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# **SHADOWS OF COVID-19: THE DEVELOPING WORLD AND EAST ASIA'S RESPONSE**



**COVID-19 Policy Research Task Force  
Reischauer Center for East Asian Studies  
Johns Hopkins University SAIS  
August 2020**

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# **COVID-19 IN THE DEVELOPING WORLD**

## **COVID-19 Policy Research Task Force**

### **Reischauer Center for East Asian Studies**

#### **Johns Hopkins University SAIS**

- **Rising case levels and the global shift of COVID-19 to the developing world creates major geopolitical/economic challenges**
- **Key challenges include medical supply access, hospital capacity, and economic resilience to withstand lockdowns**
- **A few recorded successes have generated hope, but the scale of broadening challenges urgently necessitates further intervention**
- **East Asia can meaningfully support the developing world, as it has successfully ridden out the first wave of the pandemic, and has the economic resources, technology, and experience to help turn the tide**

#### **INTRODUCTION**

While global attention regarding the coronavirus pandemic has centered on the industrial world, including China, Europe, and the United States, the developing world beyond China could well suffer most from COVID-19. Caseloads are rising rapidly in Latin America, South Asia, and Africa. Our task force has previously chronicled how COVID-19 ravaged East Asia and that region's effective response, as well as how East Asia itself may be transformed by the pandemic. This report will consider a further topic of historic global importance: the alarming advances of the coronavirus in the developing world, and how East Asia can help support less fortunate nations as they manage the pandemic.

In this report, we lay out pressing issues aggravated by the coronavirus, and several case studies that are representative of the enormous impact the coronavirus has had across the developing world. These examples include Brazil, India, and South Africa, some of the countries hardest-hit by COVID-19, as well as Nigeria, which faces a dire lack of testing and Bangladesh, which hosts a large population of Rohingya refugees. All of these countries, among many others, face mounting difficulties in addressing COVID-19. Not all hope is lost - other countries have managed to contain and regulate COVID-19 to manageable rates, including Mongolia

and Rwanda. Moreover, while the immediate and long-term impacts of the coronavirus pandemic are daunting, other parts of the world and specifically East Asia have the resources to help mitigate the impact of the disease on other countries.

COVID-19 has brought with it a new series of insidious economic problems that are particularly dangerous for the developing world due to its low level of savings and physical infrastructure. According to the World Bank, East Asia and the Pacific will grow by 0.5% during 2020.<sup>1</sup> All other global regions, however, will likely suffer negative growth rates. South Asia, for example, is expected to contract by 2.7%, sub-Saharan Africa by 2.8%, the Middle East and North Africa by 4.2%, Europe and Central Asia by 4.7%, and Latin America by 7.2%. This COVID-related downturn will push millions of people back into extreme poverty.<sup>2</sup>

For countries that rely on the informal sector, many of their citizens have no savings to rely on, and government welfare is limited. For countries that rely heavily on foreign aid, the poorest citizens are made desperately vulnerable because high-income countries are cutting their foreign aid budgets as domestic economies shrink. Foreign aid thus dries up. Poorer countries cannot maintain the strict quarantines that would help reduce community spread of COVID-19 because it is not economically viable for them to do so, especially for their poorer citizens.

The cumulative effects across the developing world include overburdened healthcare systems, dwindling tourism and trade, fewer remittances from abroad, and less capital inflow, even as foreign debts accumulate. Energy exporters, particularly oil producers, and countries focused on industrial commodities are also affected. In emerging and developing economies, the informal sector is said to make up an average of 30% of GDP and close to 70% of employment, specifically for those living hand-to-mouth.<sup>3</sup>

Middle-income developing nations, paradoxically, are among the hardest-hit by COVID-19, because they have so much to lose. After experiencing rapid growth, these countries saw many people lifted out of poverty, only to find many of these citizens' livelihoods decimated by COVID-19 setbacks. These setbacks, of course, hit particularly hard in urban centers where the bulk of middle-income people live. As social safety

nets remain weak in many developing countries, the pandemic has led to mass migrations of people returning to the countryside, as in India, which contributed to further spread of the virus.<sup>4</sup>

## **MACRO-LEVEL AND MICRO-LEVEL PROBLEMS**

According to the World Bank, the global economy is expected to shrink 5.2% this year.<sup>5</sup> Furthermore, prospects for 2021 remain unclear. Assuming the majority of economies are able to lift domestic mitigation measures and adverse global spillovers ease during the second half of the year, global growth is predicted to reach 4.2% in 2021.<sup>6</sup> However, output is not expected to return to previously expected levels.<sup>7</sup>

The current global downturn is also unusually pervasive. Financing and loans from institutions like the World Bank and the IMF have far exceeded support efforts in previous recessions, to be sure.<sup>8</sup> Despite governments worldwide enacting major policy changes in coordination to both support those in crisis and control the pandemic, according to the UN tens of millions of people are expected to be thrust back into poverty.<sup>9</sup> Over 60 million people currently on the edge of poverty are expected to be pushed decisively below the extreme poverty line, defined as living at or below \$1.90 a day.<sup>10</sup> And particularly as wealthy nations are expected to pull back on outsourcing supply chains and foreign investments, decreases in trade and tourism in developing countries will intensify the pain. Many poorer countries, after all, are just now beginning to see major increases in case numbers and strained healthcare capacities. To make matters worse, they will also soon experience the powerful compounding economic shocks generated by months of downturn in the economic activity of China, Europe, and the United States—all of which began to slow in the first quarter of this calendar year.

### **Remittances**

The global economic downturn also diminishes the revenue gained from remittances. For many low- and middle-income countries, their nationals living abroad in wealthier countries provide a steady flow of capital and a much-needed support network for their relatives. In the Philippines, remittances make up 10% of the country's annual GDP, totaling close to \$33.5 billion; however, such remittances are expected to fall by 30% in

2020.<sup>11</sup> In countries like the Philippines, COVID-19 has dissolved the job market and left many of those working abroad without income and stranded in foreign countries without a way to provide for themselves, let alone their families. Migrant workers in countries like Singapore have found themselves trapped in crowded dormitories that served as a kind of incubation zone once COVID-19 entered the population.<sup>12</sup> There are no simple solutions for the millions of migrant workers stranded abroad without work, nor for the families and governments that rely on their labor.

## **Foreign Debt**

All of these grave economic indicators combined lead to long-term developmental challenges. Countries already struggling with access to basic sanitation and increasingly severe natural disasters are forced to manage these problems while addressing the coronavirus pandemic. Many countries regardless of income level find themselves in dire need of greater economic support. In April, more than 90 countries requested assistance from the International Monetary Fund.<sup>13</sup> According to the Fund, lower- and middle-income countries need at least \$2.5 trillion this year to cover the cost of imported goods, repay foreign debts, and maintain their economies.<sup>14</sup>

For developing countries in particular, they become even more reliant on foreign loans to meet growing demands, many of which they will be unable to pay off after already having put significant money into boosting the economy and creating emergency stimulus deals. In Africa, there has been a major concern over the inability to pay back debts to China, where the continent has borrowed more than \$100 billion over the past twenty years.<sup>15</sup> Many African nations owe more to China than they do to private bondholders. Djibouti, an extreme case, owes China more than 70% of its GDP.<sup>16</sup> While concern over debt repayment has remained high, in a recent Group of Twenty (G20) finance ministers meeting, China agreed to postpone debts due in the remainder of 2020.<sup>17</sup> However, many countries face an uncertain future where the need for loans is high and the ability to repay them remains unknown. Rising debt levels remain a growing concern, and developing countries are most at risk because they often lack

the basic infrastructure or resources to maintain a secure economic position under normal conditions, let alone under emergency ones.

### **Health vs. Economy: The Dilemma**

Many developing nations simply cannot enforce quarantines for extended periods, due to a variety of socio-economic and political reasons. Unless the most vulnerable communities are protected, the shutdown of many service sectors and employment opportunities for casual laborers proves disastrous to large portions of the population as a whole. The UN recently suggested that as many as 265 million people could face starvation by the end of 2020 due to the impact of COVID-19, largely concentrated in low-income and fragile countries.<sup>18</sup>

Those in poverty and on the edge thereof in developing countries cannot afford to quarantine for extended amounts of time. They have limited savings and social safety nets are not well-developed. Leaving the economy running as usual, however, puts many of those same people at increased risk of disease and death from community virus spread.

There are no easy answers. What governments must ideally do is protect those most vulnerable through whatever means are technically and economically available. All too often in the developing world, however, those means have proven to be sadly inadequate.

### **Overburdened Healthcare Systems**

Many countries in the developing world are working hard to increase their medical capacities. The sudden onset of COVID-19, however, and its unique challenges, have left medical systems in developing countries painfully over-extended. According to a 2016 RAND study, 22 of the 25 countries most vulnerable to infectious diseases are in Africa.<sup>19</sup> Many African countries already struggle with millions of immunocompromised individuals due to prevalent diseases like tuberculosis and HIV-AIDS, and much of the region has limited medical capacity.<sup>20</sup> The African continent has fewer health care workers per capita than most regions in the world.<sup>21</sup> All these issues combined put the health and welfare of Africans at stake. According to the International Rescue Committee, the number of recorded coronavirus cases in Africa has increased by 500% over June and July, a

troubling development for the continent.<sup>22</sup> In India, a developing nation a continent away where its healthcare systems are similarly overloaded, there is only a single hospital bed for every 1,844 individuals, and one state-run hospital for every 55,591 people.<sup>23</sup>

Around the world, health workers are consistently some of the most at-risk people for COVID-19. Even before the onset of this deadly pandemic, healthcare workers found themselves in precarious positions in the developing world, particularly in Africa. Between 2014-2016, for example, the Ebola outbreak killed 8% of Liberia's medical workers.<sup>24</sup> To compare the United States and Africa, there is one doctor for 5,000 people across Africa compared to one doctor for 300 people in the United States.<sup>25</sup> The sheer discrepancy in trained medical staff leaves countries at risk, particularly when there is a lack of testing and medical equipment.

When demand in even highly developed nations like the United States exceeds supply for ICUs, PPE, tests, and other crucial medical equipment, developing nations are naturally at risk. In many Least Developed Countries (LDCs), limited healthcare setups are diverting resources towards addressing COVID-19, while malaria, tuberculosis, HIV/AIDS, and other critical health issues remain as prevalent as ever. The coronavirus thus cruelly magnifies the gap in the developing world between needed medical capacity and the lack thereof.

## **Education**

Another major long-term concern in developing countries has been the digital divide, particularly in access to education. Access to digital platforms has traditionally been limited to richer areas. While governments have reached out through a variety of media outlets, including television, radio, and social media, those efforts have missed many children. Teachers have also suffered: even when digital supplies have been available, instructors were not familiar with digital instruction methods. Most importantly, when students have lacked access to classrooms, parents have been expected to take over as teacher surrogates, and all too often this has not occurred.

Similarly, medical education has been limited as well. As COVID-19 is still in the initial stages of being researched, contradictory statements come out from government and health officials. For those without clear sources of



information, stigma of those with the coronavirus has caused problems, as has misinformation that has driven people to self-medicate, often with disastrous results. For others in impoverished communities, the main problem is not that they lack information on what health precautions to take, but that they do not have the resources to socially-distance or maintain basic health measures.

### **Urban Poor**

Countless developing nations face the dilemma of rapid urbanization and rapid population increase. Young people tend to fare better with COVID-19 than older individuals, which has been an advantage in countries with low median population ages.<sup>26</sup> When placed in densely populated urban areas with limited access to improved sanitation and health standards, however, even young people have proven vulnerable, especially those with weakened immune systems. For many of the urban poor in the developing world, the coronavirus is concerning, but takes a sadly secondary role to mere daily survival. Even so, the effect the virus has on vulnerable communities will be felt at all levels, in both the micro- and macro-dimensions.

### **CROSS-NATIONAL PERSPECTIVES: THE DEEPENING GLOBAL CHALLENGE OF COVID-19**

The deepening human and economic challenges that COVID-19 presents to the developing world are clearest in the cross-national context. The rising centrality of third-world infections in the global profile of the COVID-19 pandemic as a whole can be seen clearly in Table I. This table shows COVID-19 infection figures for the top ten nations, as the Johns Hopkins Coronavirus Resource Center presented them, from early April to late July 2020. As indicated in the table, only two developing countries (China and Iran) appeared at all among the top ten most infected nations in April. Yet by mid-August, the majority of counties in the top ten were in the developing world.

**TABLE I: RAPID EXPANSION OF COVID-19 CASES IN THE DEVELOPING WORLD**

**COVID-19 Infections: Top Ten Countries**

<b>As of April 2* (Unit=1000 cases)</b>		<b>As of August 18</b>	
1. USA	245	1. USA	5478
2. Italy	115	2. Brazil	3359
3. Spain	112	3. India	2702
4. Germany	85	4. Russia	930
5. China	82	5. South Africa	592
6. France	59	6. Peru	541
7. Iran	50	7. Mexico	525
8. UK	34	8. Columbia	476
9. Switzerland	19	9. Chile	388
10. Belgium	15	10. Spain	364

*Source: Johns Hopkins University Coronavirus Resource Center*

There has been a major shift in the dispersion of the global caseload. In April, seven out of the top ten infected countries were in Europe. As of mid-August, apart from the United States, the majority of countries in the top 10 are middle-income countries. With their dynamic economies and growth, middle-income countries are some of the most vulnerable to increases in poverty. This is because many citizens have been upwardly mobile, but due to the health and economic shocks, are more likely to fall back into poverty. Likewise, while middle-income countries tend to have complex health systems capable of recognizing the disease, many lack adequate medical capacity and long-term capital investments to prevent the negative long-term effects of COVID-19 on their nation.<sup>27</sup> If this shift continues, there is likely to be a shift to more middle and lower-income countries, who are increasingly susceptible to COVID-19 due to the factors mentioned previously.

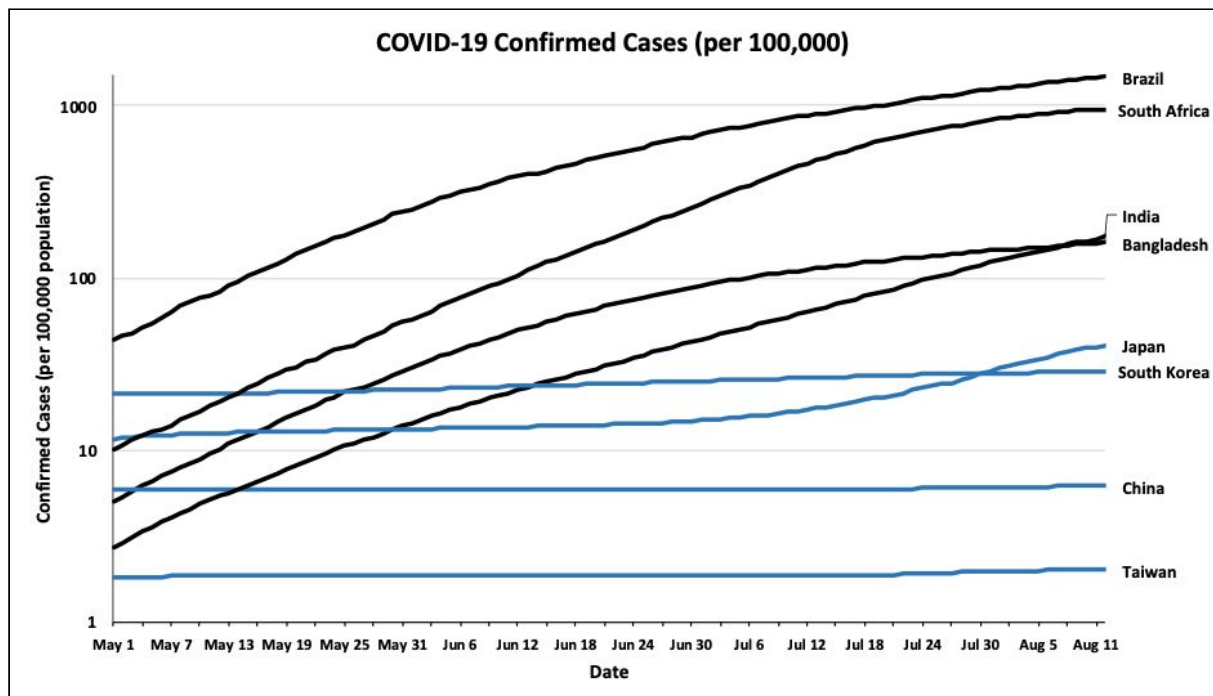
**TABLE II: Selected Country Profiles and COVID-19 Statistics**

Country	India	Brazil	Nigeria	South Africa
<a href="#"><u>Population</u></a> <i>(July 2020 est)</i>	1,326,093,247 #2 in world	211,715,973 #7 in world	214,028,302 #8 in world	56,463,617 #26 in world
<a href="#"><u>Pop. Density (sq. km, 2018)</u></a>	455 people per sq km	25 people per sq km	215 people per sq km	48 people per sq km
<a href="#"><u>Median Age</u></a> <i>(2020 est)</i>	28.7 yrs old	33.2 yrs old	18.6 yrs old	28 yrs old
<a href="#"><u>GDP (per capita)</u></a>	\$7,200 (2017)	\$15,600 (2017)	\$5,900 (2017)	\$13,600 (2017)
<a href="#"><u>Pop. % Below Poverty</u></a>	21.9% (2011)	4.2% (2016)	70% (2010)	16.6% (2016)
<a href="#"><u>Hospital Beds</u></a> <i>(per 1000 pp)</i>	0.53 (2017)	2.2 (2014)	.5 (2004)	2.32 (2010)
<i>First COVID Case</i>	30 Jan. 2020	25 Feb. 2020	27 Feb. 2020	5 Mar. 2020
<a href="#"><u>COVID Cases</u></a> <i>1 unit = 100,000</i>	June 4.5 #4 in world ↓ August 27 #3 in world	June 11.45 #2 in world ↓ August 33 #2 in world	June 0.2 #49 in world ↓ August 4 #49th in world	June 1.06 #18 in world ↓ August 5.9 #5th in world
<i>Percent Change</i>	500%	188.21%	1900%	456.6%
COVID <a href="#"><u>Deaths</u></a>	June 14,483  August 51,797	June 52,771  August 108,536	June 533  August 977	June 2,102  August 12,264
<a href="#"><u>Case-Fatality Rate (6/23)</u></a>	June 3.2% August 1.9%	June 4.6% August 3.2%	June 2.0% August 2.1%	June 2.0% August 1.6%
<a href="#"><u>Deaths per 100,000 pop.</u></a> <i>(8/18)</i>	3.83	51.81	0.5	20.74
<a href="#"><u>Total COVID-19 tests per 1000 people</u></a> <i>(8/15)</i>	21.77 tests	11.93 tests	1.71 tests	57.34 tests

Source: Johns Hopkins University Coronavirus Resource Center

It is also instructive to look in detail at individual national cases. Below, we highlight six national cases, focusing on the hardest-hit large developing countries. These cases include Brazil, India, and South Africa, which respectively have the second, third, and fifth largest number of COVID-19 infections globally, with the number of cases rising rapidly in each country.

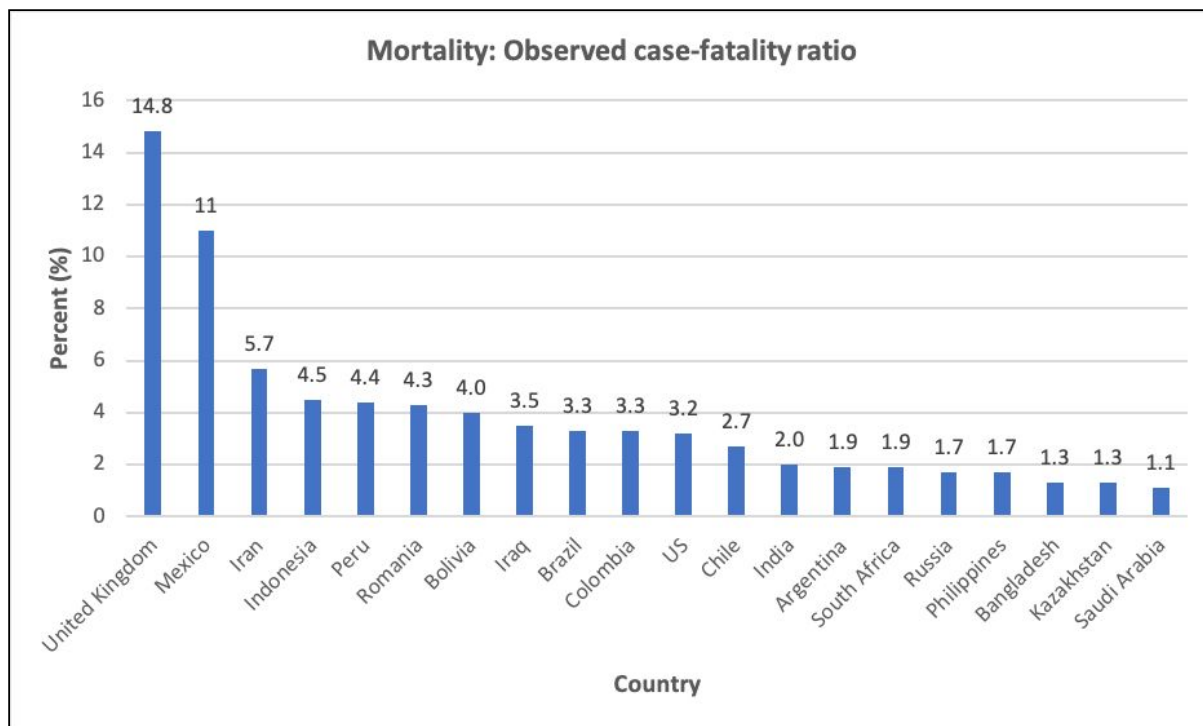
**FIGURE I: COVID-19 Confirmed Cases (Per 100,000)**



Source: COVID-19 Statistics from the Johns Hopkins University Coronavirus Resource Center on August 12, 2020; Population Statistics from the United Nations 2019 Revision of World Population Prospects

One of the evident differences between much of East Asia and a few of the countries most affected by the coronavirus has been the stability in the number of confirmed cases. Brazil, South Africa, Bangladesh, and India have all notably greater rates in the number of confirmed cases per 100,000 people within the same time period. Most serious are the increasing caseloads in Brazil and South Africa, with nearly 1000 cases per 100,000 people. In comparison, the rate of case increases in East Asia has been far more gradual than elsewhere. Out of the referenced regions in East Asia, all have confirmed caseloads under 100 cases per 100,000 people, and have remained relatively stable without increasing confirmed caseloads. While Japanese confirmed cases have risen, they still remain low in general. If current trends continue, East Asia will be more able to support other countries because of its own caseload stability.

**FIGURE II: Top 20 Cases by Observed Case-Fatality Ratio**



Source: Data taken from the COVID-19 Case-Fatality Statistics from the Johns Hopkins University Coronavirus Resource Center on August 13, 2020

Out of the top 10 countries with the greatest observed case-fatality ratio, all except for the UK can be classified as lower- or middle-income countries. While the statistics are only as accurate as case numbers reported by country, many of the most affected are likely struggling with over-burdened healthcare systems. Many of these countries likely have access to enough testing to denote the extent of COVID-19 in the region, but lack adequate healthcare to improve recovery rates. Most notably, none of these countries are concentrated in a particular area, but represent regions from across the world, particularly the developing world.

### **The Unique Challenges Caused by the Coronavirus**

#### **Brazil: Leadership Failure**

Like the United States, Brazil is a comparably large country where medical norms conflict with the political interests of its president. Brazil has one of the strongest health care systems in Latin America, but access is skewed, particularly towards the North and Northeastern part of the country.<sup>28</sup> Among poor Brazilians, the danger of infection is magnified, particularly in

crowded *favela* (slum) areas.<sup>29</sup> By mid-July, Brazil had surpassed two million cases of COVID-19, and suffered nearly 80,000 deaths, with the number of cases doubling every ten days.<sup>30</sup> Not surprisingly, COVID-19 infections in Brazil have surged, to levels exceeding every nation on Earth except the United States, with death rates even higher than the US.

While President Jair Bolsonaro tested positive for the coronavirus after multiple tests, he has repeatedly downplayed the threat of the pandemic in favor of retaining an open economy.<sup>31</sup> Bolsonaro has criticized the quarantine measures of local states and cities, and even personally joined anti-lockdown protests in Brazil's capital, Brasilia.<sup>32</sup> His actions have undermined local governments' virus mitigation measures and lessened the compliance rates of citizens across Brazil.<sup>33</sup> In March, Bolsonaro stated that only 800 people would die from COVID-19 in Brazil and subsequently official health warnings and recommendations on the Health Ministry's website were removed.<sup>34</sup> In addition, on multiple occasions he has promoted hydroxychloroquine, a medicine of unproven effectiveness in treating COVID-19 according to multiple studies.<sup>35</sup> More than one million medical professionals submitted a joint complaint to the International Criminal Court in The Hague, Netherlands, accusing President Bolsonaro of crimes against humanity due to his "contempt, negligence, and denial" of the dire situation.<sup>36</sup>

Although COVID-19 originally began spreading among the rich neighborhoods of Brazil, within the month of March the infection rate became 10 times higher among those living in *favelas* and the peripheries of cities than the national average.<sup>37</sup> As of early August, infection rates continued trending upwards. Daily infection rates increased from 40,000-50,000 a day in June to 50,000-60,000 new cases a day in July, with a peak of 67,860 cases reported on July 22.<sup>38</sup> This higher average daily case trend remained in place as of August, with around 51,600 cases reported on August 4.<sup>39</sup> With medical systems swamped, and infections hitting indigenous and poor communities particularly hard, it is critical to reduce COVID-19 misinformation so that healthcare professionals can manage high caseloads without contradicting top government officials.

Brazil has implemented significant economic countermeasures against the deflationary impact of the coronavirus, with an overall fiscal stimulus

response to the pandemic of 8.6% of GDP.<sup>40</sup> That has moderated the macro-economic impact. Without the support of influential government leaders for constructive health policies, however, Brazil may well continue on an upward trend of infection rates, with deepening economic consequences, until a vaccine appears or herd immunity is achieved.

### **India: Poverty, Dense Population, and Fragile Health Infrastructure**

India instituted a strict nationwide quarantine with little warning in late March. While cases increased, the lockdown stalled massive infection rates. The lockdown, however, could not be maintained indefinitely, and the lifting of quarantine measures in late May led to a major spike in case levels, with tens of thousands of cases being added daily throughout June. By mid-July, COVID-19 infections in India exceeded one million cases—third highest in the world, after the United States and Brazil.<sup>41</sup>

The enforcement of a national “4 Phase” lockdown in India from March 25 through May 31 slowed infection rates, but did not remove factors that made many susceptible to continued community spread of COVID-19.<sup>42</sup> More than 50 million people in India live in extreme poverty, and 102 million people, including 75 million children, do not have the Aadhaar identity card.<sup>43</sup> Without this card, citizens do not have access to government handouts, and are among the many living a meager subsistence existence. While universal grain handouts have been provided to citizens after protestors and humanitarian organizations campaigned against the government, many Indians lack access to other long-term relief measures including ration cards and cash transfers tied to digital bank accounts.<sup>44</sup>

Population density also naturally increases the danger of COVID-19 community spread in India. The country has an overall population density of 1,178 people per square mile, in comparison to South Korea with 1,338 people per square mile and Japan with 863 people per square mile.<sup>45</sup> Nearly 30% of Indians live in underdeveloped urban areas that lack planned infrastructure and access to basic sanitation.<sup>46</sup> For those living in cramped quarters, often reaching nine or more people in a single room, the transmission of the disease is an immediate, persistent danger.

Lack of employment or family support, as well as crowded spaces, caused a major spike in internal migration among informal workers who returned en

masse during the lockdown to their ancestral homes in the countryside. While this likely caused further spread of the virus to rural India, the dangers of the virus still remain concentrated in densely populated urban areas. New Delhi was recently confirmed to have one of the highest rates of infection of any major cities, surpassing New York, with 23.5% of people reporting antibodies that proved past exposure to the virus.<sup>47</sup> Most recently, a survey conducted in Mumbai found that 57% of people living in the slums had virus antibodies, in comparison to 16% of non-slum residents.<sup>48</sup>

Due to economic pressures, India's Prime Minister Narendra Modi lifted the nationwide quarantine in late May.<sup>49</sup> This decision triggered a wave of new infections that overwhelmed major parts of India's medical system. 100,000 new cases were recorded daily in mid-July, and total infections soon exceeded one million, and over two million by August.<sup>50</sup> Several states in India have implemented week-long lockdowns, but the efficacy of such short quarantines are questionable.<sup>51</sup> For other regions of India particularly hard-hit by the surge in cases, new quarantine measures are being put in place, but as economic needs shift and waver, another nationwide shutdown seems unlikely, if only due to the socio-economic costs involved.

India is the second-most populous country on Earth after China, and is the fifth-largest economy in the world.<sup>52</sup> It also hosts some of the largest slums in the world, and faces severe economic inequality among its population. India cannot afford to quarantine because 176 million of its citizens remain in poverty, and reenacting a national shutdown would impoverish far more.<sup>53</sup> Nor can the country afford to ignore the ongoing pandemic, which has endangered its population and stretched its medical system to the breaking point. Many Indians need access to basic healthcare and living standards which would provide them security against illness including COVID-19. As the situation stands, India is in a fight against access to resources, high population density, and a federal government unwilling to stop economic activity for fear of harming more people.

### **South Africa: Vulnerable Cities**

While South Africa instituted some of the world's strictest lockdown measures, the gradual reopening of the country in June led to a massive jump in cases throughout July. It has the most coronavirus cases in Africa.



The major increase in cases, which pushed South Africa from 18th to 5th in rank for total new worldwide coronavirus cases in the span of a month, has been largely focused in the country's cities.<sup>54</sup> The provinces of Gauteng, KwaZulu-Natal, and the Western Cape lead in cases, making up 69.3% of cases as of August 18.<sup>55</sup>

While the first case of the coronavirus in South Africa was not recorded until March 1, South Africa began testing for COVID-19 on January 28, and offered free testing for the virus by mid-March.<sup>56</sup> However, accessibility to testing has been very mixed, much of it due to major inequalities in the response across the country. Segregation between rich and poor neighborhoods has been further exacerbated, with little social distancing, health supplies, and economic relief measures provided in slums. Much of this tension was caused by South Africa's strict two-month lockdown. From March 26 through early June, people were confined to their homes, miners and manufacturers were forced to suspend operations, and other restrictions including banning the sale of cigarettes and alcohol were put in place.<sup>57</sup> In under a month, 3 million people lost their jobs, with women and Black South Africans being the greatest-hit.<sup>58</sup>

However, many poorer South Africans broke these regulations in order to maintain their incomes. While emergency goods rations were provided to high-need areas, large makeshift shelters set up to house homeless citizens have received major criticism.<sup>59</sup> Another survey has found that hunger in South Africa has doubled since the original lockdown was instituted.<sup>60</sup> In addition to all of these problems, medical systems have faltered. Public hospitals are under severe stress due to a combination of poor management at the province level, serious debt, and medical worker unions conducting strikes against poor working conditions.<sup>61</sup> While new "field hospitals" have been established in cities like Port Elizabeth, they have been underutilized due to a lack of essential staff and critical supplies, including oxygen.<sup>62</sup>

When the countrywide lockdown was lifted in early June, the spike in cases predicted by South African experts occurred. The relaxation of quarantine measures allowed for small gatherings and the reopening of many businesses. Yet, many services have since been rolled back as of July. Despite this, not all of the original lockdown measures have been

reapplied. While opposition groups have protested the partial lockdown, President Cyril Ramaphosa has said that another complete shutdown of the economy would do more harm than good.<sup>63</sup> As of August 17, President Ramaphosa announced the passing of the coronavirus peak and reduced the countrywide alert levels while still extending the state of emergency in the country.<sup>64</sup>

To counter a widespread recession, an R500 billion (28.9 billion USD) relief package was organized in late April.<sup>65</sup> In this stimulus package, \$11.5 billion was earmarked for supporting businesses, however only 1-2% of all loans were disbursed. By the time loans were implemented, many businesses had already closed shop, found the loans too difficult to pay back, or banks found the conditions on the loans untenable according to current standards. Since this package was introduced, cases have remained heavily concentrated in urban areas, with Johannesburg currently suffering the most cases.<sup>66</sup>

One thing to note is that South Africa has one of the highest rates of HIV infections, along with tuberculosis (TB).<sup>67</sup> The government has had to run a big contact tracing operation to keep TB under control.<sup>68</sup> The medical tracing systems in place have benefited South Africa, but if cases continue at the July rates of approximately 10,000 new cases reported daily, it is likely that these systems will be altered to include monitoring the coronavirus in the long-term.<sup>69</sup> While daily case rates have decreased significantly in August to around 4000 cases reported daily, the extent of the spread of COVID-19 in South Africa presents the possibility of a gradual shift in contact-tracing trends.<sup>70</sup>

### **Nigeria: The Testing Gap**

Lack of testing capacity is one of the most critical issues in Nigeria. Confirmed cases of COVID-19 have increased tenfold to over 40,532 since the government began easing restrictions in May, according to the Nigeria Centre for Disease Control (NCDC).<sup>71</sup> As of August 7th, at least 930 people have died from COVID-19.<sup>72</sup> Despite the rising caseload, as of July 26, only 262,579 tests have been conducted for a population of 200 million.<sup>73</sup> While the government announced in April that 2 million tests would be conducted by the end of July, the country failed to reach that testing level.<sup>74</sup>

The lack of tests makes contact tracing all the more difficult. Nigerian contact tracers say they are nearing a breaking point. Contact tracers are one of the few protective barriers between Nigeria's fragile public health system and the coronavirus pandemic that could quickly overwhelm them. Lagos, Nigeria's largest state and the epicenter of its outbreak, has 200 tracers for a population of 25 million.<sup>75</sup> That is fewer than one per 100,000 people, compared to around 14 tracers per 100,000 people in the entire nation of Turkey.<sup>76</sup> Other countries including South Korea have more successfully pinpointed and contained outbreaks because they are able to conduct thorough epidemiology investigations on every patient. Nigeria's limited testing rates also reduce the effectiveness of contract tracers. If there is a shortage of testing, contact tracing becomes useless because infected individuals continue spreading the virus, especially asymptomatic disease carriers.

While Nigeria's previous experience with infectious diseases such as polio means it has a large network of medics and community volunteers, COVID-19 has overwhelmed its volunteer capacity. Unlike countries such as Singapore, which can rely on technologically advanced contact tracing measures like browsing surveillance footage and mobile phone records, Nigeria has resorted to more labor-intensive methods, as only one-fourth of the population uses smartphones. Due to Nigeria's technological limitations, the designated team of medics and contact tracers are forced to resort to more labor-intensive methods (i.e. tracers must physically meet and identify each contact with symptoms of COVID-19, then check in with the person each day by phone to monitor compliance of social distancing).<sup>77</sup> Many Nigerians also have no formal home address, which subsequently cause these methods to be extremely time-consuming and inefficient.

Another issue in pursuing large-scale contact tracing in Nigeria is the stigma associated with COVID-19. There have been reported incidents of landlords forcing tenants diagnosed with the coronavirus to leave their homes, and others moving away when a neighbor is diagnosed with the disease.<sup>78</sup> Because of this, many will deny any contact with someone who has contracted the disease, making already strained caseloads more difficult. Particularly because the majority of cases have come from Lagos,

it has been difficult to contain and trace the spread of the disease in its densely populated area.

This lack of testing means that Nigeria could be far more vulnerable to COVID-19 than currently presumed. Increased community spread of the coronavirus without control is likely to occur if more efficient methods of shoring up testing and contact tracing are not applied.

### **Bangladesh: Challenges of Returning Migrants and Refugee Camps**

While Bangladesh managed to maintain low infection rates throughout March when COVID-19 first emerged in the country, the caseload had reached 200,000 by July.<sup>79</sup> Bangladesh faces three key challenges: it is densely populated, has a significant expatriate migrant worker population abroad, and it currently houses more than a million stateless Rohingya refugees.

As of July 22, the country had conducted close to 1,066,609 tests, but for a population of 164 million, this number remains minuscule.<sup>80</sup> Its first three COVID-19 cases were confirmed on March 8, from two migrant workers based in Italy and a relative of theirs.<sup>81</sup> The infection spread by returning migrants remains a serious problem. While the country struggles to manage its enormous caseload, many experts remain worried about the potential catastrophe emerging in the country's Rohingya refugee camps.

As of August 17, six Rohingya refugees have died of COVID-19.<sup>82</sup> The first coronavirus case among the 43 camps was recorded in the first half of May. While there have been 79 recorded cases of the coronavirus among the refugees, accurate case counts could be restricted due to low levels of testing.<sup>83</sup> The UN is expanding testing capacity, which currently stands at 500 tests per day, far up from 30 tests a day in March.<sup>84</sup> However, aid staffing at the camps has been reduced by 80% to limit outside infection sources, which hampers healthcare workers' abilities to effectively provide care for the refugees.<sup>85</sup>

This low testing rate, in combination with a population density of 70,000 people per square kilometer, has made analysts skeptical of the true rate of infection. As reported by a Yale University study, 25% of refugees reported COVID-like symptoms.<sup>86</sup> Additionally, nearby areas perpetuate rumors that

Rohingya refugees brought the disease to Bangladesh.<sup>87</sup> While aid groups and Bangladeshi officials have worked to keep case numbers low in Cox's Bazar, near the Rohingya camps themselves, the UN appeal for \$877 million in humanitarian aid for the refugees remains only 29% covered as of June.<sup>88</sup> As the entire nation contends with rising COVID-19 rates of infection, the Rohingya refugee camps remain a dangerously fertile ground for the spread of COVID-19.

## **RAYS OF HOPE**

Some developing countries have been able to manage the spread of coronavirus in their countries, providing unique paradigms of success with potentially broader relevance in the developing world. Countries including Bhutan and Vietnam have established effective policies that have kept caseloads low, stabilized their national economies, and ensured foreign investment in the future. Out of the current COVID-19 success cases, we focus on two such paradigms half a world apart: Mongolia and Rwanda.

Mongolia has had under 300 documented cases of COVID-19 and no deaths as of early August.<sup>89</sup> This was in large part due to early border closures. Mongolia completely closed its borders to China by the first week of February and halted all flights and ground crossings when the first known case of the coronavirus was documented in the country on March 10 from a French businessman.<sup>90</sup> While the majority of cases have come in through repatriation flights of Mongolian citizens abroad in the subsequent weeks, there have been no reported cases of community spread for approximately a month, as all arrivals are quarantined.<sup>91</sup>

Aware of the weaknesses in its healthcare system, Mongolia responded quickly to deter the spread of COVID-19. To exemplify the extent to which the government has taken preventative measures, provincial borders were closed during February to stop holiday travel during the Lunar New Year, before any cases were known to be in the country. Mongolia has since opened up internally and successfully held parliamentary elections in late June.<sup>92</sup> As in nearby South Korea, the ruling political party seems to have been rewarded for its effective management of the coronavirus challenge with an electoral victory.

In Rwanda, a combination of strategies kept case numbers down to 2,644 as of August 19.<sup>93</sup> Having previously dealt with an Ebola scare in 2019, the government was prepared to manage COVID-19. After documenting their first case of coronavirus on March 14, the country implemented a two-week countrywide lockdown beginning on March 21.<sup>94</sup> Non-essential businesses were also closed and public gatherings banned.

To support citizens, vulnerable households were provided access to food distribution programs, and the government launched a fund to support affected businesses including small- and medium-sized enterprises as well as severely-hit sectors including the hospitality industry. While the case count in Rwanda is still climbing, pooled testing, where multiple tests are pooled together and analyzed at once, is used to speed up result times and increase overall testing capacity.<sup>95</sup> Due to its successes in controlling COVID-19, Rwanda was the only sub-Saharan African state whose citizens and residents were permitted to travel to the European Union as of July.<sup>96</sup>

While these two countries showcase the effectiveness of developing countries' innovation, Mongolia and Rwanda are both small and relatively isolated. They have found it both operationally and politically easier to contain the spread of COVID-19 by shutting down borders well before community spread became a serious problem. While they are still challenged by the connectivity implicit in international trade, as well as by the long-term global economic ramifications of COVID-19, these countries have been able to largely maintain viable local economies, unlike many other countries in the developing world.

Additionally, both countries have been innovative in disease prevention. Like many other LDCs, however, they lack the resources to expand other medical systems, and to cope economically with the challenge of community spread, should lockdowns be needed. That is where outside assistance, including that from major East Asian nations, could potentially play an important role.

### **HOW EAST ASIA CAN HELP**

The outside world cannot do everything. Most countries have no choice but to do the best they can with the resources they have on hand. As many Western nations remain preoccupied with economic and social instability

caused by the coronavirus at home, developing countries must lead and organize their own pandemic responses. East Asia, however, is uniquely positioned to offer effective models and greater support to developing countries struggling with COVID-19. The region overall is an apparent early survivor of the pandemic, which retains to a remarkable degree its longstanding economic dynamism.

Despite East Asia's innate potential, its role as a potential supporter for the developing world, in both dealing with the COVID-19 pandemic, and also in supporting devastated LDCs from that peril, remains largely overlooked. East Asia was able to come out of the pandemic early and was able to contain large caseloads to a more manageable level. East Asian countries including Japan, China, and South Korea, also have the economic resources and firsthand experience of addressing the coronavirus pandemic in their own countries. These countries could serve a critical role in supporting the developing world as much of the Western world, particularly the United States, still grapples with the spread of COVID-19.

East Asia can provide key resources including providing logistics, increasing connectivity, and distributing money and resources to other countries. Japan has considerable financial and technological resources that it could extend to other countries. Korea similarly has produced useful contact tracing apps as well as highly effective COVID-19 tests. China has a barrage of PPE supplies as well as connections to numerous countries, although it is important for all of these countries to balance the needs and autonomy of the areas they provide assistance to with their capabilities. Below, we lay out the ways in which China and Japan can play essential roles in overcoming the coronavirus pandemic.

### **China's Role**

As the largest economy of the East Asian region, China is well-positioned to play a major role in the recovery of many middle- and lower-income countries. Since 2013, China has invested heavily abroad through its Belt and Road Initiative, with investments in over 70 countries.<sup>97</sup> Having managed the initial wave of the coronavirus, China has since dedicated many resources towards stabilizing international trade. Exports in China rose by 7.2% in July due to global demand in masks, medical products, and

work-from-home equipment.<sup>98</sup> With growing PPE reserves and increasing economic activity, China is well suited to assisting other nations' recoveries from COVID-19.

One of the major implications of China's growing involvement in the world is its economic power over other countries. Debt sustainability has been a serious concern, and with the added impact of the coronavirus, many countries will be unable to repay Chinese loans. However, China announced in May that it had suspended debt repayments for 77 developing countries and regions.<sup>99</sup> Additionally, it is working alongside other G20 members to implement debt relief initiatives for low-income countries, particularly in Africa. Assuming China continues expanding relief measures while developing long-term policies to support countries it has already invested in, it could boost the ability of low-income countries to retain more stability in their economies.

At the same time, there have been concerns over Chinese intentions and inconsistencies in regulation enforcement. Earlier in the spring, many European countries complained about faulty PPE and inadequately accurate test kits received from China.<sup>100</sup> In spite of these criticisms, China has made significant donations in medical equipment and sent medical response teams to help assist COVID-19 efforts in multiple countries, including more than 12 African countries.<sup>101</sup> Similarly, there have been various allegations made about the viability and sustainability of Chinese investment abroad. From 2014 to 2018, China doubled loans to 68 countries, putting China on par with the World Bank as a lender in these areas.<sup>102</sup> It is clear that China is expanding its influence abroad and its investment in the developing world will have long-term ramifications for the global economy, particularly in the midst of the coronavirus pandemic.

## **Japan's Role**

Japan offers a compelling case where it can both expand its role as a world benefactor and act as a counterpart to China's strong involvement across the developing world. It remains the world's third-largest contributor to the UN and has deep ties to many countries through the Japan International Cooperation Agency (JICA) and its Official Development Assistance (ODA) programs. Domestically, Japan has one of the most sophisticated



electronics industries in the world, as well as an aging population, which makes for an extensive and growing market for medical electronics. Throughout the pandemic, Japan has continued providing millions of dollars in aid and health supplies to countries worldwide while increasing measures for infectious disease control and improving existing health and medical systems.<sup>103</sup>

This global support has come in many forms. One form is COVID-19 relief loans at low-interest rates in developing countries, such as the announcement of a \$330 million ODA loan to Bangladesh in collaboration with the Asian Development Bank.<sup>104</sup> Japan has also specifically contributed COVID-19 laboratory and medical equipment to countries like the Philippines and Vietnam.<sup>105</sup> This extensive involvement will have immediate positive impacts in countries which will benefit from the aid, and hopefully lead towards greater Japanese investments in developing nations across the world.

Japan is also a major research power, and has been pursuing a vaccine in coalition with other countries. Multiple clinical studies have been focused on the antiviral Avigan, and Japan has begun clinical trials in the Philippines and Kuwait.<sup>106</sup> If Japan is able to produce successful vaccines, it would allow the country to distribute vaccine aid to countries in need as well as boost its income and global reputation.

Additionally, due to Japan's role in producing medical electronics, diagnostic equipment and techniques are a Japanese specialty. The Asia-Pacific medical imaging market valuation was approximately USD 8.5 billion in 2019, due to surging demand for advanced diagnostic devices along with the rising incidence of chronic diseases, particularly among aging populations.<sup>107</sup> The Japan-based leading manufacturer Fujifilm is expected to play a major role in the Asia-Pacific market size expansion.<sup>108</sup> Similar to vaccines, these innovations in medical electronics and its subsequent expansion provide Japan with a means to offer further support to middle- and lower-income countries struggling with diagnosing COVID-19.

Another quintessential area that Japanese foreign aid excels in is disaster relief. Natural disasters are an ongoing issue, the effects of which have

only been exacerbated by the coronavirus. Japan has an infectious disease response team established to respond to the Ebola crisis in 2015, in addition to medical teams and experts that can help with on-site disaster relief and long-term infrastructure projects.<sup>109</sup> Japanese presence, in coordination with local authorities and relief organizations, could support lower-income countries struggling to manage immediate relief efforts in addition to COVID-19.

In regards to addressing sanitation, Japan has multiple ongoing initiatives. One project that JICA is currently involved in is Gambia's Rural Drinking Water Supply Project, which the Japanese government has provided with a \$15 million grant.<sup>110</sup> Investments in public welfare will improve overall sanitation and health, and ensure that communities in developing countries are less susceptible to diseases such as COVID-19. Another water-related initiative that can be pursued by the Japanese government is the implementation of water-efficient hand washing stations, known as SATO Taps, to countries throughout the developing world.<sup>111</sup> With prototypes already in progress, wider production of the SATO Tap is set for September 2020, when basic sanitation tools are likely to be needed more than ever this fall.<sup>112</sup> If paired with increased health education campaigns by the Japanese government, they could be useful in mitigating the spread of COVID-19 in low-income countries with inadequate sanitation access.

While Japan's role in mitigating COVID-19 in developing countries has not been thoroughly explored, the coronavirus pandemic presents Japan with the chance to build upon its existing aid frameworks and take on a larger global role. Outside of Northeast Asia, there are largely positive perceptions of Japan.<sup>113</sup> One long-term initiative Japan could engage in is increased investment in the construction and renovation of hospitals in developing countries. For example, Japan has already helped establish the first university hospital in Ulaanbaatar, Mongolia as of 2019.<sup>114</sup> Therefore, by collaborating with other nations, Japan could set up a series of hospitals that would utilize advanced online medical systems and bring the expertise of Japanese physicians to coronavirus-vulnerable regions of the world. By utilizing the country's knowledge and technologies, Japan can not only revitalize its domestic economy, but address the medical needs of its neighbors and countries across the developing world.

## **Toward the Future**

Japan and China offer two powerful perspectives on what East Asia can contribute to COVID-19 efforts. The developing world is increasingly vulnerable to the short- and long-term effects of the coronavirus, which has cast shadows across the world. As the health and economic well-being of billions of people is put in jeopardy, it is critical to not only assess the situation, but direct resources to reduce the long-term impacts of the COVID-19 pandemic on individuals and nations across the world. There is more to be explored in the context of providing effective aid to the developing world. East Asia is particularly well-suited to provide aid and resources to other countries. This is not only because the region has previously established a presence and aid networks in many developing nations, but has additionally addressed and overcome many of the most serious economic and health impacts of the coronavirus. Thus, East Asia is in a prime position to provide additional help to other nations experiencing growing waves of the coronavirus. We aim to expand upon the capabilities of East Asia in supporting other nations in our future task force reports.

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