

ARTICLES

PROTECTING THE RIGHT TO FOOD IN THE ERA OF COVID-19 AND BEYOND

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*The right to adequate food is realized when every man, woman, and child, alone or in community with others, have physical and economic access at all times to adequate food or means for its procurement.*¹

— *The United Nations (UN) Committee on Economic, Social and Cultural Rights General Comment No. 12*

I. INTRODUCTION

On the sixteenth of March, 2020, I headed to Woolworths² for my weekly grocery shopping. Unlike any other time I had experienced, what awaited me was not a store full of fresh and tasty food products. Instead, it was a horrific scene one often sees in apocalypse movies: hundreds of anxious shoppers were racing through the grocery aisles, loading all the food items they could find on the shelves into their shopping carts. As the novel coronavirus (COVID-19) was quickly spreading throughout Australia, it was expected that panic buying would eventually come to Armidale, a college town in rural New South Wales, Australia, where I live and work. It was apparent that this day had come earlier than expected. Over the following two weeks, the situation did not improve; grocery stores across Australia still struggled to keep up with the dramatically increased consumer demand. Meat, particularly ground beef, sold out immediately. Dry foods, such as rice and pasta, disappeared within minutes. Many shoppers had to visit several stores on a hunt for some of the most basic food items necessary to prepare a single meal.

The rest of the world was not immune to panic buying. COVID-19 triggered people's survival instinct on a much broader scale than any time period since World War II.³ Shoppers throughout the world rushed to grocery stores to stock up on food, hoping that several weeks' supply might spare them from what was to come. For example, in mid-March, British shoppers cleaned out shelves as

¹ Comm. on Econ., Soc. and Cultural Rights, General Comment No. 12: The Right to Adequate Food (Art. 11), ¶ 6, U.N. Doc. E/C.12/1999/5 (May 12, 1999), [hereinafter General Comment No. 12].

² Woolworths, founded in 1924, is Australia's largest supermarket chain. As of October 2020, it has 995 stores across Australia. *Woolworths Supermarkets*, WOOLWORTHS GRP., <https://www.woolworthsgroup.com.au/page/about-us/our-brands/supermarkets/Woolworths> (last visited Oct. 12, 2020).

³ Michael Keane & Timothy Neal, *Consumer Panic in the COVID-19 Pandemic*, 1 (U.N.S.W., Working Paper No. 2020-06, 2020), <http://dx.doi.org/10.2139/ssrn.3600018> (suggesting that "[p]anic buying of storable consumer goods is a common phenomenon during natural disasters and man-made crises. Examples include both World Wars . . . , the Great East Japan Earthquake in 2011 and the recent hyperinflation in Zimbabwe." East Japan Earthquake in 2011 and the hyperinflation in Zimbabwe were regional panic-buying incidents, whilst WWII and COVID-19 resulted in global panic-buying).

COVID-19 anxiety rose.⁴ In late March, American shoppers found empty shelves had hit their stores as well.⁵ Although authorities insisted that there was no real food shortage and the issue involved only temporary supply-chain bottlenecks,⁶ the public chose to ignore official advice and continued stockpiling food.⁷

Two concerns arise pertaining to COVID-19's food security impact. In the short term, panic buying across the world has largely restricted vulnerable peoples' access to adequate food and nutrition, particularly those who do not have the financial or physical means—let alone the space—to stockpile food. In the long term, there is also an emerging concern that COVID-19 may provoke absolute food shortages around the world, leading to a devastating food crisis.⁸

⁴ Helen Carter, 'It's Absolutely Crazy What People are Doing' . . . *Coronavirus Panic Buying Leads to Empty Supermarket Shelves*, MANCHESTER EVENING NEWS (Mar. 14, 2020, 2:58 PM), <https://www.manchestereveningnews.co.uk/news/uk-news/panic-buying-shoppers-coronavirus-government-17925003>.

⁵ Ganda Suthivarakom, *Don't Overdo the Coronavirus Stockpiling*, N.Y. TIMES (Mar. 31, 2020), <https://www.nytimes.com/2020/03/31/smarter-living/wirecutter/dont-overdo-the-coronavirus-stockpiling.html>.

⁶ E.g., Hope Yen & Aamer Madhani, *Trump Calls on Americans to Cease Hoarding Food, Supplies*, U.S. NEWS & WORLD REP. (Mar. 15, 2020, 5:43 PM), <https://www.usnews.com/news/business/articles/2020-03-15/fauci-open-to-a-14-day-national-shutdown-to-stem-virus>; see also Scott Morrison Says Panic Buying Driven by Coronavirus Lockdown Fears is 'Ridiculous' and 'Un-Australian', ABC NEWS (Mar. 17, 2020, 10:44 PM), <https://www.abc.net.au/news/2020-03-18/coronavirus-panic-buying-pm-tells-people-to-stop-hoarding/12066082>.

⁷ See, e.g., Monica Greep, *Mother with Asthma Who's Bought 150 Tins of Food and A Month's Worth of Toilet Roll amid Coronavirus Fears is Branded 'Infuriatingly Selfish' by GMB Viewers for 'Totally Unnecessary' Stockpiling*, DAILY MAIL (Mar. 2020), <https://www.dailymail.co.uk/femail/article-8077657/Mother-bought-150-tins-food-amid-Coronavirus-chaos-branded-selfish-fruit-loop.html> (noting that "[a] mother who's bought 150 tins of food and a month's worth of toilet roll because of coronavirus was slammed by 'furious' Good Morning Britain viewers, who branded her 'extremely selfish' for ignoring official advice not to stockpile").

⁸ See *Coronavirus Disease 2019 (COVID-19): Addressing the Impacts of COVID-19 in Food Crises*, FOOD AND AGRIC. ORG. OF THE U.N. [FAO] 4 (July 4, 2020) [hereinafter *Food Crises*], <http://www.fao.org/3/ca8497en/CA8497EN.pdf> (noting that "the full impact of the virus on food security and agricultural food systems is not yet known, nor will likely be known, for months to come as the spread of the virus continues to evolve differently by continent and by country. What is clear is that it will have, and is already having, significant negative effects on people along the food supply chain—from producers to processors, marketers, transporters and consumers. The Food and Agriculture Organization of the United Nations (FAO) is particularly concerned about the potential impacts of the virus and related containment efforts on food security and livelihoods in contexts of high vulnerability and where populations are already experiencing food crises"); see also Veronica Toffolutti, David Stuckler & Martin McKee, *Is the COVID-19 Pandemic Turning into a European Food Crisis?*, 30 EUR. J. PUB. HEALTH 626, 626–27 (2020) (expressing concern that the COVID-19 pandemic may turn into a European food crisis).

This paper addresses these two concerns from a human rights perspective. Section II examines the right to food in international law as well as the three key elements that are essential to the full realization of this human right. Section III investigates the short-term impact of COVID-19, revealing that the outbreak of this virus has already undermined the right to food in the areas of food availability, accessibility, and adequacy. Section IV subsequently explores the long-term impact of COVID-19, predicting that a global food crisis is imminent if the world does not take action immediately. To ensure the full realization of the right to food in the era of COVID-19 and beyond, Section V further provides a number of proposals to be carried out at both the national and international levels. Section VI concludes the paper by re-emphasizing the importance of protecting the right to food in a pandemic, and it calls for the world to work collaboratively to prevent the total collapse of the global food system.

II. THE RIGHT TO FOOD IN INTERNATIONAL LAW AND THE THREE KEY ELEMENTS

All human beings have a fundamental right to food, and this right is “indispensable for the fulfilment of [all] other human rights enshrined in the International Bill of Human Rights.”⁹ Since the 1960s, many international human rights treaties have explicitly acknowledged the importance of the right to food. For example, the International Covenant on Economic, Social and Cultural Rights (1967) (ICESCR) defines the right to food as “the fundamental right of everyone to be free from hunger,”¹⁰ and imposes a binding obligation on States to take appropriate steps to ensure the realization of this right.¹¹ Similarly, the Universal Declaration on the Eradication of Food, Hunger, and Malnutrition (1974) affirms that every individual has “the inalienable right to be free from hunger and malnutrition in order to develop fully and maintain their physical and mental faculties.”¹² Moreover, the United Nations’ Committee on Economic, Social and Cultural Rights General Comment No. 12 (1999) also recognizes that the right to food “is realized when every man, woman and child, alone or in community with others, have physical and economic access at all times to adequate food or

⁹ General Comment No. 12, *supra* note 1, ¶ 4.

¹⁰ International Covenant on Economic, Social and Cultural Rights, art. 11, ¶ 2, Dec. 16, 1966, 993 U.N.T.S. 3.

¹¹ *Id.* ¶ 1.

¹² G.A. Res. 3348 (XXIX), Universal Declaration on the Eradication of Food, Hunger and Malnutrition (Dec. 17, 1974).

means for its procurement.”¹³ As evident from the above, the world has declared its commitment to the promotion and protection of the right to food.¹⁴

In 2010, two United Nations (UN) agencies, the Office of the United Nations High Commissioner for Human Rights and the Food and Agriculture Organization (FAO), jointly published *OHCHR Fact Sheet No. 34* (Fact Sheet No. 34).¹⁵ Built upon the international human rights treaties discussed above, Fact Sheet No. 34 identifies the key elements of the right to food, explains the implications of this right for specific groups, elaborates on States’ obligations with respect to this right, and “provides an overview of national, regional and international accountability and monitoring mechanisms.”¹⁶ Fact Sheet No. 34 has made significant contributions to the advancement of the right to food, both in theory and in practice. Among these contributions, the identification of the key elements of the right to food is particularly important. Three key aspects of the right identified in Fact Sheet No. 34 are availability, accessibility, and adequacy.¹⁷ Although sustainability has yet to be officially recognized by the international community as a key element of the right to food, Fact Sheet No. 34 encourages States to “make efforts to enable a sustainable production of food to ensure the availability of food for future generations.”¹⁸

The interpretation of “availability” is twofold. First, “food should be available from natural resources either through the production of food, by cultivating land or animal husbandry, or through other ways of obtaining food, such as fishing, hunting, or gathering.”¹⁹ Second, food should be made “available for sale in markets and shops.”²⁰

Food “accessibility” rests on two pillars: economic access and physical access. *Economic access* guarantees food affordability to all individuals. Fact Sheet No. 34 suggests everyone “should be able to afford food for an adequate diet without compromising on any other basic needs, such as school fees, medicines or rent.”²¹ *Physical access* means that food should be physically accessible to all individuals, particularly to vulnerable groups, such as children, the sick, persons with disabilities, and the elderly because it may be difficult for them to physically

¹³ General Comment No. 12, *supra* note 1.

¹⁴ See also *The State of Food Insecurity in the World 2001*, FAO (2001), <http://www.fao.org/3/y1500e/y1500e00.htm> (last visited Oct. 13, 2020) (stating that “[a]ll people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.”).

¹⁵ U.N. Office of the High Commissioner for Human Rights. [OHCHR], *Fact Sheet No. 34: The Right to Adequate Food* (2010), <https://www.ohchr.org/Documents/Publications/FactSheet34en.pdf> (last visited Oct. 11, 2020).

¹⁶ *Id.* at 1.

¹⁷ *Id.* at 2–3.

¹⁸ *Id.* at 4.

¹⁹ *Id.* at 2.

²⁰ OHCHR, *supra* note 15, at 2.

²¹ *Id.*

go out for food.²² Further, close attention should also be paid to people who live in remote areas, to victims of armed conflicts or natural disasters, and to prisoners because the limitation of movement may restrict their physical access to food.²³

Fact Sheet No. 34 addresses three aspects of the “adequacy” of food:²⁴ the importance of food safety, the protection of individuals’ dietary requirements for food, and the protection of individuals’ cultural requirements for food.²⁵ From a health and safety perspective, “food should be safe for human consumption and free from adverse substances.”²⁶ From a dietary perspective, “food must satisfy dietary needs, taking into account the individual’s age, living conditions, health, occupation, sex, etc.”²⁷ From a cultural perspective, “food should . . . be culturally acceptable.”²⁸

III. THE SHORT-TERM IMPACT OF COVID-19 ON THE RIGHT TO FOOD

Since the beginning of 2020, the global spread of COVID-19 has significantly disrupted the lives of people across the globe. It is an unparalleled public health crisis, sickening tens of millions and killing over a million people around the world.²⁹ It is also the most devastating global economic crisis since the Great Depression, attacking societies at their cores.³⁰ As for its impact on global food security, the pandemic makes the enjoyment of the right to food unprecedentedly challenging.

²² *Id.* at 2–3.

²³ *Id.* at 3.

²⁴ *Id.*

²⁵ *Id.*

²⁶ OHCHR, *supra* note 15, at 3 (emphasis omitted).

²⁷ *Id.* (emphasis omitted).

²⁸ *Id.* (emphasis omitted).

²⁹ See WHO Coronavirus Disease (COVID-19) Dashboard, WORLD HEALTH ORG., <https://covid19.who.int> (last visited Oct. 13, 2020) (tracking COVID-19 data worldwide); see also United States COVID-19 Cases and Deaths by State, CTR. FOR DISEASE CONTROL & PREVENTION, <https://covid.cdc.gov/covid-data-tracker/#cases> (last visited Oct. 13, 2020) (tracking COVID-19 data in the United States).

³⁰ See Stephanie Franziska Scholz, *Paying to Stop the Pandemic*, ECONOMIST (Mar. 19, 2020), https://www.economist.com/leaders/2020/03/19/paying-to-stop-the-pandemic?fsrc=sen/fb/te/bl/ed/closedbyCOVID19payingtostopthepandemicleaders&fbclid=IwAR0fnV16Hmo_P531hvlCY1XjVVxCGjGVtV5shF1Ps-FOAWTRHX8uEnj6vLc (noting that “[i]t has become clear that the [world] economy is taking a much worse battering than analysts had expected Faced with the most brutal recession in living memory, governments are setting out rescue packages on a scale that exceeds even the financial crisis of 2007–2009”).

A. The Impact on Food Availability

Declining food availability is perhaps the most noticeable food security impact of COVID-19. In March 2020, as fears of the COVID-19 pandemic continued to rise, many countries experienced temporary food shortages due to panic buying.³¹ The global grocery sector struggled to restock shelves and calm panicked shoppers.³² In late April, although most stores fixed their supply chains to some extent, many essential food items were still missing from the shelves. For example, eggs were difficult to find in the United States, although experts insisted that it was only an on-shelf shortage and “there [were] enough eggs in the works.”³³ Likewise, in Australia, flour was rarely seen in grocery stores, although pasta and bread could serve as alternatives.³⁴ It is true that inadequate supply of food could only be temporary. However, an undeniable fact is that COVID-19 panic buying indeed disrupted food availability for weeks.³⁵ As many food items were not “available for sale in markets and shops,”³⁶ COVID-19 undermined the availability aspect of right to food.

The COVID-19 pandemic has also reduced the availability of food for food banks, leaving the most vulnerable populations at risk of an inadequate diet.³⁷ In March and April of 2020, food banks were severely affected by COVID-19 panic buying, struggling to provide much-needed food relief to those people in need.³⁸

³¹ Jill E. Hobbs, *Food Supply Chains during the COVID-19 Pandemic*, 68 CAN. J. AGRIC. ECON. 171, 172 (2020).

³² See, e.g., Michael Corkery et al., *There Is Plenty of Food in the Country*, N.Y. TIMES (Mar. 15, 2020), <https://www.nytimes.com/2020/03/15/business/coronavirus-food-shortages.html> (noting that food suppliers and retailers in the United States struggled to meet surging demand, although the supply chain was strong); see also Tom Place, *'We're Killing Ourselves Whilst Also Getting Abused by Our Customers': Supermarket Night Filler Tells of the Struggle to Re-stock Shelves as Panic Buying Sees Supplies Cleared Out Daily*, DAILY MAIL AUSTR. (March 17, 2020, 11:30 PM), <https://www.dailymail.co.uk/news/article-8124081/Supermarket-night-filler-tells-struggle-stock-shelves-panic-buying.html> (reporting on a Reddit post by a grocery worker averring that grocery stores across Australia struggled to restock shelves and calm panicked shoppers).

³³ Laura Reiley, *Stress-baking and Hoarding Have Led to a Retail Egg Shortage. There Are Eggs in the Pipeline, but Maybe Not Enough.*, WASH. POST (Mar. 27, 2020, 7:33 PM), <https://www.washingtonpost.com/business/2020/03/26/shortages-eggs-stress-baking/>.

³⁴ Brigit Busicchia, *Why Flour is Still Missing from Supermarket Shelves*, CONVERSATION (May 26, 2020, 4:10 PM), <https://theconversation.com/why-flour-is-still-missing-from-supermarket-shelves-137263>.

³⁵ OHCHR, *supra* note 15, at 2.

³⁶ *Id.*

³⁷ Jennifer Smith, *Pandemic, Growing Need Strain U.S. Food Bank Operations*, WALL ST. J. (July 16, 2020, 5:30 AM), <https://www.wsj.com/articles/pandemic-growing-need-strain-u-s-food-bank-operations-11594891802>.

³⁸ Nicholas Kulish, *'Never Seen Anything Like It': Cars Line Up for Miles at Food Banks*, N.Y. TIMES (May 6, 2020), <https://www.nytimes.com/2020/04/08/business/economy/coronavirus-food-banks.html>.

Food banks largely depend on rescued food and donations from the food and grocery sector.³⁹ Panic buying and market disruptions at the early phase of COVID-19 made it difficult for the food and grocery industry to find surplus stock to hand out to food banks.⁴⁰ Although most food banks continued receiving financial assistance from governments and private donors, they still experienced difficulty purchasing emergency food from grocery stores or food markets due to the lack of stocked items and store-imposed purchasing restrictions.⁴¹ After weeks of madness, shoppers have ceased panic buying. However, for food banks, the situation may not improve in the next few months or even years. At the same time, if the COVID-19 pandemic drags on, more people will be forced to turn to food banks for help, while shrinking economies may also prevent governments or private donors from providing additional support to food banks. Altogether, food banks will likely continue facing “soaring demand” and “plummeting supply,” creating a critical gap in resources.⁴² For example, in the United States, Feeding America, the largest domestic hunger-relief organization in the country,⁴³ estimates that “\$1.4 billion in additional resources will be needed over the next six months to provide enough food for [Americans] struggling with hunger.”⁴⁴

B. The Impact on Food Accessibility

1. Economic Access

Economic access ensures the affordability of food to all individuals. Generally, affordability is determined by two key factors: (i) the price of a particular food item, and (ii) the disposable income that one can use to purchase the food.⁴⁵

³⁹ David L. Morenoff, *Lost Food and Liability: The Good Samaritan Food Donation Law Story*, 57 FOOD & DRUG L.J. 107, 113 (2002) (noting that some food banks seek out donations of surplus food from farmers, processors, wholesalers, and retailers).

⁴⁰ See Smith, *supra* note 37 (discussing the effects the falling economy and hoarding have had on food availability).

⁴¹ See, e.g., *Coronavirus: Food Bank Shortage Blamed on Panic Buying*, BBC NEWS (Mar. 13, 2020), <https://www.bbc.com/news/uk-england-london-51837892> (outlining the struggles of various UK food banks that faced donation shortages due to panic buying).

⁴² *Feeding America Network Faces Soaring Demand, Plummeting Supply Due to COVID-19 Crisis*, FEEDING AM. (Apr. 8, 2020), <https://www.feedingamerica.org/about-us/press-room/soaring-demand-plummeting-supply>.

⁴³ *Working Together to End Hunger*, FEEDING AM., <https://www.feedingamerica.org/our-work> (last visited Oct. 14, 2020).

⁴⁴ *Feeding America Food Bank Network Projects \$1.4 Billion Shortfall Due to the COVID-19 Crisis* (Apr. 1, 2020), <https://www.feedingamerica.org/about-us/press-room/feeding-america-food-bank-network-projects-14-billion-shortfall-due-covid-19>.

⁴⁵ Roberto Capone et al., *Food Economic Accessibility and Affordability in the Mediterranean Region: An Exploratory Assessment at Micro and Macro Levels*, 2 J. FOOD SEC. 1, 1 (2014).

The outbreak of COVID-19 has had, and will continue to have, a devastating impact on the affordability of food and therefore food security. COVID-19 panic buying triggered a surge in food prices in many countries due to increased consumer demand and other issues affecting supply chains. For example, in February 2020, food prices in China soared by 21.9% on average.⁴⁶ In March 2020, the prices of fresh food in some parts of Australia increased threefold.⁴⁷ In April 2020, average food prices in the United States grew 2.6%.⁴⁸ As compared to China and Australia, this rate of increase may appear to be minimal; however, for the United States, it was “the biggest increase from one month to the next since 1974.”⁴⁹ The rapid rise in food prices has left many low-income households and other vulnerable groups struggling to feed their families and themselves. From a human rights perspective, price spikes impair an individual’s economic access to obtain food that meets dietary needs as well as food preferences for an active and healthy life.⁵⁰ *Economic insecurity* is one of the key determinants of household *food insecurity*.⁵¹ As observed by Clare Short, former Secretary of State for International Development of the United Kingdom, food insecurity almost always correlates with poverty.⁵² Generally, financially insecure people are at greater risk for inadequate access to food and nutrition, which remains unchanged during a severe global pandemic.

⁴⁶ Phoebe Sleet, *Global Food Insecurity Likely to Increase Due to COVID-19 Pandemic*, FUTURE DIRECTIONS INT’L (Mar. 25, 2020), <http://www.futuredirections.org.au/publication/global-food-insecurity-likely-to-increase-due-to-covid-19-pandemic>.

⁴⁷ Samantha Dawes, *Coronavirus Panic Buying Triggers Supermarket Price Hikes as Retailers Plead for Calm*, ABC NEWS (Mar. 22, 2020, 1:56 AM), <https://www.abc.net.au/news/2020-03-22/coronavirus-panic-buying-sees-fresh-produce-price-hikes/12078198>.

⁴⁸ U.S. BUREAU OF LAB. STAT., TABLE 6. CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS (CPI-U): U.S. CITY AVERAGE, BY EXPENDITURE CATEGORY, 1-MONTH ANALYSIS TABLE, <https://www.bls.gov/news.release/cpi.t06.htm> (last visited Oct. 15, 2020).

⁴⁹ David Goldman, *Grocery Prices Are Soaring. Here’s What’s Getting More Expensive*, CNN BUS. (May 14, 2020, 10:01 AM), https://edition.cnn.com/2020/05/13/business/grocery-prices/index.html?utm_content=2020-05-13; see also Dan Nosowitz, *Grocery Prices Hit Highs Not Seen Since 1974*, MOD. FARMER (May 20, 2020), <https://modernfarmer.com/2020/05/grocery-prices-hit-highs-not-seen-since-1974/> (highlighting the increase in food prices in grocery stores across the United States).

⁵⁰ See J. Jackson Ewing, *Supermarkets, Iron Buffalos and Agrarian Myths: Exploring the Drivers and Impediments to Food Systems Modernisation in Southeast Asia*, 26 PAC. REV. 481, 493 (2013) (using rice and Southeast Asia as examples for the proposition that “food price increases impede access to adequate food for the most vulnerable populations”).

⁵¹ Yunhee Chang et al., *Household Finance and Food Insecurity*, 35 J. FAM. ECON. ISS. 499, 511 (2014).

⁵² Clare Short, MP and Sec. of State for Int’l Dev., U.K., *Food Insecurity—A Symptom of Poverty 1* (Sept. 2001), http://conferences.ifpri.org/2020conference/PDF/summary_short.Pdf.

During COVID-19, panic buying is less prevalent in the developing world.⁵³ Due to weak domestic economies and low household income, people in developing countries generally lack the financial ability to participate in panic buying.⁵⁴ In this regard, one of the most noticeable changes introduced by COVID-19 has been the consistent push of millions of poor individuals in the less-developed nations of the world into increasingly hazardous levels of hunger and food insecurity.⁵⁵ Abdi Latif Dahir, the East Africa correspondent for the *New York Times*, recorded several COVID-19 *Hunger Games*-esque scenes⁵⁶ in his article *Instead of Coronavirus, the Hunger Will Kill Us*.⁵⁷

In the largest slum in Kenya's capital, people desperate to eat set off a stampede during a recent giveaway of flour and cooking oil, leaving scores injured and two people dead . . . [A]cross Colombia, poor households are hanging red clothing and flags from their windows and balconies as a sign that they are hungry . . . Already, from Honduras to South Africa to India, protests and looting have broken out amid frustrations from lockdowns and . . . worries about hunger.⁵⁸

An economic deterioration triggered by COVID-19 is expected to hit not only developing countries but also developed countries, threatening a steep spike in unemployment and poverty at the global level.⁵⁹ To date, COVID-19 has already

⁵³ Keane & Neal, *supra* note 3, at 2–3.

⁵⁴ *Id.* at 3 (suggesting that Australia, France, Germany, the United Kingdom, Italy, and the United States were among the world's top leaders in panic buying in the early days of COVID-19, and that "richer countries tended to panic more than poorer ones").

⁵⁵ *Brief: Food Security and COVID-19* (Feb. 5, 2021), THE WORLD BANK, <https://www.worldbank.org/en/topic/agriculture/brief/food-security-and-covid-19>.

⁵⁶ Sabaa Tahir, 'Katniss Everdeen Is My Hero', N.Y. TIMES (Oct. 18, 2018), <https://www.nytimes.com/2018/10/18/books/katniss-everdeen-hunger-games.html>. The Hunger Games is a movie series based on Suzanne Collins's novel series of the same name. The Hunger Games universe is a dystopia set that consists of the wealthy Capitol and thirteen poor districts. Every year, teenagers and children in the poor districts were selected to compete in a televised battle for survival. SUZANNE COLLINS, THE HUNGER GAMES (2008).

⁵⁷ Abdi Latif Dahir, 'Instead of Coronavirus, the Hunger Will Kill Us.' *A Global Food Crisis Looms*, N.Y. TIMES (May 13, 2020), <https://www.nytimes.com/2020/04/22/world/africa/coronavirus-hunger-crisis.html>.

⁵⁸ *Id.*

⁵⁹ Press Release, World Bank, COVID-19 to Plunge Global Economy into Worst Recession Since World War II (June 8, 2020), <https://www.worldbank.org/en/news/press-release/2020/06/08/covid-19-to-plunge-global-economy-into-worst-recession-since-world-war-ii>.

driven millions of people out of work worldwide, reducing their household income and purchasing power.⁶⁰ Accordingly, a growing number of people worldwide now need support to survive and feed their families. Sadly, not everyone has access to social protection systems, and many cannot draw upon the support of family, friends, and financial systems to make up for the ongoing loss of purchasing power.⁶¹ Loss of purchasing power may lead to high levels of hunger, and an extensive spread of COVID-19 in developing countries could continue to take a heavy toll on human health.⁶² In extreme cases, absolute inaccessibility of food may cause large-scale famines.

2. *Physical Access*

As COVID-19 continues to spread rapidly around the world, many people face the challenge of inadequate physical access to food. Several groups of people are at higher risk of serious illness if they are infected by the virus, such as the elderly and people in poor health, particularly those with chronic medical conditions or compromised immune systems.⁶³ From a medical perspective, it is safer for these vulnerable people to stay at home. However, they still need to eat. Many people in self-quarantine encounter a frustrating reality in the unavailability or unreliability of food delivery services. Fulfilling online orders from grocery stores takes time, and delivery backlogs are common as demand has massively increased without appropriate infrastructure.⁶⁴ Such food delivery services are not a reality

⁶⁰ See *Hard Times Forecast for Global Job Recovery in 2020, Warns UN Labour Agency Chief*, UNITED NATIONS: UN NEWS (June 30, 2020), <https://news.un.org/en/story/2020/06/1067432> (noting the International Labor Organization's most optimistic scenario assumes the global equivalent loss of thirty-four million full-time job in the second half of 2020).

⁶¹ See generally Olivier De Schutter, *Tackling Extreme Poverty in Times of Crisis: Key Challenges Facing the Fight Against Poverty and Thematic Priorities for the Special Rapporteur on Extreme Poverty and Human Rights* (Apr. 30, 2020), https://www.ohchr.org/Documents/Issues/Poverty/20200430_Background_note_extreme_poverty.docx.

⁶² Simona Beltrami, *How to Minimize the Impact of Coronavirus on Food Security*, WORLD FOOD PROGRAMME INSIGHT (Mar. 17, 2020), <https://insight.wfp.org/how-to-minimize-the-impact-of-coronavirus-on-food-security-be2fa7885d7e>.

⁶³ *What You Need to Know about Coronavirus (COVID-19)*, AUSTL. GOV'T DEP'T OF HEALTH, <https://www.health.gov.au/news/health-alerts/novel-coronavirus-2019-ncov-health-alert/what-you-need-to-know-about-coronavirus-covid-19> (last visited Oct. 16, 2020).

⁶⁴ See, e.g., Ally Foster, *Coles and Woolworths See Major Online Delivery Delays Due to Coronavirus Stockpiling*, NEWS.COM.AU (Mar. 6, 2020, 6:38 PM), <https://www.news.com.au/finance/business/retail/coles-and-woolworths-see-major-online-delivery-delays-due-to-coronavirus-stockpiling/news-story/512315bb9113711a6107210cafa31818> (reporting that Australian customers who ordered their groceries online were told they could have to wait a week to get their deliveries); *Grocery Store Online Order Backlog Continues During COVID-19 Crisis*, CBC NEWS (Mar. 28, 2020), <https://www.cbc.ca/news/canada/newfoundland-labrador/grocery-backlog-covid-pandemic-1.5513126> (reporting that a Canadian store had to shut down online orders to catch up to the rising demands caused by COVID-19).

for billions of individuals living in the still-developing world, who have no choice but to brave large, often crowded markets in order to feed themselves and their families. Furthermore, the implementation of mobility restrictions in lockdown rules and travel bans disproportionately challenge people who have difficulty traveling, live in remote locations, or have limited transportation options.⁶⁵

C. *The Impact on Food Adequacy*

Decreases in food availability and accessibility inevitably constrain peoples' access to food that meets their special dietary and cultural needs. Seniors, children, and other disadvantaged groups, such as refugees, minorities, and marginalized local and traditional communities, are particularly vulnerable to food inadequacy caused by COVID-19.

COVID-19 undermines low-income seniors' ability to achieve dietary adequacy. In March 2020, the Brookings Institution conducted research on the food security impact of COVID-19 on low-income seniors in the United States.⁶⁶ As part of this research, 193 low-income seniors were interviewed about their experiences obtaining food during the COVID-19 pandemic as well as their perspectives on the Supplemental Nutrition Assistance Program (commonly known as "food stamps" in the United States).⁶⁷ Interview results revealed low-income seniors had "difficulty following their doctor's dietary advice because they could not afford or obtain fresh produce and healthy proteins."⁶⁸ Some interviewees reported having chronic medical conditions, such as diabetes, which might result in serious health issues and require medical attention if they go hungry or eat the wrong foods.⁶⁹

Children are also vulnerable to food inadequacy during the COVID-19 pandemic. Children do not usually have direct access to food, and instead depend wholly on parents, families, or caregivers to ensure their basic nutritional needs are met.⁷⁰ Yet adequate nutrition is especially vital for children's health and

⁶⁵ PAN AM. HEALTH ORG., FOOD SECURITY IN A PANDEMIC 3, https://www.paho.org/disasters/index.php?option=com_docman&view=download&category_slug=tools&alias=533-pandinflu-leadershipduring-tool-7&Itemid=1179&lang=en (last visited Nov. 23, 2020) (noting that people who have restricted mobility are at risk for food security problems in all emergencies, including in a pandemic).

⁶⁶ Annelies Goger, *For Millions of Low-Income Seniors, Coronavirus Is a Food-Security Issue*, BROOKINGS: AVENUE (Mar. 16, 2020), <https://www.brookings.edu/blog/the-avenue/2020/03/16/for-millions-of-low-income-seniors-coronavirus-is-a-food-security-issue>.

⁶⁷ *Id.*

⁶⁸ *Id.*

⁶⁹ *Id.* (noting that for low-income seniors with certain health conditions, "the COVID-19 crisis paired with food insecurity poses an imminent health risk").

⁷⁰ Carolyn Kousky, *Impacts of Natural Disasters on Children*, 26 FUTURE OF CHILDREN 73, 75 (2016).

physical growth,⁷¹ and plays critical role in children's brain development and learning.⁷² Insufficient access to food and poor nutritional intake may have long-term effects on children. It may impair children's immune systems, leading to chronic diseases.⁷³ It may also reduce children's cognitive capacity and impede their brain development and learning.⁷⁴ These developmental deficiencies in the most nascent stages of cognitive and physical growth may have far-reaching implications for those children as they eventually seek to learn trades or otherwise enter into their nation's workforce.⁷⁵

Other disadvantaged groups also face huge challenges to achieve food adequacy. Refugees, minorities, marginalized local and traditional communities, such as nomadic and indigenous people, and other socially isolated groups often have limited or uncertain access to resources and lower coping capacity.⁷⁶ During the COVID-19 pandemic, they are even more susceptible to food insecurity. In particular, they often face greater difficulties in finding culturally acceptable foods due to financial constraints, resource limitations, or tightened mobility restrictions.⁷⁷ Furthermore, because many governments are scrambling to allocate attention and resources to the handling of the ongoing pandemic, these disenfranchised groups risk being pushed to the margins of society, left to cope with these issues in the liminal spaces outside the direct attention of many nations.

⁷¹ See generally George Kent, *Children's Right to Adequate Nutrition*, 1 INT'L J. CHILD.'S RTS. 133 (1993) (discussing the importance of the right to nutrition in combating child malnutrition).

⁷² See generally Elizabeth L. Prado & Kathryn G. Dewey, *Nutrition and Brain Development in Early Life*, 72 NUTRITION REVS. 267 (2014) (showing how adequate nourishment establishes a basis for a child's lifetime brain function).

⁷³ Hilal Elver (Special Rapporteur on the Right to Food), *Report of the Special Rapporteur on the Right to Food*, ¶ 39, U.N. Doc. A/HRC/37/61 (Jan. 25, 2018).

⁷⁴ Fernando Gómez-Pinilla, *Brain Foods: The Effects of Nutrients on Brain Function*, 9 NATURE REV. NEUROSCIENCE 568, 568 (2008).

⁷⁵ See generally Anna D. Johnson & Anna J. Markowitz, *Associations Between Household Food Insecurity in Early Childhood and Children's Kindergarten Skills*, 89 CHILD DEV. 2 (2017) (noting that "food insecurity during the first five years—and in particular, in infancy and toddlerhood—[is likely to] influence the constellation of cognitive and social-emotional abilities typically mastered at kindergarten entry that predicts later academic and life success").

⁷⁶ Elver, *supra* note 73, ¶¶ 36–37.

⁷⁷ FOOD AND AGRIC. ORG. OF THE UNITED NATIONS, COVID-19 AND INDIGENOUS PEOPLES 2–4 (2020), <http://www.fao.org/3/ca9106en/CA9106EN.pdf> (noting that "[i]ndigenous peoples whose livelihoods are nomadic have seen their source of food and income shrink with the lockdown. The collapse of the informal economy has particularly affected indigenous peoples." Furthermore, "[s]everal indigenous peoples from different regions have identified hunger as the main effect of the COVID-19 crisis. Food shortages are resulting from the combined effects of isolation, remoteness, the lockdown, the disruption of the food value-trade chains, and the suspension of income generating activities.").

D. Summary

In the short term, COVID-19 hampers the full realization of the right to food, undermining food availability, accessibility, and adequacy. It affects the most vulnerable populations in a disproportionate manner, making the enjoyment of the right to food exceptionally challenging for those who are financially insecure and those with special needs.

IV. THE LONG-TERM IMPACT OF COVID-19 ON THE RIGHT TO FOOD:
AVAILABILITY PROBLEMS AT THE GLOBAL LEVEL

The COVID-19 pandemic will likely have long-lasting effects on global food security. In the long term, it may severely undermine the first element of the right to food, availability, and spark a global food crisis.⁷⁸ As previously discussed, the interpretation of availability is twofold. It requires food to “be available from natural resources either through the production of food, by cultivating land or animal husbandry, or through other ways of obtaining food, such as fishing, hunting or gathering.”⁷⁹ It also requires food to be made “available for sale in markets and shops.”⁸⁰ When the availability of food is threatened, the other two elements of the right to food—accessibility and adequacy—are functionally meaningless. Thus, this section focuses exclusively on how COVID-19 affects the two aspects of availability in the long term.

A. The First Aspect of Availability: The Threat of a Looming Global Food Shortage

In the 21st century, global food producers can provide sufficient food to feed the entire world’s population.⁸¹ The world is yet to face absolute food scarcity. However, a severe global pandemic like COVID-19 disturbs agricultural production in many ways, reducing global food availability. In addition, natural disasters have also interrupted agricultural activities in several major agricultural regions during 2019–2020, worsening the global food situation and adding another straw that could break the proverbial camel’s back. In the Southern Hemisphere, Australia’s agricultural sector has been severely affected by persistent drought

⁷⁸ *Food Crises*, *supra* note 8, at 8.

⁷⁹ OHCHR, *supra* note 15, at 2.

⁸⁰ *Id.*

⁸¹ See generally Eric Holt-Giménez et al., *We Already Grow Enough Food for 10 Billion People . . . and Still Can’t End Hunger*, 36 J. SUSTAINABLE AGRIC. 595 (2012).

and devastating bushfires since mid-2019.⁸² In the Northern Hemisphere, desert locusts have threatened large food-production areas since the beginning of 2020, “overwhelming countries in the Horn of Africa, the Middle East, and South Asia.”⁸³ World agricultural production is likely to drop significantly this year, and possibly in the coming years.⁸⁴ The world is facing the threat of a looming global food shortage.⁸⁵ What we are beginning to witness is a manifest tension between a status quo marred by systemic food shortages and global food insecurity—caused both by supply chain issues related to COVID-19 as well as larger disruptions in global agricultural output—and the first availability requirement that food “should be available . . . by cultivating land or animal husbandry.”⁸⁶

1. COVID-19 and Agricultural Production

Governments across the world enforced massive lockdowns and border control measures in the early phase of the COVID-19 outbreak.⁸⁷ A few months later, although many governments started scaling back these mobility restrictions, a burst of new cases in countries like China, Singapore, South Korea, and Italy sparked fears of multiple waves of the COVID-19 pandemic over the coming months or even years.⁸⁸ To prevent future outbreak clusters, governments around the world continue limiting the gathering, and in some cases movement of people.⁸⁹ Localized lockdowns may also be enforced if clusters

⁸² See generally Rachael H. Nolan et al., Letter to the Editor, *Causes and Consequences of Eastern Australia's 2019-20 Season of Mega-fires*, 26 GLOBAL CHANGE BIOLOGY 1039 (2020), <https://onlinelibrary.wiley.com/doi/epdf/10.1111/gcb.14987>.

⁸³ *The Locust Crisis: The World Bank's Response*, WORLD BANK (July 1, 2020), <https://www.worldbank.org/en/news/factsheet/2020/04/27/the-locust-crisis-the-world-banks-response>.

⁸⁴ David Laborde et al., *COVID-19 Risks to Global Food Security*, SCIENCE (July 31, 2020), <https://science.sciencemag.org/content/369/6503/500>.

⁸⁵ *Id.*

⁸⁶ OHCHR, *supra* note 15, at 2.

⁸⁷ See Abdulkadir Atalan, *Is the Lockdown Important to Prevent the COVID-19 Pandemic? Effects on Psychology, Environment and Economy-perspective*, 56 ANN. MED. SURG. 38, (2020) (noting that “COVID-19’s daily increasing cases and deaths have led to worldwide lockdown, quarantine and some restrictions.”).

⁸⁸ See Payal Kohli & Salim S. Virani, *Surfing the Waves of the COVID-19 Pandemic as a Cardiovascular Clinician*, 142 CIRCULATION 98, 98–100 (2020) (suggesting that the COVID-19 Pandemic will occur in multiple waves).

⁸⁹ See, e.g., Vivi Wu & Adela Suliman, *Hundreds of Villages Locked Down in Northeastern China After Fresh Coronavirus Outbreak*, NBC NEWS (May 17, 2020, 1:54 AM), <https://7news.com.au/travel/coronavirus/hundreds-of-villages-locked-down-in-northeastern-china-after-fresh-coronavirus-outbreak-c-1042180> (reporting that hundreds of villages in northern China were placed under lockdown again in mid-May after a cluster of new cases were confirmed in the region).

emerge.⁹⁰ It is likely these measures will remain part of our lives until a COVID-19 vaccine is widely-distributed or a cure is found. As pointed out by Jonathan Liberman of the University of Melbourne, “[t]he COVID-19 global health crisis has, within a few weeks, fundamentally changed the way we live. Our most basic understandings of our freedoms to go about our daily lives as we choose have been upended.”⁹¹ As individuals, we must accept the fact that COVID-19 restrictions are becoming the new normal.⁹² These mobility restrictions are effective in controlling the spread of COVID-19.⁹³ However, they may jeopardize agricultural production and the global food system.

Transport, logistics, and supply chain industries, as essential services, are permitted to continue operating during the COVID-19 pandemic.⁹⁴ However, these services do not operate as usual; service providers often struggle to deliver goods on time.⁹⁵ It is particularly problematic at the international level.⁹⁶ In addition, border control measures further aggravate the situation as they reduce “access to

⁹⁰ E.g. *COVID in Australia: Melbourne to Exit 112-Day Lockdown*, BBC NEWS, (Oct. 26, 2020), <https://www.bbc.com/news/world-australia-54686812> (noting that a second wave of COVID-19 infections emerged in the state of Victoria in Australia during May and June, and the Victorian government imposed a three-month long lockdown); see also Eugene Boisvert et. al., *One of the Nation’s Toughest Coronavirus Lockdowns Comes Into Place in South Australia*, ABC NEWS (Nov. 19, 2020), <https://www.abc.net.au/news/2020-11-19/sa-toughest-coronavirus-lockdown-comes-into-place/12897542> (noting that on Nov. 18, 2020, one of Australia’s toughest COVID-19 lockdown came into place in the state of South Australia after a cluster of COVID-19 cases emerged).

⁹¹ Jonathan Liberman, *What Could Our Post-COVID ‘New Normal’ Look Like?*, (Apr. 9, 2020), LEGAL AFFS., <https://pursuit.unimelb.edu.au/articles/what-could-our-post-covid-new-normal-look-like>.

⁹² *Id.*

⁹³ Hanming Fang et al., *Human Mobility Restrictions and the Spread of the Novel Coronavirus (2019-NCov) in China*, NAT’L BUREAU OF ECON. RESEARCH (Mar. 2020), <http://www.nber.org/papers/w26906> (suggesting that human mobility restrictions are effective in controlling the spread of COVID-19).

⁹⁴ Brendan Richards et al., *COVID-19: Keeping Australia Moving—Actions for Supply Chain Leaders*, KPMG (Mar. 24, 2020), <https://home.kpmg/au/en/home/insights/2020/03/coronavirus-covid-19-actions-for-supply-chain-leaders.html>.

⁹⁵ See, e.g., *The Impact of COVID-19 on Logistics*, INT’L FIN. CORP. (June 2020), https://www.ifc.org/wps/wcm/connect/2d6ec419-41df-46c9-8b7b-96384cd36ab3/IFC-Covid19-Logistics-final_web.pdf?MOD=AJPERES&CVID=naqOED5 (documenting the world’s first COVID-19 logistic disruption: “Cargo was backlogged at China’s major container ports . . . and ocean carriers cancelled (or blanked) sailings. The resulting shortage of components from China impacted manufacturing operations overseas. Major industries around the world, including automotive, electronics, pharmaceuticals, medical equipment and supplies, as well as consumer goods, were affected.”).

⁹⁶ Sube Singh et al., *Impact of COVID-19 on Logistics Systems and Disruptions in Food Supply Chain*, INT’L J. OF PRODUCTION RES. 1, 1 (2020) (noting that “the outbreak of infectious disease, Corona Virus Disease 2019 (COVID-19) has brought a global tragedy not only for human lives, but also economical activities like manufacturing operations, supply chain and logistics, and several other sectors”).

international air/shipping freight and potentially delay and bottleneck the flow of goods throughout domestic road/rail networks.”⁹⁷ The agricultural sector is affected by these disruptions. The supply of seeds, fertilizers, pesticides, farming equipment, and other essentials critical to agricultural production has become increasingly challenging,⁹⁸ because farm supplies are not always domestically produced or manufactured and imports are involved.⁹⁹ For example, according to the FAO, one of the biggest challenges facing Africa in the midst of the COVID-19 pandemic is “delays in pesticide deliveries due to a significant reduction in global air freight operations.”¹⁰⁰ Without essential farm supplies, agricultural production is at risk.

The agricultural sector also faces an impending labor shortage. COVID-19 is highly contagious and has reached nearly every corner of the world.¹⁰¹ The public health risk of COVID-19 is serious. Farmers and agricultural workers are at high risk of exposure to the virus as they often “work, eat, and sometimes live, in close proximity to each other.”¹⁰² This is a particularly worrying concern for farms that cannot use agricultural machinery to mechanise the work. For example, apple, strawberry, and blueberry farms require large crews to prune trees and handpick the fruits, making it difficult to limit human-to-human contact in these circumstances.¹⁰³ If farmers and agricultural workers fall ill with COVID-19, they would not be able to work on the farms. Quarantine measures may also remove some farmers and agricultural workers from the fields temporarily. In the event of localized outbreaks, some farms may be forced to shut down. Labor shortages may severely damage agricultural systems in some of the world’s most important food-growing areas.

Additionally, supply chain disruptions may force farmers to dramatically expedite the shipments of their perishable produce; inevitably resulting in food loss and waste as well as income loss.¹⁰⁴ This is discouraging for struggling farmers. Some may choose to reduce or even halt production. If this persists for a long

⁹⁷ Richards et al., *supra* note 94.

⁹⁸ *Fight Against Desert Locust Swarms Goes on in East Africa Despite Coronavirus Crisis Measures*, UN NEWS (Apr. 9, 2020), <https://news.un.org/en/story/2020/04/1061482>.

⁹⁹ *See id.* (noting that “the biggest challenge is delays in pesticide deliveries due to a significant reduction in global air freight operations”).

¹⁰⁰ *Id.*

¹⁰¹ *See* Steven Sanche et al., *High Contagiousness and Rapid Spread of Severe Acute Respiratory Syndrome Coronavirus 2*, 26 EMERGING INFECTIOUS DISEASES (2020), https://wwwnc.cdc.gov/eid/article/26/7/20-0282_article.

¹⁰² *Agriculture Industry: Minimising the Risk of Exposure to COVID-19*, SAFE WORK AUSTL. (Apr. 9, 2020), <https://www.safeworkaustralia.gov.au/sites/default/files/2020-04/agriculture-minimising-the-risk-of-exposure-to-covid-19.pdf>.

¹⁰³ Laura Poppick, *The Effects of COVID-19 Will Ripple Through Food Systems* (Mar. 26, 2020), <https://www.scientificamerican.com/article/the-effects-of-covid-19-will-ripple-through-food-systems>.

¹⁰⁴ Beltrami, *supra* note 62.

period of time, farmers may not be able to resume their agricultural activities or recover abandoned fields, affecting food supplies and undermining food security in the long term.

2. *Natural Disasters and Climate Change*

Natural disasters and climate change are often flagged as risk factors for agricultural production.¹⁰⁵ A series of natural disasters in 2019–2020, such as droughts, bushfires, and desert locust upsurge, have posed huge threats to the agricultural sector.¹⁰⁶ They add another straw that could break the camel’s back. In the Southern Hemisphere, Australian farmers struggle to deal with one of the worst droughts and bushfires in history.¹⁰⁷ In the Northern Hemisphere, a number of African countries—mainly those in the horn of Africa—and several major agricultural producers in the Middle East and South Asia suffer a major upsurge of desert locusts.¹⁰⁸

With two thirds of its agricultural products exported annually, Australia produces substantially more food than it consumes.¹⁰⁹ As the world’s twelfth largest exporter of agricultural products, Australia plays an important role in feeding the world.¹¹⁰ However, between September 2019 and March 2020, the Australian agricultural sector experienced one of the worst years in history.¹¹¹ Fuelled by a

¹⁰⁵ DAMAGE AND LOSSES FROM CLIMATE-RELATED DISASTERS IN AGRICULTURAL SECTORS, FAO (2016), <http://www.fao.org/3/a-i6486e.pdf> (noting that “[t]he last three decades have witnessed a notable rise in disasters worldwide—especially climate-related events such as droughts, floods and storms—and with this rise there have been associated economic losses. The increase in climate-related events is of significant concern to the particularly vulnerable agricultural sectors”).

¹⁰⁶ E.g., Alexander I. Filkov et al., *Impact of Australia’s Catastrophic 2019/20 Bushfire Season on Communities and Environment. Retrospective Analysis and Current Trends*, 1 J. SAFETY SCI. & RESILIENCE 44, 45–49 (2020) (noting that Australian farmers struggle to deal with one of the worst droughts and bushfires in history); see also *Why Locusts Congregate in Billion-strong Swarms—and How to Stop Them*, NATURE (Aug. 26, 2020), <https://www.nature.com/articles/d41586-020-02453-8> (noting that the locust upsurge started at the end of 2019 has affected agricultural production in many countries, and that “[a]t least 20 million people are at risk of losing their food supplies and livelihoods”).

¹⁰⁷ See generally Filkov et al., *supra* note 106.

¹⁰⁸ *The Locust Crisis: The World Bank’s Response*, *supra* note 83.

¹⁰⁹ *Why Australia for Agriculture 4.0*, AUSTRALIAN GOVERNMENT TRADE & INVESTMENT COMM’N, <https://www.austrade.gov.au/agriculture40/why-australia> (last visited Oct. 29, 2020).

¹¹⁰ AUSTRALIAN GOVERNMENT TRADE & INVESTMENT COMM’N, AUSTRALIA: SHAPING THE FUTURE OF FOOD AND AGRICULTURE 6 (Feb. 2019), <https://www.austrade.gov.au/ArticleDocuments/1358/Agriculture40-brochure.pdf.aspx>.

¹¹¹ See Nolan et al., *supra* note 82.

long and deepening drought, catastrophic bushfires roared through rural communities across the country, burning over seventeen million hectares of land.¹¹² The widespread bushfires caused significant damage to livestock farming and crop production.¹¹³ Although Australian farmers are still in the process of assessing the impact of the bushfires on livestock, the Federal Agriculture Minister, Bridget McKenzie, fears a high mortality rate for cattle and sheep, estimating that the losses will exceed 100,000.¹¹⁴ As for crop production, the Australian Department of Agriculture, Water, and the Environment forecasts crop yields well below average in many parts of Australia.¹¹⁵ It is true that the Australian agricultural sector is still able to provide sufficient food to meet the domestic needs despite prolonged drought and devastating bushfires.¹¹⁶ However, there may not be as much surplus for export, impairing global food availability.

Since the beginning of 2020, unusual climate conditions have favored fast reproduction of desert locusts in many parts of the world.¹¹⁷ Billions of desert locusts have swarmed across East Africa, destroying hundreds of thousands of acres of crops and posing a severe threat to the region's crop production and food security, as well as the livelihoods of millions.¹¹⁸ According to the UN, "[t]he infestation in Kenya is the worst in 70 years, while Somalia and Ethiopia are experiencing their worst outbreaks in 25 years."¹¹⁹ In addition, massive breeding activities have also been observed in Egypt, Eritrea, Saudi Arabia, Sudan,

¹¹² LISA RICHARDS ET AL., PARLIAMENT OF AUSTRALIA, DEP'T OF PARLIAMENTARY SERVS., 2019–2020 AUSTRALIAN BUSHFIRES—FREQUENTLY ASKED QUESTIONS: A QUICK GUIDE (Mar. 12, 2020), https://parlinfo.aph.gov.au/parlInfo/download/library/prspub/7234762/upload_binary/7234762.pdf.

¹¹³ Diep-Anh Pham & James Finlay, *Impact of Devastating Bushfires on Australian Agriculture*, KLEFFMANN GRP. <https://www.kleffmann.com/en/kleffmann-group/news—press/press-releases/impact-of-bushfires-on-australian-agriculture/> (last visited Nov. 24, 2020).

¹¹⁴ Sarah Jane Bell, *Farmers Impacted by Bushfires Count 'Heartbreaking' Cost as Livestock Losses Climb*, ABC NEWS (Jan. 6, 2020, 6:50 PM), <https://www.abc.net.au/news/2020-01-07/farmers-recount-heartbreaking-toll-of-bushfire-livestock-losses/11844696>.

¹¹⁵ *Crop Production Hit by Unfavourable Seasonal Conditions*, AUSTRALIAN GOV'T DEP'T OF AGRIC., WATER, & ENV'T (Feb. 18, 2020), <https://www.agriculture.gov.au/abares/news/media-releases/2020/crop-production-hit-unfavourable-seasonal-conditions>.

¹¹⁶ *Farm Production Value Holds Despite Bushfires, Drought*, AUSTRALIAN GOV'T DEP'T OF AGRIC., WATER AND THE ENV'T (Mar. 3, 2020), <https://www.agriculture.gov.au/abares/news/media-releases/2020/farm-production-value-holds-despite-bushfires-drought> (noting that "[t]he value of Australian agricultural production is forecast to remain high despite bushfires and prolonged drought.>").

¹¹⁷ Abubakr A. M. Salih et al., *Climate Change and Locust Outbreak in East Africa*, 10 NATURE CLIMATE CHANGE 584, 584 (2020), <https://www.nature.com/articles/s41558-020-0835-8>.

¹¹⁸ See *General Situation During February 2020, Forecast Until Mid-April 2020*, 497 FAO DESERT LOCUST BULL. 1 (Mar. 5, 2020), <http://www.fao.org/ag/locusts/common/ecg/1914/en/DL497e.pdf>.

¹¹⁹ *Act Now to Prevent Desert Locust Catastrophe in Horn of Africa: UN Agencies*, UN NEWS (Feb. 10 2020), <https://news.un.org/en/story/2020/02/1057071>.

Yemen, India, Iran and Pakistan.¹²⁰ Desert locusts breed quickly,¹²¹ they are powerful fliers, and they can travel great distances.¹²² If no adequate control measures are implemented immediately, the number of desert locusts could multiply further and grow exponentially within months,¹²³ potentially reaching over thirty countries.¹²⁴ A severe food shortage has already hit some of the world's least developed countries.¹²⁵ Qu Dongyu, the FAO Director-General, also expressed his deep fear of a severe food crisis; he warned the desert locust upsurge in 2020 “ha[d] become a situation of international dimensions that threatens the food security of the entire subregion.”¹²⁶ It is imperative that the world acts now to control these destructive migratory pests.

B. The Second Aspect of Availability: Trade Restrictions on Agricultural Commodities

As COVID-19 spreads across the world, food insecurity has become an emerging global concern. Since March 2020, this concern has prompted governments across the world to adopt various approaches to ensure domestic food availability and prevent significant price hikes in domestic markets.¹²⁷ One of

¹²⁰ *Massive, Border-Spanning Campaign Needed to Combat Locust Upsurge in East Africa*, FAO (Jan. 20, 2020), <http://www.fao.org/news/story/en/item/1257973/icode>.

¹²¹ See Jitendra, *Locust Attack: 'This Is Very, Very Rare'*, DOWN TO EARTH (Feb. 4, 2020), <https://www.downtoearth.org.in/interviews/climate-change/locust-attack-this-is-very-very-rare—68992#:~:text=It%20appears%20that%20a%20very,for%20the%20next%20few%20weeks>. (explaining how “[t]he first breeding causes a 20-time increase in number; the second a 400-time rise; and the third 16,000 times.”).

¹²² DIANA KERSHAW, ANIMAL DIVERSITY 141 (1983).

¹²³ David Njagi, *East Africa is Seeing Its Worst Swarms of Locusts in Many Decades. How Can These Ravenous Pests be Stopped?*, (Aug. 7, 2020), <https://www.bbc.com/future/article/20200806-the-biblical-east-african-locust-plagues-of-2020>.

¹²⁴ Nicholas Bariyo, *Africa's Worst Locust Plague in Decades Threatens Millions*, WALL ST. J. (Jan. 31, 2020), <https://www.wsj.com/articles/africas-worst-locust-plague-in-decades-threatens-millions-11580475600>; see also *Desert Locust Information Service: Frequently Asked Questions (FAQs)*, MIGRATORY PESTS GROUP, FAO (2004), <http://www.fao.org/ag/locusts/oldsite/LOCFAQ.htm> (noting that “[d]uring quiet periods . . . Desert Locusts are usually restricted to the semi-arid and arid deserts of Africa, the Near East and South-West Asia that receive less than 200 mm of rain annually. . . . This is an area . . . consisting of about 30 countries. During plagues, desert locusts may spread . . . over or into parts of 60 countries. During plagues, the Desert Locust has the potential to damage the livelihood of a tenth of the world's population.”).

¹²⁵ See Bariyo, *supra* note 124 (noting that the UN estimated over 23.6 million people were already facing food shortages in Africa back in January 2021, including 8.4 million people in Ethiopia).

¹²⁶ *Massive, Border-Spanning Campaign Needed to Combat Locust Upsurge in East Africa*, *supra* note 120.

¹²⁷ Felippa Ann Amanta, *Opinion, Preventing Global Food Crisis Caused by COVID-19*, JAKARTA POST (Apr. 4, 2020, 2:42 PM), <https://www.thejakartapost.com/academia/2020/04/0>

the most controversial approaches is the export ban.¹²⁸ This approach undermines the second aspect of availability because it restricts the free flow of agricultural and food products, making food unavailable “for sale in markets.”¹²⁹

Export bans were widely used at the early stage of the outbreak.¹³⁰ Although such bans are becoming less popular at the moment, this paper predicts that export-country governments may re-escalate export bans to protect domestic food security in worse-case pandemic scenarios; further hindering the full realization of the right to food globally.

In late March 2020, Vietnam, the world’s third-largest rice exporter,¹³¹ suspended the signing of new rice export contracts while reviewing the country’s rice stocks.¹³² This temporary export ban triggered great concerns in the international market.¹³³ Although Vietnam reversed the trade restriction a few weeks later and rice export slowly resumed, a monthly quota was set to ensure sufficient domestic supply.¹³⁴ Under the quota regime, Vietnam was only allowed to export 400,000 tonnes of rice in April 2020, which was a significant drop (40%) compared to the same period last year.¹³⁵ Other countries have imposed similar restrictions. Serbia temporarily suspended the export of sunflower oil, sunflower in shell, and semi-processed oil.¹³⁶ Kazakhstan banned the export of key food

4/preventing-global-food-crisis-caused-by-covid-19.html (noting that “countries have to carefully strategize how to ensure their own food supply, not only to get through the pandemic but also to control inflation”).

¹²⁸ See Qu Dongyu, Tedros Adhanom Ghebreyesus, & Roberto Azevedo, *Mitigating Impacts of COVID-19 on Food Trade and Markets*, FAO (Mar. 31, 2020), <http://www.fao.org/news/story/en/item/1268719/icode> (arguing to prevent export restrictions because they “are particularly damaging for low-income, food-deficit countries and to the efforts of humanitarian organizations to procure food for those in desperate need”).

¹²⁹ OHCHR, *supra* note 15, at 2.

¹³⁰ *Trade Restrictions on Food Exports Due to the Coronavirus Pandemic*, REUTERS, (Apr. 4, 2020), <https://www.reuters.com/article/us-health-coronavirus-trade-food-factbox-idUSKBN21L332>.

¹³¹ Mary H. Nguyen, *Rural Women’s Property Rights in Vietnam: Weakened by Macroeconomic Reforms*, 13 NEW ENG. J. INT’L & COMP. L. 105, 121 (2006).

¹³² *Vietnam Halts New Rice Export Contracts as It Reviews Stocks*, BANGKOK POST (Mar. 25, 2020, 8:32 PM), <https://www.bangkokpost.com/business/1886355/vietnam-halts-new-rice-export-contracts-as-it-reviews-stocks>; see also Khanh Vu, *Vietnam’s Ban on Rice Exports Still in Force, Government May Set Limit: Traders* (Mar. 30, 2020, 1:30 AM), <https://www.reuters.com/article/us-health-coronavirus-vietnam-rice/vietnams-ban-on-rice-exports-still-in-force-government-may-set-limit-traders-idUSKBN21H0GO> (reporting the ban was still in effect five days later).

¹³³ *Vietnam Halts New Rice Export Contracts as It Reviews Stocks*, *supra* note 132.

¹³⁴ *Coronavirus: Vietnam to Resume Rice Export*, STRAITS TIMES (Apr. 11, 2020, 1:26 PM), <https://www.straitstimes.com/asia/se-asia/coronavirus-vietnam-to-resume-rice-export>.

¹³⁵ *Id.*

¹³⁶ *New Government Measures to Combat COVID-19 Virus*, THE GOV’T OF THE REPUBLIC OF SERB. (Mar. 17, 2020), <https://www.srbija.gov.rs/vest/en/151623/new-government-measures-to-combat-covid-19-virus.php>.

products, including buckwheat, wheat and rye flour, sugar, potatoes, carrots, turnips, beets, onions, cabbages, sunflower seeds, and sunflower oil.¹³⁷ Russia, the world's largest wheat exporter, proposed to temporarily restrict grain export to protect domestic food availability.¹³⁸ Although the proposed quota was not very stringent, and grain exportation remained normal and uninterrupted, this proposal certainly confirmed the Russian government's strong focus on "feeding their own populations as the virus disrupts supply chains around the world."¹³⁹

While export bans help secure domestic food supplies within exporting countries, they disrupt global supply chains and constrain other people's access to food. Enforcing export bans in the early phase of a pandemic outbreak impedes the free movement of agricultural commodities in the global market and undermines food security in food-importing countries. It is a blunt response to global food security problems considering there is still sufficient food to meet domestic needs, as well as international needs.

From an international law perspective, export bans can be viewed as a breach of international obligations because States are bound to respect, protect, and promote the right to food both domestically and internationally. Article 11 of the ICESCR imposes a legally binding obligation on Member States, requiring them to "[t]ak[e] into account the problems of both food-importing and food-exporting countries, to ensure an equitable distribution of world food supplies in relation to need."¹⁴⁰ Although national governments' first priority is to protect the health and food security of their own citizenry, they should still make the effort to fulfill their international legal obligations when they have surplus food to help feed needy populations in other parts of their world. Export bans should not be implemented simply because of COVID-19 anxiety. Instead, they should re-evaluate their trade policies and rethink how they can balance their domestic food security interests and their international responsibilities in providing the much-needed food resources to the hungry people outside their territories.

On March 31st, 2020, the Directors-General of the World Trade Organization (WTO), World Health Organization (WHO), and FAO published a joint statement to "[m]itigat[e] [the] impacts of COVID-19 on food trade and markets."¹⁴¹

¹³⁷ *Kazakhstan Bans Export of Key Food Products amid Coronavirus Spread*, XINHUA NEWS (Mar. 25, 2020, 2:13 AM), http://www.xinhuanet.com/english/2020-03/25/c_138913230.htm.

¹³⁸ Anatoly Medetsky & Megan Durisin, *Russia Wants to Limit Grain Exports to Protect Food Supplies*, BLOOMBERG (Mar. 27, 2020, 3:50 PM), <https://www.bloomberg.com/news/articles/2020-03-27/wheat-futures-rise-as-russia-considers-grain-export-quota>.

¹³⁹ *Id.*

¹⁴⁰ International Covenant on Economic, Social and Cultural Rights, *supra* note 10.

¹⁴¹ Dongyu, Ghebreyesus, & Azevedo, *supra* note 128.

They acknowledged growing concerns about domestic food availability and security, and noted that the concern might “[s]park a wave of export restrictions.”¹⁴²

However, it disagreed with domestic protectionist policies as potentially damaging to the global market. “Millions of people around the world depend on international trade for their food security and livelihoods.”¹⁴³ It warned that protectionist measures such as export bans could lead to artificial supply shortages and a steep increase in food prices.¹⁴⁴ The poor, the elderly, the marginalized, and other vulnerable populations in food-deficit countries would be hit the hardest.¹⁴⁵ Therefore, to ensure freedom from hunger and malnutrition for all people, the world must keep the movement of agricultural and food products as smooth as possible so that vulnerable people in desperate need can have access to adequate food and nutrition.¹⁴⁶

C. Summary

This paper supports the joint statement and agrees with the proposal presented by the Directors-General of the WTO, WHO, and FAO. The disruption to agricultural activities undermines the first aspect of availability, while export bans impede the second aspect of availability. In the long term, COVID-19 may significantly reduce food availability at the global level. To prevent a global food crisis, this paper recommends the highest priority should be given to strengthening agricultural production and global distribution systems. Nevertheless, this paper also predicts that if the world refuses to work collaboratively, COVID-19 continues to spread, and agricultural production continues to plummet, substantial decrease in global food availability will be inevitable. Absolute food shortage may occur, threatening many lives. Under such circumstances, exporting countries may be compelled to escalate their export restrictions on key food products, and thus importing countries may find global markets closed to them. The situation is dire. The world must respond to these emerging issues immediately or it could potentially face the most devastating global food crisis since the adoption of the Universal Declaration of Human Rights in 1948.

¹⁴² *Id.*

¹⁴³ *Id.*

¹⁴⁴ *Id.*

¹⁴⁵ *Id.*

¹⁴⁶ *Id.*

V. PROPOSALS

A. At the National Level

In the best of times, countries differ greatly in their degree of food security. It remains the same in the time of a severe pandemic. Country diversity determines that we should avoid providing a “one-size-fits-all” proposal. Nevertheless, there remain some general approaches that governments may consider adopting to avert an impending food crisis. This paper calls for governments to consider the following three approaches: re-aligning governments’ priorities in protecting domestic food security; encouraging domestic agricultural production; and strengthening emergency food reserves.

1. Governments’ Priorities in Protecting Domestic Food Security

Under international law, States maintain responsibility for protecting their people’s right to food.¹⁴⁷ Emergencies and disasters clearly do not erase this vital legal responsibility. A wide range of government actions could be taken to support and protect food security in the time of COVID-19. To date, almost all governments across the world have more or less intervened to address food security problems induced by COVID-19, although some approaches have proven more effective than others.¹⁴⁸ Despite the diversity in crisis management, at the national level, governments should focus on (1) securing sufficient food for domestic population, and (2) improving effective food distribution. These two priorities are inseparable and key to full realization of the right to food in this tumultuous time.

Securing sufficient food for domestic populations can be achieved through two means: domestic agricultural production and importation. Domestic agricultural production plays an irreplaceable role in providing a continuous supply of food resources.¹⁴⁹ Therefore, national governments must support their agricultural sectors and encourage domestic production. This can be accomplished by

¹⁴⁷ See International Covenant on Economic, Social and Cultural Rights, *supra* note 10 (requiring State Parties to recognize “the fundamental right of everyone to be free from hunger” and “take appropriate steps to ensure the realization of this right”).

¹⁴⁸ Flore de Preneuf, *Food Security and COVID-19*, WORLD BANK (Sept. 14, 2020) <https://www.worldbank.org/en/topic/agriculture/brief/food-security-and-covid-19> (discussing countries’ response to food insecurity in the midst of the pandemic).

¹⁴⁹ See, e.g., Shutao Gao, *Discussion on Issues of Food Security Based on Basic Domestic Self-Sufficiency*, 6 ASIAN SOC. SCI. 42, 45 (2010) (noting that there are different arguments on whether China’s food security should be based on basic domestic self-sufficiency. Gao emphasizes that “adherence to the food security strategy of ‘satisfying basic domestic self-sufficiency’ is a necessary choice”).

working closely with a number of key partners, including agricultural producers and processors, agricultural researchers, farming supply companies, and labor and farmer associations.

Over the last few decades, international agricultural trade has also helped many countries facing food-deficits to achieve food security, although the pursuit of food security through vigorous agricultural importation is a concept not unfamiliar with controversy.¹⁵⁰ In addition to measures designed to strengthen their own domestic agricultural production, it is critical that countries with food deficits must possess food staples on global commodities markets. The next subsection will discuss the first priority in more detail (Section V.A.2).

Governments must improve distribution efficiency to protect domestic food security in the COVID-19 era. The following discussion presents a non-exhaustive list of actions that governments should consider taking to ensure the effective distribution of food to local communities, particularly to vulnerable populations.

As pointed out by an international food standards commission, in these difficult times, “we all rely more than ever on a safe and efficient food supply chain to ensure that food is readily available in every home.”¹⁵¹ Prioritizing social distance and public health should not come at the expense of food security. Governments should compensate for necessary distancing and health policies with regulatory support for food wholesalers and retail markets, as well as transportation and logistics companies. For example, lifting truck delivery curfews facilitates the smooth operation of retail supply chains.¹⁵² In addition, allowing grocery stores to “operate around the clock guarantees that communities have access to essential goods at all times.”¹⁵³

Governments should work closely with emergency management agencies and humanitarian organizations to ensure vulnerable populations also have sustainable access to adequate food and nutrition. For their own part, governments should provide support for people with limited or no economic access to adequate food and nutrition. Government budgets for food assistance and other social safety net programs should be increased accordingly to protect people in need. Moreover, a series of awareness campaigns would be helpful in informing food insecure

¹⁵⁰ See, e.g., Gao, *supra* note 149 (analysing different arguments on whether China’s food security should be based on basic domestic self-sufficiency or it should be substituted by import).

¹⁵¹ *Protecting the Food Supply Chain from COVID-19*, CODEX ALIMENTARIUS (Apr. 8, 2020), <http://www.fao.org/fao-who-codexalimentarius/news-and-events/news-details/en/c/1270223>.

¹⁵² Heather McNab, *NSW Truck Curfews Lifted to Allow 24-Hour Supermarket Deliveries in Bid to Stop Bulk Buying*, 7NEWS (Mar. 20, 2020, 5:36 PM), <https://7news.com.au/lifestyle/health-wellbeing/24-hour-deliveries-to-stop-nsw-bulk-buying-c-753941>.

¹⁵³ *Supermarkets and Pharmacies Now Able to Operate 24/7*, NSW Gov’t (Mar. 25, 2020), <https://www.nsw.gov.au/news/supermarkets-and-pharmacies-now-able-to-operate-24/7>.

people that assistance programs are readily available if needed.¹⁵⁴ Information about eligibility, how to apply, and review processes should be made clear to increase accessibility to such programs.¹⁵⁵

For people who have limited or no physical access to adequate food, governments may consider working with grocery stores, food markets, and food transport providers to explore ways of making grocery delivery more accessible, affordable, and timely. This is an important service for people with barriers to mobility, and for people who cannot risk leaving their home due to health concerns.¹⁵⁶ Government subsidies may make delivery services more efficient.¹⁵⁷ As for people denied access to food both economically and physically, such as low-income seniors, shifting free meal services and food banks to a delivery model would mean saving lives.¹⁵⁸

Although most nations handle food security at the national level, local governments also play an important role in reducing food emergencies in times of tumult or uncertainty.¹⁵⁹ First local governments should pay greater attention to food availability, accessibility, and adequacy at the local level because “during a severe pandemic, national governments may be overwhelmed and may be unable to provide timely assistance to every municipality.”¹⁶⁰ Second, the periodic assessment of local food situations helps local governments decide which communities have difficulty obtaining sufficient, nutritious, and safe food.¹⁶¹ Taking steps to make this determination during times of relative security and certainty will help local governments better handle food security policies during future times of insecurity and uncertainty.

With the pressures of governance in the era of COVID-19 mounting, local governments should take immediate action. Depending on the severity of the situation, local governments could provide direct food assistance or facilitate the distribution of essential food to people in need across the community. This can be achieved through setting up their own food distribution centers or working closely with food banks and other food distribution organizations.¹⁶² If food security deteriorates sharply, local governments could seek assistance from national governments or international agencies, although it may prove challenging to mobilize such food resources to the affected communities.¹⁶³

¹⁵⁴ Goger, *supra* note 66.

¹⁵⁵ *Id.*

¹⁵⁶ *Id.*

¹⁵⁷ *Id.*

¹⁵⁸ *Id.*

¹⁵⁹ PAN AM. HEALTH ORG., *supra* note 65.

¹⁶⁰ *Id.*

¹⁶¹ *Id.* at 2.

¹⁶² *Id.*

¹⁶³ *Id.*

2. *Strengthening Resilience for Food Security and Nutrition: Domestic Agricultural Production*

The expansion of international agricultural trade over the last few decades has “exert[ed] positive and significant impacts” on food security.¹⁶⁴ International trade facilitates the free flow of food supply from food-surplus regions to food-deficit regions¹⁶⁵ and provides global consumers access to “a more diversified and nutritious food basket.”¹⁶⁶ This paper acknowledges the remarkable contributions of agricultural trade to the improvements in food availability, accessibility, and adequacy on a global scale.¹⁶⁷

However, an emerging view holds that high dependence on trade and global markets for food supply is an unsafe choice for importing countries. For example, Otero, Pechlaner, and Gürcan argue that trade liberalization in agriculture benefits countries competitive in the export market but creates undue dependence for many food-deficit developing countries, making them “more susceptible to food price increases on the global market.”¹⁶⁸ Lassa, Teng, Caballero-Anthony, and Shrestha also draw a similar conclusion.¹⁶⁹ They further identify “two separate but interlinked policy directions” that are “favorable in addressing future market uncertainties.”¹⁷⁰ The first directs governments to develop “national stockpiles for essential staples and commodities.”¹⁷¹ The second directs “governments [to] push[] towards the goal of self-sufficiency, especially with respect to staple grains and key commodities.”¹⁷²

Both perspectives have merit. Indeed, it is problematic if a country’s food security relies on external factors like its relationships with exporting countries’

¹⁶⁴ Jan Dithmer & Awudu Abdulai, *Does Trade Openness Contribute to Food Security? A Dynamic Panel Analysis*, 69 FOOD POL’Y 218, 218 (2017).

¹⁶⁵ *Id.*

¹⁶⁶ Antoine Bouët & David Laborde, *Building Food Security Through International Trade Agreements*, INT’L GROWTH CTR. BLOG (Dec. 11, 2017), https://www.theigc.org/blog/food-security-international-trade/#m_-7443654334726663846__ftn2.

¹⁶⁷ See Dithmer & Abdulai, *supra* note 164 (arguing “trade openness . . . improves dietary diversity and diet quality-related aspects of food security”).

¹⁶⁸ Gerardo Otero et al., *The Political Economy of “Food Security” and Trade: Uneven and Combined Dependency*, 78 RURAL SOCIO. 263, 285 (2013) (quoting Pol’y and Operations Evaluation Dep’t, Neth. Ministry of Foreign Affs., *Improving Food Security: Emerging Evaluation Lessons 7* (OECD Dev. Assistance Comm. Network on Dev. Evaluation, Working Paper No. 5, 2012)).

¹⁶⁹ See Jonatan A. Lassa et al., *Revisiting Emergency Food Reserve Policy and Practice Under Disaster and Extreme Climate Events*, 10 INT’L J. DISASTER RISK SCI. 1 (2019) (concluding, after conducting a series of case studies on food security policies in the context of disasters in Indonesia, the Philippines, Malaysia, and India, that high dependence on food imports poses a severe threat to importing countries’ food security).

¹⁷⁰ *Id.* at 5.

¹⁷¹ *Id.*

¹⁷² *Id.*

governments, and the political, economic, and social stability in those countries. Additionally, Lassa and his coauthors' suggestion on strengthening domestic agricultural production is also practical.¹⁷³ In the time of a severe pandemic, a low food self-sufficiency rate poses greater risks to domestic food security.¹⁷⁴ This is a particularly worrying concern when supply chains are disrupted and importing countries cannot wholly depend on global markets for food supply as they are used to. Averting a global food crisis precipitated by COVID-19 requires governments to take all necessary legislative, judicial, administrative, and budgetary measures to support the agricultural sector and encourage domestic production.¹⁷⁵

Effective public intervention in agriculture strengthens resilience for domestic food security and nutrition, creating a safety net and buffer against disruptions in global supply chains and other shocks affecting food availability and affordability.¹⁷⁶ From a trade perspective, this approach may be too conservative. However, these are unparalleled times and thus require an unprecedented approach. Moreover, some scholars may also question the feasibility of this proposal because it takes time to grow food. This paper acknowledges this concern as well. From seed to harvest, most crops need a growing season of at least three months.¹⁷⁷ Nevertheless, a global food crisis is yet to arrive. Although growing food takes time, we are still able to avert the impending food pandemic by supporting domestic agricultural production.

In the short term, governments, including governments of food-deficit countries, should implement a series of immediate interventions to improve domestic agricultural production. The priority should be production of staple grains and other key food commodities. This requires governments to support agriculture

¹⁷³ *Id.*

¹⁷⁴ Jennifer Clapp, *Food Self-Sufficiency: Making Sense of It, and When it Makes Sense*, 66 FOOD POL'Y 88 (2017) (noting that “[f]ood self-sufficiency gained increased attention in a number of countries in the wake of the 2007–[20]08 international food crisis,” and many countries sought to improve self-sufficiency to “buffer themselves from volatility on world food markets.”).

¹⁷⁵ *Cf. Food Security and COVID-19*, WORLD BANK (Oct. 15, 2020), <https://www.worldbank.org/en/topic/agriculture/brief/food-security-and-covid-19> (“Alarmed by a potential rise in food insecurity during the COVID-19 pandemic, many countries and organizations are mounting special efforts to keep agriculture safely running as an essential business . . . despite movement restrictions and income losses.”).

¹⁷⁶ Raphael Lencucha et al., *Government Policy and Agricultural Production: A Scoping Review to Inform Research and Policy on Healthy Agricultural Commodities*, GLOBALIZATION AND HEALTH (2020), <https://globalizationandhealth.biomedcentral.com/articles/10.1186/s12992-020-0542-2>.

¹⁷⁷ *Growing Season*, NAT'L GEOGRAPHIC, <https://www.nationalgeographic.org/encyclopedia/growing-season> (last visited Oct. 13, 2020).

during COVID-19 by providing significant capital investment for irrigation, agricultural science, and technology, which could rapidly improve productivity.¹⁷⁸ In many cases, governments may need to make necessary adjustments to land use so that food production can be prioritized. In addition, governments should also consider developing long-term strategies to strengthen their agricultural sectors and bolster their general agricultural resilience and food security.¹⁷⁹ As a general principle, these strategies should aim to help the country achieve greater food security by strengthening domestic production. However, this may only work for some countries due to various restrictions on agriculture like land availability and water restrictions.¹⁸⁰

To clarify, this paper does not suggest de-globalization or agricultural protectionism. Instead, the COVID-19 pandemic provokes people to rethink and reassess what really matters to life. Apart from good health, most people would agree that other human needs, such as adequate food, clothing, and housing, must be prioritized, because they are the most fundamental elements to human survival.¹⁸¹ To ensure people's sustainable access to adequate food, this paper calls for governments to reconsider the value and importance of agriculture and support domestic food production.

Over the last few decades, the world has sacrificed agriculture to boost economic growth. For example, much of the world's arable land has been lost to "residential, commercial, industrial, and transportation pressures that attend metropolitan expansion."¹⁸² In many developing countries, growing profitable cash crops gets too much focus, which destroys domestic agricultural production and increases reliance on food imports.¹⁸³ This created an urgent need for fundamen-

¹⁷⁸ See generally Nikolche Jankulovski et al., *Impact of Budget Allocation in Enhancing Agricultural R&D: Study in EU*, 7 TEM J. 762 (2018) (demonstrating that to improve production, it is imperative to undertake major innovations and advancements in the agricultural sectors, which requires increased investment from the public sector).

¹⁷⁹ Brooke Borel, *When the Pesticides Run Out*, 543 NATURE 302, 304 (2017).

¹⁸⁰ E.g., *Water in Agriculture*, THE WORLD BANK (May 8, 2020), <https://www.worldbank.org/en/topic/water-in-agriculture> (noting that "[w]ater is a critical input for agricultural production and plays an important role in food security."); see also *Why Preserve Farmland?*, WECONSERVEPA, <https://conservationtools.org/guides/147-why-preserve-farmland/> (last visited Nov. 24, 2020) (emphasizing the importance of preserving productive agricultural lands).

¹⁸¹ See International Covenant on Economic, Social and Cultural Rights, *supra* note 10 ("The States Parties to the present Covenant recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions.").

¹⁸² William L. Church, *Farmland Conversion: The View from 1986*, 1986 U. ILL. L. REV. 521, 537 (1986).

¹⁸³ George W. Shepherd, Jr., *The Denial of the Right to Food: Development and Intervention in Africa*, 15 CAL. W. INT'L L.J. 528, 531 (1985).

tal change. Governments must re-emphasize agriculture and “stimulate the recovery of their national food producing capacity.”¹⁸⁴ This would build resilience for food security and nutrition even beyond COVID-19 to the general context of future natural and man-made disasters.

Furthermore, this paper does not propose that governments should try to be self-sufficient in all agricultural and food commodities. Producing huge amounts or varieties of food within a short period of time is an ambitious plan for many food-deficit countries. Without a doubt, it is not easy to achieve. Food-deficit countries often lack the necessary facilities for agricultural production. But in times of emergency, some food is better than no food, and additional food resources in any quantity is valuable. Domestic agricultural production, even in small quality, contributes to the improvements in domestic food availability.

3. *Emergency Food Reserve (EFR)*

Over the last few decades, the world has shifted towards trade-based food policies and relied heavily on global markets to meet domestic demand for food.¹⁸⁵ As a result, public food reserves, including emergency food reserve programs (EFR), have gradually decreased,¹⁸⁶ although many governments still use it as “a form of contingency planning and risk management strategy” to shield themselves against lack of food availability or high prices on global markets.¹⁸⁷ There are two main grounds under which EFR should be considered essential to protect the right to food in the event of a food shortage. First, EFR is necessary to correct crop failures caused by natural disasters or climate emergencies.¹⁸⁸ Second, EFR safeguards the human right to food against market failures¹⁸⁹ and softens disruptions resulting from international trade uncertainties and volatility.¹⁹⁰ In crisis situations, domestic food security cannot wholly rely on market responses: for various reasons, the private sector may struggle to mobilize sufficient food supplies from outside affected areas.¹⁹¹ Under such circumstances, if governments

¹⁸⁴ Peter Rosset, *Food Sovereignty and the Contemporary Food Crisis*, 51 DEV. 460, 462 (2008).

¹⁸⁵ *Id.* at 461.

¹⁸⁶ *Id.*

¹⁸⁷ Lassa et al., *supra* note 169, at 1.

¹⁸⁸ *See id.* at 11 (“Government obligations in providing food safety nets . . . are one of the reasons for maintaining EFR policy.”).

¹⁸⁹ *Id.* at 1 (noting that governments use EFR “as a form of contingency planning and risk management strategy for unstable periods during droughts, catastrophes, wars, and conflicts.”).

¹⁹⁰ *Id.* at 11 (“One justification [for national food stockpiling] is the erosion of trust in the international food markets and the long-term stability of international prices for key commodities.”).

¹⁹¹ TOBIAS TAKAVARASHA, THE ROLE OF THE PRIVATE SECTOR IN ADDRESSING FOOD EMERGENCIES AND VULNERABILITIES IN SOUTHERN AFRICA: A SUMMARY OF THE LITERATURE

hold sufficient public EFR, particularly stocks of key staple commodities, they can quickly distribute the resources to the people in need, protecting their right to food.

The FAO, together with ten other major international organizations, published a joint report in 2011 (the Joint Report) that provided governments general advice on the integration of EFR into domestic food security policies.¹⁹² The Joint Report suggests that governments should incorporate EFR into their social protection and food security safety net programs to improve the effectiveness of EFR and ensure the most vulnerable populations' access to adequate food.¹⁹³ As for budget planning, the Joint Report acknowledges that some developing countries might not have the financial resources to operate a full-scale EFR program.¹⁹⁴ Yet it advises governments that have the capacity to do so to ensure EFR is "adequately resourced and financed."¹⁹⁵ Contingent financing plans should be developed far in advance so governments can quickly allocate funds to vital food supplies necessitated to address deficiency.¹⁹⁶ To further improve the efficiency of EFR programs, the Joint Report recommends the establishment of an independent national EFR agency, as well as a "well-defined, clear and transparent triggering mechanism[] supported by effective early warning systems."¹⁹⁷

This paper agrees with the Joint Report's findings. It is highly recommended that governments consider the above suggestions while designing or adjusting their national food security policies. Another important consideration is staple food strategy. This paper finds that individual countries should take into account three factors while strategically choosing key staples for EFR. First, strategic staples for EFR purposes must be storable for a long period of time.¹⁹⁸ Second, strategic staples should suit the local diet, as people from different countries, subregions, and ethnic groups have different preferences for staple foods. For

5 (2006), <http://www.fao.org/fileadmin/templates/ags/docs/marketing/esa/takavarasha.pdf> (noting that "[i]t has generally been observed that the private sector fails to respond to food emergencies and vulnerabilities due to: (1) policies that adversely affect the decision to trade and (2) infrastructural constraints.").

¹⁹² FAO, IFAD, IMF, OECD, UNCTAD, WFP, World Bank, WTO, IFPRI, & UN HLTF, *Price Volatility in Food and Agricultural Markets: Policy Responses*, ¶¶ 111-15 (June 2, 2011), http://www.fao.org/fileadmin/templates/est/Volatility/Interagency_Report_to_the_G20_on_Food_Price_Volatility.pdf.

¹⁹³ *Id.* ¶ 112.

¹⁹⁴ *Id.* ¶ 113.

¹⁹⁵ *Id.* ¶ 112.

¹⁹⁶ *Id.*

¹⁹⁷ *Id.*

¹⁹⁸ *E.g.*, Jillian Kubala, *12 of the Best Non-Perishable Foods*, HEALTHLINE (Jan. 16, 2020), https://www.healthline.com/nutrition/non-perishable-food#_noHeaderPrefixedContent (noting that non-perishable foods "have a long shelf life and don't require refrigeration to keep them from spoiling.").

example, people in Asian countries rely on rice, people from the Middle East and North Africa region are more dependent on wheat, and people from southern and eastern African countries prefer corn as a dietary staple.¹⁹⁹ Food preference is deeply rooted in local traditions and culture and governments should ensure people have access to their socially preferred foods. Third, governments should consider stockpiling foods that are native to a particular region and can be produced and reproduced with relative ease.

As to the question how long EFR should last, governments have different views. For example, Malaysia plans to maintain a four months' supply of rice,²⁰⁰ while Indonesia aims to stockpile food reserves that meet 20% of total demand.²⁰¹ However, this paper suggests a minimum reserve that lasts at least one full crop cycle, in order to give authorities valuable time to look for methods to overcome the deficiency while local farmers work hard to catch up on production. For example, it usually takes about three to six months for rice to grow from seed to harvest, depending on the variety of the rice and local environmental conditions.²⁰² In tropical nations like Malaysia, the crop cycle for rice is on average three months long.²⁰³ Thus, governments in tropical regions may only need to prepare three months' supply of staples. In many non-tropical regions like northern China, the crop cycle is much longer.²⁰⁴ Sometimes, it may take up to six months for rice to grow from seed to harvest.²⁰⁵ In that case, rice-prioritizing governments are advised to prepare at least six months' supply.

EFR should be strategically stored in warehouses throughout the country so that emergency food assistance can reach hungry individuals dispersed over potentially large geographic areas for rapid relief.²⁰⁶ As for distribution, it must be noted that EFR should only be activated in the event of a food shortage. A transparent and effective distribution system must also be established to ensure its proper implementation.

¹⁹⁹ Christopher L. Gilbert, *Food Reserves in Developing Countries: Trade Policy Options for Improved Food Security*, INDIAN COUNCIL FOR RSCH. ON INT'L ECON. RELS. 27 (Sept. 2011), <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1039.9567&rep=rep1&type=pdf>.

²⁰⁰ Lassa et al., *supra* note 169, at 10.

²⁰¹ *Id.* at 7.

²⁰² Arika Bridhikitti & Thomas J. Overcamp, *Estimation of Southeast Asian Rice Paddy Areas with Different Ecosystems from Moderate-resolution Satellite Imagery*, 146 AGRIC. ECOSYSTEMS & ENV'T 113, 115 (2012) (noting that "[a] rice-cropping cycle takes three to six months depending on the rice ecosystems.").

²⁰³ *Malaysia*, FAO, <http://www.fao.org/3/Y4347E/y4347e14.htm#bm40> (last visited Nov. 13, 2020).

²⁰⁴ *China*, FAO, <http://www.fao.org/3/Y4347E/y4347e0g.htm#bm16> (last visited Nov. 13, 2020).

²⁰⁵ Bridhikitti & Overcamp, *supra* note 202.

²⁰⁶ *E.g.*, Lassa et al., *supra* note 169, at 6 (noting that "[a]s of 2014, the Indonesian Bureau of Logistics had 1500 warehouses spread across 33 provinces").

Some researchers may question the efficiency of EFR programs on two grounds. EFR at a large scale is costly and may distort global food prices and markets.²⁰⁷ On one hand, large amounts of public funds are required to procure and manage food resources, as well as to build, maintain, or upgrade storage infrastructure.²⁰⁸ On the other hand, as governments stockpile food for EFR programs, food prices and markets may be distorted as they are not exclusively driven by the market.²⁰⁹

In response to the first concern, this paper indicates the cost of EFR programs is high, but the cost of a food crisis, in human health, human life, lost GDP, and relief and rehabilitation spending, could be much higher.²¹⁰ Despite high economic costs, EFR practices have become “an integral part of the larger food policy and national risk management strategy” of many countries, including the Philippines, Indonesia, and Malaysia.²¹¹ Many countries in the world have a tradition of maintaining food reserves for unforeseen disasters and emergencies.²¹² However, as the global trend of neoliberalism spread through the region in the 1980s, food programs in Asia were “reduced in scope,” and “food self-sufficiency policies . . . were frowned upon and pushed aside in favor of more trade-based policies.”²¹³ In the aftermath of the 2008 global food crisis, many Asian countries revisited their food security policies and increased their procurement levels for EFR.²¹⁴ Over the last few years, the increase in EFR practices has been quite noticeable in net-food importing countries.²¹⁵

As for the second concern, governments should minimize market distortions by procuring food resources throughout the years. In good harvest years, governments may gradually increase procurement levels in small quantities that “will

²⁰⁷ *Id.* at 1.

²⁰⁸ Gilbert, *supra* note 199, at 31 (“The experience over a number of decades indicates that national stock policies have been costly—they tie up scarce resources, the grain is vulnerable to deterioration, they are vulnerable to corruption and theft and, like internationally held stocks, they discourage private stockholding.”).

²⁰⁹ Lassa et al., *supra* note 169, at 3 (“In the case of thinly-traded commodities such as rice, the decision to adopt food stockpiling policies is likely to result in less stock available globally for export, thus potentially leading to limited supply and sustained higher prices.”).

²¹⁰ See A.K.M. Mamunur Rashid, *Understanding Vulnerability and Risks, in* DISASTER RISK REDUCTION APPROACHES IN BANGLADESH 24 (Rajib Shaw et al. eds., 2013) (noting that disasters are very expensive and are increasing in severity over time).

²¹¹ Lassa, et al., *supra* note 169, at 5.

²¹² *Id.* (“Some of these [stockpiling] practices can be traced back to colonial times, while some were implemented after independence to address certain challenges and needs in the domestic food economy.”)

²¹³ *Id.*

²¹⁴ See, e.g., *id.* at 8 (noting that the Philippines experienced “a sudden rise in stockpiling after the food crisis in 2007–2008”).

²¹⁵ *Using Public Foodgrain Stocks to Enhance Food Security*, WORLD BANK, at XII (Sept. 2012), <https://openknowledge.worldbank.org/bitstream/handle/10986/11878/712800ESW0P1130Foodgrain0Stocks0web.pdf?sequence=1&isAllowed=y>.

not disrupt normal private sector market development.”²¹⁶ In addition, for countries that rely heavily on food imports, the diversification of trading partners in the agricultural sector should be encouraged. This approach maximizes the sources of food supply, reduces the risk of being manipulated by a single exporter, and protects domestic food security.²¹⁷

However, a practical challenge exists. For countries that have already reserved sufficient EFR, they could take out their EFR and distribute to the people in need immediately. For countries that have some EFR but not enough, they could gradually build their reserves in response to the impending COVID-19 food crisis. However, for countries that have low or no food reserves, this proposal is hardly able to serve as a short-term strategy because it takes time to develop a full-scale EFR program.²¹⁸ Despite this challenge, in the time of the COVID-19 pandemic, it is important for governments to take effective steps to gradually increase their EFR and improve food emergency readiness.

Agricultural trade plays a critical role in improving global food availability, accessibility, and adequacy. However, in times of emergency, governments cannot depend entirely on global markets for food resources. Trade-based food policies work less well if imports are required immediately or if the world as a whole is facing absolute food scarcity. Thus, governments should strive to develop a more robust and resilient domestic food system and maintain their own national EFR programs for the purpose of food security and emergency preparedness.

B. At the International Level

1. Under International Law: The Development of the Right to Food in Emergencies

Pursuant to Article 11 of the ICESCR, States bear the primary responsibility to protect their people’s right to food at all times.²¹⁹ However, when a State is unable to do so—or under extreme conditions, not willing to do so—other States and the international community “have a subsidiary responsibility to act.”²²⁰

²¹⁶ FAO, IFAD, IMF, OECD, UNCTAD, WFP, World Bank, WTO, IFPRI, & UN HLTF, *supra* note 192, at 28.

²¹⁷ See, e.g., Alan Matthews, *Trade Rules, Food Security and the Multilateral Trade Negotiations*, 41 EUR. REV. OF AGRIC. ECON. 511, 520 (2014) (noting that food price risk can be reduced through diversification of supplies).

²¹⁸ See, e.g., D. JOHN SHAW, *WORLD FOOD SECURITY: A HISTORY SINCE 1945* 58 (2007) (noting that “stocks meant capital locked up in uses that were not directly productive. They also needed to be looked after and involved continuing costs and administrative problems. These were serious consideration, particularly in developing countries where capital was scarce, returns from productive investment attractive, and administrative problems difficult to solve.”).

²¹⁹ See International Covenant on Economic, Social and Cultural Rights, *supra* note 10.

²²⁰ Elver, *supra* note 73, ¶ 71.

Over the last few decades, the international community has made a genuine effort to fulfill its subsidiary responsibility and protect vulnerable populations from hunger and malnutrition.²²¹ The United States, Australia, Canada, and the European Union have been some of the largest donors of international food aid.²²² Nevertheless, there remains much room for improvement, specifically in the area of protecting global food security during crises like the ongoing COVID-19 pandemic.

Recently, the FAO has provided some general clarification and guidance on protecting the right to food in emergencies. For example, *The Right to Adequate Food in Emergencies*, an FAO report from 2002, endeavored to explain “the meaning of the right to adequate food with specific regard to emergency situations, including both natural and man-made disasters.”²²³ Since then, the FAO has conducted further research and clarified the normative content of the right to adequate food. Built upon the 2002 report, *The Right to Adequate Food in Emergency Programmes* report from 2014 “demonstrate[s] the importance of adopting the right to adequate food and related human rights standards in the work on emergencies.”²²⁴ It also provides practical advice on “how to integrate the standards into emergency programmes or projects.”²²⁵ For example, the 2014 report recommends that emergency programs “take into account many competing factors and perspectives on various issues that range from resource mobilization to context sensitivity,” and follow a human rights based approach to improve their efficiency.²²⁶ Since 2017, the United Nations Special Rapporteur on the right to food, Dr. Hilal Elver (Special Rapporteur), has also produced two successive reports addressing food security issues in the context of emergencies. The first report deals with the international humanitarian system and its response to the right to food in conflict situations.²²⁷ The second report focuses on the right to food in the context of natural disasters, including climate-related situations.²²⁸

²²¹ See *id.* ¶ 79 (indicating that the international community has been providing food aid to needy people since the 1950s). In the 1950s, “food aid was dominated by the United States, Canada and Australia, which together accounted for over 90 per cent of the total.” *Id.* “In the 1970s, the European Community and Japan also began to provide international food aid. Since then, the European Union has become the second-largest food aid donor.” *Id.* ¶ 80. As recently as 2018, the United States provided about 50% of all food aid worldwide and fed approximately fifty million people in fifty-six countries. *Id.* ¶ 84.

²²² *Id.* ¶¶ 79–80, 84.

²²³ LORENZO COTULA & MARGARET VIDAR, *THE RIGHT TO ADEQUATE FOOD IN EMERGENCIES*, FAO iii (2002) <http://www.fao.org/3/a-y4430e.pdf>.

²²⁴ SISAY ALEMAHU YESHANEW, *THE RIGHT TO ADEQUATE FOOD IN EMERGENCY PROGRAMMES*, FAO 1 (2014), <http://www.fao.org/3/a-i4184e.pdf>.

²²⁵ *Id.*

²²⁶ *Id.* at 12.

²²⁷ Hilal Elver (Special Rapporteur on the Right to Food), *Interim Report of the Special Rapporteur on the Right to Food*, ¶ 3, U.N. Doc. A/72/188 (July 21, 2017).

²²⁸ Elver, *supra* note 73, ¶ 39.

The Special Rapporteur investigates the direct and indirect impact of conflicts and natural disasters on the realization of the right to food. She evaluates the effectiveness of the existing humanitarian systems in responding to these human rights disasters and proposes several solutions to improve food security in the context of conflicts and natural disasters.²²⁹

The FAO and the UN Special Rapporteur addressed the linkages between food security and emergencies, affirming that the right to food must be protected at all times, including in emergency situations. However, they mainly focused on common emergencies, such as natural disasters and conflicts, leaving pandemic-induced food emergencies unaddressed.²³⁰ To be fair, the UN agency and the Special Rapporteur should be applauded for their efforts to improve global food security in difficult circumstances. They should not be blamed for inadequately preparing for a food crisis caused by an unprecedented pandemic. After all, for over a century, pandemics have been extremely rare.

The guidance provided by the FAO and the Special Rapporteur is valuable, as it is applicable to food emergencies caused by COVID-19 and pandemics alike. Nevertheless, one must acknowledge that the guidance is not designed specifically for an unprecedented global pandemic of this scale. Food emergencies stemming from common emergency situations, such as conflicts and natural disasters, and food emergencies caused by a pandemic differ greatly in nature. During a pandemic like COVID-19, it is not always easy to mobilize global food resources to the most needed populations, owing to the extreme mobility restrictions and various protectionist measures taken by individual governments.²³¹ In addition, diminished workforces and other unpredictable factors may cause absolute food shortages if the world does not take food security seriously, decreasing global food availability and the scale of assistance that the international community could possibly render.²³² Thus, it is vital that the international community pays greater attention to food security in the time of a pandemic, re-evaluates its emergency plans, and works on a holistic approach that ensures people's access to adequate food and nutrition, through either domestic or international means.

²²⁹ *Id.* ¶¶ 111–12.

²³⁰ See Elver, *supra* note 73; Elver, *supra* note 227.

²³¹ Serpil Aday & Mehmet Seckin Aday, *Impact of COVID-19 on the Food Supply Chain*, 20 FOOD QUALITY AND SAFETY 1, 3 (2020).

²³² Dionysis Bochtis et al., *Agricultural Workforce Crisis in Light of the COVID-19 Pandemic*, 12 SUSTAINABILITY 1, 2–3 (2020).

2. *In Practice: Emergency Food Aid*

In practice, the international community often uses emergency food aid to provide immediate relief to hungry populations affected by natural disasters, conflicts, and other emergencies.²³³ These disaster relief and humanitarian assistance responses have been vital in mitigating food security risks in affected countries.²³⁴

In response to a pandemic-induced food emergency, it is crucial that the international community works together and provides emergency food aid in a timely fashion to countries where governments are not able to provide sufficient food to feed their people. This is particularly important for low-income, food-deficit countries. Food insecurity in these countries is amplified by their economic hardships and insufficient food supply. Low-income, food-deficit countries have already faced persistent problems of underdevelopment.²³⁵ The outbreak of COVID-19 only further engenders a severe economic downturn. Mass unemployment and the breakdown of social services largely restrict people's access to adequate food and nutrition.²³⁶ Given that these countries rely heavily on food imports, their people's right to food is at risk if they cannot secure food supply from the global markets. Unfortunately, market disruptions caused by COVID-19 have made trade-based food policies unreliable.²³⁷ Food aid would provide a crucial lifeline of support to hungry populations caught in the midst of COVID-19-induced food emergencies.²³⁸ As one of the most frequently used forms of international support over the last few decades, food aid "has saved many lives during severe humanitarian crises."²³⁹ Without a doubt, effective food aid will also save many vulnerable people from hunger and malnutrition in times of COVID-19 and other pandemics.

²³³ Guy Jackson, *The Influence of Emergency Food Aid on the Causal Disaster Vulnerability of Indigenous Food Systems*, 37 AGRIC. & HUM. VALUES 761, 761–77 (2020) (noting that "emergency food aid is the dominant humanitarian response to food insecurity precipitated by disasters.").

²³⁴ Elver, *supra* note 227, ¶45 ("Emergency aid plays a critical role in filling gaps in situations where States themselves are unable or unwilling to meet the basic needs of their populations.").

²³⁵ OECD, WHY A TERRITORIAL PERSPECTIVE IS USEFUL FOR FOOD SECURITY AND NUTRITION POLICY 43 (2016).

²³⁶ David Laborde, Will Martin, & Rob Vos, *Poverty and Food Insecurity Could Grow Dramatically as COVID-19 Spreads*, INT'L FOOD POLICY RESEARCH INST. (Apr. 16, 2020), <https://www.ifpri.org/publication/poverty-and-food-insecurity-could-grow-dramatically-covid-19-spreads>.

²³⁷ *COVID-19 and the Food and Agriculture Sector: Issues and Policy Responses*, OECD (Apr. 29, 2020), <https://www.oecd.org/coronavirus/policy-responses/covid-19-and-the-food-and-agriculture-sector-issues-and-policy-responses-a23f764b/>.

²³⁸ See Elver, *supra* note 73, ¶ 77 (explaining that food aid is an ancient remedy for emergency situations).

²³⁹ *Id.*

However, there are two key concerns related to the use of food aid. The first concern lies in the reliability of food aid.²⁴⁰ Most food aid programs are voluntary.²⁴¹ Food aid programs, in many cases, are driven by the donor-oriented objectives of foreign policies instead of the need of the recipients.²⁴² They have been used as a tool to suit the convenience of donors' commercial or political goals.²⁴³ The second concern relates to the long-term impact of food aid. Food aid on a continuing basis could potentially create undue dependence that impedes long-term development.²⁴⁴ As observed by the Special Rapporteur on the right to food, "poorly designed, charity-based food aid . . . can have negative effects on small-scale farmers in recipient countries by exerting downward pressure on domestic food prices, and can adversely affect trade, production incentives and labour markets."²⁴⁵ Even worse, for those that heavily depend on food aid, any failure or disruption to food aid could exacerbate hunger in the recipient countries.

This paper acknowledges these two concerns. Nevertheless, in the context of COVID-19 or other pandemics, the first concern—the reliability of food aid—is more worrying. Two persistent problems impede the reliability of food aid in emergency situations.²⁴⁶ First, food aid "suffers from serious financial constraints and lack of coordination."²⁴⁷ Second, the politics of food aid may undermine the efficiency and effectiveness of international food aid.²⁴⁸

To mitigate the first problem, the United Nations Food Assistance Convention (2012) (the Convention) was adopted on April 25, 2012, and entered into force on January 1, 2013.²⁴⁹ The Convention is the only international legal agreement

²⁴⁰ J. Dirck Stryker, *U.S. Food Aid Legislation: Its Perspective, the American Farmer or Hungry People; and Its Structure, Purposes and Conclusions*, 30 HOW. L.J. 301, 306 (1987).

²⁴¹ Elver, *supra* note 73, at 4.

²⁴² See generally JENNIFER CLAPP, HUNGER IN THE BALANCE: THE NEW POLITICS OF INTERNATIONAL FOOD AID (2012) (providing a comprehensive account of the politics of food aid).

²⁴³ Linda M. Young, *Options for World Trade Organization Involvement in Food Aid*, 3 ESTEY CTR. J. INT'L L. & TRADE POL'Y 1, 19 (2002).

²⁴⁴ See Elver, *supra* note 73, ¶ 81 (noting that long-term recipients of food aid may "become dependent in ways that impede balanced, sustainable development."); see also U.S. GOV'T ACCOUNTABILITY OFF., GAO/NSIAD-95-25, FOOD AID-PRIVATE VOLUNTARY ORGANIZATIONS' ROLE IN DISTRIBUTING FOOD AID 3 (1994) (noting that food experts believe food aid may create dependency).

²⁴⁵ Elver, *supra* note 73, ¶ 78.

²⁴⁶ Cf. KATHERINE V. REILLY, FOOD AID POLICY AND CHALLENGES (2009) (investigating multiple challenges impeding the general effectiveness and efficiency of food aid programs, particularly in the context of the U.S. programs).

²⁴⁷ Elver, *supra* note 73, at 20.

²⁴⁸ See, e.g., BARRY RILEY, THE POLITICAL HISTORY OF AMERICAN FOOD AID: AN UNEASY BENEVOLENCE (2017) (investigating the impact of American political processes on food aid).

²⁴⁹ United Nations Food Assistance Convention, Apr. 25, 2012, 2884 U.N.T.S. 50320.

that requires its Member States to make an annual commitment of food assistance.²⁵⁰ In addition, the Convention is committed to “improv[ing] the effectiveness, efficiency, and quality of food assistance in preserving the lives and alleviating the suffering of the most vulnerable populations, especially in emergency situations, by strengthening international cooperation and coordination, in particular among the Parties and stakeholders.”²⁵¹ What seemed like an effective Convention has several flaws. For one thing, it only has sixteen Parties.²⁵² For another, the scale of food aid provided by these countries is limited.²⁵³ It is true that the Convention sets a minimum donation commitment and requires the Members to provide annual reports on “how [their] food assistance policies, programs and operations contribute to the objectives and principles of this Convention.”²⁵⁴ However, it does not specify an enforcement or monitoring mechanism to ensure the accountability of the Member States and the availability of food aid.²⁵⁵ That means if a Member State fails to provide obligated food aid there would be no meaningful consequences. Furthermore, as previously discussed, food availability may also become a real concern in the time of a pandemic, not only for food-deficit countries, but also for countries that usually have surplus.²⁵⁶ If food availability is severely reduced in major agricultural countries, there

²⁵⁰ Jennifer Clapp & C. Stuart Clark, *The 2012 Food Assistance Convention: Is a Promise Still a Promise?*, CTR. FOR INT'L GOVERNANCE INNOVATION (May 25, 2012), <https://reliefweb.int/report/world/2012-food-assistance-convention-promise-still-promise> (last visited Sept. 25, 2020) (“[The Food Assistance Convention] is the only international legal agreement that requires members to provide a minimum amount of food assistance.”).

²⁵¹ United Nations Food Assistance Convention, *supra* note 249, at pmbl.

²⁵² U.N., *Depositary Notification C.N.215.2012.TREATIES-XIX.48*, U.N. TREATY COLLECTION (May 9, 2012), <https://treaties.un.org/doc/Publication/MTDSG/Volume%20II/Chapter%20XIX/XIX-48.en.pdf>.

²⁵³ Annamaria La Chimia, *Food Security and The Right To food: Finding Balance in the 2012 Food Assistance Convention*, 65 INT'L COMP. L. Q. 99, 110–12 (2016) (noting that the Convention adopts a flexible approach. “Parties’ commitments are no longer specified in the text of the Convention and no total collective level of assistance has been agreed.” “Each Party instead is to notify the Secretariat of its annual commitment by 15 of December each year.” There lacks “specific mechanisms preventing Parties from unreasonably reducing their commitments.” “Parties do not have to justify the changes made to commitments nor are they required to monitor the food security impact of those changes.”).

²⁵⁴ United Nations Food Assistance Convention, *supra* note 249, at art. 6.

²⁵⁵ *Id.* at art. 2(d) (recommending Member States to “monitor, evaluate, and communicate, on a regular and transparent basis, the outcomes and the impact of food assistance activities in order to further develop best practices and maximise their effectiveness,” without specifying how it should be done).

²⁵⁶ David de Paulo Farias & Mayara Germana dos Santos Gomes, *COVID-19 Outbreak: What Should be Done to Avoid Food Shortages?*, 102 TRENDS IN FOOD SCI. & TECH. 291, 291 (2020) (noting that “COVID-19 has compromised the ability of agricultural companies, traders, food manufacturers, distributors and retailers in the food chains to develop their businesses within the normal range, threatening the survival of these companies and putting at risk the maintenance of food systems.”).

would be less surplus to be distributed to the hungry populations in food-deficit countries.

As for the second problem, it is no secret that political and commercial considerations have always been part of food aid programs.²⁵⁷ The intersection of COVID-19 and hunger certainly sets the stage for the politicization of emergency food relief, especially when the two great powers of the world,²⁵⁸ the United States and China, have been stuck in an international blame game on the origin of the virus and the response.²⁵⁹ Although the blame game appears to involve two countries only, it may have a much broader impact and change the dynamics of international relations. While a global food crisis is imminent, food aid is likely to be used as a tool to achieve donors' political and commercial objectives.²⁶⁰ As to how world politics affects the efficiency and effectiveness of international food aid, it remains largely unknown at this stage.²⁶¹

Farmers worldwide will need to increase crop production because it is the most efficient and reliable way to enhance food availability at both the national and international levels.²⁶² Yet, to ensure hungry people can truly benefit from

²⁵⁷ See RILEY, *supra* note 248, at xxi (“Over the past two centuries American food aid has been used . . . as a political device . . . and as a useful chip in Cold War poker games. It has been a means of bolstering the U.S. maritime industry and American agribusinesses . . .”). *But see* Peter Uvin, *Regime, Surplus, and Self-Interest: The International Politics of Food Aid*, 36 INT’L STUD. Q. (1992) (arguing that food aid donation is increasingly governed by a developmental international regime rather than motivated solely by donors’ self-interest).

²⁵⁸ Fiona Hill, et al., *Balancing Act: Major Powers and the Global Response to US-China Great Power Competition (A Brookings Interview)* (July 2020), https://www.brookings.edu/wp-content/uploads/2020/07/FP_20200701_us_china_competition.pdf (noting that the United States and China are the two great powers of the world, specifically in the areas of “economic scale, energy consumption, carbon emissions, military spending, and technology”).

²⁵⁹ Ashley Townshend & Matilda Steward, *Great Powers Play a Diplomatic Blame Game*, U.S. STUD. CTR. (Apr. 22, 2020), <https://www.ussc.edu.au/analysis/great-powers-play-a-diplomatic-blame-game> (reporting that as the world emphasizes the importance of global cooperation in combating the COVID-19 pandemic, China and the United States are stuck in a dispute over the origin of the virus as well as the response).

²⁶⁰ See, e.g., RILEY, *supra* note 248 (investigating the impact of American political processes on food aid and suggesting American agricultural aid has been a tool of the U.S. government policy).

²⁶¹ Christopher B. Barrett, Book Review, ECON. HIST. ASS’N, https://eh.net/book_reviews/the-political-history-of-american-food-aid-an-uneasy-benevolence (reviewing BARRY RILEY, *THE POLITICAL HISTORY OF AMERICAN FOOD AID: AN UNEASY BENEVOLENCE* (2017)) (last visited Nov. 12, 2020) (“The complex political processes behind [statutory] restrictions [on food aid donations], however, indeed the motivations and machinations behind the very existence and scale of international food aid donations, has remained a bit of a black box.”).

²⁶² Maarten Elferink & Florian Schierhorn, *Global Demand for Food Is Rising. Can We Meet It?*, HARV. BUS. REV. (Apr. 07, 2016), <https://hbr.org/2016/04/global-demand-for-food-is-rising-can-we-meet-it> (suggesting that to meet increasing global demand, farmers will need to increase crop production, “either by increasing the amount of agricultural land to grow crops or by enhancing productivity on existing agricultural lands through fertilizer and irrigation and adopting new methods like precision farming”).

international food aid programs during COVID-19 and other pandemics, the international community should focus on three priorities. First, it is vital that more countries participate in international food aid programs. Particularly, countries with large quantities of surplus food should fulfill their international responsibilities by providing food aid to hungry populations in the affected countries or regions. The establishment of an enforcement and monitoring mechanism improves the donor's accountability, and therefore, the availability and reliability of food aid. Second, the international community must also prioritize the coordination between various UN bodies, between existing humanitarian institutions, and between donors and recipients. Enhanced coordination strengthens food supply chains, minimizes unnecessary delays in food distribution, and protects the right to food for hungry populations throughout the world.²⁶³ Third, world leaders must also realize that this is not the time for a COVID-19 blame game, and this is not an opportunity for governments to use food aid as a tool to pursue their unilateral political or commercial goals. International cooperation is vital if the world is to successfully overcome the pandemic challenge as well as the global food security challenge.

VI. CONCLUSION

COVID-19 has sickened tens of millions and killed over a million people worldwide,²⁶⁴ and its impact extends far beyond those who have had it. Among many critical challenges the world is currently undergoing, food security is a prominent concern. The three key elements of the right to food—availability, accessibility, and adequacy—have been severely implicated by the outbreak of COVID-19. Global food security is volatile and at risk, and a global food crisis is potentially imminent unless decisive action is taken. As the world fights COVID-19, it cannot afford the added burden of an international food crisis.

At the national level, States bear primary responsibility for ensuring their people's right to food.²⁶⁵ In the short term, severe food insecurity can be averted, or at least significantly reduced, if governments can ensure domestic food availability and enhance the distribution of food supply to hungry populations. EFR

²⁶³ Elizabeth Mkandawire, *Data, Partnerships and A Strengthened Food System: Accelerating Progress Towards Zero Hunger*, UNITED NATIONS CHRONICLE (Oct. 16, 2020), <https://www.un.org/en/un-chronicle/data-partnerships-and-strengthened-food-system-accelerating-progress-towards> (noting that there lacks collaboration and coordination among food system actors, and suggesting “[s]trengthening partnerships across the food system is essential to addressing the disruptions that have occurred”).

²⁶⁴ WHO Coronavirus Disease (COVID-19) Dashboard, *supra* note 29.

²⁶⁵ International Covenant on Economic, Social and Cultural Rights, *supra* note 10.

provides immediate remedies for people who suffer from hunger and malnutrition in food emergencies. In addition, it is also the time for governments to re-emphasize domestic agriculture and strengthen resilience for food security and nutrition.

It is highly unlikely that a pandemic of this scale will happen frequently.²⁶⁶ However, the COVID-19 crisis has rung the alarm bell loud and clear: the world must prepare for future pandemics and the associated problems that come with them, such as global food insecurity. To prevent a COVID-19 food crisis, the international community must work together to promote the smooth and secure flow of trade in support of food security and nutrition. Agricultural protectionism only magnifies food security problems.²⁶⁷ It affects food-importing countries, impacting developing and least developed countries the most.²⁶⁸ The international community should also strive to improve the efficiency and effectiveness of international food aid. In times of emergencies, food aid delivers life-saving relief to the hungry people in the world.

“The right to adequate food is realized when every man, woman and child, alone or in community with others, have physical and economic access at all times to adequate food or means for its procurement.”²⁶⁹ Although there remains much to be done to ensure all populations across the globe are free from hunger and malnutrition in the time of the COVID-19 pandemic and beyond, with commitment the world can band together to get through this difficult and challenging time.²⁷⁰

²⁶⁶ *Past Pandemics*, WORLD HEALTH ORG. REG’L OFFICE FOR EUR., <https://www.euro.who.int/en/health-topics/communicable-diseases/influenza/pandemic-influenza/past-pandemics> (last visited Nov. 24, 2020) (noting that there were only three pandemics that occurred during the twentieth century. “[T]he most severe of which was the so-called ‘Spanish Flu’ (caused by an A(H1N1) virus), estimated to have caused 20–50 million deaths in 1918–1919.” Furthermore, milder pandemics occurred subsequently in 1957–1958 (the “Asian Flu” caused by an A(H2N2) virus) and in 1968 (the “Hong Kong Flu” caused by an A(H3N2) virus.”); see also Brad Ryan, *How Does Coronavirus Compare to Spanish Flu? COVID-19 Has Important Differences to The 1918 Outbreak*, ABC NEWS (Mar. 11, 2020), <https://www.abc.net.au/news/2020-03-07/why-coronavirus-keeps-being-compared-to-the-1918-spanish-flu/12016782> (noting that the Western Australia head of the Australian Medical Association, Andrew Miller had recently said, “[w]e probably haven’t seen a virus like this one since 1918, with the Spanish flu.”).

²⁶⁷ See generally Espitia et al., *Covid-19 and Food Protectionism: The Impact of the Pandemic and Export Restrictions on World Food Markets* Abstract (World Bank Group (WBG), Policy Research Working Paper No. 9253, 2020) (noting that “[e]scalating export restrictions would multiply the initial shock by a factor of 3, with world food prices rising by up to 18 percent on average”).

²⁶⁸ *Id.* at 5.

²⁶⁹ General Comment No. 12, *supra* note 1.

²⁷⁰ The WFP’s Chief Economist, Arif Husain stated that “this pandemic does not necessarily have to turn into a food security crisis,” if the world stays calm. Beltrami, *supra* note 62.

