PRINCETON UNIVERSITY

Global Systemic Risk

Surging Food Insecurity Amidst the Covid-19 Pandemic

The Fragility of Global Food Aid

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Program Background

"The number of people facing acute food insecurity and requiring urgent food, nutrition, and livelihood assistance is on the rise. Conflict is the main reason, combined with climate disruption and economic shocks, aggravated by the COVID - 19 pandemic."

- Secretary-General Guterres
(United Nations)

Meet the Authors

"The Public Policy and International Affairs Program (PPIA) Junior Summer Institute (JSI) is open to rising college seniors at U.S. accredited colleges or universities who demonstrate academic aptitude and a passion for policy. JSI serves as a pipeline to the policy world for students from underrepresented communities. Held each year at Princeton since 1985, JSI teaches skills essential for policy analysis and development in both the domestic and international spheres."

This year, the 6-week Global Systemic Risk course within the Princeton JSI Program, taught by Professor Miguel Centeno and Preceptor John Maldonado, culminated in a final capstone project. Our team decided to explore how global food aid systems responded to global shocks, and more specifically, COVID - 19. By narrowing our focus to two case studies, India and Guatemala, we hope to delineate why global food aid systems must shift to building long-term country resilience and self-sufficiency instead of narrowly mitigating ongoing crises.

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Introduction

Introduction

Developments in agriculture and food distribution systems have led to the decline of acute hunger and malnourishment between the 1970s and the 2010s (Roser and Richie, 2019). However, food insecurity has been on the rise since 2014 (Kretchmer, 2020). Not all countries have been equally affected by this rise in food insecurity. In recent years, Asian countries have seen the largest increase in the number of people experiencing food insecurity, while countries in Africa have experienced the largest percent growth in food insecurity (Kepple, 2021). These trends are notable given the global food system's technological advancements in the mid-to-late 1900s, such as the Green Revolution (Weis, 2007). While historically, food insecurity was driven by production shortages, food insecurity today stems from unequal food distribution (Weis, 2007). Scholars characterize these disparities as "hunger amidst abundance," as wealthier states battle food waste and developing countries struggle to ensure that their populations have access to adequate nutrition (Araghi, 2001). These disparities are also reflective of broader power asymmetries in the global system.

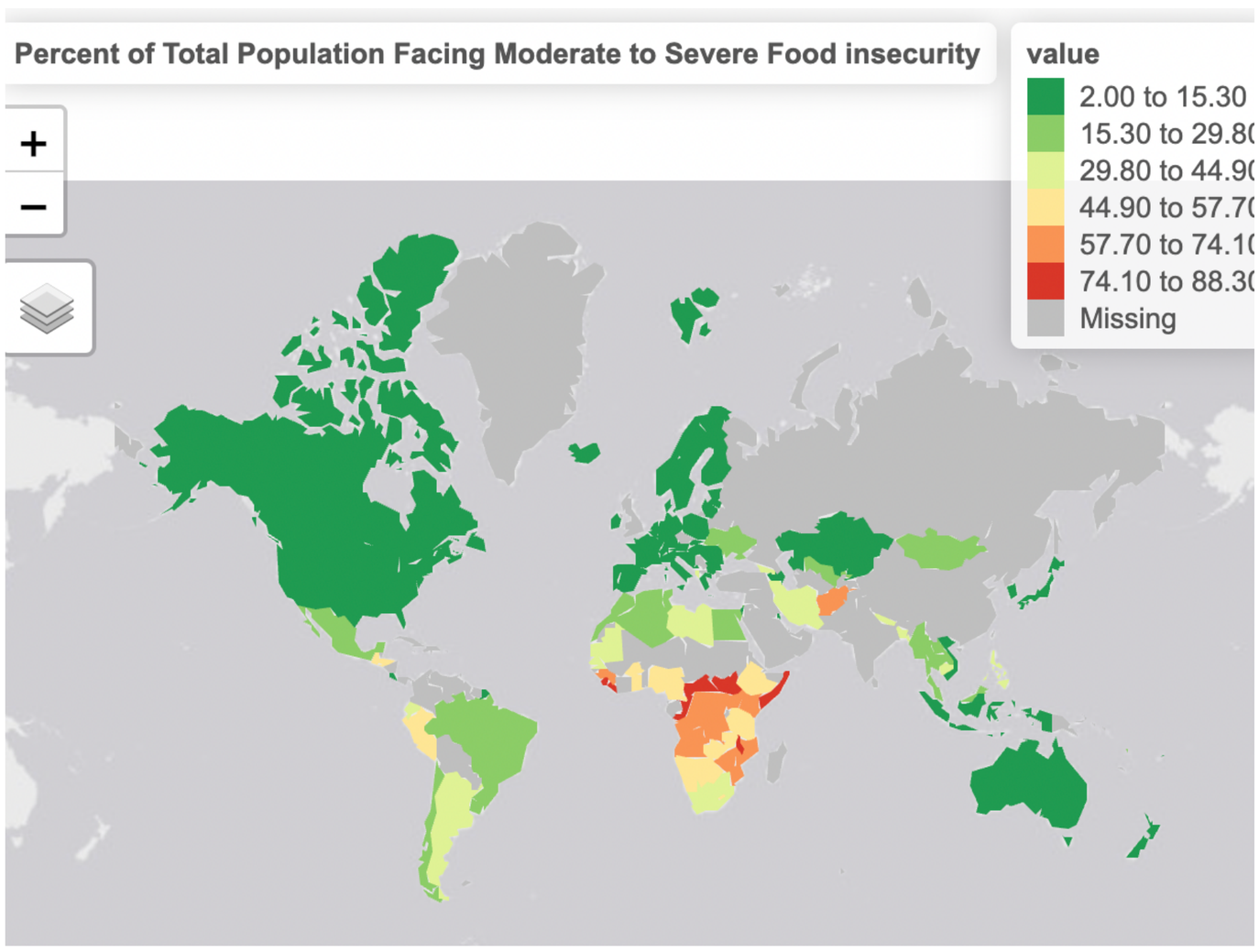

Figure 1
Percentage of Total Population Facing Moderate to Severe Food Insecurity
FAO 2018 - 2020

In recognition of these challenges, the United Nations developed the sustainable development goals, a set of goals aimed at achieving "a better and more sustainable future for all people" (United Nations, 2020). High on the list of these goals is an effort to end global hunger by 2030 through solutions aimed at building long-term resiliency and infrastructural strength. Specific solutions proposed include providing capital and support to small-scale farmers and promoting sustainable agriculture practices (United Nations, 2020). These measures aim to promote longer-term self-reliance and improve a country's resilience to global shocks.

Introduction & Guatemala

While the United Nations' goals are focused on preventing food precarity, food aid is one of the dominant ways in which global institutions and wealthy states immediately support those facing food insecurity. Even before the COVID-19 pandemic, global food aid systems were unable to adequately meet demand as food insecurity rose in several developing countries. The severe effects of the COVID-19 pandemic further highlight the inability of the global food aid system, in its current conception, to respond to global shocks. As the 2021 Global Report on Food Crises notes, the pandemic has "exacerbated preexisting fragilities", and caused developing countries, who are often reliant on food aid, to deal with heightened food shortages (Global Network Against Food Crises & Food Security Information Network, 2021).

The COVID-19 pandemic has illustrated how the countries that benefit the least from globalization face some of the most severe consequences from global crises. To illustrate how food aid systems respond to global shock, we present two countries with different positions in the global system: Guatemala and India.

Case Study 1: Guatemala Background

Food insecurity in Guatemala stems from a number of factors and is mainly driven by extreme weather. Guatemala is part of the Dry Corridor, a geographic area particularly vulnerable to climate change and its various manifestations, including severe drought and excessive rainfall. While Honduras, El Salvador, Nicaragua, Costa Rica, and Panama also inhabit this region, Guatemala is of particular interest as it has the largest economy, the highest levels of income inequality, and extreme weather events that continually affect particularly vulnerable populations (USDA, 2020).

Before the global pandemic, 15% of the population was in Phase 3 or higher of food insecurity (IPC, 2021). Among a myriad of causes, this food insecurity may be attributed to socio-political unrest, a deteriorating economy, and criminal gang activity (International Organization for Migration, 2015). In addition, weather shocks as a result of El Nino negatively affect the population because agricultural activity accounts for 13.5% of Guatemala's GDP and 40% of Guatemala's total exports (World Bank Indicators, 2021). During hurricane season, families were devastated as they lost housing, assets, and were unable to earn income through agricultural labor. Through these effects, Guatemalans have become increasingly reliant on food aid, especially from the United States. From 2000-2018 the U.S donated about 800 U.S million dollars in food aid to Guatemala, but this aid has fallen short (FAO, 2018).

However, COVID-19 introduced additional volatility into an already vulnerable system (USDA, 2020). The pandemic caused more than 500,000 Guatemalans to become food insecure, in addition to the existing 4.9 million people already facing food insecurity (IPC, 2021). Marginalized communities within Guatemala, including a large proportion of the Indigenous population, are disproportionately susceptible to repercussions from this crisis. These communities were affected by COVID-19, and in conjunction with weather shocks, experienced Phase 3 food insecurity - categorized by the Integrated Food Security Phase Classification (IPC) as “crisis” level hunger in which some families experience high levels of food insecurity and malnourishment and other families adopt irreversible coping strategies such as selling their assets (IPC, 2021).

Through these effects, Guatemala, like other Latin American countries, has become increasingly reliant on food aid, especially from the United States. From 2000-2018 the US donated about 800 US million dollars in food aid to Guatemala, but this aid has fallen short (FAO, 2018).

Guatemala’s Exposure to Global Systemic Risk

As a result of the COVID-19 pandemic, Guatemala's food insecure population grew by over 500,000 citizens.

Along with environmental disasters, COVID-19 exacerbated food insecurity as it decreased residents’ capacity to generate income and created challenges within the Guatemalan food supply system. The overall economic stability of the country declined as a result of substantial decreases in remittances and downturns in the agricultural and tourism industries, (IPC, 2021). Historically, Guatemalans were living off of $2 a day; however, with COVID-19, this income was no longer generated (World Bank Indicators, 2021).

A large portion of Guatemalans work outside of the country, and as migration was limited due to COVID-19 many were unable to find employment, thus worsening their economic prospects. This increase in food insecurity was worsened by natural disasters. This was particularly evident in the agricultural sector as crops were devastated by hurricanes Eta and Iota, which caused economic damage upwards of 115 million USD as well as a spike in food prices (IPC, 2021). For example, staples such as black beans were sold at 45% more than their 2019 market value (IPC, 2021). All in all, 20% of the Guatemalan population today is in Phase 3 food crisis or above, and a substantial number of Guatemalans have transitioned from Phase 1 (minimal food insecurity) to Phase 2 (moderate food insecurity) (IPC, 2021).

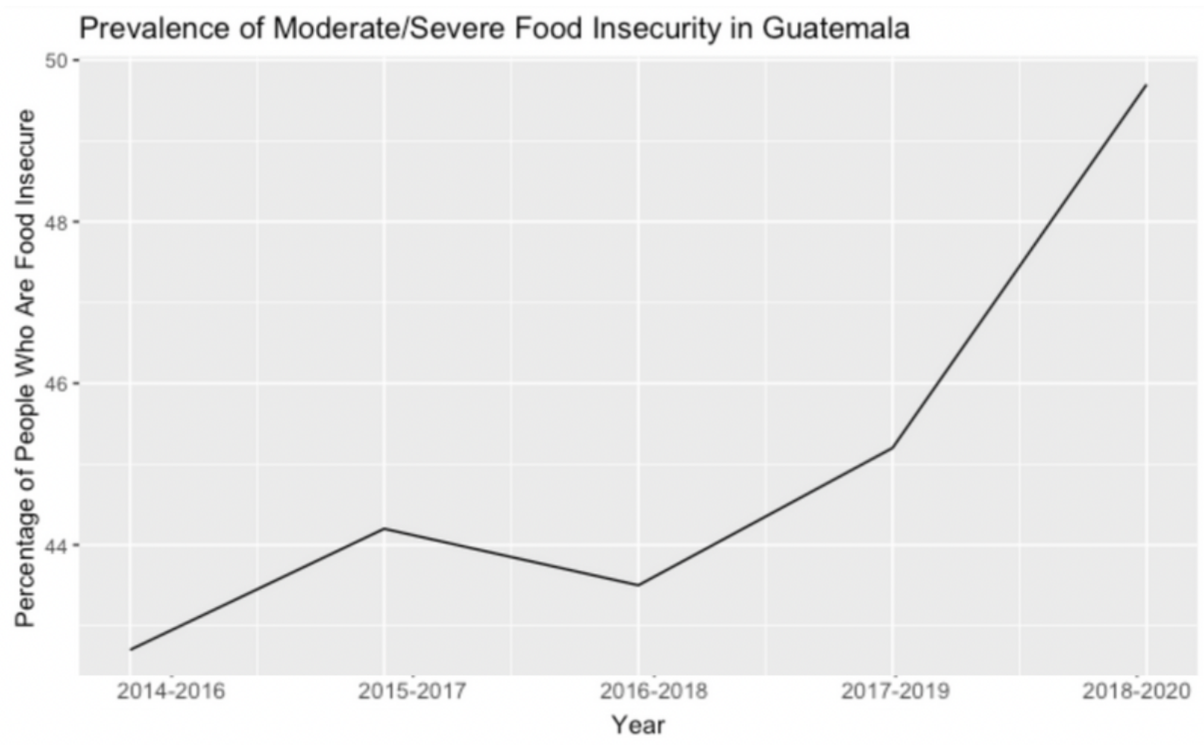

Figure 2
Prevalence of Moderate to Severe Food Insecurity in Guatemala
FAO 2014 - 2018

Though COVID-19 has increased the need for food aid in Guatemala, inconsistencies in the distribution of this aid has limited its efficacy. These inconsistencies may be understood by analyzing Guatemala's position in the global system. Specifically, as a dependent country, Guatemala is reliant on other states for food aid to mitigate crises, many of which stem from its participation in the global system. In recent years, food aid to Guatemala has been exceedingly volatile, especially due to the Trump administration's decision to cut hundreds of millions of dollars in aid to Guatemala during the dry season (Wroughton & Zengerle, 2019).

The Biden administration, however, has announced that in response to COVID-19 the United States government will be providing over 300 million USD in assistance to Honduras, El Salvador, and Guatemala (U.S. Department of State, 2021). The aid allocated to Guatemala is aimed at establishing a food donations program and a migration assistance program (USAID, 2021).

While the Biden administration's efforts may help limit the number of Guatemalans experiencing food insecurity, they fail to truly resolve the issue. Inconsistent and insufficient food aid compounds the risks Guatemalans are exposed to and demonstrates the inadequacies of in-kind food aid. Ideally, if a donor country is to distribute aid, it should do so in a way that meets emergency food needs while simultaneously strengthening market stability.

Case Study 2: India Background

India, like many emerging economies, is characterized by rapid growth contrasted by an exceedingly large population that is reliant on food aid. Despite significant achievements in growth and development, India is home to one-fourth of the world's undernourished population. COVID-19 has only worsened this issue by widening the existing wealth gap between rural and urban populations (World Food Program, 2021).

India

India’s globally integrated food supply system left the country vulnerable to the economic shock generated by COVID-19. These vulnerabilities are reflective of the failures of global food assistance. Unlike Guatemala, India receives technical food aid assistance from global institutions. Therefore, to analyze the impacts of food aid in the context of India, it is useful to analyze the efficacy and capacity of the state to address shocks that worsen food insecurity. Analyzing the state’s response, however, reveals that domestic policy failed to adequately address these vulnerabilities, leading to increased food insecurity. Precarity in India became extremely widespread as the “number of people living in households with daily incomes below [the] $5 level spiked from 298.6 million at the start of the outbreak in March 2020 to 529 million at the end of October [2020]” (Chaudary, 2021). At the height of the pandemic, India's Prime Minister Narendra Modi announced a $260 billion COVID-19 economic relief package (Gettleman & Kumar, 2020). The stimulus package failed to provide adequate safety nets as food security measures only amounted to about $19 billion or 8% of the stimulus package (Mishra, 2020). In light of decades of food insecurity, the relief package did little to alleviate hunger in India. The failures of the domestic government demonstrate the inadequacies of technical assistance programs.

India’s Exposure to Global Systemic Risk

Prior to the pandemic, India's food supply system was incredibly vulnerable to risk. The onset of the pandemic in conjunction with the lockdowns that ensued exacerbated food insecurity throughout the country. Although poverty and the subsequent economic consequences therein are readily blamed for issues of food supply vulnerability, more complex dynamics play into the declining economy, unresponsive government, and inadequate global food aid systems.

The impacts of COVID-19 did not occur in a vacuum. About 90% of the Indian workforce is in the informal sector, 40% of whom work in agriculture (Mehrotra, 2019). Informal workers are particularly vulnerable, as they are highly dependent on unguaranteed daily wages, especially in times of global crisis. India's economic growth halted following currency readjustments in 2016 (Chodorow-Reich, 2019). The Indian economy’s inability to recover following the 2016 recession reveals weakened resilience in the country’s labor system as unemployment rates continued to increase. By 2019, India's unemployment was at a 45-year high, resulting in devastating labor shortages (Mishra, 2020). Weakened resilience in the labor system decreased the ability of food-insecure Indians to find employment and created conditions ripe for greater insecurity when the next crisis, COVID-19, occurred.

India

As opposed to in-kind food aid, India largely receives technical assistance from global institutions. This assistance is aimed at bolstering the country's agricultural sector and strengthening social safety nets under India's National Food Security Act (UN, 2021). Thus, the aforementioned declining economy, high unemployment, and lack of government response to the rise of food insecurity demonstrate the failures of this technical assistance. Such aid failed to both address long-standing fragilities in India's food supply system and adequately respond to the shock caused by COVID-19.

Further, global assistance was unable to mitigate the disruptions to India's food supply chains caused by extensive COVID-19 lockdowns (Sukhwani, 2020). For example, one manner in which lockdowns disrupted the food supply chain was by limiting farmers' ability to harvest their crops during peak harvest season. Mobility restrictions and decreased transportation in trading and farming led to the waste of several harvest-ready summer crops. In turn, the availability of fresh produce was greatly limited throughout the country. This is the case of the bumper wheat harvest in Northern India, where the crops were left devastated due to the lack of labor (Pothan, 2020). Along with that, India witnessed the closure of numerous wholesale markets, further decreasing food supply and labor. The traders and farmers who were fortunate enough not to shut down faced financial constraints and labor shortages. Indians who could obtain food experienced sharp price increases due to the decreasing supply of stock, retailers, and vendors (Sukhwani, 2020). Had the decades-long technical assistance from global organizations succeeded in building long-term resilience to shocks, India's food systems may have weathered the pandemic better.

The pandemic not only caused an increase in food insecurity in rural areas but also in urban areas due to transport restrictions and labor shortages(Sukhwani, 2020). For example, in the trading market of the western state Maharashtra, Asia's largest onion trader, traders struggled to transport onions across state lines (Pothan, 2020). This further demonstrates the failures of technical food assistance as the lack of robustness within the urban-rural food supply chains decreased both food production and transportation.

Evidently, structural failures of technical food aid efforts in India, combined with a lack of emergency food aid from the international community, left a significant portion of India's population at risk. A slogan in Allahabad, India reflects the heart-wrenching choices several Indians encounter during the pandemic: "...for people like us, the choice is between safety and hunger. What should we pick?" (Mishra, 2020). In a globalized world, where several organizations have worked extensively to address world hunger, food-insecure individuals should never be forced to make this choice. The same global trade system that benefits from production and manufacturing in India should also be a system that robustly responds to India's food needs in times of crisis.

Policy Recommendations

Policy Recommendation:

The COVID-19 pandemic illustrates how the shortcomings of the global food aid system leave millions across the globe at risk of prolonged food insecurity. The following recommendations aim to address significant problems in the allocation of aid and the incentive structures governing data collection and accountability.

Proportional Food Aid Allocation:

The United States has been the top food aid donor globally since 1991 and has historically contributed to a significant proportion of total global food aid efforts (Global Policy Forum, 2014). For these reasons, we analyze the United States' global food aid efforts so that we may delineate the necessity for proportional food aid allocation. Currently, "U.S. international food assistance programs provide support through two distinct methods: (1) in-kind aid, which ships U.S. commodities to regions in need, and (2) market-based assistance, which provides recipients with vouchers, direct cash transfers, or locally and regionally procured food" (Casey & Morgenstern, 2021). Both types of food aid can support vulnerable populations, however, in-kind aid is controversial because of "its potential to disrupt international and local markets and because it typically costs more than market-based assistance" (Casey & Morgenstern, 2021).

If the United States continues giving in-kind food aid in conjunction with market-based assistance, we must reconsider how much aid we allocate to countries in need of support, especially if reliance on food aid may affect a country's long-term self-sufficiency. In some strategically significant countries, the United States has maintained a relatively steady food aid commitment, by dollar amount. However, as was highlighted in the case studies of Guatemala and India, in times of crisis, undynamic food allocation or hyperdynamic food aid allocation may be a counterproductive method of addressing a hunger crisis.

Policy Recommendations

Instead, we propose that the United States and other major donors commit to addressing issues of food insecurity proportional to the needs of the affected country. For example, instead of providing a steady stream of aid over several years, the United States may instead commit to addressing a percentage of the overall food precarity issue in a country so that if a country in need is affected by a global shock, food aid allocations will rise in relation to the magnitude of food need. For countries like Guatemala, this approach would limit sharp fluctuations in aid and establish clearer long-term goals for aid to the country. By doing this, the United States will guarantee a vested interest in building resiliency and capacity to deal with shocks in the long-term for affected countries instead of mitigating issues in the short-term.

There may be a number of challenges to the implementation of this policy. Specifically, if the United States were to commit to a proportional food allocation system, the food aid contribution that would be made during times of crisis would be disproportionately large when compared to other years. Additionally, identifying how much aid is needed yearly may be difficult due to poor data collection in the affected country. Regardless, if the goal of providing food aid is to eradicate hunger, then food donor countries should commit to doing so in a way that allows affected countries to weather global shocks and build long-term resilience.

Data & Accountability:

"The lack of accountability and the focus on aid disbursements rather than intended results not only lead donor agencies to not take responsibility for past failures but also to a "big plan" bias." -Claudia Williamson

To make meaningful reforms to the global food aid system, it is vital that we have clear and accurate data. A lack of adequate data on the need for, uses, and effects of food aid limits the ability of global institutions to rapidly and accurately respond to emerging crises. In part, this lack of data stems from the incentive structures within food international governmental organizations (IGOs). These organizations are beholden to their donors, but not to the individuals they aim to assist (Mousseau, 2005).

As Mousseau notes, many of these donors fail to hold global organizations accountable for where and how food aid is distributed (2005). Williamson argues this, in part, stems from "big plan" bias, where donor governments are politically incentivized "to set big, wide sweeping goals such as 'ending extreme poverty', as opposed to marginal steps" (2009). Problematically, donor biases limit the effectiveness of food aid and leave the system largely unregulated.

Policy Recommendations/ Conclusion

Limited accountability mechanisms disincentivize the collection of transparent, timely, and informative data. The lack of such data limits our understanding of the impacts of food aid and makes it difficult to pinpoint the exact shortcomings of the global food aid system. Scholars have identified a wide range of potential issues with current food aid systems including issues of stagnant aid, low cost-effectiveness, poor identification of potential recipients, and inappropriate types of aid for affected communities (Barrett, 2002; Lentz, 2015; Mousseau, 2005). Without a clear understanding of the different problems limiting the efficacy of food aid, international organizations cannot implement context-specific aid that better assists beneficiaries.

To address the high costs and barriers to collecting timely and detailed data on food aid, IGOs should facilitate joint data collection and sharing efforts amongst NGOs and stakeholders working on the ground in aid receiving states. Through a centralized data collection mechanism, these organizations, and the public, would have access to more nuanced data that sheds light on how aid money is allocated. Strong, transparent, and timely data may also facilitate greater accountability within the food aid system, as domestic audiences in donor countries can pressure their governments to implement stronger oversight over international food aid. The availability of this data may also reduce "big plan bias" and incentivize donor states to demonstrate the tangible changes generated by their donations.

Conclusion:

The aforementioned policy recommendations may mitigate some of the current deficiencies in the global food system. However, the frequency of systemic crises is bound to increase as the global system becomes increasingly coupled and complex. Conservative estimates predict that the COVID-19 pandemic increased the number of undernourished individuals globally by 132 million (Kretchmer, 2020). Future systemic failures will create widespread economic, social, and environmental crises that increase food insecurity. Consequently, global food institutions must shift their long-term focus to strengthening the resiliency of countries historically reliant on food aid. This will require a shift away from politically motivated, mismatched aid to assistance that incorporates the desires of beneficiaries and empowers communities to grow from the bottom-up.

Conclusion

Broadly, the failures of the food aid system are reflective of the stark power asymmetries embedded in the global system as a whole. The current global system limits the benefits that developing countries reap while simultaneously exposing them to greater risk. The experiences of these countries with food insecurity are highly connected to unequal power in global governance, markets, and institutions. Addressing the root causes of food insecurity will require a reimagination of the global system. Specifically, there must be a shift away from a system where a select number of countries reap a majority of benefits while others bear a disproportionate amount of the risk.

Limitations of this project: The lack of timely and detailed food aid data constrained a portion of our analysis. As noted in the policy recommendations, this is a widespread issue among IGOs dealing with food security.

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