gravity of climate change impacts.

¹² Shangri-la Institute for Sustainable Communities (2013).

¹³ Lai (2009).

¹⁴ Chen, Chen and Xu (2014), p. 25.

¹⁵ Chen, Chen and Xu (2014), p. 25.

¹⁶ Oré (2020).

¹⁷ Oré (2020).

¹⁸ Climate Reality Leadership Corps (2018).

¹⁹ The population data is based on World Bank (2020).

²⁰ Climate Reality Leadership Corps (2018).

V. Ethical Origins and Ethical Approaches

V.1. Ethical Origins of Climate Change and Chinese/Mexican Responses

Climate change, while human-caused, is not human-directed. In other words, the resulting impacts from increased levels of CO₂ in the Earth's atmosphere do not occur due to any intellectual or conscious considerations. As stated in the fifth assessment report of the Intergovernmental Panel on Climate Change (IPCC) (2015, p. 8), “[c]ontinued emission of greenhouse gases will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive and irreversible impacts for people and ecosystems.” More recently, Wallace-Wells (2019, pp. 221–222) warned that large swaths of the planet will not be able to sustain human life if no preventative measures are taken.

The ubiquitous and devastating nature of climate change's impacts both call for common good and utilitarian approaches to the issue by all nations. As all countries are impacted by climate change in some manner, the individual good of each nation is tied to the global good. Additionally, with climate change potentially wiping out nations due to making parts of Earth uninhabitable and causing hundreds of millions of deaths worldwide, the costs of climate change can be seen as far outweighing any other contemporary problem.²¹

Both countries have launched numerous anti-climate-change initiatives in the last two decades to reduce their own emissions and invest in renewable energy. The governments of both nations have tried to strike a balance in their initiatives between the ethical considerations of dealing with the consequences of climate change and the initially negative growth prospects caused by drastic anti-climate-change programs.

As detailed in Gao (2016): Since the creation of the IPCC, the Chinese government has ordered 110 of its nation's scientists to aid in the preparation of the five IPCC reports that have been released from 1990-2014. In addition, in 2002, the Chinese government began preparing its own National Assessment Report on Climate Change, and different versions were released in 2006, 2011, and 2015. Each of these reports focused on central aspects of climate change itself and potential policy responses.²² Based on these reports, China has implemented various policy approaches to addressing climate change, especially since 2008, thus, relying on an existence-reality approach.²³

China's implementation of a low-carbon model helped stabilize the level of overall emissions and per-capita emissions in the most recent years, as was shown in Figure 4 and 5 above. China's model has heavily consisted of reducing the consumption of domestic coal, which heavily fueled its economic growth over the last half-century, and significant investment in renewable energy.²⁴ Figure 10 shows the increase in renewable energy and decrease in the production and consumption

²¹ Parncutt (2019), p. 4.

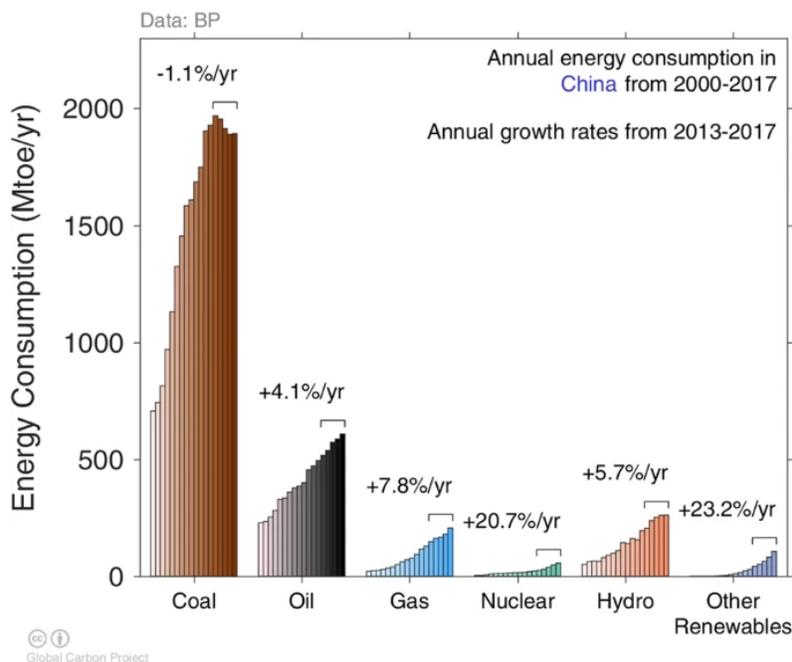
²² As stated in Guo (2016, pp. 236-237): The first report “focused on the history and future trend of climate change, its impact and adaptation, and its socioeconomic valuation.” The second report “focused on an analysis of global climate change assessment methods, police measures and actions of China in response to climate change, and their effectiveness.” And, the third report examined “factual climate change, its impact, adaptation and mitigation, and policy actions, while producing a special report focusing on two hot points ‘the impact of climate change on major projects and CO₂ utilization technology.’”

²³ Engels (2018), p. 1.

²⁴ Engels (2018), p. 2.

of coal. In addition, China officially launched its national carbon market in 2017, which introduced a price on carbon for the largest sources of CO₂ emissions in its economy.²⁵

Figure 10: China’s Energy Consumption by Source, 2000-2017



Source: Global Carbon Project via Engels (2018), p. 2.

Before around 2011, China’s anti-climate initiatives largely served to protect China’s economic progress. China sought to “address climate change within the framework of sustainable development” and stressed that it “is necessary to promote sustainable development amidst efforts to address climate change, and strive to achieve the goal of win-win in both.”²⁶ In 2010, the Chinese government called international efforts to curtail carbon emissions a “conspiracy to divide the developing world” and included itself as a developing nation in the assessment that “rich nations... must cut carbon emissions and [for] developing nations... action is not compulsory.”²⁷

Thus, one major ethical principle of China’s climate change response for most of the last several decades was to implement a utilitarian approach, where the costs to its economy and those of developing nations were mitigated while richer nations that could afford major cuts in CO₂ emissions would carry a greater burden. China saw itself as arguing for procedural justice. As described in Paavola, Adger and Huq (2006), this form of justice requires the recognition that developing countries are not equal partners in international negotiations on climate change.

However, since the early 2010s, China significantly shifted its approach to climate change, embracing the low-carbon model.²⁸ Fearing domestic instability, international instability and a

²⁵ Harvey and Min (2017).

²⁶ State Council of the People’s Republic of China (2008), Section III, paragraph 3.

²⁷ Watts, Carrington and Goldenberg (2010), paragraph 8.

²⁸ Engels (2018), p. 2.

lack of international influence due to both the negative effects of climate change on its economy along with national security issues, China began to cut back on its carbon emissions.²⁹ China's national carbon market is the largest out of any nation in the world. China has also invested around twice as much money into renewable energy than the United States, the second-largest carbon emitter and largest economy in the world.³⁰

As the largest emitter of CO₂, China's focus on procedural justice did not end, rather it changed.³¹ Instead, of viewing itself as among the developing nations that cannot afford to take significant climate action, China recognized both its ability and need to cut back on its CO₂ emissions.³² China also did not abandon the utilitarian approach. Instead, the Chinese government has recognized that the consequences of climate change on the environment along with its economy and domestic stability outweighed the costs of shifting its economy towards renewables and away from coal.³³

Unlike China, Mexico began not only recognizing but addressing climate change before recent years. Schäfer (2013, paragraph 2) noted that "Mexico has a sound record of addressing climate change challenges and is considered a global leader in the area." In 1998, Mexico ratified the Kyoto Protocol, an international agreement committing industrialized economies to limiting and reducing greenhouse gases, and signed it in 2000.³⁴ While China took the same actions in a similar timeframe, Mexico actually worked to limit greenhouse gases while China stalled. Since 2000, the Mexican government has worked with the World Bank to invest in renewable energy, manage risks of climate disasters, conduct relevant research, coordinate actions with other nations, and more.³⁵

In 2009, Mexico created its Special Program on Climate Change (SPCC), which set "Mexico's long-term climate change agenda, together with medium-term goals for adaptation and mitigation."³⁶ The SPCC heavily focused on low-carbon measures, such as investing in renewable energy and cutting back on fossil fuels.³⁷ As reported by the BBC (2012), Mexico passed a comprehensive bill on climate change in 2012, the General Law on Climate Change (GLCC), that committed Mexico to reducing CO₂ emissions by 30 percent by 2020 and 50 percent by 2050 from its 2000 levels.

As detailed in a study by the London School of Economics and Political Science (2020), Mexico's GLCC was amended in 2014 to institute a carbon tax and it was again amended in 2016 to frame a carbon market. Upon passing the GLCC, the Mexican government recognized the significant consequences of climate change on human life, its economy, and ecosystems. Furthermore, in similar fashion to China post-2011, the Mexican government's climate response since the late 1990s and especially since the early 2010s has reflected a utilitarian approach. More specifically, when justifying climate action, Mexico has cited the costs of climate inaction, framing preventative and proactive measures as resulting in a net benefit for the nation. After all, Mexico's vulnerability

²⁹ Moore and Melton (2019).

³⁰ Moore and Melton (2019).

³¹ Gao (2016), p. 237.

³² Gao (2016), pp. 237-238.

³³ Engels (2018), p. 2-3.

³⁴ United Nations (2020).

³⁵ Schäfer (2013).

³⁶ LEDES Global Partnership (2015), first paragraph.

³⁷ LEDES Global Partnership (2015).

to natural phenomena, such as droughts, which will only increase with global temperature increases, threatens its farmers, overall economy, health, and access to food.³⁸

Due to Mexico's utilitarian approach, its climate measures have slowed and even reversed in the face of the COVID-19 pandemic. On May 15th, 2020, Mexico passed a bill that effectively halted private renewable energy investment in the country, prioritizing the government's own ageing, fossil fuel-fired power plants. The reason for this reversal in policy is that the pandemic caused the nation to postpone power feeds from renewable sources. In the eyes of the Mexican government, the immediate risks and costs of the COVID-19 pandemic outweighed the costs of slowing down its climate measures.³⁹

V.2. Ethical Approaches in Addressing Climate Impacts

The examination of China's and Mexico's approaches highlight the almost universal adoption of a utilitarian approach to climate change measures across the globe, which produces a debate on the type of anti-climate measures that should be adopted. This debate asks a simple question: what anti-climate policies will produce societal costs that do not outweigh the costs of climate change? One response to the aforementioned question is rooted in the common good approach and cosmopolitan theories of social justice. More specifically, the international goals set by treaties such as the Kyoto and Paris Agreements are rooted in the fact that the entire world faces a common problem. Thus, the individual good of each nation is tied to the collective good of the entire world.

Rising global temperatures caused by carbon emissions by human activity require a reduction of carbon emissions to curtail climate change due to its varying consequences, such as increased natural disasters and higher mortality. Additionally, cosmopolitan theories of social justice argue that justice is "universal, unchanged by time and place," meaning that all humans are entitled to equal justice.⁴⁰ Initiatives to reduce carbon-emissions, such as those implemented by China and Mexico, potentially fall in line with these theories, as the effects of their reduced emissions aid the general wellbeing of people across the globe.

Furthermore, another response to the aforementioned question is rooted in rejecting a climate-based common good approach and favoring a specific interpretation of communitarian theories of justice. While the entire globe faces a common problem, different nations have different circumstances, and thus, they should not be mandated to follow the same goals. The Chinese government held this mentality in 2010, when claiming that international efforts to curtail carbon emissions were a "conspiracy to divide the developing world."⁴¹ China's economically-focused perspective on climate change placed an ethical importance on economic growth that increased the living standards and power of its population.⁴² Thus, international initiatives that could harm that growth were viewed as unethical, especially as China considered itself a developing nation that should hold the same responsibilities of rich, largely-Western nations.

Moreover, communitarian theories of justice argue that "justice emerges from the relationships between members of a community and that social justice is thus specific to a particular space and

³⁸ Most of this paragraph is based on London School of Economics and Political Science (2020).

³⁹ This paragraph is based on a report by Climate Action Tracker (2020).

⁴⁰ Paavola, Adger and Huq (2006), 265.

⁴¹ Watts, Carrington and Goldenberg (2010), first paragraph.

⁴² State Council of the People's Republic of China Information Office (2008).

time.”⁴³ Since justice is specific to a particular space and time, dramatic climate-action may not be beneficial for nations at certain times. For example, Mexico reduced its usage of renewable energy and reverted back to fossil fuels in response to the realities of the COVID-19 pandemic.⁴⁴ In addition, Davey (2016) stated that many developing nations do not view themselves as economically secure enough to transition away from fossil fuels.

The concepts of distributive and procedural justice also heavily impact ethical approaches to climate change. Distributive justice is “the incidence of benefits and costs, broadly conceived so as to encompass nonpecuniary advantages and burdens.”⁴⁵ In the present context, distributive justice refers to the fact that while climate change impacts all nations, it does not do so equally. In addition, the countries responsible for most carbon emissions should carry more responsibility than those less responsible. Thus, according to international agreements, such as the Paris Agreement, heavier carbon-emission-cutting responsibilities are placed on more developed, richer nations.⁴⁶ As the number 1 and 12 current CO₂ emitters, China and Mexico face some of the highest responsibilities under international standards.⁴⁷ Furthermore, according to the Center for Global Development (2015), 79 percent of historical carbon emissions were caused by developed countries. However, many of the principal causers of climate change have been driving international climate talks.

Procedural justice “relates to the way in which parties are positioned vis-à-vis processes of planning and decision making, encompassing issues such as recognition, participation, and distribution of power.”⁴⁸ In the present context, procedural justice means that developing countries are not equal partners in international negotiations that are driven by developed nations. While China and Mexico have heavily participated in international agreements, most developing countries have not driven talks. For example, the European Union, which is responsible for 40 percent of the historical carbon emissions, was critical in comprising the terms of the Paris Agreement.⁴⁹ Therefore, in the ethical considerations of many developing countries, distributive justice may be more prevalent than procedural justice.

VI. Conclusion

Through an analysis of China and Mexico’s unique histories, this article highlighted the detrimental current and future effects of climate change on the globe and developing countries along with the ethical balancing of priorities for individual nations. While Mexico and China have both augmented their climate response policies in the last decade in order to reduce greenhouse gas emissions, they have yet to implement the necessary changes in the worldwide effort to stabilize global temperatures. In addition, both nations have attempted to balance addressing the threats of climate change without significantly hurting their economies.

Although China and Mexico exist on different continents and have significantly different economies, this analysis reveals the indiscriminate impacts of climate change. As was detailed in this article above, both countries will experience similar dramatic increases in their annual

⁴³ Paavola, Adger and Huq (2006), p. 265.

⁴⁴ Climate Action Tracker (2020).

⁴⁵ Paavola, Adger and Huq (2006), p. 266.

⁴⁶ European Union (undated).

⁴⁷ Union of Concerned Scientists (2020).

⁴⁸ Paavola, Adger and Huq (2006), p. 266.

⁴⁹ Center for Global Development (2015) and European Union (2018).

temperatures. Furthermore, this article showed that both China and Mexico will experience increases in mortality rates, illness, and natural disasters along with decreases in agricultural production. Therefore, while both countries seek to balance addressing climate change with economic concerns, effective next steps must cause significant decreases in greenhouse gas emissions, in accordance with UN guidelines detailed above. Otherwise, the available research and literature demonstrates that China and Mexico will both experience consequences that most likely far outweigh the economic costs associated with cutting emissions.

Even though both countries have initiated frameworks to reduce their future CO₂ emissions, the goals fall short of the requirements set by the international scientific community. Hence, China and Mexico should both go further in their efforts to cut emissions. While both countries are developing nations, they have much larger economies and more resources than most other developing nations. Thus, if any countries are able to be global leaders in the developing world, China and Mexico are among them.

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Developing Density: Diverging Approaches to Urbanization between South Africa and Colombia

Asher Weinstein

Abstract

This article looks at urbanization in Colombia and South Africa. Though having currently very different levels of urbanization, both countries experienced relatively high rates of urbanization during the last three decades. This article examines the facts and ethical implications related to this process of urbanization. Despite progress with addressing some negative side effects of urbanization (for example, both countries experience currently a decrease in the percentage of urban population living in slums), continued mass urbanization remains a challenge for both countries.

I. Introduction

Despite their different sociopolitical backgrounds and histories, South Africa and Colombia are strikingly similar in several ways, including the recent growth and modernization of their economies. However, perhaps most importantly for understanding the future of governance in these two countries, both have experienced a dramatic increase in their urban population since the 1970s. However, while both have seen growth in their share of urban populace, the conditions which led to such an influx and the respective governments' responses to growth in their cities differ.

Urbanization in both Colombia and South Africa has a violent and tragic history, with Black residents of South Africa having been systematically denied the opportunities in the cities and rural Colombian having been violently evicted from the country's cities in a misguided attempt to build the country's economy. This article examines each country's success at urban governance in the wake of these chaotic restructurings. Further, given the high rates of rural poverty in Colombia and South Africa, this article discusses how governments can handle the dual pressures of meeting the needs of their growing urban populace without neglecting the rest of the country.

This article is structured into six sections: Following this Introduction (Section I), Section II summarizes some of the recent literature on urbanization in both South Africa and Colombia, focusing on how each government has reacted to growing urban populations and how urbanization has changed the social, political, and environmental landscape of the countries. Section III summarizes key socioeconomic indicators for each country, focusing on the trends in GDP per capita, life expectancy, and literacy. Section IV examines the key facts related to urbanization. Section V provides an overview of the ethical origins of both countries' imperatives towards good

urban governance and discusses applicable existing ethical structures before the last section provides some conclusions.

II. Literature Review

Scholars have produced extensive research on sustainable urbanization from social, environmental, and economic perspectives in recent years. Although the literature on modern urbanization focused heavily on the Chinese experience in the early 21st century (Vélez-Henao, 2020), African and South American countries have begun to receive considerable attention, including South Africa and Colombia. Turok and Borel-Saladin (2014) and Matzopoulos et al. (2020) focus on South Africa, while Abello-Colak and Guarneros-Meza (2014) and Vélez-Henao (2020) focus on Colombia. Each scholar examines a different policy sphere, but their combined scope looks at the impacts of urbanization and urban policy on violence, sustainability, and poverty in the two countries.

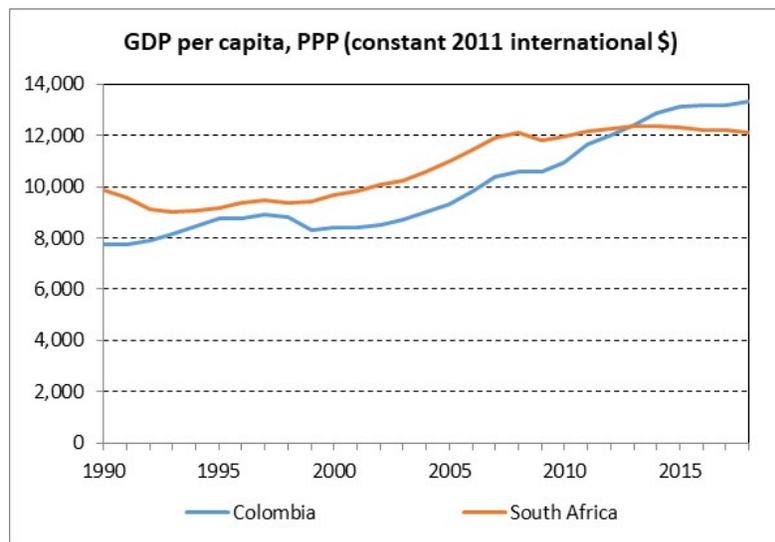
- Turok and Borel-Saladin (2014) describe how, amid rapid post-apartheid urbanization, the South African government succeeded in managing urban infrastructure needs, particularly in regard to clean water. The government's commitment to piped water and flush toilets led to a near-doubling of the proportion of the population with access to these services in South Africa's largest metro areas. However, they find that urbanization has also led to an increase in the population living in shacks, where residents are more vulnerable to environmental hazards.
- Matzopoulos et al. (2020) focus on Cape Town's efforts to reduce urban violence through improved urban environmental design as an alternative to surveillance and broken-windows policing. The environmental changes include the construction of community-oriented facilities and public walkways. Post-apartheid, violence in South African cities remained 40 percent higher than in rural areas, but in the neighborhood with the urban design project, individuals exposed to the facilities experienced just over half of the interpersonal violence as other residents in other areas. The article also notes that homicide rates remain highest in the most impoverished parts of South African cities, and thus violent crime reductions constitute a significant drop in material deprivation for these residents.
- Abello-Colak and Guarneros-Meza (2014) describe the influence of criminal organizations in Colombian cities and how government policy, despite a concerted effort to improve urban social services, has failed to overtake gangs as a major force in residents' lives. They find that a neoliberal rolling-back of social services in the 1980s and 1990s created a vacuum in the prominent city of Medellin, with urban militias providing services and protection from gangs. The article notes that gangs typically thrive with state absence, but that in the impoverished and dense Medellin, despite successful military measures and the introduction of "social urbanism," which lessened violence and improved government relations with particularly impoverished areas, gangs retained influence through informal arrangements with local politicians and by providing work.
- Vélez-Henao (2020) focuses on the impact of rapid urbanization on environmental concerns in Colombia. Since 1960, the proportion of the population living in a major city doubled to 80 percent, forcing increased agricultural industrialization and cross-country goods transportation, putting a strain on ecological resources. Through a statistical analysis referred to as Stochastic Impacts by Regression on Population, Affluence, and Technology (STIRPAT, Vélez-Henao found that urbanization was the primary driver of Colombia's

increased electricity consumption and its contributions to climate change. He recommended that the government undertake sustainability policies for further urban growth.

III. Socio-Economic Background

In Colombia, despite the persistence of the Revolutionary Armed Forces of Colombia (known as FARC, which stands for *Fuerzas Armadas Revolucionarias de Colombia*), which is a destabilizing guerilla group, the country has earned its status as one of South America’s most modern economies, with 64.5 percent of Colombian employees working in the service sector in 2019 (compared to only 16.2 percent working in agriculture in the same year). Extreme poverty and malnourishment have also declined, with 3.9 percent of the population earning less than \$1.90 per day and 4.8 percent of the population experiencing undernourishment in 2017, compared to 10.4 and 9.5 percent respectively in 2008. South Africa hosts a similarly modernized economy, with 71.7 percent of employees working in the service sector and 5.4 percent in agriculture in 2019. However, its performance on extreme poverty and nourishment metrics falls behind Colombia and has worsened in recent years as 18.9 percent of the population earned less than \$1.90 per day in 2014, which is two percent higher than the rate in 2008. Further, 6.2 percent of the population experienced undernourishment in 2017, compared to 4.6 percent in 2008.¹

Figure 1: GDP per capita, PPP (constant 2011 international \$), 1990-2018



Source: Created by author based on World Bank (2020).

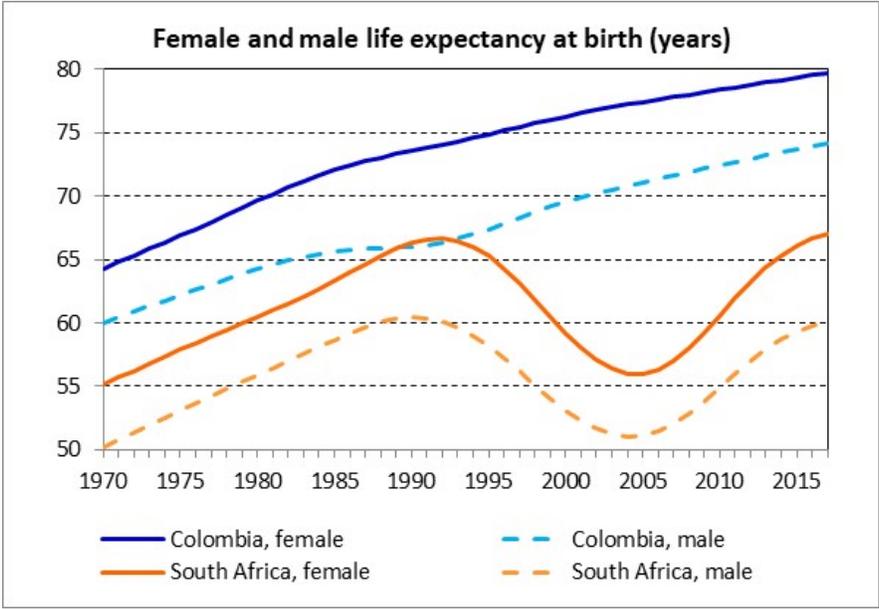
Figure 1 exhibits GDP per capita in 2011 constant international dollars for South Africa and Colombia from 1990 to 2018. Over this period, both countries experienced overall growth, with the strongest growth for both coming between 2000 and 2008. South Africa’s GDP per capita grew from \$9,900 in 1990 to \$12,144 in 2018, which is a cumulative increase of 22.6 percent. The cumulative 22.6 percent growth over 28 years is low, partly due to the economic decline during

¹ The data of this paragraph is coming from World Bank (2020).

the early 1990s and the stagnation during the last ten years. Comparatively, Colombia’s GDP per capita has grown much more steadily since 1990 and, notwithstanding a 5.8 percent contraction in 1999, Colombia’s economy grew quickly throughout the measured period, with three instances of annualized growth over 5 percent between 2006 and 2011. Although Colombia’s 1990 GDP per capita (\$7,729) was over \$2,000 below South Africa’s GDP per capita, Colombia surpassed South Africa’s GDP per capita in 2013 and reached \$13,321 in 2018, which reflects a cumulative growth rate of 72.3 percent from 1990-2018.

As shown in Figure 2, South Africa and Colombia experienced sharply different life expectancy trajectories though neither country saw any reduction in gender-based disparities in life expectancy. The gap between female and male life expectancy increased slightly from 4.2 percentage points in 1970 to 5.6 percentage points in 2017 for Colombia, and from 4.9 percentage points in 1970 to 6.9 percentage points in 2017 for South Africa. Starting with a total (female and male) life expectancy at birth of 62.1 years in 1970, Colombia’s life expectancy increased modestly but consistently over the next five decades, reaching its all-time high of 76.9 years in 2017.² In 1970, South Africa’s life expectancy stood at 52.6 years and its growth from 1970 to 1990 kept pace with Colombia, reaching a high of 63.3 years in 1991. However, in the 1990s and early 2000s, South Africa’s life expectancy at birth dropped precipitously for both men and women due to an HIV/AIDS outbreak that infected a peak of 30 percent of all pregnant women in the country in 2005.³ South African life expectancy reached its lowest point in 2005, with 51.1 years for men and 55.9 years for women. By 2017, life expectancy for South Africans recovered to its pre-outbreak peak of 63.5 years, 13.4 years below Colombia.

Figure 2: Life Expectancy at Birth, by gender (years), 1990-2017



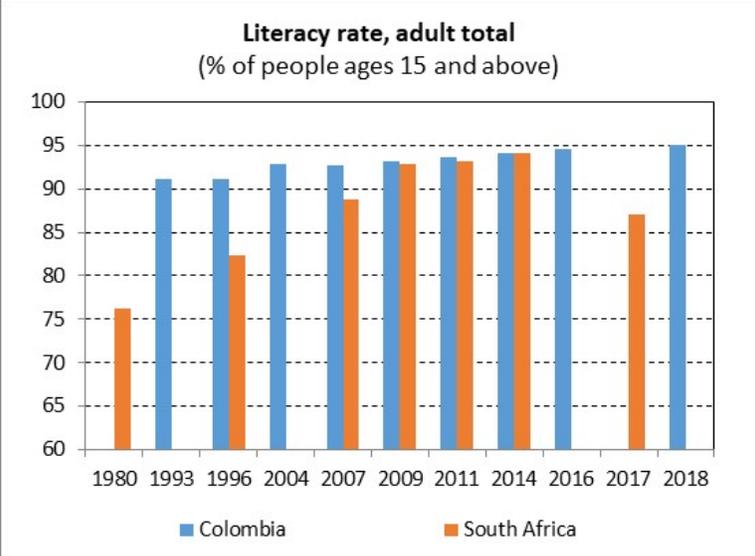
Source: Created by author based on World Bank (2020).

² The data for total (female and male) life expectancy is taken from World Bank (2020).

³ World Bank (2020) and National Department of Health (2008).

As Figure 3 shows, before 2007, South Africa only recorded its literacy rate in 1980 and 1996, making it impossible to assess the impact of the end of South African apartheid on literacy. However, we can identify some trends from the data: First, with exception of 2014, adult literacy rates were always higher in Colombia than in South Africa. Second, while Colombia’s literacy rates have improved steadily from 1993 to 2018, they increased by only 4.0 percentage points during this 25-year-period. Third, South Africa’s literacy rate has grown much faster from 76.2 percent in 1980 to 94.1 percent in 2014, but it then declined sharply to 87.0 percent in 2017, marking a puzzling decline.

Figure 3: Adult Literacy Rates (% of over 15 years old), all available years



Source: Created by author based on World Bank (2020).

The apparent disconnect between life expectancy and GDP per capita in South Africa is one of the most interesting findings from comparing the previous three figures. South Africa’s life expectancy plunged at the same time as its economy underwent its strongest growth of the past thirty years. This disparity may be explained by the improvement in literacy post-apartheid, as the increased education represented by the growth in literacy provided new employment opportunities for previously excluded Black South Africans, combined with a lifting of economic embargos after the end of apartheid.

IV. Analysis of Facts

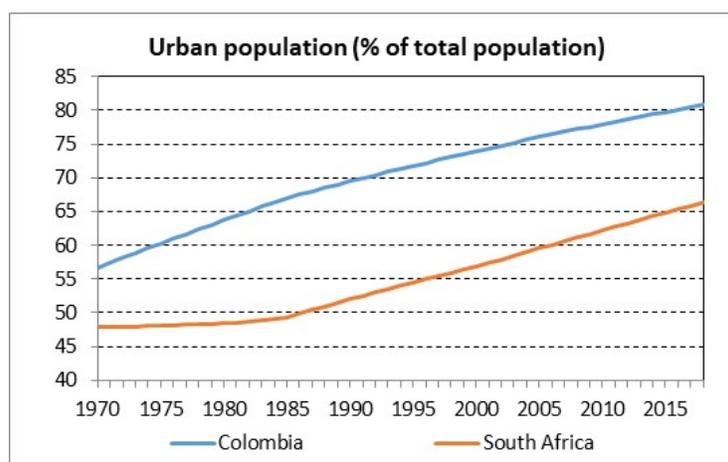
The first sub-section of this fourth section outlines some key facts related to the urban populations of South Africa and Colombia, focusing on the evolution of the urban share of the population, the share of the urban population living in slums, and the share of the urban population living in the largest city. The second sub-section reviews three relevant statistics regarding the urban-rural divide in both countries in terms of poverty, access to safe water, and access to sanitation.

IV.1. Status and Trends of Urbanization in South Africa and Colombia

IV.1.a. Evolution of the Share of Urban Population

As shown in Figure 4, both South Africa and Colombia have experienced strong growth in their share of urban populations over the past fifty years. The data show that in 1970, 56.6 percent of the Colombian population lived in urban areas, while a slim minority (47.8 percent) of the South African population lived in urban populations. This is a difference of 8.8 percentage points between the two countries. During the 1980s, the urbanization gap reached its largest-ever margin between the two countries. In 1985, 67.0 percent of the Colombian population lived in urban areas, compared to only 49.4 of the South African population, a 17.6 percentage points gap. In 2018, which is the last year with such data available, South Africa's urban population reached 66.4 percent, while Colombia's reached 80.8 percent, hence still leaving a considerable gap of 14.4 percentage points between South Africa and Colombia.

Figure 4: Share of Urban Population (percent), 1970-2018



Source: Created by author based on World Bank (2020).

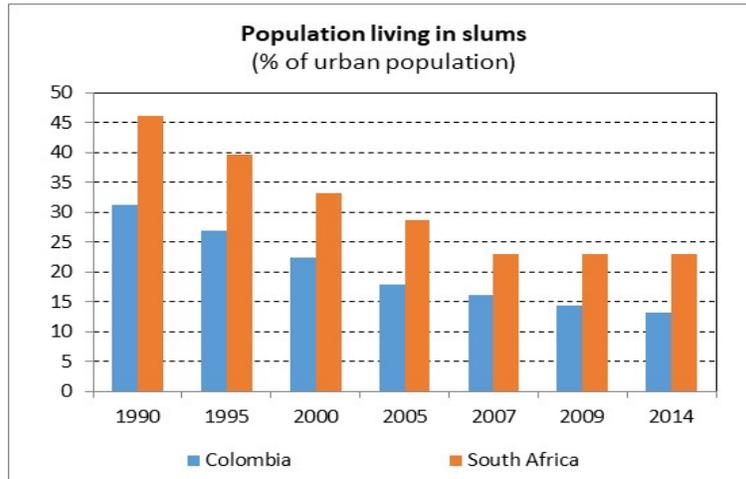
IV.1.b. Slums and Urban Concentration

While statistics on the urban share of the population say nothing about the living conditions of the urban population, the existing information on the percentage of the urban population living in slums indicates a steady decline in slum conditions in both countries (see Figure 5). In 1995, a staggering 39.7 percent of urban South Africans lived in slums while, in Colombia, 26.8 percent of city residents lived in slums. Over the next decade, slum populations declined precipitously in both countries, reaching 23 percent in South Africa and 16.1 percent in Colombia in 2007.

The trends began to diverge in 2007, however, as Colombia continued to draw urban residents out of slum conditions while slum clearance stalled in South African cities. By 2014, 23 percent of urban residents in South Africa still lived in slum conditions while only 13.1 percent of city-dwelling Colombians remained in slums. Notably, because of the strong growth of the urban population in each country, the raw number of slum-dwellers declined far less dramatically over this period, and given the lack of slum-clearing progress in South Africa in recent years, Turok and Borel-Saladin (2014) found that the South African population living in shacks increased in

recent years. Using the World Bank (2020) data on population growth, the urban share of population, and the percentage of urban population living in slums, our calculations show that the number of South African slum dwellers increased from 6.8 million in 2007 to 7.2 million in 2009, and 8.1 million in 2014.

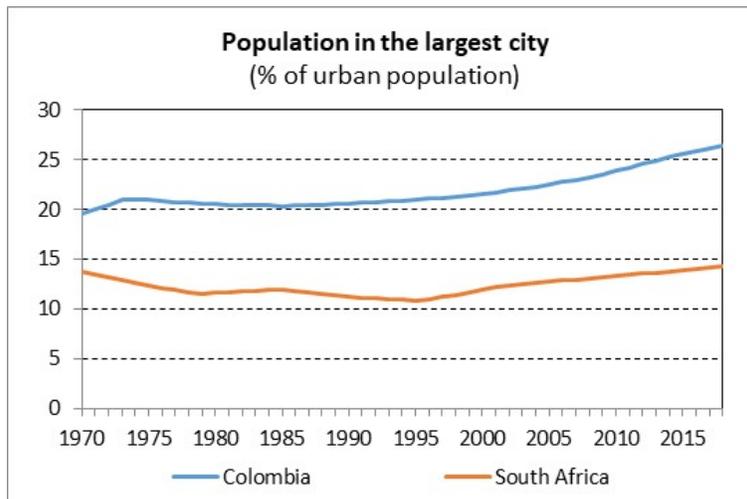
Figure 5: Percentage of Urban Population Living in Slums, 1995-2014



Source: Created by author based on World Bank (2020).

Colombia’s achievements in reducing slum conditions for its urban residents are made even more interesting by its increasing urban concentration. Bogotá, Colombia’s largest city, held host to 26.4 percent of all urban residents in the country in 2017, a sharp increase from 19.6 percent in 1970. Meanwhile, the share of the population in South Africa’s largest metropolitan area, which has alternated between several cities over the past five decades, has remained relatively flat since 1970, only increasing from 13.7 to 14.3 percent.

Figure 6: Urban Concentration in Largest City, 1970-2018



Source: Created by author based on World Bank (2020).

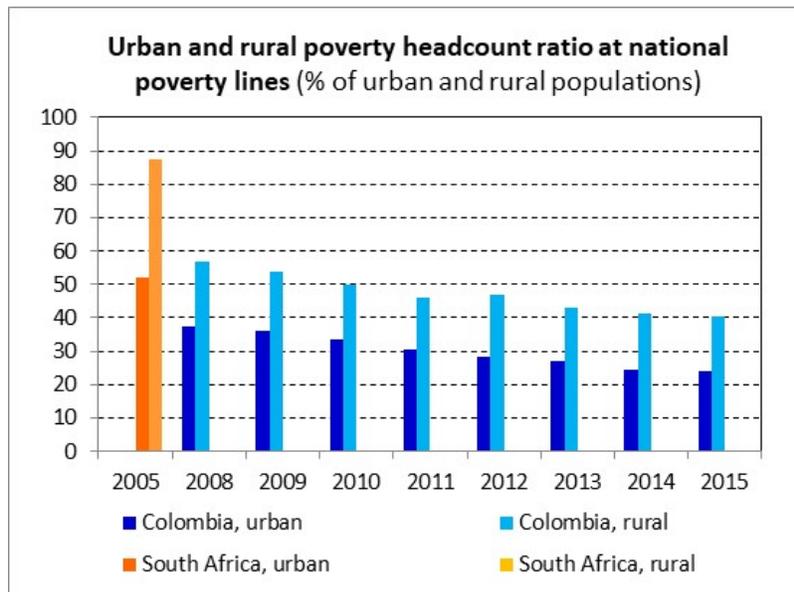
IV.2. Dimensions of Urban Living and Development

IV.2.a. Urban Poverty

The high levels of urbanization and the gradual decline of slum living in South Africa and Colombia have direct impacts on other dimensions of urban living. Beyond the simple living conditions of Colombians and South Africans, this section explores other elements of the experience of urban living in the two countries, beginning with poverty and employment. Unfortunately, World Bank data collection on the South African urban and rural poverty rates is extremely limited, having only been collected once, in 2005. That year, 52 percent of urban South Africans lived in poverty, compared to a staggering 87.6 percent of rural residents.

While comparisons between the two countries are difficult because the World Bank did not collect urban poverty statistics from Colombia until 2008, their 2008 urban poverty rate of 37.4 percent was considerably lower than South Africa's only three years earlier. The most recent update in 2015 found that the urban poverty rate had declined to 24.1 percent. Like South Africa, Colombia's rural poverty rate is significantly higher than its urban rate and has consistently remained at least ten percentage points higher than the urban rate. However, as the urban poverty rate has declined, the rural rate has come down as well, decreasing from 56.6 percent in 2008 to 40.3 percent in 2015.

Figure 7: Urban and Rural Poverty Headcount Ratios, all available years



Source: Created by author based on World Bank (2020).

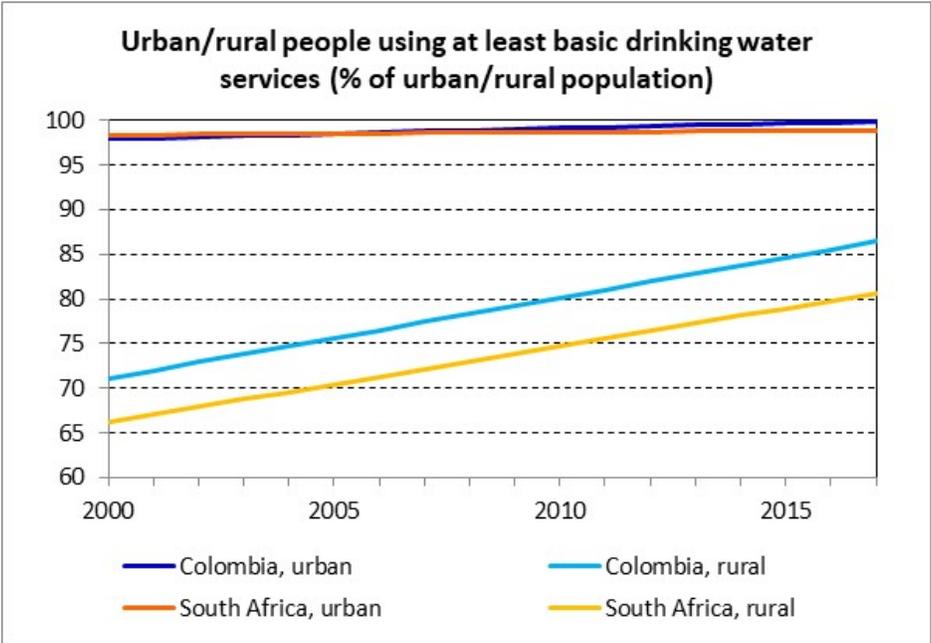
IV.2.b. Public Safety and Health Infrastructure

Cities also face unique challenges in maintaining safe living conditions for their residents, especially as all large cities in Colombia and South Africa have slums. Beginning with basic sanitation, public health can be threatened when people lack easy access to clean drinking water and the issue is compounded in areas that have little or no infrastructure, like in slums. In these areas, both countries have found unambiguous success and Colombia has nearly ensured that 100

percent of its urban residents can access clean water. As shown in Figure 8, in 2000, the first year that the World Bank collected data on urban basic drinking water service access, urban South Africans had higher levels of access than urban Colombians, 98.4 percent to 97.9 percent. However, since 2000, Colombia has achieved faster improvements to its water resources and bypassed South Africa’s rate in 2006. By 2017, Colombia reported that a remarkable 99.94 percent of urban residents could access drinking water services. South Africa also continued to improve its access rates, ending with 98.90 percent in 2017. As Turok and Borel-Saladin (2014) found, the recent increase in South Africa can likely be explained by investments in public sanitation, which have improved access rates among the poorest South Africans.

Meanwhile, rural water access in both countries has lagged in urban areas, although Colombia’s rural areas have experienced faster growth in access since 2000 than rural South Africa. As also shown in Figure 8, in 2000, 66.2 percent of rural South Africans used at least basic clean drinking water services, compared to 71.1 percent of rural Colombians. By 2017, rural access rates in both countries rose by over 10 percentage points compared to their rates in 2000, with rural South Africa reaching 80.7 percent and rural Colombia reaching 86.5 percent, indicating that neither country’s investments in urban drinking water infrastructure have forestalled efforts to improve the same infrastructure for the rest of the country.

Figure 8: Percentage of Urban and Rural People Using at Least Basic Drinking Water Services, 2000-2017

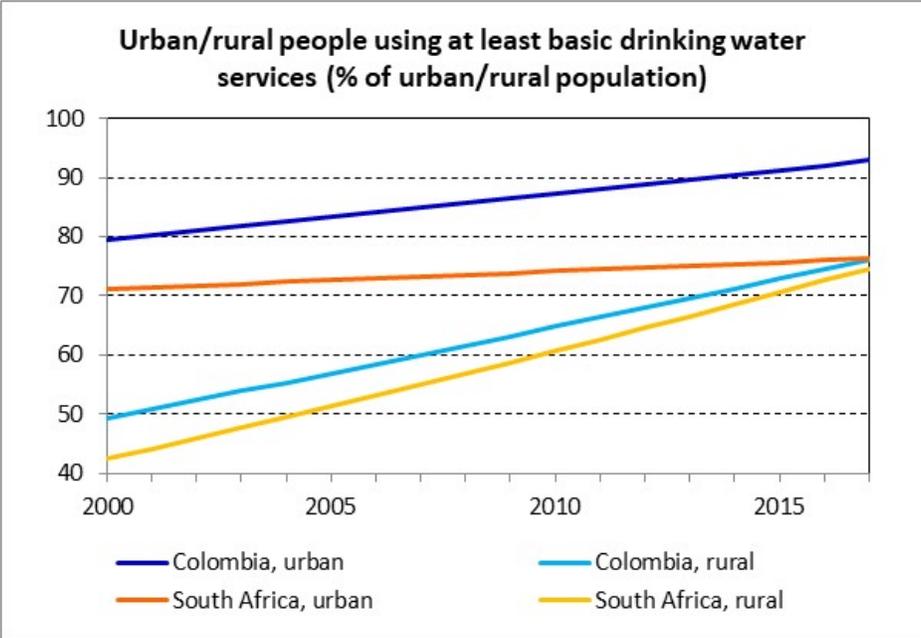


Source: Created by author based on World Bank (2020).

The same trend appears evident for Colombia when considering broader health infrastructure, like sanitation services, which is illustrated in Figure 9. In 2000, 79.4 percent of Colombia’s urban residents use at least basic sanitation services, compared to 49.3 percent of their rural residents. By 2017, these rates increased to 92.9 percent and 76.2 percent, respectively for urban and rural

Colombians. However, South Africa does diverge somewhat from the trend. Although the number of urban residents in South Africa using at least basic sanitation services increased from 71.1 percent to 76.3 percent from 2000 to 2017, South Africa’s rural access improved even more dramatically than Colombia’s, having increased from 42.5 percent to 74.7 percent. Thus, while it appears that the government in Colombia has put roughly equal emphasis on improving health services in urban and rural areas, the fact that South Africa saw relatively little improvement in its urban infrastructure at the same time that its rural infrastructure improved dramatically gives some indication that the government has prioritized rural governance.

Figure 9: Percentage of Urban and Rural People Using at Least Basic Sanitation Services, 2000-2017



Source: Created by author based on World Bank (2020).

Some progress has also been made in reducing violence, which typically is more concentrated in urban than rural areas. Given the high urban populations in each country, the national incidence of intentional homicides gives a relevant, although not complete, indication of how safe cities are in each respective county. Both countries reported high levels of violence in the early 1990s, with Colombia reaching an all-time high of 81.4 homicides per 100,000 people in 1991 and South Africa reporting 63.5 homicides per 100,000 people in 1995. However, despite a brief spike in homicides in Colombia in the early 2000s, both countries have achieved a steady decline since the 1990s. In 2017, South Africa had 35.9 homicides per 100,000 people, while Colombia had 24.9 homicides per 100,000 people.⁴

In conclusion, both South Africa and Colombia have simultaneously seen strong growth in their urban population and improvements in the material conditions of their city-dwelling residents. Colombia remains more urbanized and has a longer history of urbanization while South Africa has

⁴ The data reported in this paragraph is from World Bank (2020).

seen faster growth in recent years and has taken its urban population from a minority of the population to nearly two-thirds of the country's residents. Further, urban South Africans and Colombians are now significantly less likely to live in slums than they were in the 1990s, but Colombia retains an advantage in slum removal as well. In terms of poverty and safety, Colombia has seen clear success in reducing both urban poverty and unemployment, while South Africa, which started with very high urban poverty, has failed to achieve low unemployment. Colombia, despite having a higher homicide rate and worse clean water access in the early 2000s, has managed to reach nearly universal urban clean water access and halved its homicide rate, while South Africa has made some, but less, progress on these metrics and has seemingly placed a greater emphasis on increasing rural access.

V. Ethical Origins and Ethical Structures of Urbanization

V.1. Ethical Origins

Both Colombia and South Africa carry violent histories that inform the necessity of the effective provision of urban services. An ethics-based examination of the choices that formed Colombia's and South Africa's existing urbanization realities is invaluable in understanding how these governments can continue to improve their approach to urban services.

V.1.a. Ethical Origins in South Africa

Before the official end of South African apartheid in 1991, the country operated under a strict and violent system of racial segregation and repression (Jones, 2019). Apartheid, first introduced as a legal framework in the late 1940s, mandated separate zoning for different races and locked Black South Africans out of land ownership or residence in the country's wealthiest areas (Jones, 2019). In addition to the formal employment discrimination written into South Africa's legal hierarchy, this restriction of movement meant that Black South Africans were systematically denied access to the economic opportunities that allow for a path out of poverty. By 1985, 89.6 percent of white South Africans lived in urban areas, compared to only 39.6 percent of Black South Africans (Ogura, 1996). While this possibly understates the near-urban Black population, Ogura (1996) estimates that 51.8 percent lived in urban areas if including "peri-urban" areas, which, defined by their rural/urban mixed-use landscape, present increased pressures on water, food, and energy (Ogura, 1996; UNESCO, 2014). Under apartheid, non-white South Africans were also formally barred from freely traveling the country and required documents to enter certain areas (Jones, 2019).

Given these material deprivations burdening Black South Africans and the influx of Black residents into previously all-white cities,⁵ recent urban planning focused on affordability and improvement of urban services. However, progress has been uneven. According to Malala (2019), the massive influx of Black South Africans into the country's cities in 1994 led to a spike in slums on the periphery of cities before the new Mandela government could adequately provide housing, water, electricity, and other amenities to the previously disadvantaged. For example, 40 percent of the urban South African population lived in slums as of 1995 (World Bank, 2020). In response, the government prioritized building formal homes, a project that succeeded in ensuring a decline in slum living while leaving cities almost entirely segregated. These scattered projects failed to

⁵ As detailed in Malala (2019), Johannesburg now hosts a high Black population in its central business district.

satisfy the need for long-term planning, an ethical shortfall that left many residents without access to employment opportunities or access to wealthier business districts.⁶

More recent projects indicate that South Africa has recognized its ethical failings, as its recent priorities have included systematic urban planning intended to connect poorer residents to the economic and social benefits of urban living. Turok and Borel-Saladin (2014) and Matzopoulos et al. (2020) found that in cities like Cape Town, targeted urban environmental design and installment of urban sewage infrastructure combined led to lower violence, improved health outcomes, and better intra-city foot transportation. These improved provisions have had carry-over effects, including increased literacy. Given these improvements, it appears that the South African government recognizes its ethical imperatives.

V.1.b. Ethical Origins in Colombia

Unlike South Africa, where urbanization followed a slow and uneven egalitarian direction, Colombia's urbanization is rooted in anti-rural forced-displacement policies implemented under the advice of economist Lauchlin Currie in the 1950s and 1970s (Brittain, 2005). Driven by a doctrinaire capitalist theory of accelerated economic development, the Colombian authorities implemented an "extensive and violent displacement of poor peasants and agricultural workers," leading them to settle haphazardly in cities.⁷

With over 14 percent of the urban population still residing in slums as of 2014, the echoes of the forced *campesinos* migration remain evident (Brittain, 2005). Additionally, urban administrators recognized soon that the core premise behind the forced migration, Currie's theory that peasants would easily be able to find well-paying, formal jobs in the cities, was entirely false (Brittain, 2005). Instead, the so-called informal sector ballooned, with 63 percent of all non-agricultural jobs existing outside of the formal economy in 2010.⁸ According to Brittain (2005, p. 344), these informal jobs included "paramilitary and criminal activity," a result of the civil conflict that raged in Colombia between the government and FARC from 1964 to 2017.

While the failed economic theories of the 1950s and 70s led to an urban crisis in Colombia, the modern municipal and national governments in Colombia have undertaken policies that indicate a more ethical approach to providing urban services and promoting formal employment opportunities. One of the most important advances involved the end of the civil war. Throughout the armed conflict, informal employment remained high, but as the conflict began to slow in the mid-2010s, informal employment also declined, reaching 57.25 percent of all non-agricultural employment in 2018 (World Bank, 2020). Municipal governments have also invested heavily in infrastructure, including billions in transportation spending and the creation of agencies to "acquire cheap land to build affordable housing, schools and clinics."⁹

While the post-migration governance of Colombian cities has succeeded in decreasing poverty, violence, and the incidence of slums, the extreme ethical violations that precipitated the country's urban growth still require redress. Rural peasants were denied the freedom of residence and self-governance guaranteed by the Universal Declaration of Human Rights (1948). Furthermore, with

⁶ United Nations Population Fund (2007).

⁷ Brittain (2005), p. 343.

⁸ World Bank (2020); 2010 is the first year the World Bank (2020) has such data.

⁹ del Ama (2013), paragraph 9.

the still-elevated levels of informal employment, gender parity will be difficult to achieve, as the informal sector is considered a major employment destination for under-educated girls.¹⁰

V.2. Existing Ethical Structures of Urbanization

Article 13 of the UN's Universal Declaration of Human Rights (1948) holds that "[e]veryone has the right to freedom of movement and residence within the borders of each state". This assertion is inextricably tied to urban policy and provides a foundation for understanding why governments have an ethical responsibility to not only allow for free movement to and from urban areas but also to promote good urban governance, as the Declaration also holds that "[e]veryone has the right to a standard of living adequate for the health and well-being of himself and of his family". While these ethical obligations pre-date the modern expansion of cities, they underscore how existing ethical structures are not alien to urbanization, allowing for further extrapolation with theoretical ethical foundations and for comparisons of cases like Colombia and South Africa.

While the unethical urbanization approaches in South Africa and Colombia appear to have been nearly polar in their application, with Colombia forcing rural residents out of their homes while South Africa prohibited urban migration by Black residents, their approaches both violate the same fundamental ethical guideline: the right of people of poor people to live in a city. Urbanization must be undertaken with a long-term vision for improved urban living and an acknowledgment of the freedom of people to live where they choose, and even today, neither country has succeeded in these ethical prerogatives. Thus, given the still-elevated levels of slum living, it is worthwhile to examine existing ethical structures of urbanization and to consider applications of other ethical frameworks.¹¹

Good governance tends to reap rewards, such as the decline in informal employment following the end of the FARC conflict. Globalization has yielded significant improvements and innovations in infrastructure and with it has come an increased understanding of cities as the economic and cultural core of modern societies. However, the re-centering of economic engines around urban growth is not intrinsically positive or equitable, largely due to resistance by policymakers to promote urban migration.¹² To achieve an ethical urban policy paradigm, lawmakers must both recognize the right to live in cities and incorporate long-term thinking that accommodates future growth as well as address present needs.¹³ While this approach would be a positive step towards a people-focused urbanization approach, it fails to recognize some of the intra-urban inequality that can arise even when governments apply facially neutral programs in infrastructure and education in cities.

From a philosophical perspective, two frameworks of ethical standards apply to modern urbanization: the Utilitarian and Common Good approaches. As defined by the Markkula Center (2015), the Utilitarian approach focuses on producing the greatest balance of good over harm. This would necessitate urbanization programs that reduce the gap between the urban rich and poor, as inequality hinders overall societal wellbeing. According to Oxfam International (2014), research indicates that extreme inequality undermines overall economic growth and also reduces the impact of poverty-reduction programs by sorting society firmly into a "winner-take-all" structure, thus

¹⁰ United Nations Population Fund (2007).

¹¹ Most of this paragraph is based on United Nations Population Fund (2007).

¹² United Nations Population Fund (2007).

¹³ These suggestions are building on suggestions made in United Nations Population Fund (2007).

making social mobility less attainable. Therefore, from a Utilitarian perspective, strong investment into urban growth and maintenance is an ethical imperative, as the economic power of cities cannot be fully harnessed until their poorest residents can access the formal economy. While both approaches would encourage governments to increase investment in urban services and promote urban growth, the Common Good approach tends to emphasize integratory policy more than the Utilitarian approach. The Common Good approach would also limit the emergence of gated suburbs more than the Utilitarian approach.

However, by the nature of the modern economy, cities will almost always yield high levels of wealth for some, complicating the understanding of utilitarianism as the maximizing of the overall “good.” Once inequality has been reduced by improving employment and schooling for the poor, governments would no longer face the same pressure to implement egalitarian policies. This could be problematic when, for example, health services are improved in cities, but women still systematically lack access to modern contraceptives and health services, leaving them vulnerable to unwanted pregnancy, sexually transmitted infections, including HIV/AIDS, and gender violence.¹⁴

The Common Good approach, meanwhile, holds that “the interlocking relationships of society are the basis of ethical reasoning,” thus promoting mutual respect and compassion across society as a key goal.¹⁵ Understood as expressing that societies are only as well off as their most vulnerable, this ethical approach would mandate far more expansive investments into urban infrastructure, housing, and education. Furthermore, it would require an end to segregationist policies, which would otherwise prohibit locking poor residents out of more prosperous neighborhoods. Of course, this approach would also be considerably more expensive and time-consuming for governments to accomplish. Regardless of approach, governments have an ethical responsibility to prioritize better urban governance as a key initiative in the coming years to reduce poverty most effectively among their citizens.

VI. Conclusion

This article examined the intricacies of urban life and governance in South Africa and Colombia. Both countries are somewhat anomalous among their international peers because of the violent histories behind their urbanization process, and yet both countries have exhibited encouraging progress at improving conditions in their respective cities. Various indicators, including GDP per capita, poverty, shares of slum population, and urban water infrastructure indicate that Colombia has been more successful in achieving sustainable urban growth than South Africa, even though South Africa has generally seen improvements since the end of apartheid. These differences are noteworthy, but the fact that neither country has experienced significant backsliding of institutional capacity in their cities is encouraging, particularly given the increased pressure of growing urban populations.

Given the history of the forced migrations out of rural areas in Colombia and the lingering impacts of South African apartheid, both governments have a clear ethical imperative to balance supporting the health and prosperity of their cities with assisting the remaining rural populations. Fortunately, both countries have seemingly accepted this challenge, and Colombia has been especially successful at improving the services offered to urban residents while drastically overhauling rural

¹⁴ United Nations Population Fund (2007).

¹⁵ Markkula Center (2015).

health infrastructure. Existing ethical structures of urbanization emphasize the importance of the right of people to choose where they live inside their country, and while both countries violated this right in their early urbanization process, their recent actions indicate a desire to improve conditions in both urban and rural areas, making intra-country migration a safer and more desirable process. However, particularly in South Africa, where segregation is still rampant, there are still many improvements to be made.

An unfortunate limitation for this article was the lack of existing information regarding several key indicators, including poverty rates (which were collected only sporadically) and unemployment rates (which did not differentiate between rural and urban areas). Future studies on this topic should thus endeavor to collect further data, particularly on the urban and rural divide of poverty and employment. Given the currently available data, however, this article suggests that South Africa and Colombia are useful case studies for urban development in the developing world, not because they are perfect examples of flawless execution, but because they exhibit the struggles of attempting to execute an ethical and equitable urbanization process.

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